2017
Cash management in TARGET2-Securities with the Banque de France
Blueprint – Version 4 – March 2017

C O N T E N T S

1. Introduction

The Eurosystem implemented the TARGET2-Securities (T2S) project to provide a centralised service for delivery-versus-payment (DVP) in central bank money, featuring real-time gross settlement within an integrated model, like that provided by the ESES platform. To ensure efficiency, settlement is optimised in T2S through mechanisms such as auto-collateralisation, which ESES participants used to obtain intraday credit from the Banque de France.

The creation of a single securities market is intended to be completed by the removal of barriers to cross-border settlement and is expected to drive more extensive harmonisation of post-trade services. The service provided by T2S makes it possible to settle trades between counterparties throughout Europe, with identical treatment for domestic and cross-border transactions.

Central security depositories (CSDs), that sign the Framework Agreement[1], outsource settlement to T2S as from their migration. Securities accounts and cash accounts will be internalised, managed and used on the T2S technical platform to perform DVP. T2S is operated in conjunction with the TARGET2 payment system to allow payment banks to manage liquidity and optimise collateral.

The purpose of this document is to provide current and future Banque de France participants with a description of the main functional aspects relating to settlement in T2S.

This document, which is intended for payment banks, and notably treasurers, those in charge of financial flows and T2S project teams, provides details on:

- Liquidity management and auto-collateralisation in T2S
- Connectivity options
- National governance of the project to migrate institutions operating in the French market
- Migration dates and process.

The information provided in this document is taken from the latest available versions of T2S documentation published by the Eurosystem, namely:

- User Requirements Document (URD v5.05)
- General Functional Specifications (GFS v5.2)
- User Detailed Functional Specifications (UDFS v2.2)
- User Handbook (UHB v2.2)

The Banque de France communicated regularly throughout on the T2S migration project, notably via themed workshops or general briefing sessions. Specific governance arrangements have been established, with regular meetings of dedicated market-wide groups, including the National Coordination Committee (NCC) co-chaired by Euroclear France and the Banque de France, and the T2S National User Group.

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[1] CSD signatories: https://www.ecb.europa.eu/paym/t2s/stakeholders/csd/html/index.en.html

Link to Framework Agreement: https://www.ecb.europa.eu/paym/t2s/about/keydocs/html/index.en.html

2. Cash accounts

Cash accounts for securities settlement in T2S are known as Dedicated Cash Accounts (DCAs). DCAs held with the Banque de France are denominated in euros.

The cash accounts used for settlement in ESES were closed. DCAs are used for settlement on the T2S platform.

DCAs are used in T2S for DVP settlement of transactions, auto-collateralisation, corporate actions and liquidity transfers (DCA/RTGS account[2] or between DCAs).

A party may open one or more DCAs, depending on the structure deemed most appropriate to its business (own account, for clients, etc.), with one or more central banks.

Concerning the Corporate Actions payments in T2S, Euroclear recommends that ESES participants open a dedicated DCA as well as their default DCA for DVP settlement. If no DCA is present in the settlement instruction, the default DCA (in the T2S static data) will be used by T2S for the settlement.

The concept of the **T2S party[3]** covers a variety of T2S actors, including:

- Central Securities Depository
- National central bank
- CSD participant holding one or more securities accounts in the books of the CSD
- Payment bank, i.e. a central bank participant holding one or more cash accounts in the books of the central bank.

The Banque de France is responsible for opening, updating and closing DCAs to meet its own needs and those of its payment banks. The same applies to blocking/unblocking accounts with immediate effect (especially in the event of the failure of a payment bank).

2.1. Requirements to open a DCA

From a legal point of view, DCAs fall within the scope of TARGET2. Accordingly, to be able to open a DCA with a central bank, a party must meet the criteria set out in the TARGET2 Guideline[4].

The following will be eligible to hold a DCA with the Banque de France:

- Credit institutions established in the European Economic Area[5] (EEA)
- Credit institutions established outside the EEA, provided that they operate via a branch established in the EEA
- Eurosystem NCBs and the ECB
- Investment firms established in the EEA
- Some national or local public entities, subject to compliance with certain criteria
- Where necessary, entities operating ancillary systems outside TARGET2.

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[2] In this document, the term **RTGS** account is used. This refers to the **Payment Module (PM) account** held with a central bank by a T2 party to settle payments in euro.

[3] A party is a legal entity that has a contractual relationship with T2S (CSDs and central banks) or an entity that has a contractual relationship with CSDs and central banks. In the remainder of this document, parties mean DCA holders unless otherwise stated.

4 Link to T2 Guideline:
https://www.ecb.europa.eu/paym/t2/legal/html/index.en.html

[5] European Union countries plus Iceland, Liechtenstein and Norway.

2.2. DCA numbering

After consulting with Europe's banking communities, the Eurosystem has endorsed the following numbering format for DCAs:

Field	Length	Format	Meaning
Account type	1 character	C	Indicates cash
NCB ISO country code	2 characters	FR	Identifies the NCB of the DCA
ISO currency code	3 characters	EUR	Differentiates accounts in different currencies
DCA holder	11 characters	BANKFRPPXXX	Payment bank identified by its BIC11
Sub-classification of the account	Up to 17 characters	DCA-PRINCIPAL	Free text (X character set-SWIFT) provided by the DCA holder

Diagram 1 :   *Format of cash accounts in T2S*

In the case of a payment bank BANKFRPPXXX[6] opening a DCA with the Banque de France, the first 17 characters of the DCA format is automatically assigned as follows:

CFR**EUR**BANKFRPPXXX

If a payment bank opens several DCAs, the free text (sub-classification of the account) is used to identify the way the cash account is being used.

Here are some examples of possible nomenclatures for a payment bank BANKFRPPXXX:

1) DCA: **C**FR**EUR**BANKFRPPXXX**DCA-PRINCIPAL**

2) DCA: **C**FR**EUR**BANKFRPPXXX**OWN-ACCOUNT**

3) DCA: **C**FR**EUR**BANKFRPPXXX**CLIENT-ACCOUNT**

4) DCA: **C**FR**EUR**BANKFRPPXXX**AFFILIATE-1**

5) DCA: **C**FR**EUR**BANKFRPPXXX**01**

2.3. Identification of parties

Each T2S party is identified by the combination of the BIC11 of its CSD or central bank, and its own BIC11.

The same legal entity, BANKFRPPXXX, may therefore be considered to be two separate T2S parties, i.e. a CSD participant and an NCB participant.

The bank will then be identified using the same BIC11 to designate the two distinct participants:

- As a payment bank linked to a central bank, e.g. BDFEFR2TXXX, BANKFRPPXXX
- As a CSD participant, e.g. ESESFRPPXXX, BANKFRPPXXX.

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[6] All BICs used in this document are fictitious codes used for illustrative purposes.
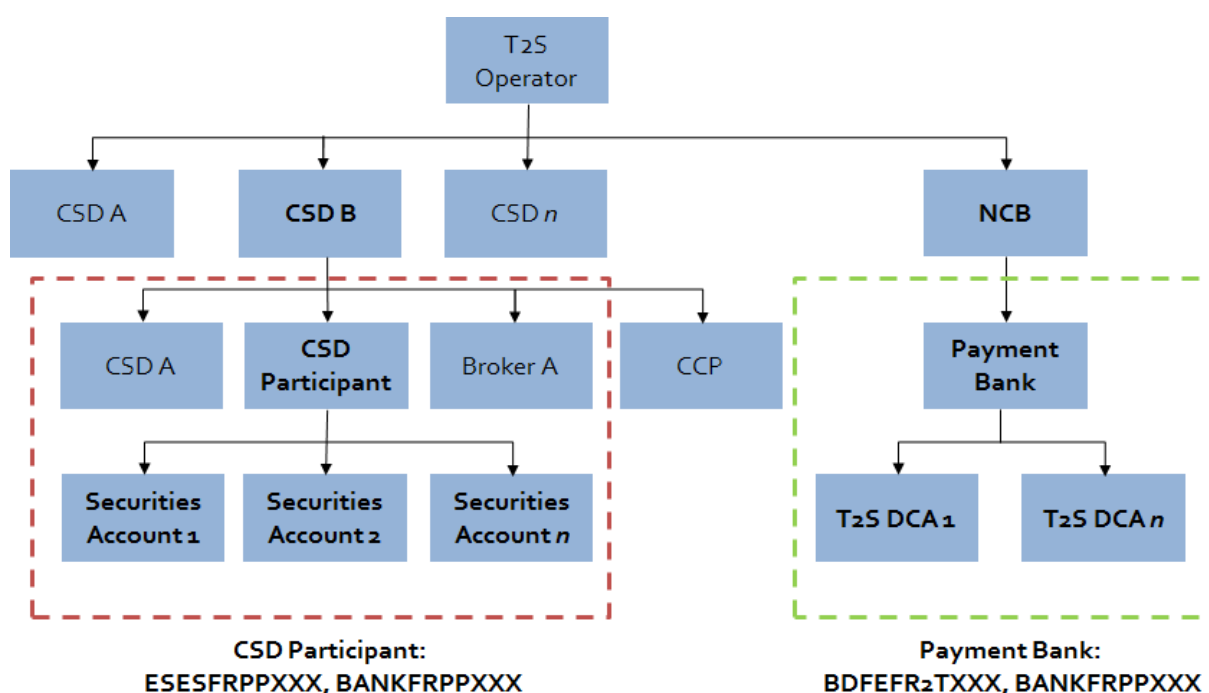
Diagram 2 :   *Identification of T2S parties*[7]

The main cases are as follows:

- A credit institution may open DCAs with different central banks. It will be identified as a distinct participant in each central bank, based on the NCB BIC/participant BIC combination.

- A credit institution, depending on its requirements, may wish to segregate its business and open **several DCAs with the same central bank. It will be identified as a single** payment bank participant **identified by its central bank's BIC and its own BIC.**

- A credit institution, depending on its requirements, may wish to segregate its business over **several payment bank participants within the same central bank**. In this case, it **will use as many BIC11 identifiers** as there are payment bank participants.

The T2S BIC directory complies with SWIFT BIC data; T2S identifies only published BICs (i.e. SWIFT BICs). The T2S BIC directory should always be aligned with the SWIFT BIC Directory, which also inputs data to the T2 BIC directory.

The Banque de France is in charge of managing the static data for payment banks and their cash accounts in T2S.

2.4. DCAs and RTGS accounts

2.4.1. Links between DCAs and RTGS accounts

The principles governing the links between DCAs and RTGS accounts are as follows:

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7 In T2S all parties are linked according to a hierarchical model made up the T2S operator, comprising the 4CB that operates the T2S platform, the CSDs and central banks, and finally CSD participants and payment banks, which hold securities accounts and cash accounts respectively.

- **A DCA must be linked to a main RTGS account[8],** into which its balance will be swept at the end of the business day.

  ▶ The DCA and main RTGS account may be held with a single central bank or with different central banks

  ▶ The DCA and the main RTGS account may belong to the same legal entity or to different legal entities

  ▶ All the DCAs opened by the same legal entity may be linked to a single RTGS account, or each DCA may be linked to a different RTGS account.

- **A DCA may also be linked to several RTGS accounts** if the DCA holder wishes to take advantage of the **multiple liquidity providers** functionality**.**

  ▶ This allows a DCA to receive liquidity transfers from several RTGS accounts at the start of the night-time settlement cycle. The remaining liquidity is repatriated to RTGS accounts once the night-time settlement cycle is complete according to the sequence for reimbursing RTGS accounts configured in the static data, at the end of the night-time settlement. The DCA holder sets up the amount to reimburse each liquidity provider: either a dedicated amount, or all the available liquidity in the case of the main RTGS account. The last RTGS account to which liquidity is repatriated is the main RTGS account of the DCA holder.

- **The same main RTGS account may be linked to the DCAs of a single party or of different parties.**

- **If the DCA holder wishes to make use of central bank auto-collateralisation:**

  ▶ The DCA holder must hold its own RTGS account. Accordingly, a party that corresponds to the status of an ESES *Participant Direct au Système Exogène* (PDSE) without its own RTGS account may not avail itself of central bank auto-collateralisation in T2S.

  ▶ The DCA and the main RTGS account must belong to the same legal entity.

  ▶ **The DCA and the main RTGS account must be open in the books of the same central bank**.

  ▶ The DCA holder is either (i) a counterparty eligible to Eurosystem monetary policy operations, or (ii) has an agreement with a counterparty eligible to Eurosystem monetary policy operations.

  ▶ In general, a central bank may grant intraday credit through the auto-collateralisation functionality only to an institution,[9] established in the same jurisdiction as itself.

2.4.2. Possible configurations

In ESES, a party had the choice between the following statuses for cash settlement of transactions:

- Settlement bank owning an RTGS account ("settlement bank agent")
- Settlement bank ("PDSE")
- Settlement bank client

Payment banks, that are ESES parties, have found a similar structure in T2S, with a choice between the following statuses:

- Payment bank, corresponding to the status of ESES settlement bank, which may or may not hold an RTGS account

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[8] The main RTGS account must be a PM account with access via the TARGET2 network service provider. A PM account with access via internet cannot be designated the main RTGS account.

[9] The French branch of a European institution is considered a French institution.

- Payment bank client, corresponding to the status of ESES settlement bank client.

The use of T2S gives participants an opportunity to upgrade their organisation and the structure of their accounts in terms of settlement.

Payment banks can revisit liquidity management arrangements as a function of their participation in multiple CSDs on the T2S platform. For example, liquidity can be centralised with a single central bank and provision to DCAs for settlement can be managed from a single RTGS account with that central bank.

In T2S, holders of DCAs and the RTGS account may also be different and be supervised by different NCBs. A payment bank (equivalent to settlement bank – PDSE in ESES) may therefore use the RTGS account of another payment bank, which will supply liquidity from TARGET2.

However, to make use of auto-collateralisation (see above), the DCA holder must have its own RTGS account in the books of the same central bank as the DCA. Consequently, a party that does not currently have its own RTGS account will have to open one to avail itself of central bank auto-collateralisation in T2S.

The configurations possible in ESES and TARGET2 are illustrated below:
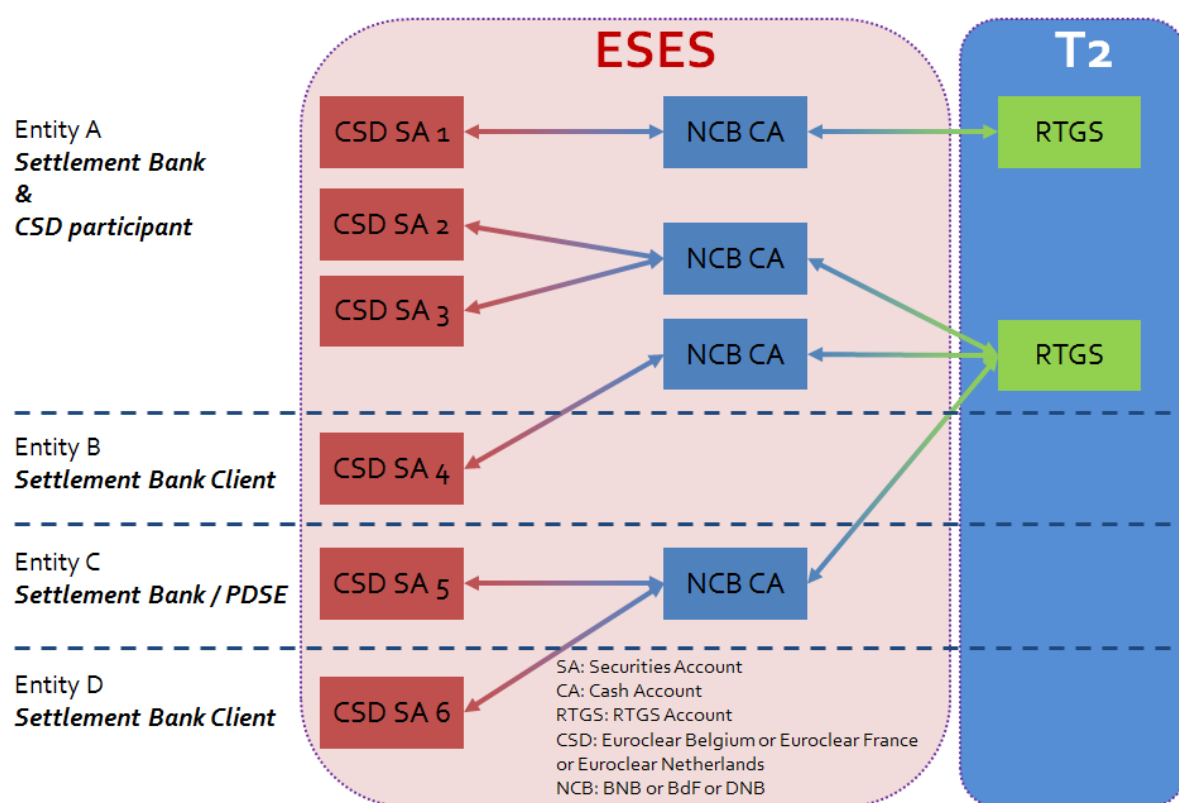
Diagram 3 :   *Parties and cash account structures in ESES*

Different configuration options are allowed in T2S:
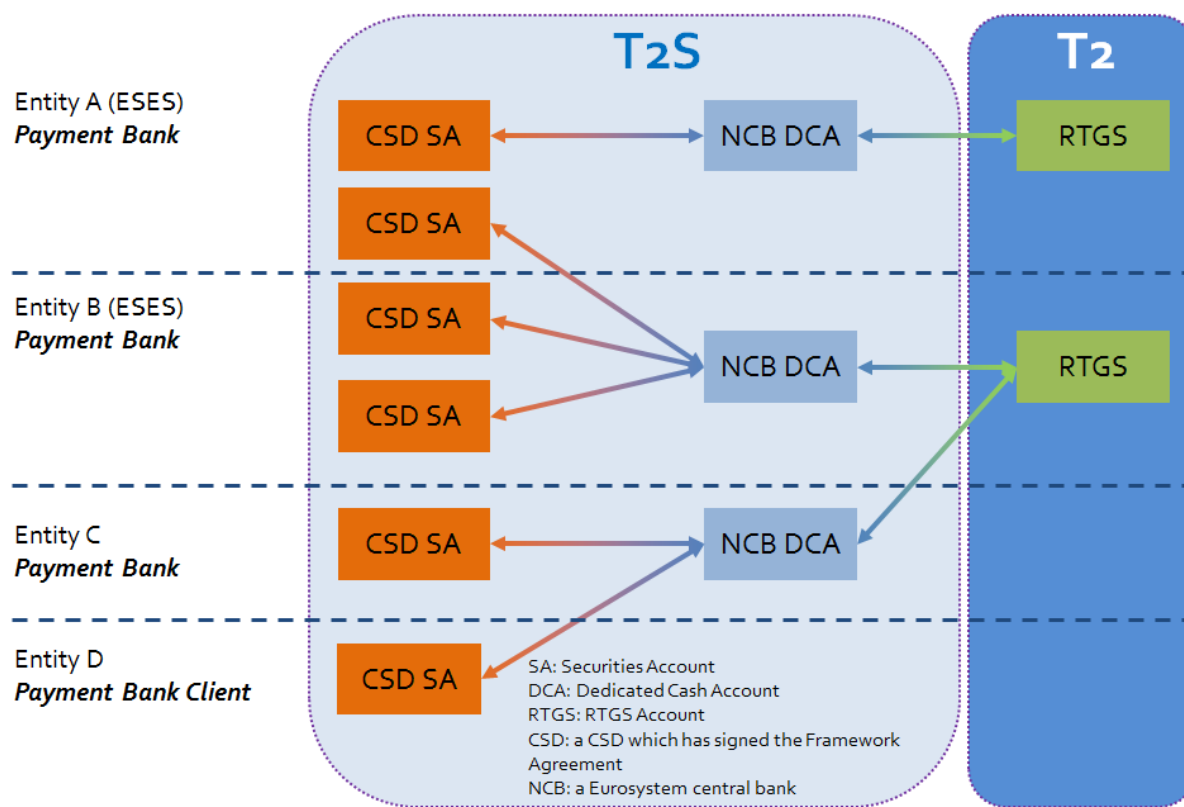
Diagram 4 :   *Cash account structures in T2S*

The following diagram illustrates possible linkages between DCA accounts in T2S and RTGS accounts in TARGET2:
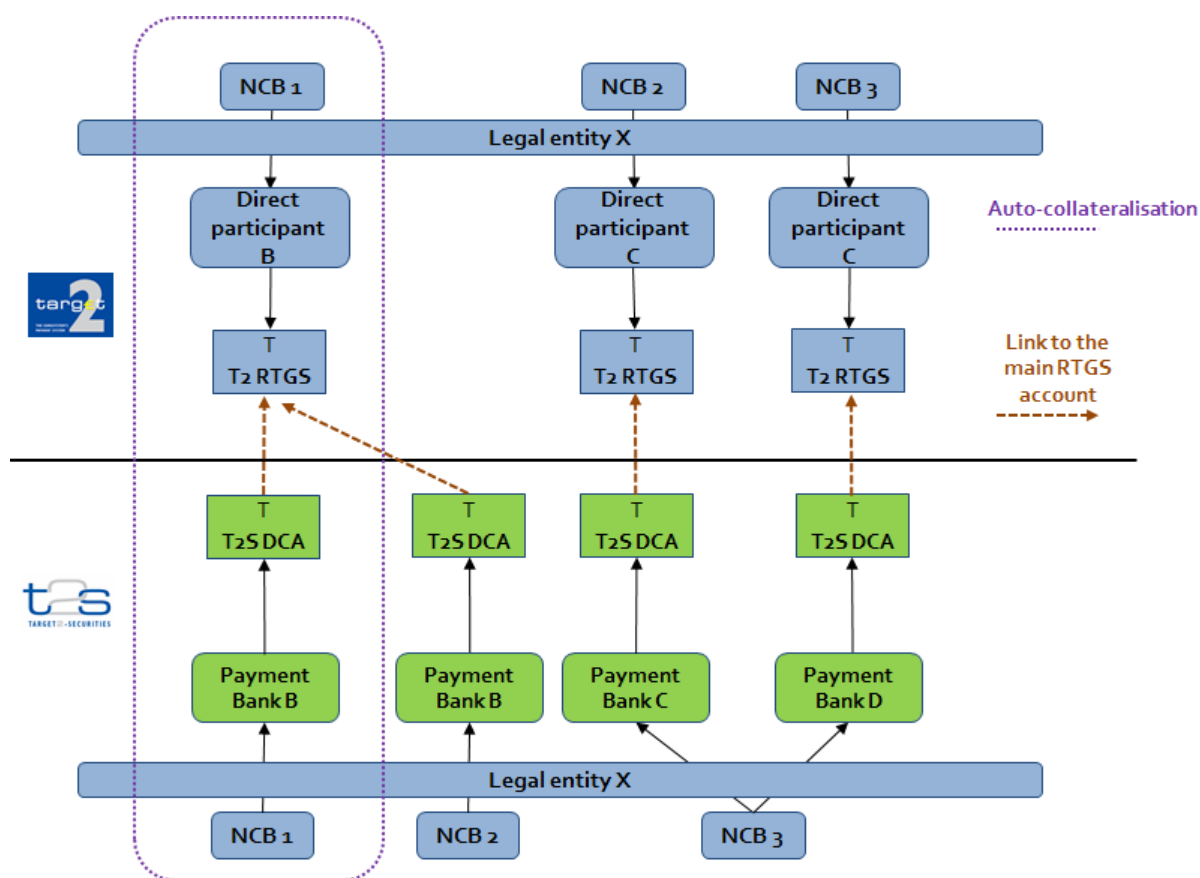
Diagram 5 :   *Links between T2S cash accounts and RTGS accounts in T2S*

- Payment bank B links its DCA in the books of **NCB1** to its RTGS account with **NCB1** and may use the auto-collateralisation granted by **NCB1.**

- Payment bank B links its DCA in the books of **NCB2** to its RTGS account with **NCB1**, but it may not use auto-collateralisation because for this, the DCA and the RTGS account must be with same NCB.

- Payment bank C links its DCA in the books of **NCB3** to an RTGS account with **NCB2**, but it may not benefit from auto-collateralisation because for this, the DCA and the RTGS account must be with same NCB.

- Payment bank D links its DCA in the books of **NCB3** to Participant C's RTGS account with **NCB3**, but it may not use the auto-collateralisation granted by **NCB3** because the DCA holder must hold its own RTGS account.

2.5. DCAs and securities accounts

A DCA opened with a national central bank may be linked to several securities accounts for the settlement of settlement instructions, irrespective of the CSDs with which securities accounts are open.

Similarly, **a party may link several DCAs to a single securities account**. One of these DCAs will be designated as the default account for the settlement of instructions.

Accordingly, a payment bank may use a DCA to settle its own settlement instructions and another DCA to settle client instructions.

2.5.1. Credit Memorandum Balance

A DCA and a securities account are always linked by a Credit Memorandum Balance (**CMB**). By creating this link, the CMB makes it easier to monitor securities settlement and credit granted by a central bank to a payment bank, or by a payment bank to another bank that is a payment bank client without its own DCA.

2.5.1.1. Primary CMB

A primary CMB is the link between a DCA and a securities account (or several securities accounts). The link is used for securities settlement and can also be used for central bank auto-collateralisation, according to the set-up defined by the participant. Even if the paying bank does not use auto-collateralisation, the primary CMB will still be created.

A primary CMB is created by the central bank whenever a new DCA is created. Accordingly, if two DCAs are created, two primary CMBs will be created, even if the DCAs are linked to the same securities account. A DCA may therefore only be linked to one primary CMB. In the same way, a primary CMB is linked to a unique DCA.

When a DCA and a securities account are linked via a primary CMB to obtain access to auto-collateralisation, they are then automatically linked to the Banque de France's securities account for receiving collateral with Euroclear France. The Banque de France may then grant intraday credit to these payment banks if they are established in France.

2.5.1.2. Secondary CMB

Use of **client collateralisation**, i.e. the granting of intraday credit by a payment bank to clients holding securities accounts but not DCAs, entails the creation of a secondary CMB.

A DCA may be linked to several secondary CMBs. However, it is not possible to link several DCAs to the same secondary CMB.

A secondary CMB links a DCA to one or more securities accounts, allowing the holders of securities accounts to benefit from client collateralisation. The link between a DCA and the BIC of a securities account must be unique (via 1 single CMB, primary or secondary).

When the securities accounts of several different clients (hence with different BICs) are linked to the same DCA, the payment bank can configure a secondary CMB for each client authorised to use the payment bank's DCA. The same client may also link several securities accounts (open with one or more different CSDs) to a CMB.

The following diagram illustrates primary and secondary CMBs for different T2S actors:
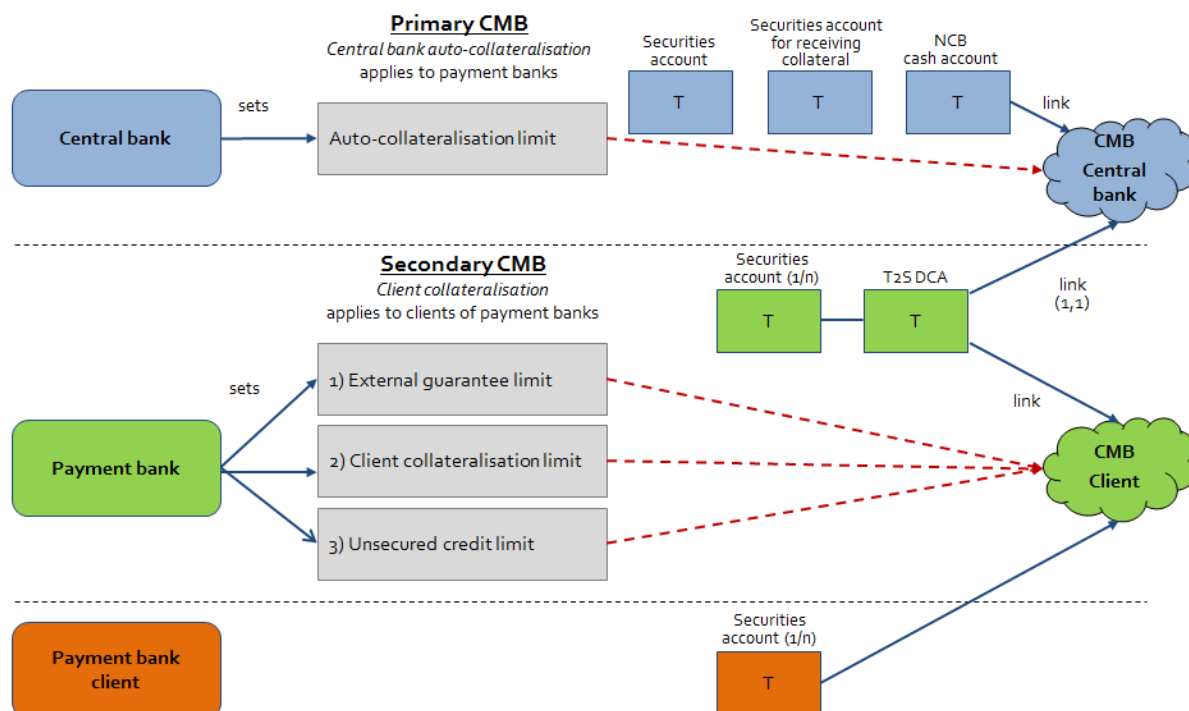
Diagram 6 :   *Links between accounts in auto-collateralisation*

3. Cash management functionalities

T2S allows payment banks to open one or more DCAs with a national central bank of their choice, including in a situation where securities are deposited with several CSDs, outside the central bank's jurisdiction. This is intended to optimise liquidity management for securities settlement.

DCAs are provided with funds through TARGET2. At the end of the operating day, DCAs in T2S must be swept, i.e. positive DCA balances are transferred into RTGS accounts in T2. The DCA of a payment bank cannot have a negative balance.

3.1. Liquidity management principles

Liquidity management in T2S obeys the following main principles:

- DCAs are credited from RTGS accounts in TARGET2 at the start of the business day. DCAs may also be credited with liquidity throughout the business day.

- Liquidity is transferred from the DCA to the main RTGS account by means of optional sweeps during the day and an automatic sweep at the end of the day.

- The cash positions of RTGS accounts and DCAs may be tracked in real time to check movements between accounts and settlement-related movements.

3.2. Typology of liquidity transfers from T2 to T2S and from T2S to T2

A liquidity transfer is a transfer order between two cash accounts (RTGS or DCA) in central bank money (CeBM) from T2 to T2S and vice-versa. Liquidity transfers are as follows:

- Liquidity transfer from T2 to T2S: T2 RTGS account → T2S DCA

- Liquidity transfer from T2S to T2: T2S DCA → T2 RTGS account

- T2S internal liquidity transfer: T2S DCA → T2S DCA (between two T2S DCAs of the same party or between the T2S DCAs of different parties linked to the same RTGS account).

Liquidity transfers initiated within T2, from an RTGS account to a DCA or vice-versa:

- Standing order liquidity transfer

- Current order liquidity transfer.

Liquidity transfers initiated within T2S, from a DCA to an RTGS account:

- Immediate liquidity transfer order

- Predefined liquidity transfer order

- Standing liquidity transfer order T2S.

Liquidity transfers initiated within T2S between DCAs:

- Immediate liquidity transfer order.

Liquidity is transferred from T2 to T2S and from T2S to T2 through an RTGS dedicated transit account for all euro transfers (one transit account per currency).
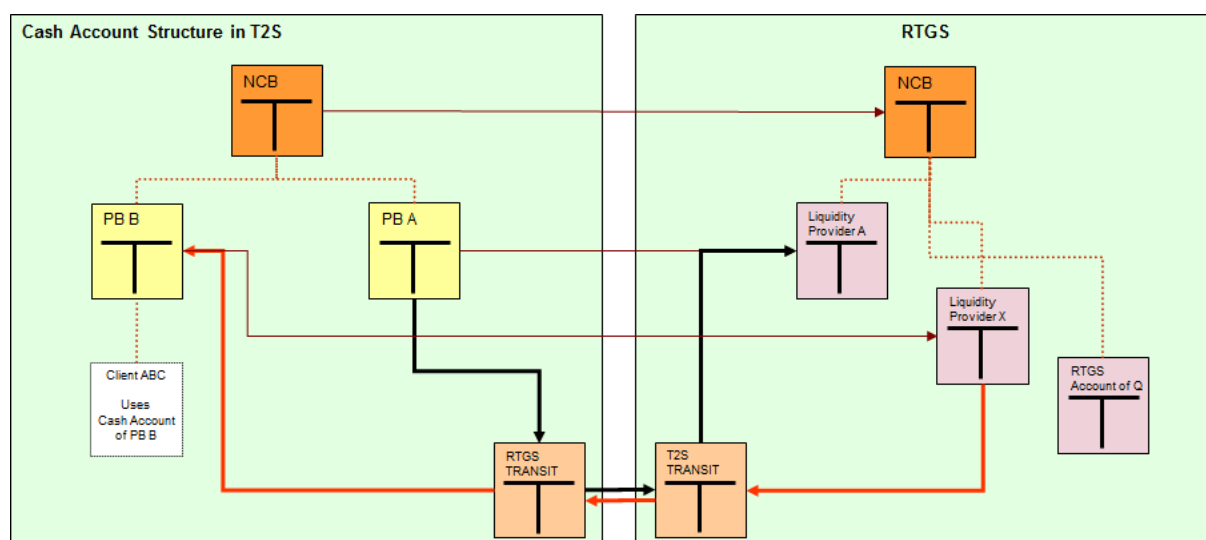
Diagram 7 :   *Liquidity transfer between T2S and a T2 RTGS account (ECB diagram)*

3.3. Liquidity transfer procedures

The types of order – standing and current – used to transfer liquidity from the TARGET2 tools, from T2 to T2S, are not changing because of the T2S implementation.

Nevertheless, the liquidity transfer orders initiated from the T2 tools, but in the direction of T2S towards T2, can only be immediate liquidity transfers (current orders).

Concerning the liquidity transfer orders initiated from the T2S tools, liquidity transfers **from T2S to TARGET2 or within T2S** are as follows:

- **Immediate liquidity transfers** are executed as soon as they have been instructed and provided there are sufficient funds, according to the following procedures:

    - ► Liquidity is transferred between a DCA and an RTGS account.

    - ► Liquidity is transferred between two DCAs in T2S and may take place immediately:

        - o if they are linked to the same main RTGS account **or**

        - o if the two DCAs are held by the same payment bank.

- **Standing liquidity transfer orders** are executed on a regular basis (one or more times a day) depending on the parameters until the order is modified or deleted, or partially settled.

- **Predefined liquidity transfer orders** are executed once only and can be partially settled. In the case of partial settlement, the remaining amount will be transferred via an Immediate liquidity transfer order.

- **The optional cash sweep** offers a payment bank the opportunity to sweep the liquidity available in its DCA during the end-of-day reimbursement process into a predefined RTGS account.

    - ► In the last three cases (standing/predefined/optional), the transfer is carried out by T2S to coincide with a functional event in the operating day or a specific time (chosen by the holder of the DCA to be debited). The transfer is set in the static data. The transfer amount may be a specified amount, such as the balance on the DCA, or a dedicated amount. The dedicated amount should be calculated by T2S (case of corporate actions, for example).

    - ► In particular, the standing liquidity transfer order provides an option for the DCA holder to automatically rebalance liquidity in T2[10] following settlement of a corporate action.

- **Liquidity transfers between a DCA and an RTGS account in a situation where the DCA has received liquidity from several RTGS accounts (Multiple liquidity providers).**

    - ► In this case, each RTGS account providing liquidity is re-credited at the end of night-time settlement and if liquidity remains in the DCA, according to a predefined sequence entered in the static data by the payment bank. Transfer amounts are calculated by T2S and executed in the sequence defined for reimbursement.

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[10] This is rebalancing towards T2, to distinguish from rebalancing between DCAs prior to the automatic reimbursement of auto-collateralisation at the end of day.

Liquidity transfers	T2 RTGS to T2S DCA (Inbound to T2S)	T2S DCA to T2 RTGS (Outbound from T2S)	T2S DCA to T2S DCA (Internal to T2S)	T2S – Partial execution **	Number of executions
Immediate liquidity transfer order	Yes	Yes	Yes*	No**	As many as needed
Predefined liquidity transfer order	N/A	Yes	No	Yes	Only once per DCA per time/event
Standing liquidity transfer order	Yes ***	Yes	No	Y	One to many at different points in time/events

*) DCAs shall be owned by the same T2S payment bank or between DCAs linked to the same RTGS account

**) Partial execution can only take place if the instruction is placed by a T2S Actor (a CSD / a NCB) acting on behalf of an account owner (valid for outbound and internal immediate liquidity transfer orders)

***) Standing order execution in T2 towards T2S only once at beginning of the T2 business day; from T2S perspective considered as immediate liquidity transfer

target2 — Transfer possible from the T2 ICM   t2s — Transfer possible from the T2S GUI

Diagram 8 :   *Types of liquidity transfers between RTGS accounts and DCAs (ECB diagram)*
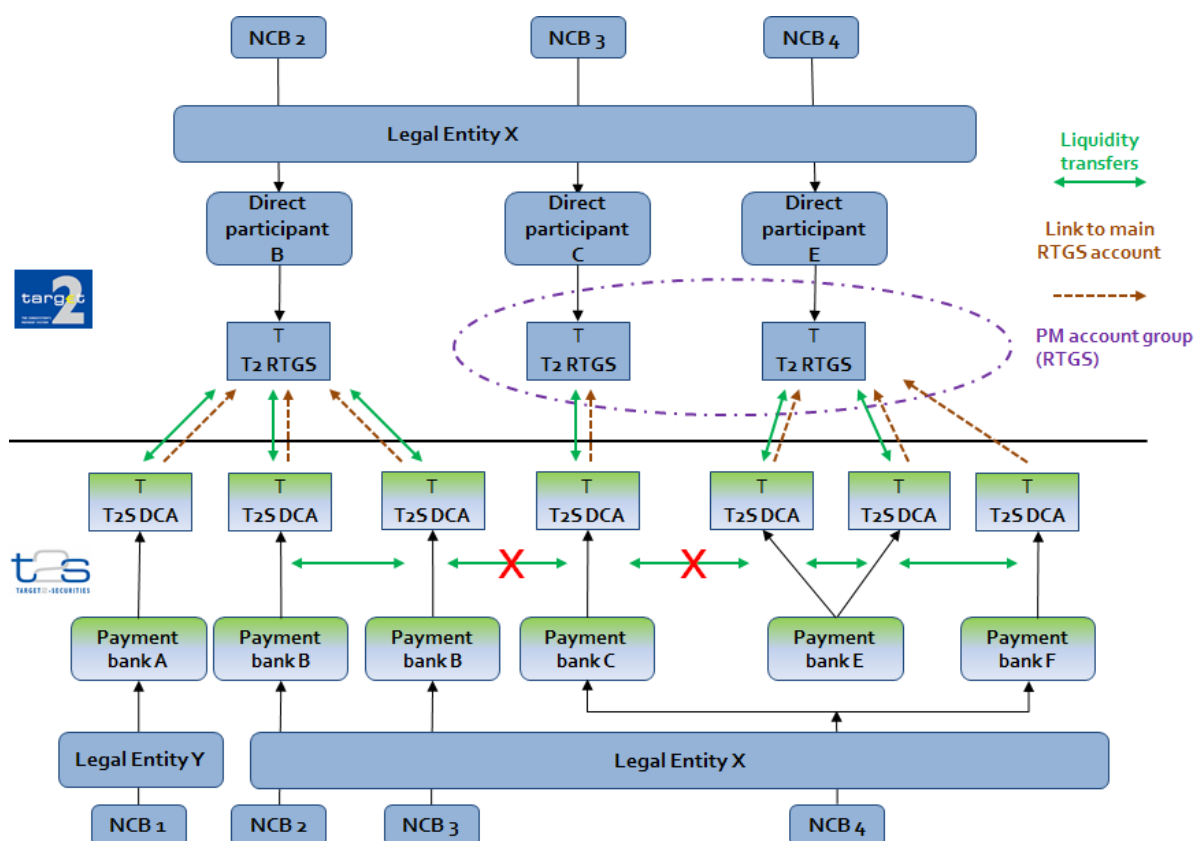
Diagram 9 :   *Links between cash accounts in T2S and between T2S and T2*

3.4. Cash restrictions

With this functionality, T2S provides the set-up for a restriction on a cash account in order to block or reserve a dedicated amount for specific reasons.

Two types of restrictions exist:

- Blocking. A blocking is immediately applied when an equal or inferior amount is available in the DCA balance, otherwise the blocking is recycled until a sufficient balance is available.

- Reservation of an amount. The reservation is partially filled if the amount is superior to the DCA balance. As soon as the DCA is provisioned, the cash is allocated to the remaining amount in the reservation.

These restrictions are intraday. Therefore they are cancelled automatically by T2S in the course of the business day by the event RLCR (Release Cash Restriction) at 4:00 p.m..

4. Collateralisation

The automated collateralisation mechanisms in T2S allow payment banks to obtain liquidity from a central bank or a payment bank client to obtain liquidity from a payment bank, in exchange for eligible securities.

There are two types of collateralisation:

- **Central bank auto-collateralisation** granted to payment banks
- **Client collateralisation** offered by payment banks to their clients.

4.1. Central bank auto-collateralisation

The auto-collateralisation functionality allows eligible counterparties to benefit automatically in T2S from intraday credit for securities settlement, in exchange for the provision of collateral, to facilitate trade settlement in real time.

This enables T2S to achieve better settlement rates than a settlement system not offering such a functionality, by reducing the number of failed instructions.

Auto-collateralisation also makes it possible to reduce liquidity on DCAs during the night-time settlement period and during the business day: night-time settlement will be conducted, even in the absence of liquidity in DCA accounts, against the provision of collateral.

4.1.1. Eligible securities

The Banque de France provides T2S with a daily list of eligible securities and their value for central bank auto-collateralisation before the start of the T2S operating day (before 7:00 p.m.).

Eligible securities for central bank auto-collateralisation are all eligible securities from the Eligible Asset Data Base (EADB*)* provided that they are issued with Euroclear France or a central depository with which Euroclear France has an eligible link[11]. Eligible securities for auto-collateralisation are valued like collateral for any Eurosystem credit operation, i.e. with the same price and the same haircut.

The eligibility of securities for cross-border settlement by CSDs, depending on the direct links between CSDs, determines the eligibility of securities for use in central bank auto-collateralisation in T2S. Each link allows the eligibility of securities, ISIN by ISIN, to be decided by a CSD. Therefore the scope of securities affected by the cross-border link does not necessarily include each security eligible as Eurosystem collateral. If a participant wishes to make an ISIN eligible for central bank auto-collateralisation, it must contact the relevant CSD in order to request the inclusion of the security in the corresponding cross-border link.

- Close links

In anticipation of the implementation of the close links database in T2S (CR530), the Banque de France will continue its policy of controlling the direct links, as validated in September 2016 for the launch of the migration wave 3. The ex ante filter on the forbidden links (securities that cannot be used as collateral by a participant as it has a ownership links with the issuer of the securities) will be extended to all CSDs other than Euroclear France. The ex post controls are carried out on the forbidden links for all securities deposited with Euroclear France (CSD issuer and CSD investor).

It should be noted that since ESES is based on a multi-jurisdictional model, a participant must open a securities account in each of the ESES CSDs, ENL and EF, in which it wishes to use eligible securities for central bank auto-collateralisation, since a link does not exist between EF and ENL (no government securities exist at Euroclear Belgium).

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[11] https://www.ecb.europa.eu/paym/coll/assets/html/index.en.html

4.1.2. Operation

Central bank auto-collateralisation is triggered when the balance on the buyer's DCA is insufficient to settle a settlement instruction, and is implemented according to two mechanisms, in the following order:

- **Auto-collateralisation on flow** where the purchased securities themselves are used as collateral to enable settlement of a DVP transaction.

- **Auto-collateralisation on stock** where securities already present in the securities account of the payment bank or the securities account of the payment bank client are used as collateral to finance a DVP transaction.

When the value of the collateral on flow is not sufficient to cover the amount of credit granted, T2S will supplement with collateral on stock.

When a settlement instruction covers securities that have already been used as collateral for auto-collateralisation, T2S automatically generates an instruction to remove these securities and make an automatic substitution.

The participant is responsible for triggering the reimbursement of central bank auto-collateralisation by releasing on-hold instructions during the day, in order to retrieve the mobilised securities, provided that enough liquidity is available in the relevant DCA.

Automatic reimbursement of central bank auto-collateralisation is triggered:

- automatically by T2S at 4:30 p.m.

- if the central bank lowers the auto-collateralisation limit below the outstanding amount.

Auto-collateralisation is set up automatically in T2S taking into account the set limits. The liquidity obtained is used immediately by T2S to settle pending instructions.
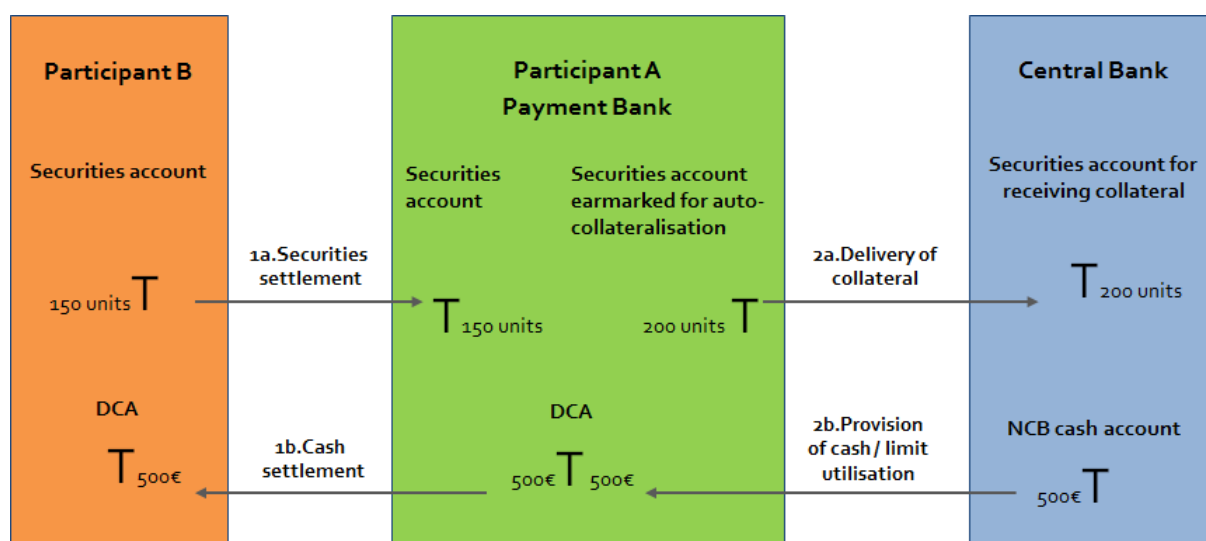
Diagram 10 :   *Use of central bank auto-collateralisation*

It is important to remember that the DCA and the main RTGS account must belong to the same legal entity and that the **DCA and the main RTGS account must be open in the books of the same central bank.**

4.1.3. Management of limits

In the case of central bank auto-collateralisation, when establishing the primary CMB**,** the Banque de France must set an **auto-collateralisation limit** for each DCA of a payment bank, in order to monitor the level of credit granted to each.

Auto-collateralisation will be triggered automatically according to the limits set by the NCB whenever the amount of liquidity on the payment bank's DCA is insufficient to settle a settlement transaction. **The auto-collateralisation limit set by the Banque de France will be entered in the static data at the maximum amount allowed in the system.**

However, if a payment bank requests the Banque de France[12], the autocollatéralisation limit will be set at a lower amount, or zero. The update to the auto-collateralisation limit once recorded in the T2S static data, takes effect on the chosen date[13].

The Banque de France can monitor each limit during the operating day using the indicators provided by T2S:

- **Limit amount** or maximum amount of intraday credit to provide: the amount of liquidity available is set by the credit provider (the Banque de France) in the static data and may be increased or decreased over the course of the operating day.

- **Limit utilisation**: the amount used is set to zero at the beginning of each operating day and updated following settlement of an instruction or reimbursement of auto-collateralisation.

- **Limit headroom** on intraday credit: the amount remaining is set to the limit amount at the beginning of each operating day and updated following settlement of an instruction, reimbursement of auto-collateralisation or an update to the limit amount. Instructions that are on hold have no effect on limits.

The amount remaining is equal to the available amount less the amount used (limit headroom = limit amount - limit utilisation)*.

4.1.4. Rules governing Banque de France auto-collateralisation

From a legal context, **the securities used as collateral in the case of auto-collateralisation will be pledged to the Banque de France.** With the legal pledge procedure, the securities will remain under the ownership of the credit receiver (the payment bank) but their control will be transferred to the credit provider, the Banque de France. Thanks to this change, the legal context for mobilising securities for auto-collateralisation will be aligned with the context for mobilising securities in the 3G pool in the Banque de France.

However from an **operational perspective**, the collateral selected by T2S in the instruction generated for auto-collateralisation will continue to follow the **repo procedure, in that the securities mobilised for auto-collateralisation** will be transferred to the securities account of the Banque de France (the credit provider) held with Euroclear France, the national CSD.

In this setting, DVP instructions **establishing** auto-collateralisation are generated by T2S and settled at the same time as the settlement instruction that triggered auto-collateralisation. Auto-collateralisation **reimbursement** instructions are generated automatically and put on hold by T2S as soon as instructions establishing auto-collateralisation are generated. The participant is responsible for triggering the reimbursement of central bank auto-collateralisation by releasing on-hold instructions during the day, or by waiting for the automatic reimbursement at 4:30 p.m..

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[12] Form 7100 T2 for T2S – field « *Requested auto-collateralisation limit* ».

[13] The effective date of the updated limits must be greater or equal to the current date.

The service of auto-collateralisation between central banks and payment banks does not incur any additional cost for payment banks with respect to the instruction settlement price (DVP). As indicated in Schedule 7 Pricing of the Framework Agreement, the service is free since the T2S go-live.

4.1.5. End-of-day reimbursement

As indicated above, auto-collateralisation **reimbursement** instructions are generated automatically and put on hold by T2S as soon as instructions establishing auto-collateralisation are generated. During the day, the participant is responsible for triggering reimbursement of auto-collateralisation by releasing on-hold instructions during the day.

Any central bank auto-collateralisation operation must be reimbursed by the payment bank during the T2S operating day. **Reimbursement of auto-collateralisation instructions that are on hold during the day is carried out at the request of the payment bank before 4:30 p.m**. If a payment bank does not trigger reimbursement of auto-collateralisation itself before 4:30 p.m., T2S will activate an automatic reimbursement procedure.

If an auto-collateralisation reimbursement instruction is still pending during end-of-day reimbursement because the balance on the DCA is insufficient, T2S will **rebalance** liquidity from the party's DCAs in credit to the DCA in debit. If the instruction is still pending cash after that, T2S will perform automatic reimbursement and generate collateral relocation instructions, or reimbursement, to secure the granting of intraday credit in T2 against provision of eligible securities.

T2S generates a collateral relocation instruction for every auto-collateralisation reimbursement instruction that is pending after rebalancing. Settlement of instructions by T2S allows the central bank's collateral management system to perform the operations needed for the reimbursement of intraday credit in T2.

In practice, T2S will select the securities earmarked by the participant in the securities account of an equivalent value to the amount of outstanding auto-collateralisation. For a DCA open with the Banque de France, the collateral will be selected and placed in the 3G pool of the payment bank (as carried out beforehand with the reimbursement procedure at the end of the ESES day), while the liquidity granted by the Banque de France in T2S against these securities will allow the reimbursement of the outstanding auto-collateralisation instructions.

Upon receipt of the T2S reporting, the Banque de France will validate the registration of securities in the 3G pool of the participant. At the same time, it will transfer the debtor position of the DCA participant to its T2 account by issuing a connected payment which will debit the RTGS account of the equivalent amount of the securities valuation and increase proportionately the credit granted by the Banque de France.

In case of automated reimbursement of outstanding auto-collateralisation positions at the end of the day, an lump-sum penalty fee of 1000 EUR is charged per day for the relocation or reimbursement of collateral. It should be noted that this principle will be applied six months after the migration to T2S.

Changes to note relative to ESES:

- The DCA holder must hold its own RTGS account with the same central bank as the DCA to benefit from auto-collateralisation.

- T2S will perform rebalancing between DCAs through liquidity transfers to adjust the liquidity available before end-of-day reimbursement.

- Reimbursement of auto-collateralisation is triggered by the payment bank at its request during the operating day by releasing on hold instructions and automatically by the T2S process at the end of the day.

4.1.6. Auto-collateralisation during the migration phase

CSDs will migrate to T2S in successive waves. Accordingly, since the securities account used to receive posted securities must be opened with the national CSD by the NCB granting intraday credit, access to auto-collateralisation from this central bank for the settlement activities of participants in CSDs that have already migrated will not be possible unless the domestic CSD of the central bank has migrated to T2S.

*The Eurosystem has implemented an interim solution allowing a NCB of a country with a CSD that has not yet migrated to provide the auto-collateralisation service to DCA holders opening a DCA with the NCB and active in a CSD that has already migrated. For participants wishing to use the interim solution for auto-collateralisation in **wave 1**, refer to the description in annex 1.*

After the final T2S migration wave, and following the introduction of ad hoc direct links between CSD to allow the cross-border mobilisation of securities, the interim solution will be removed. In this way, payment banks that are Banque de France participants will be able to use domestic and cross-border auto-collateralisation for the entire range of eligible securities available in CSDs taking part in T2S as long as the securities are mobilised via Euroclear France or via a CSD holding a link with Euroclear France. Cross-border auto-collateralisation will be allowed in cases in which counterparties settle transactions involving securities deposited in CSDs subject to jurisdictions different from that of the NCB.

If the CSD of the NCB supplying intraday credit has already migrated, cross-border auto-collateralisation will operate according to the eligible links model.

Participants in Euroclear France can benefit from Banque de France auto-collateralisation from the migration of Euroclear France in wave 3.

Since the removal of the **repatriation requirement in May 2014**, it is no longer necessary to transfer collateral securities to the books of the issuer CSD. A central bank may act as the correspondent central bank for securities issued with its local CSD and for securities held by a CSD with which there are eligible links via its local CSD. The requirement may be lifted because of eligible links between the issuer CSD, the investor CSD and the NCB.

4.1.7. Processing of transactions with 3G (Gestion Globale des Garanties)[14]

Securities used as collateral for T2S auto-collateralisation are transferred to the securities account of the Banque de France.

To add or remove securities from the 3G pool, the counterparty must initiate a FOP instruction for payment vis-à-vis the Banque de France (in the form of a transaction Delivery versus payment (DvP), of which the cash amount will be set to zero).

- For DCPs, the instructions are based on the ISO 20022 format and sent directly via T2S.
- For ICPs, the instructions can be sent either in ISO 15022 format or 20022 via ESES.

At the same time, in order that the Banque de France initiates a similar instruction for the receipt of securities, the counterparty must send the Banque de France an instruction to receive securities via 3G (message Swift MT540). The counterparty is always be informed of the successful result of the operation in 3G with a MT544 message.

At the end of the business day, the securities account of the Banque de France is emptied out following the T2S forced reimbursement procedure. In case the participant's cash account has an insufficient balance to reimburse the current auto-collateralisation instructions, the Banque de France carries out the reimbursement of this credit by creating an intraday credit for the corresponding amount on the PM account of the DCA holder.

The Banque de France, via T2S, carries out a relocation of the debit cash positions in the following way:

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[14] The 3G general documentation and the specifications on the message formats to use for instructions, taking into account the T2S adaptations, are available on the Banque de France internet site

- T2S selections as many lines of securities as required to bring the participant's positon back to zero (or slightly creditor in view of the securities valuations).

- For each selected line of securities, creation of a DVP between the participant and the affiliate 200 "BDF / Regular account".

- Each DVP is subject to a settlement confirmation (format MT545) sent to the Banque de France and the counterparty will receive a MT544 confirmation.

For each MT545 relocation received, the Banque de France:

- Registers the securities in the account of the participant which is subject to the relocation. The accounts types for financial instruments 052XXXXXXX will receive the positions of the relocated securities in the Banque de France accounts.

- Debits the participant's PM account or that of its settlement agent and at the same time increases the line of credit with the amount corresponding to the valuation of the securities supplied (connected payment).

- The request for returning the securities used for relocation, MT542 sent by the 3G client, should have the account type 052XXXXXXX and not the account 047xxxxxxx in the field 97A with the account number of the financial instruments collateralised.

In case of the insolvability of a participant holding securities in auto-collateralisation:

i. The Banque de France can requisition the securities that have been set aside for collateral in the securities account for receiving collateral.

i. The Banque de France can update the auto-collateralisation limit to zero in order to prevent the participant from continuing to carry out auto-collateralisation with the Banque de France.

The legal framework for the input and withdrawal of securities in 3G is not be changed. This is always pledged collateral and the secured loan agreement will not change.

- Operationally, the collateral is delivered to the Banque de France in the Collateral receiving account and is not accounted for. Activity on the Banque de France Collateral receiving account only appears in the case of the participant defaulting on the auto-collateralisation reimbursement, in which case the securities are removed from the participant's Securities account and are credited to the Banque de France NCB Regular collateral account.

- Concerning the pledge on the Securities accounts, the securities remain in the participant's Securities account pledged to the NCB unless the agreement specifies that the right to use the securities by the beneficiary of the contract and in the case of collateral relocation.

However, two points change from the ESES procedure:

- The specific operations for collateral delivery LG and LZ[15] in ESES no longer exist. As the Banque de France does not use the ISO operation code "CNCB"[16], identifying a monetary policy operation in T2S, these transactions are not be subject to a particular alert.

- These operations are subject to the same deadline of 6.00 p.m. as for all Free of Payment (FOP) operations, whether for withdrawals or input of securities.

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[15] The instruction type in ESES identifies the type of operation :
   LG: matched FOP between a participant and an NCB. LZ: Add / remove collateralisable securities to the Banque de France pool.

16 Operations with the ISO type CNCB have a fixed deadline of 5:40 p.m., whereas the standard matched FOP allows later deliveries (deadline of 6.00 p.m.).

In particular, it should be noted that a counterparty that is subject to the relocation procedure (or reimbursement) can retrieve until 6.00 p.m. on the same operational day the securities that were transferred to their 3G pool, or retrieve them during the next operational day.

4.2. Client collateralisation

> Change to note relative to ESES:
>
> - New collateralisation functionality available to payment bank clients (client collateralisation)

The functionality of client collateralisation is used by payment banks that wish to offer a service of intraday credit to their clients. In this case, the payment bank should create secondary CMBs (in addition to the existing primary CMB) to link its own DCA to the securities accounts of the relevant clients.

4.2.1. Eligible securities

Payment banks wishing to offer the service of collateralisation to their clients must provide T2S each day before the start of the T2S operating day (before 7:00 p.m.):

- the list of securities eligible as collateral

- the price of collateral for the day in question

- depending on their choice, close links if they do not perform ex post checks[17].

A payment bank may accept a range of securities for client collateralisation that is different from that of the Eurosystem used by the Banque de France for central bank auto-collateralisation; it may also apply a specific haircut to each security.

In the case of client collateralisation, the payment bank is solely responsible for excluding from the list of collateralisable securities any security issued or guaranteed by itself or by an entity with which it has close links.

4.2.2. Operation

A client collateralisation credit operation is triggered whenever the amount of liquidity required in a buy instruction exceeds the external guarantee limit - *cf. 4.2.3* - or if the limit is set to zero. If the external guarantee limit is set to zero, client collateralisation is automatically triggered irrespective of the amount available in the payment bank's DCA.

The only procedure available for client collateralisation will be the **repo**, which is a contractual collateral procedure comprising a spot purchase and a forward sale or, conversely, a spot sale and a forward purchase. This means that a payment bank providing credit must hold a securities account with a CSD, and this securities account will be used to receive collateral from the payment bank's client.

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[17] T2S 0436 URD : Client-collateralisation: allow payment banks to set up their own list of close links.
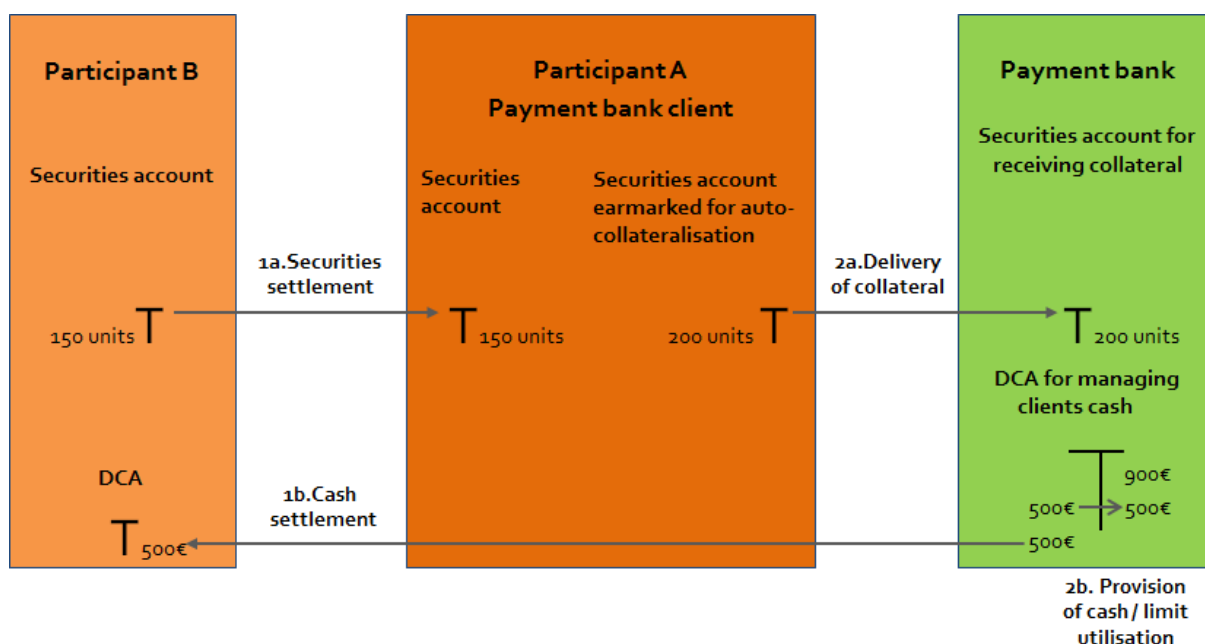
Diagram 11 :   *Use of client collateralisation*

The operational procedure for reimbursing client collateralisation will be determined contractually between the payment bank and its client.

Automatic substitutions of securities by T2S are possible, but the automatic reimbursement process for client collateralisation remains in the hands of the payment bank, including at the end of the day (no procedure for automatic reimbursement by T2S as for central bank auto-collateralisation). If reimbursement instructions are outstanding at the start of the new T2S business day, the payment bank must adjust the collateralisation limits for that client.

4.2.3. Management of limits

For client collateralisation, a payment bank should set three limits associated with the CMB for its clients, to be used in the following order:

- **The external guarantee limit** is used to cap the amount of credit granted and secured outside T2S, without collateralisation outside T2S

- **The client collateralisation limit** is used to cap the amount of credit granted through client collateralisation in T2S

- **The unsecured credit limit** is used to cap the unsecured credit granted, outside T2S. This credit is used when the preceding limits are reached.

If the payment bank does not want to grant additional credit beyond client collateralisation, the unsecured credit limit will be set to zero.

The payment bank can monitor each limit during the operating day using the indicators available in T2S:

- **Limit amount** or maximum amount of intraday credit to provide: the amount available is set by the payment bank in its static data and may be increased or decreased over the course of the operating day.

- **Limit utilisation**: the amount used is set to zero at the beginning of each operating day and updated following settlement of an instruction or reimbursement of a client collateralisation instruction.

- **Limit headroom** on intraday credit: the amount remaining is set to the limit amount at the beginning of each operating day and updated following settlement of an instruction or an update to the limit amount. Instructions that are on hold have no effect on limits.

  The amount remaining available is equal to the available amount less the amount used (limit headroom = limit amount - limit utilisation).

It should be noted that the limits fixed by the payment bank for a secondary CMB apply to all the clients using this CMB.

5. Operating day

5.1. Description
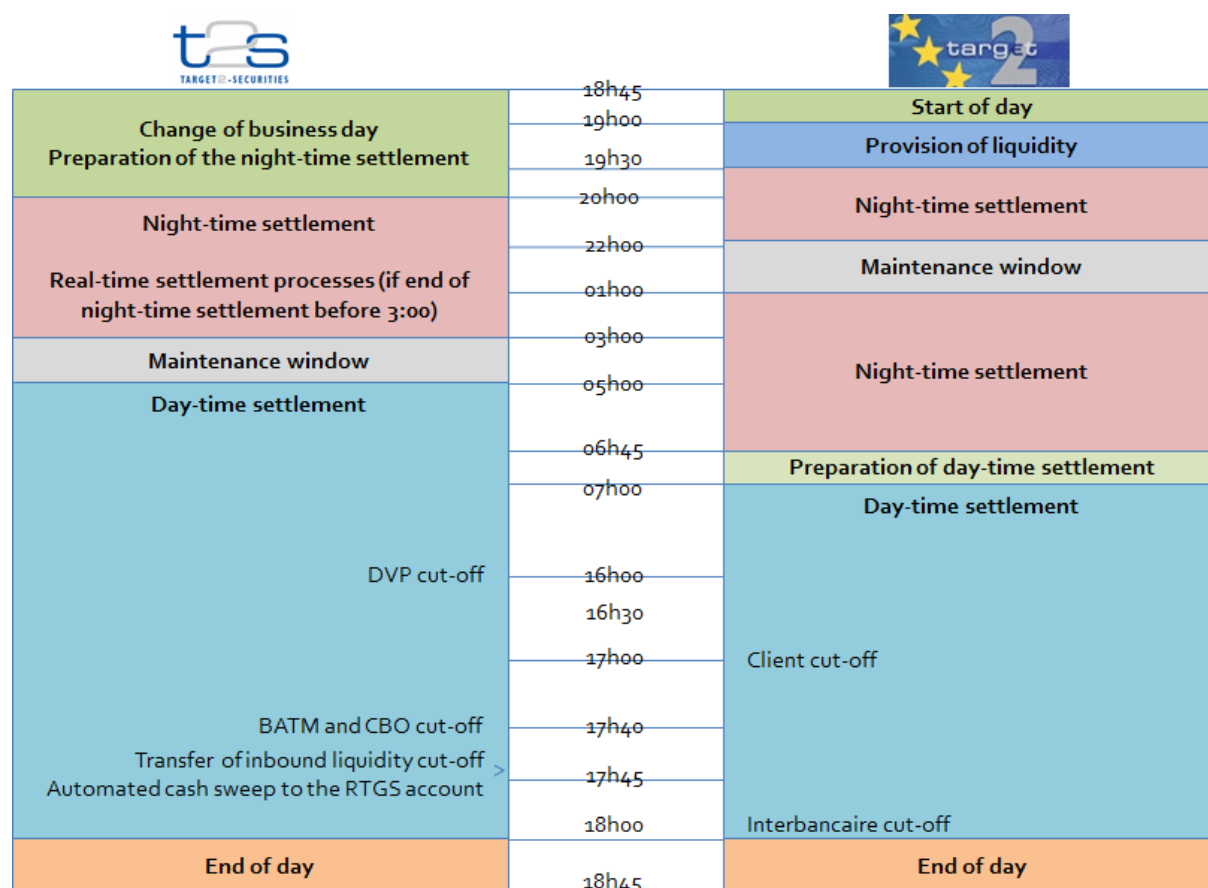
Diagram 12 :   *T2 and T2S operating day*

As indicated in the diagram above, the T2S operating day is organised as follows:

- Start of day D: 6:45 p.m. CET on D-1

- Preparation for night-time settlement: after 6:45 p.m. on D-1

- Night-time settlement[18]: **8:00 p.m.[19]** on D-1 to 3:00 a.m. on D

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18 Night-time settlement is used to settle instructions whose settlement date is Day D. Night-time settlement is divided into several sequences, one of which one is dedicated to processing corporate actions.

- Maintenance window: 3:00 a.m. to 5:00 a.m. on D

- Real-time processing: from 5:00 a.m. to 6:00 p.m. on D[20]

  ► Four partial settlement windows are scheduled at 10:00 a.m., 12:00 p.m. (noon), 2:00 p.m. and 3:45 p.m.

- End of day processing between 6:00 p.m. and 6:45 p.m. on D:

  ► End of real-time settlement of instructions

  ► T2S securities accounts check

  ► Recycling of instructions and purge

  ► End of day reporting and account statements.

5.2. Liquidity transfers during the operating day

During the operating day, a payment bank may conduct the following transactions:

- At the start of the T2S operating day at **8:00 p.m.[21], the standing order liquidity transfer TARGET2** from the RTGS account to the DCA may be used to transfer liquidity to the DCA to ensure that the account has sufficient funds to settle transactions during night-time settlement. A standing order may be supplemented by a **current order** if the liquidity requirement is larger than usual.

- During the T2S operating day, the payment bank may transfer liquidity into the DCA's cash position through:

  ► **an immediate liquidity transfer order** – initiated from T2S

  ► **a standing order liquidity transfer** – initiated from T2

  ► or **a current order liquidity transfer**– initiated from T2

- At 4:30 p.m., depending on its liquidity management, the payment bank may choose to take part in an optional automated cash sweep to transfer all the liquidity in the DCA to the main RTGS account.

- At the end of the T2S day at 5:45 p.m., an **automated cash sweep** transfers all the liquidity in the DCA to the main RTGS account**.**

- In one of the final night-time settlement sequences, the liquidity held in DCAs is automatically transferred to the RTGS accounts of multiple liquidity providers according to the sequence defined in the static data. Thus, **reimbursement of multiple liquidity providers** takes place at the end of processing on the operating day.

5.3. Cut-offs in T2S from the end of settlement

Time	Cut-off	Process

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[19] Following a Change Request, the start of night-time settlement has been delayed to 8:00 p.m..

20 If night-time settlement ends before 3:00 a.m., real-time settlement may begin between the end of night-time settlement and the maintenance window at 3:00 a.m.

[21] Following a Change Request, the start of night-time settlement has been delayed to 8:00 p.m..

Time	Cut-off	Process
4:00 p.m.	DVP cut-off	Make final settlement attempt for unsettled DVP instructions; start receiving DVP instructions for settlement on the next business day.
4:00 p.m.	Cash settlement restrictions[22]	Make final settlement attempt for cash settlement restrictions relating to instructions; start receiving cash settlement restrictions for settlement on the next business day.
4:00 p.m.	Release of unused cash settlement restrictions	Release unused cash settlement restrictions relating to blocking, reservation and CoSD blocking[23]. Regenerate cash restrictions corresponding to CoSD blocking[24] for settlement on the next business day.
4:30 p.m.	Automatic reimbursement	Automatically reimburse collateral instructions for central bank auto-collateralisation. In case of an insufficient balance on the DCA (relocation), the Banque de France Collateral Management System (CMS) receives the necessary information to trigger the mobilisation process.
4:30 p.m.	Optional automated cash sweep	Conduct outbound liquidity transfers to transfer all available liquidity on a T2S DCA to a specified linked RTGS account.
5:40 p.m.	Bilaterally Agreed Treasury Management (BATM)	Make final settlement attempt for unsettled BATM instructions; start receiving BATM instructions for settlement on the next business day.
5:40 p.m.	Central Bank Operation (CBO)	Make final settlement attempt for unsettled CBO instructions; start receiving CBO instructions for settlement on the next business day.
5:45 p.m.	Inbound liquidity transfer	Process inbound liquidity transfers.
5:45 p.m.	Automated cash sweep	Conduct outbound liquidity transfers to transfer all available liquidity on a T2S DCA to a specified linked RTGS account.
6:00 p.m.	Securities settlement restriction	Make final settlement attempt for unsettled securities settlement restriction instructions; start receiving restriction instructions for settlement on the next business day.
6:00 p.m.	FOP cut-off	Make final settlement attempt for unsettled FOP instructions; start receiving FOP instructions for settlement on the next business day.
7:00 p.m.	Reception of static data for collateralisation	Cut-off for receiving collateralisation data for auto-collateralisation and client collateralisation: list of eligible securities, securities reference prices and close links[25].

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[22] See Glossary.

[23] Blocking of a Conditional Securities Delivery instruction – See Glossary for definition of CoSD.

[24] CoSD-related cash blocking.

[25] Close links: the Banque de France does not send static data to T2S.

5.4. T2S calendar

T2S is open from Monday to Friday, with the exception of the following closing days.

T2 (€)	T2S
1 January	1 January
Good Friday	-
Easter Monday	-
1 May	-
25 December	25 December
26 December	26 December

Diagram 13 :   *Calendar of T2 and T2S closing days*

On a T2 closing day that is not a T2S closing day, transactions may be settled free of payment[26].

6. Reporting tools for liquidity monitoring

6.1. Monitoring liquidity

To enable parties to monitor liquidity, T2S provides them with information about their own accounts (DCA) and those of their clients. This information includes amounts settled, cash balances, blockings and reservations, breaches of DCA limits, auto-collateralisation limits and the equivalent value of collateralisable securities.

To be able to access third-party information (such as that of its clients in the case of a payment bank), T2S actors must have been authorised and possess the corresponding access rights.

Three different tools are used to provide information: **notifications, reports and queries.**

- **Notifications** are generated automatically when a specific event takes place (for example, a credit/debit notification is sent whenever a DCA is credited or debited). These notifications are issued only in A2A mode, based on the message subscription rules saved in the T2S static data.

    The relevant notifications for liquidity monitoring are credit/debit notifications (camt.054) and floor/ceiling breach notifications (camt.004).

- **Reports** provide predefined information about the liquidity in DCAs. The T2S actor must subscribe to reports in advance by configuring them in the T2S static data; it should in particular select criteria for triggering reports, which might be a specific time or a functional event in the operating day such as the end of the day. Reports may be sent in U2A or A2A mode.

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[26] Note that in T2S, any FOP instruction must be matched, just like DVPs.

Examples of reports available for liquidity monitoring:

- ► Account statement

- ► Liquidity needs for the current day

- ► Liquidity needs for the next day

- Part of liquidity monitoring, **queries** are real-time questions about informational elements such as cash balances or limits. They may be submitted by the T2S actor in U2A or A2A mode. T2S provides the most recent available data to respond to queries.

  A2A queries may be submitted at any time of the business day; responses are supplied in real time, except where balance queries are received during a night-time settlement sequence; in this case, queries are queued up and processed after the sequence. Balance queries in U2A mode submitted during a night-time sequence are rejected.

T2S notifications, reports and queries are only available to T2S directly connected parties.

6.2. Which services are available and through which types of access?

The following table summarises the main functionalities offered to users of payment banks by type of access.

Type of access / Functionality	Access via T2 core service	Access via T2 optional services	T2S direct access through VANSP
Liquidity transfer to T2S (T2S: inbound) [T2: push]	XML ICM	FIN	
Liquidity transfer from T2S (T2S: outbound) [T2: pull]		FIN XML ICM	U2A and A2A
Access to intraday balances		XML ICM	U2A and A2A
Account statements			U2A and A2A
Liquidity needs (current or next day)			U2A and A2A
Outstanding auto-collateralisation credit			U2A and A2A
DCA collateral value			U2A and A2A

Diagram 14 :   *Functionalities by access type*

6.3. Configuration of notifications and reports

Message subscription for cash reports and notifications is configured by the Banque de France for itself and for its participants. A participant may subscribe to some or all status messages.

Reports are generated automatically following an event or a time set in T2S. Reports are configured via the T2S GUI by all T2S actors that are directly connected to T2S. T2S actors that are not directly connected to T2S do not receive reports from T2S.

T2S reports are generated in XML format and may be either sent directly to participants or consulted online, at the choice of the T2S actor.

In practice, the Banque de France will accredit for each DCP payment bank a party administrator, who will be assigned the requisite privileges from the Banque de France to enter subscriptions and configure reports for the institution. The naming convention for the administrator in the GUI T2S is: **CFR+BIC11 ADMIN** (there is a space between CFR+BIC11 and ADMIN).

If the participant wishes to benefit from reporting or monitoring services for cash accounts offered by its CSD(s), it must complete an authorisation form to give a third party access to its DCAs. The connectivity service is based on existing T2S functionalities and the standard management of payment banks rights and privileges. According to the mandate form, the rights and privileges are attributed to a CSD. The close coordination between the payment bank, the CSD and the NCB provide the configuration of this service, in that it is necessary for the payment bank to authorise its NCB to attribute rights and privileges to the CSD in order to access its DCAs.

It should be noted that if an indirect participant (Indirectly Connected Party – ICP)uses the CSD service to manage its liquidity and monitor its DCA, the DCA holder, or the main RTGS account holder acting it its name, **must use[27]:**

- The direct connection to the T2S platform in one of the modes U2A or A2A <u>or</u>
- The T2 ICM combined with the T2 for T2S value added services (VAS).

The Euroclear offer for access for ESES CSD participants to the services for liquidity management can be found on the T2S ESES page on the Euroclear internet site: https://www.euroclear.com/T2S

7. Connectivity

7.1. Connectivity modes for payment banks

7.1.1. Connecting to T2S: general principles

Participants may be a **Directly Connected Party** (DCP) or an **Indirectly Connected Party** (ICP). Participants may be a DCP or an ICP for securities and/or cash activities.

A DCP may dialogue with T2S in User to Application (U2A) mode and/or in Application to Application (A2A) mode.

A DCP payment bank shall have at least one DCA in T2S. It may use T2S to consult its transactions and cash account (DCA) and transfer liquidity from T2S (DCA) to T2 (RTGS). It may also use its T2 interfaces to transfer funds to its DCA in T2S.

An ICP payment bank may use T2 communication interfaces to transfer funds to and monitor its T2S DCA.

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[27] T2 Guideline, article 19 : https://www.ecb.europa.eu/paym/t2/legal/html/index.en.html

7.1.2. VANSP (SWIFT and SIA-Colt)

The Eurosystem carried out a call for tenders to select and approve two Value Added Network Service Providers (VANSP) for T2S access: SWIFT and SIA-Colt.

The two VANSPs allow all participants (CSDs, CSD participants, central banks, payment banks) to connect directly to T2S in U2A and A2A mode. Participants wishing to use T2S as a DCP must sign a contract with one of these two providers.

A payment bank that is directly connected to T2S by a VANSP may use the T2S Graphical User Interface (GUI) in U2A mode.

In A2A mode, DCPs will use XML ISO20022 message standards as required by T2S.

7.1.3. T2SI (T2S Interface in T2)

The T2/T2S connection is designed as a new dedicated interface called the T2S Interface (T2SI).

T2SI relies on the Eurosystem's internal network (4CB/3CB) and uses the XML ISO20022 message standards required by T2S.

T2SI offers core services and optional (paid) value added services for liquidity management from T2, including:

- T2SI core services, which will allow T2 direct participants that have migrated to ISO20022 to conduct liquidity transfers to T2S.

- Monitoring of DCA balances during the operating day via the T2 GUI: Information and Control Module (ICM).

- T2SI value added services, which are provided as a single set and billed. They will be useful to T2 direct participants that have not yet migrated to ISO20022 messages and that want to use FIN messages and operate in U2A mode via the ICM.

A T2 direct participant (SWIFT)[28] will therefore have three ways to be connected to T2 and interact with T2S:

- A2A (XML messages) via T2SI

- A2A (FIN MT messages) via the standard T2 interface

- U2A via the ICM (*Information and Control Module*).

The DCA holder, or the holder of the main RTGS account acting in its name, must use at least one of the following two tools to manage its DCA liquidity:

- The direct connection to the T2S platform in one of the modes U2A or A2A <u>or</u>

- The T2 ICM combined with the T2 for T2S value added services (VAS).

7.2. Configuring access rights in T2S

The details below are only applicable DCPs.

7.2.1. Definitions

A user (system user) is a person or an application that can communicate with T2S.

 A user can interact with T2S in two ways:

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[28] In order to be linked to a DCA (and to be the main RTGS account), a PM account must be an account with the TARGET2 network service provider and not a PM account with access via internet.

- When there is a person, U2A via the GUI
- When there is an application, A2A via messages or XML files.

A user function is an action that a user can trigger in T2S.

A privilege identifies the ability of a user (individual or application) to trigger a specific T2S function.
The assignment of access rights to a T2S user is based on granting / revoking privileges.
The privileges can be grouped into roles.

A user's access profile is defined by the set of roles (composed of privileges) assigned to it.
Note that the configuration of access rights is only carried out via U2A.

7.2.2. Default data perimeter

A CSD or a central bank will have access as standard to all functional data linked to it (securities account and DCA data respectively).

A CSD participant or central bank participant will have access as standard to all functional data linked to it (securities account and DCA data).

7.2.3. User identification

Each user is identified in T2S by

- A unique reference (System User Reference - SUR)
- A DN digital certificate (Distinguished Name Certificate)
- A clear link to an existing participant (Parent BIC / BIC)
- A unique login name (Login Name).

NB: It is advisable to identify the SUR and Login Name with the same data.

A digital certificate is an electronic document associating the identity of a T2S user to a pair of cryptographic keys.
A Distinguished Name (DN) is a sequence of comma-separated attributes such as <cn=smith,ou=t2s-ops o=bnkacctt,o=nsp-1> that identifies the digital certificate.
Each user (individual or application) linked to a digital certificate is therefore given a Distinguished Name Certificate.

The physical users need a USB token that contains the digital certificate and its distinguished name; this token is provided by the VANSP (SWIFT or SIA-COLT) chosen for the T2S connection.

In T2S static data, users must be linked to the certificates (and the associated DNs) by the function User Certificate Distinguished Name Link.

It is possible to associate a user with more than one DN Certificate and a DN Certificate with more than one user; in this way one can still use the same USB token to identify several distinct users, but associated with the same certificate DN.

7.2.4. Means of attributing privileges/roles

Access rights will be configured at entity level by the administrator of the entity at the next level up. Access rights at user level will be configured by the administrator of the entity to which the user belongs.
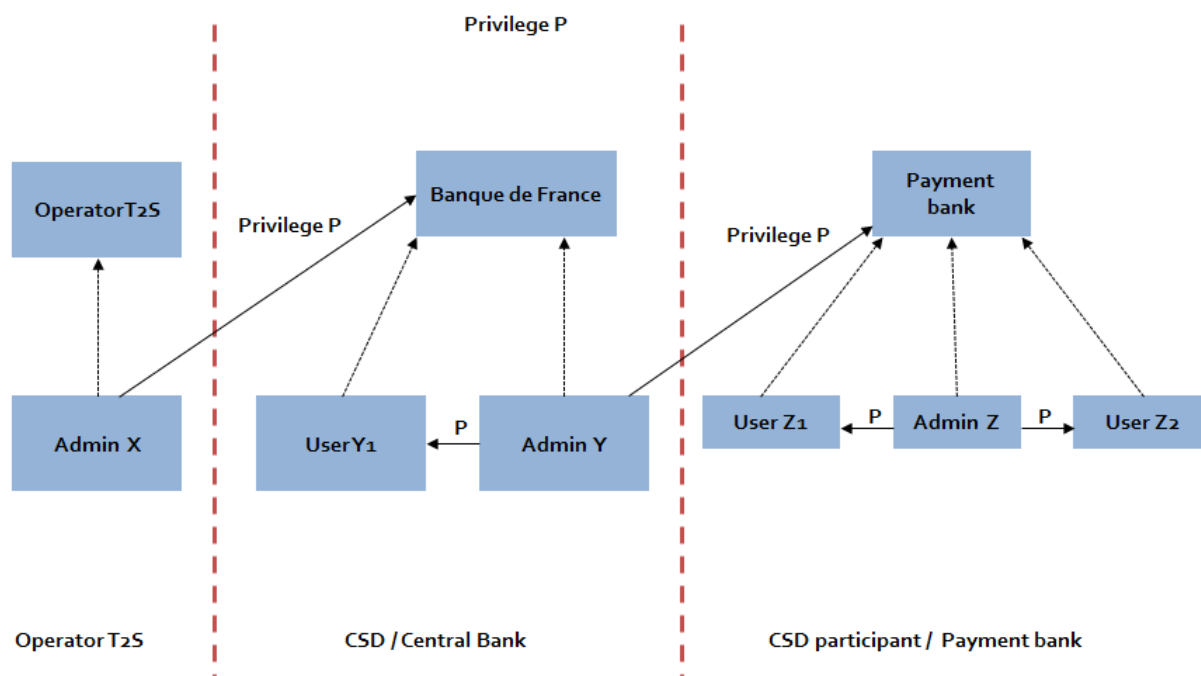
Diagram 15 :   *Configuration of access rights*

The Banque de France will accredit an administrator for each DCP. This administrator, who will have the requisite privileges, will be responsible for creating T2S users with their own rights to access GUI functionalities. DCP payment banks that have direct access to T2S via the GUI will therefore independently configure the access rights of their own users.

7.2.5. Non Repudiation of Origin (NRO)

The NRO (Non Repudiation of Origin) functionality was implemented on the T2S environments following the approval of the Change Request 0466, in order to increase the security level of certain U2A transactions deemed critical, such as intra-balance movements, modification and cancellation of a cash instruction, the immediate liquidity transfer.[29]

The NRO functionality relies on an electronic signature which allows the message receiver to ensure that the message sender was the originator of the message and the message contents have not been changed.

The proof of origin is generated by the message sender and kept by the message receiver.

For the NRO implementation, a second certificate necessary for the electronic signature is generated by the VANSP and saved on the same used for the first user authentication certificate.

SWIFT provides a procedure that allows the download of the second certificate on an existing token; SIA-Colt d clients already have a second certificate on their existing token.

In all cases, the authentication certificates and the signature have the same Distinguished Name - DN identifiers and the same validity period.

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[29]   The complete list of transactions can be found in the CR 466 available on the ECB site: https://www.ecb.europa.eu/paym/t2s/progress/pdf/crg/t2s_0466_bfd.pdf?f9a8c6a28039a30cc3433b1243959666

8. Migration

Wave 1 22/06/2015	Wave 1 31/08/2015	Wave 2 29/03/2016	Wave 3 12/09/2016	Wave 4 06/02/2017	Final wave 18/09/2017
Bank of Greece SSS (BOGS)	Monte Titoli (Italy)	National Bank of Belgium SSS (NBB-SSS)	Euroclear ESES (Belgium) (France) (Netherlands)	Clearstream (Germany)	Iberclear (Spain)
Depozitarul Central (Roumania)		Interbolsa (Portugal)	VP Lux (Luxembourg)	CDCP (Slovakia)	Euroclear Finland *
Malta Stock Exchange			VP Securities (Denmark)	KDD (Slovenia)	ECSD (Estonia)
SIX SIS (Switzerland)				KELER (Hungary)	CSDL (Lithuania)
				Lux CSD (Luxembourg)	NCSD (Latvia)
				OCSD (Austria)	

Diagram 16 :   *T2S migration waves*[30]

8.1. Tests

To successfully complete the migration to T2S, tests for CSDs and NCBs started in October 2014 and continue until the start of each wave.

The communities (payment banks and CSD participants), irrespective of the methods used to connect to T2S, will be involved in tests during a test phase after that for CSDs and NCBs. (cf. diagram on next page)

Coordination between Euroclear France and the Banque de France ensured monitoring of progress in preparing the French market for the community test phases.

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[30]Euroclear Finland announced mid-January 2017 its intention to withdraw from the T2S final migration wave.
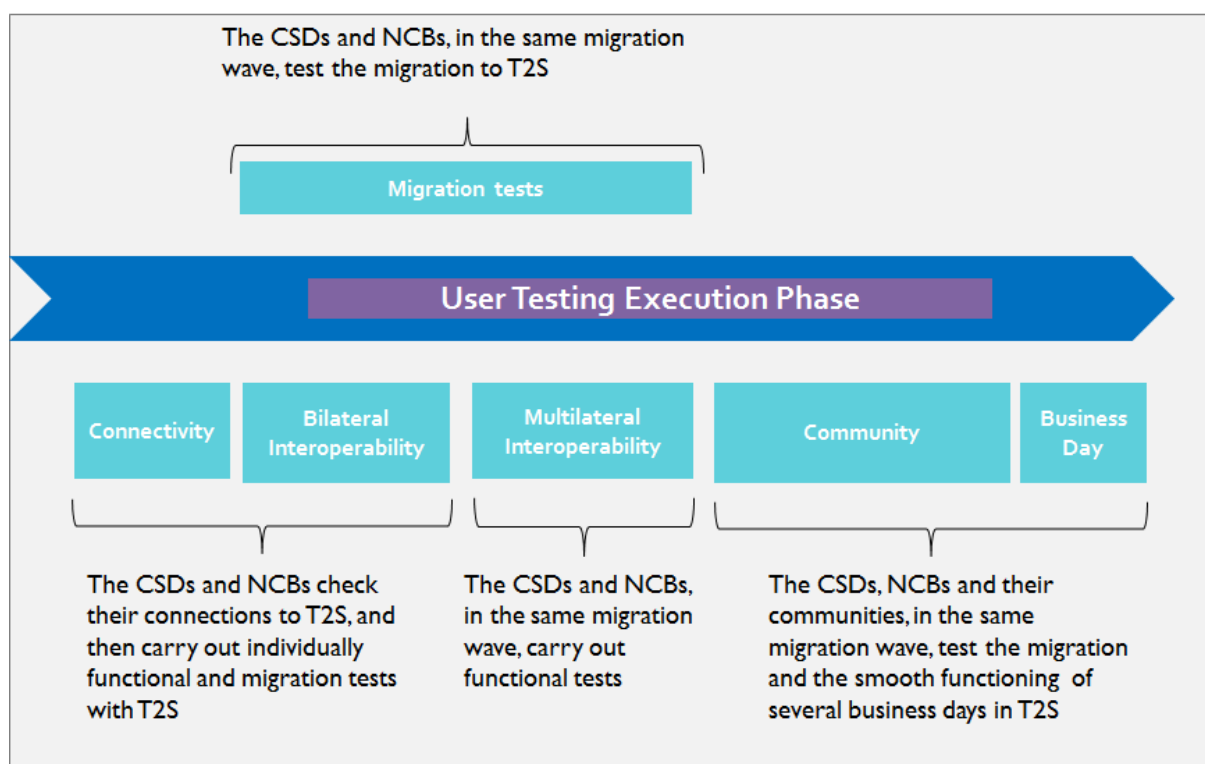
Diagram 17 :   *T2S test phases*

The Eurosystem T2S test phases have been organised and designed to ensure that each migration wave is independent of the others. Three testing environments will be used at Eurosystem level:

- Interoperability environment (connectivity tests, bilateral and multilateral)
- Migration environment (migration tests)
- Community and Business Day environment.

In parallel, a pre-production environment is used mainly by participants that have already migrated to T2S.

Payment banks will be involved in Eurosystem tests during the Community and Business Day and pre-production test phases.

8.1.1. Eurosystem tests without payment banks

Before conducting tests with their communities for each wave, CSDs and NCBs will execute four different test phases:

- connectivity tests
- bilateral tests
- multilateral tests
- migration tests.

The connectivity tests will allow CSDs and central banks to test their **Application to Application (A2A)** and **User to Application (U2A) connections.**

The bilateral tests will allow the Eurosystem to certify CSDs and central banks for T2S. They will also allow CSDs and central banks to check that information systems connected to T2S are working properly.

The multilateral tests will allow all CSDs and central banks in a migration wave to test all exchanges between themselves and with T2S.

The migration tests will allow all CSDs and central banks in a migration wave to conduct a rehearsal of the T2S migration.

8.1.2. Eurosystem tests with payment banks

8.1.2.1. Participant tests before the T2S migration

In each wave, CSDs and NCBs will conduct T2S migration tests with their communities, testing sequences of business days in two test phases:

- Community tests
- Business Day tests.

These two test phases will be carried out using the Community testing environment[31].

Before beginning the Community and Business Day test phases, the migration and multilateral test phases of the CSDs and central banks taking part in the wave must have been correctly completed.

For each migration wave, the CSDs, NCBs and participants involved in the migration wave will take part in the Community and Business Day tests, along with CSDs, NCBs and participants that have already migrated.
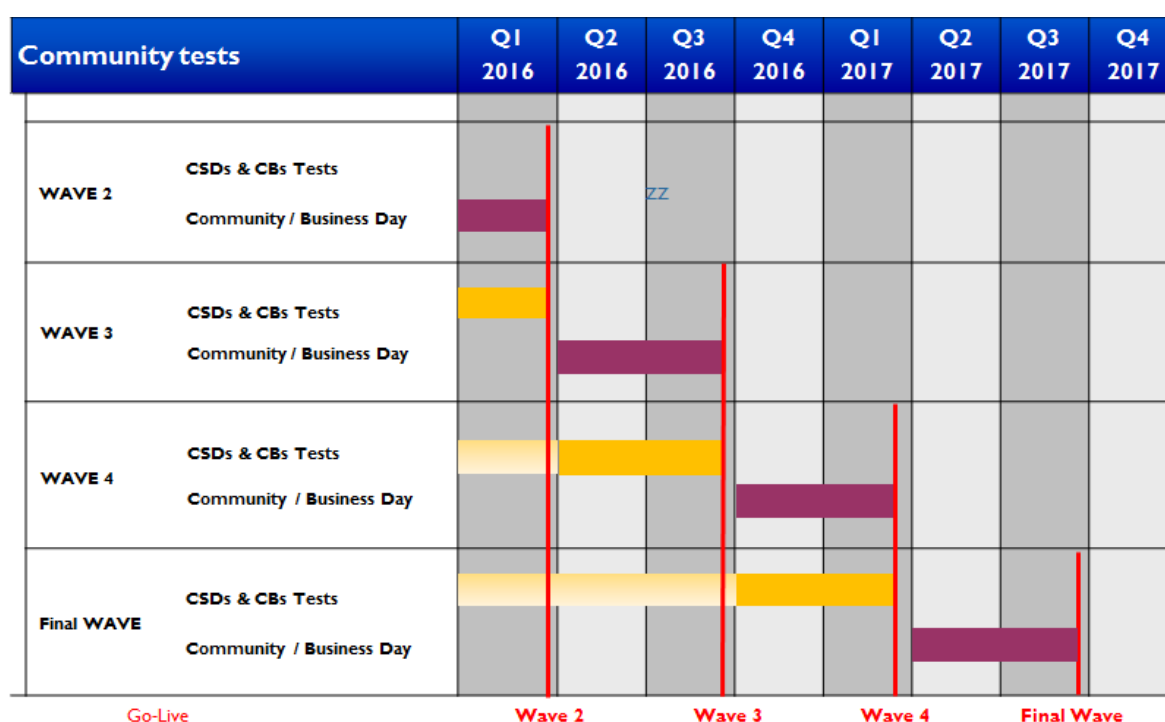
Diagram 18 :   *Schedule of Community and Business Day test phases (ECB diagram)*

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[31] For reasons of planning optimisation, the community testing wave 3 was in two cycles. A first cycle in the community environment, the second cycle in the pre-production environment.

The Community test phrase will allow CSDs, central banks and their communities to run several T2S business days consecutively and execute the test scenarios. For this phase, the T2S community environment will be connected to the TARGET2 test environment dedicated to participants (T2 CUST). T2S Community and T2 CUST will function on the basis of a reduced business day.

The Community tests will allow the Eurosystem, CSDs and central banks to certify DCPs for T2S. The Eurosystem will provide technical certification for DCPs. Eurosystem certification will verify that exchanges between DCPs and T2S are functioning properly and ensure that the links with DCPs do not create risk for the orderly operation of T2S.

In order to prove that it can communicate correctly with T2S, each DCP must execute the certification test cases that are valid for its application and operational mode. The execution of test cases for functionalities that won't be used is not mandatory. Central banks and CSDs will certify access authorisations and the orderly operation of DCPs. The Eurosystem has defined different authorisation tests that apply to the concerned actors: cash DCP, ICP or client of a cash DCP.

The authorisation tests of the Eurosystem central banks are common to all. In this way, the passport concept is established so that a payment bank can pass the authorisation tests with one NCB and open DCAs with all the NCBs, provided that the payment bank uses the same functionalities with all the NCBs.
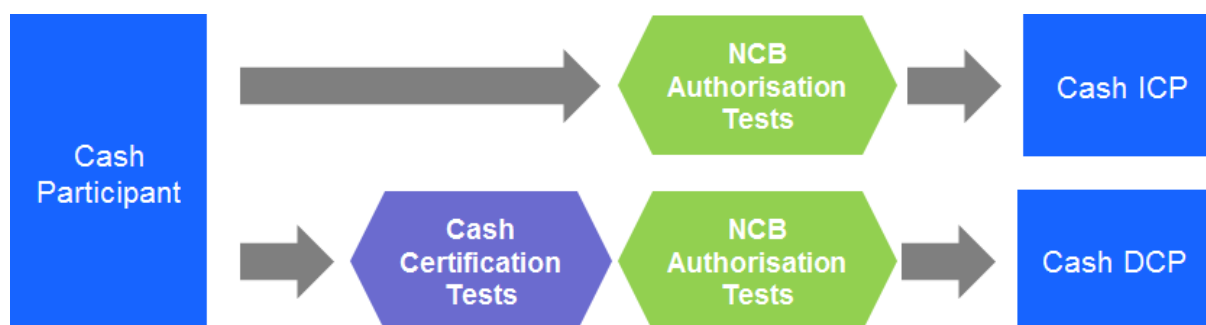
Diagram 19 :   *Certification and Authorisation by a NCB*

Participants will be given 4 weeks to complete their certification tests and two months to carry out their authorisation tests.

The Business Day test phase will allow CSDs, central banks and their communities to execute the test scenarios and run T2S business days consecutively over several weeks, observing production times. For this phase, T2S will be connected to T2 CUST. T2S and T2 CUST will operate according to the production day schedule.

Community migration tests: the Community and Business Day test phases will begin with a rehearsal of the migration to the T2S platform (migration tests). The CSDs involved in the migration wave, their central banks and their communities will carry out several rehearsals of the migration to T2S (in principle, three rehearsals of the migration weekend are planned).

During and after the migration weekend, French market participants will check that the data migrated to T2S are correct and that their CSD and central bank operate correctly with T2S. The Banque de France will support its participants and monitor cash aspects.

After the migration weekend, business days will be executed allowing DCPs and ICPs to simulate business days with Euroclear, the Banque de France and T2S, to make sure that all systems are operational and in line with expectations.

Test phases	CSD	BCN	DCP	ICP
Connectivity	X	X	X	
T2S Connectivity	X	X	X	
Community	X	X	X	X
Eurosystem Certification	X	X	X	
CSD / BCN Certification			X	
CSD / BCN Authorisation			X	X
Business Day	X	X	X	X
Migration Community	X	X	X	X

Diagram 20 :   *Tests phases with the actors involved*

8.1.2.2. Participant tests after the T2S migration

After a wave of T2S migration, participants, CSDs and central banks that have already migrated to T2S will be able to conduct tests in a T2S pre-production environment before deploying changes in a production setting.

The T2S pre-production environment will be initiated by performing the migration again (depending on the wave, the initialisation will be carried out before or after the migration to production).

Thus, for wave 4, the pre-production environment will be deployed before the migration to production in order to finish the community tests.

For the final wave, the pre-production environment could be configured a few weeks after the migration to production.

The pre-production environment will function exactly like the production environment. Until the end of the T2S migration (final wave go-live), the pre-production environment will not always be connected to the T2 cash environment, but a T2 simulator will be available to conduct liquidity transfers in T2S[32].

Accordingly, as long as the T2S migration is not totally complete, T2S DCPs will be able, where appropriate, to be connected to two T2S testing environments: the Community and Business Day environment and the pre-production environment.

8.2. Migration phases

Migration has been divided into three periods:

- Pre-migration
- Migration weekend
- Four-week stabilisation period.

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[32] After the final T2S wave, T2 CUST will be connected to the pre-production environment and the community environment will be removed.

Pre-migration will allow CSDs and central banks to input static data to the T2S production environment a few months before the migration of their wave. It will also enable all actors that have to be connected directly to T2S to check their T2S production connection.

The migration weekend will allow CSDs and central banks in the affected wave to migrate their data to T2S and execute the first night-time settlement (following Monday business date), which is a pre-requisite for the start of real-time settlement on Monday morning at 7:00 a.m.

The stabilisation period is a period of several weeks during which CSDs and central banks that have migrated to T2S will conduct enhanced monitoring of T2S operations to prevent any malfunction.

8.3. Role of the Banque de France during migration

Beginning with the first migration wave to T2S, the Banque de France is in charge of entering static data for payment banks with accounts at the Banque de France in T2S (participants, DCAs, RTGS links, access rights, configuration of reports, configuration of message routing, message subscriptions, etc.). As T2 operator, the Banque de France monitors the liquidity of Banque de France T2 participants and liquidity transfers between T2 and T2S.

Once Euroclear France, the national CSD, has migrated to T2S in wave 3, the Banque de France will connect its **Collateral Management System (CMS)** to T2S to provide static data and manage the parameters linked to auto-collateralisation.

Credit institutions wishing to open securities accounts in CSDs that migrate in wave 1 and wishing to use the Banque de France to manage their liquidity **can open DCAs with the Banque de France from wave 1 of the migration**. Thus, a banking group that wants to reorganise the configuration of its cash accounts and centralise liquidity management in the books of the Banque de France may begin doing so from the wave 1 go-live. As an example, a Monte Titoli participant will be able to open a DCA with the Banque de France.

The service offered by the Banque de France to DCA holders is the same whether parties are DCPs or ICPs.

The Banque de France is responsible for entering static data related to its payment banks, whereas Euroclear France is responsible for entering the static data related to its participants. Coordination between Euroclear France and the Banque de France has been established to ensure that migration preparations proceed smoothly.

Preparation of the production static data for wave 1 CSDs and central banks began in December 2014 with the distribution of forms to allow static data to be entered as from March 2015. Static data began to be used in production on the date of the first migration wave.

Most DCAs linked to Euroclear France securities accounts for French market participants were opened with the migration of Euroclear France in the migration wave 3. Beginning on the first T2S operating day after this migration, ESES cash accounts were closed and replaced by DCAs open in T2S.

9. Operating methods and contacts

9.1. Description of operational procedures

The organisation used for the contractual management of cash accounts and management of cash transactions in T2S is the same as that in place for the management of accounts and transactions in T2.

The Account management unit (SAR) and TARGET2 Support (ST2BF) units of the Interbank Settlement department (SERI) extended the scope of their current activities to similar activities in T2S, i.e.:

- Administrative management of cash accounts
- Testing and certification
- Support activities (helpdesk, contingency, advice).

These actions are described in new versions of the T2 Information Guides:

- *Information Guide for TARGET2 Users* (ESCB document, in English)
- T2BF Information Guide (in French, for specific French aspects)

both of which are available on the Banque de France TARGET2 extranet at:

http://www.target2bf.fr/accueil/operations/guides.html

All relevant information (forms, information sheets, etc.) is published on the T2 extranet. These documents are updated with each significant new version of TARGET2 and/or T2S.

9.2. Contingency procedures

Contingency solutions are also established following procedures similar to those in place for T2.

ST2BF can, as for T2 and subject to the same liability terms, provide institutions with contingency solutions to manage T2S liquidity, either at their request or if they are affected by an operating problem, including:

- Liquidity transfer from T2 to T2S or from T2S to T2
- Liquidity transfer between two DCAs of a party.

Precise procedures are defined in the Information Guide; contingency request forms will be published on the T2 extranet.

9.3. Incident management procedures

Incident management procedures are defined by Eurosystem working groups.

ST2BF is the gateway for reporting incidents or disseminating information on incidents.

9.4. Contacts

For payment banks that are clients of the Banque de France, the contact persons at the Banque de France are the same teams as those in charge of TARGET2 support at the Banque de France.

T2S cash support is therefore be provided by the Interbank Settlement department (SERI) of the Payment Systems and Market Infrastructure Directorate (DSPM), which is part of the Directorate General Financial Stability and Operations.

- The SAR unit will handle aspects relating to the opening of accounts, forms, agreements and signature management
- The ST2BF unit will handle testing, certification support and contingency aspects.

For all questions concerning T2S, you may contact SAR or ST2BF. For all questions concerning securities, as a CSD participant, you may contact your CSD.

For all questions concerning the management of the collateral pools, you may contact the Monetary Policy Back Office department (BOPM).

A payment bank directly connected to T2S has 2 contacts:

- The T2S Service Desk for problems related to connectivity or their link between T2S and the network provider
- The Banque de France for functional / business problems such as liquidity management in T2S, collateral management, the interaction between T2S and T2, as well as the clarification of legal and policy issues.

For a payment bank indirectly connected to T2S, the Banque de France is the sole point of contact for all questions.

Naturally, access to the SERI helpdesk (mail box and telephone) is maintained and extended to include T2S.

SERI helpdesk   BANQUE DE FRANCE
                           33-2320 SERI
                           75049 PARIS CEDEX 01
                           SERI@banque-france.fr
                           Telephone: +33(0)1 4292 6190

Administration (open/close account, modify parameters)
                           BANQUE DE FRANCE
                           33-2320 SERI
                           Section Administration des Référentiels
                           75049 PARIS CEDEX 01
                           T2bf-admin@banque-france.fr
                           Telephone: +33(0)1 4292 2482 - Fax: +33(0)1 4292 24 45

BF-T2 Support   BANQUE DE FRANCE
                           33-2320 SERI
                           75049 PARIS CEDEX 01
                           T2bf@banque-france.fr
                           Telephone: +33(0)1 4297 7900 - Fax: +33(0)1 4292 9858

Cust T2BF Support   BANQUE DE FRANCE
                           33-2320 SERI
                           75049 PARIS CEDEX 01
                           T2bf-cust@banque-france.fr
                           Telephone: +33(0)1 4297 7988 - Fax: +33(0)1 4292 6345

Support T2S-BF   BANQUE DE FRANCE
                           33-2320 SERI
                           75049 PARIS CEDEX 01
                           Support-T2S@banque-france.Fr
                           Téléphone : 01 42 97 79 00 - Fax : 01 42 92 98 58

Support BOPM   BANQUE DE FRANCE
                           021-1157 BOPM
                           75049 PARIS CEDEX 01
                           1157-recettes-ut@banque-france.fr
                           Téléphone : 01 42 92 39 73 - 01 42 92 69 92 - 01 42 92 93 56

10. Billing

The Banque de France prepares invoices for its payment banks using the billing information sent by T2S.

The main RTGS account holder is charged for the T2S operations concerning the DCA linked to the RTGS account.

There is a strict application of the prices detailed in the Framework Agreement (Schedule 7 Pricing)[33], whose main points on cash management and auto-collateralisation services are summarised as follows:

- Administrative management of DCAs is not be billed when T2S goes live. The pricing policy may be revised later by the Eurosystem.

- Internal liquidity transfers (between DCAs) are charged at 9 cents per transfer to the debited DCA holder.

- Intra-DCA cash movements (blocking/unblocking) are charged at 6 cents per transaction to the relevant DCA holder.

- The service of auto-collateralisation with credit granted by the Banque de France to a payment bank are not be billed when T2S goes live. The pricing policy may be revised later by the Eurosystem.

- The client collateralisation service are charged 15 cents by T2S, as well as the cost of the DvP instruction, to the collateral provider (the payment bank).

T2S information services are charged as follows to directly connected users:

- A2A Reports: 0.4 cent per business item in any report generated

- A2A Queries: 0.7 cent per business item in any query generated

- U2A Queries: 10 cents per executed search function

- U2A Requests: 0.07 cent per downloaded functional element in the generated request

- Messages bundled into a file: 0.4 cent per message in a file

- Transmissions: 1.2 cent per effective transmission (message, file, A2A query request, A2A query response, A2A report; only technical acknowledgements of receipt are exempt from charge).

The Banque de France billing and collection procedures are the same as those in force for the use of T2; billing will be monthly.

The participants will receive 2 invoices, one for their operations linked to their RTGS accounts, the other for their operations linked to their DCAs (which will mention the above elements). As with T2, the participants are automatically be debited on their T2 account on the 10th business day of the month.

The billing for liquidity transfers between a participant's RTGS account and a DCA is integrated in the T2 invoice according to the pricing option (A) or (B) chosen by the RTGS account holder.

Two additional elements are included in the invoice linked to RTGS accounts:

- The holders of RTGS accounts with which DCAs are associated must pay an additional monthly fee of 250 EUR per DCA linked to this RTGS account.

- The subscription to optional T2S Interface (T2SI) services is EUR 50 a month for T2 participants at price A (excl. VAT) and EUR 625 a month for T2 participants at price B (excl. VAT).

The following T2S features should be noted:

- The A2A camt.053 *Statement of Accounts* report is billed 0.004€ **by movement** on a DCA, to which is added the transmission cost (0,0012€).

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[33] T2S pricing was the subject of a decision by the Governing Council on 19/11/2010 and accompanied by conditions, cf. following link:
https://www.ecb.europa.eu/paym/t2s/pricing/proposal/html/index.en.html

- When a T2S GUI or T2 (SVA) user refreshes a screen request, T2S considers this as a new request.

- All liquidity transfers between a PM account and a DCA (between T2 and T2S) appear on the T2 invoice, whereas internal liquidity transfers between appear on the T2S invoice.

- A liquidity transfer from a PM account to a DCA is billed to the debited PM account holder, whilst a liquidity transfer from a DCA to a PM account is billed to the credited PM account holder A liquidity transfer between a PM account and a DCA is billed according to the pricing option (A) or (B) chosen by the PM account holder.

- For DCP users (U2A et/ou A2A): reports, requests and messages received/generated during the hours of high activity (2 hours before the DVP cut-off so from 2:00 p.m to 4:00 p.m.) will be taxed by T2S (*congestion charge*), that is currently not applied. In the invoice, there are 2 separate lines, currently at the same price:
  - During high activity (2:00 p.m to 4:00 p.m.)
  - During low activity (< 2:00 p.m et > 4:00 p.m.).

11. Contractual relations between the Banque de France and the payment banks

T2S is a technical platform for settlement in central bank money. However, **it is not a system as defined by Directive 98/26/EC of 19 May 1998**. From a legal perspective, securities accounts are held in CSD systems and DCAs in the national systems comprising TARGET2 (such as TARGET2-Banque de France) for the euro currency.

The rules and conditions that apply to DCAs are defined by the TARGET2 Guideline[34]:

- A new Annex II bis will be created setting out the requirements for opening and holding a DCA, following Annex II on the requirements for opening and holding an RTGS account.

- Similarly, a new Annex III bis sets out the requirements applying to auto-collateralisation in T2S and follow Annex III on intraday credit in TARGET2.

The following diagram shows the T2 Guideline structure, along with the implementation by the Banque de France, before and after T2S. Changes linked to T2S are indicated in orange.

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[34] Available on the Banque de France website: https://www.banque-france.fr/en/financial-stability/payment-systems-and-market-infrastructure/french-large-value-payment-system-target2-banque-de-france/legal-texts.html
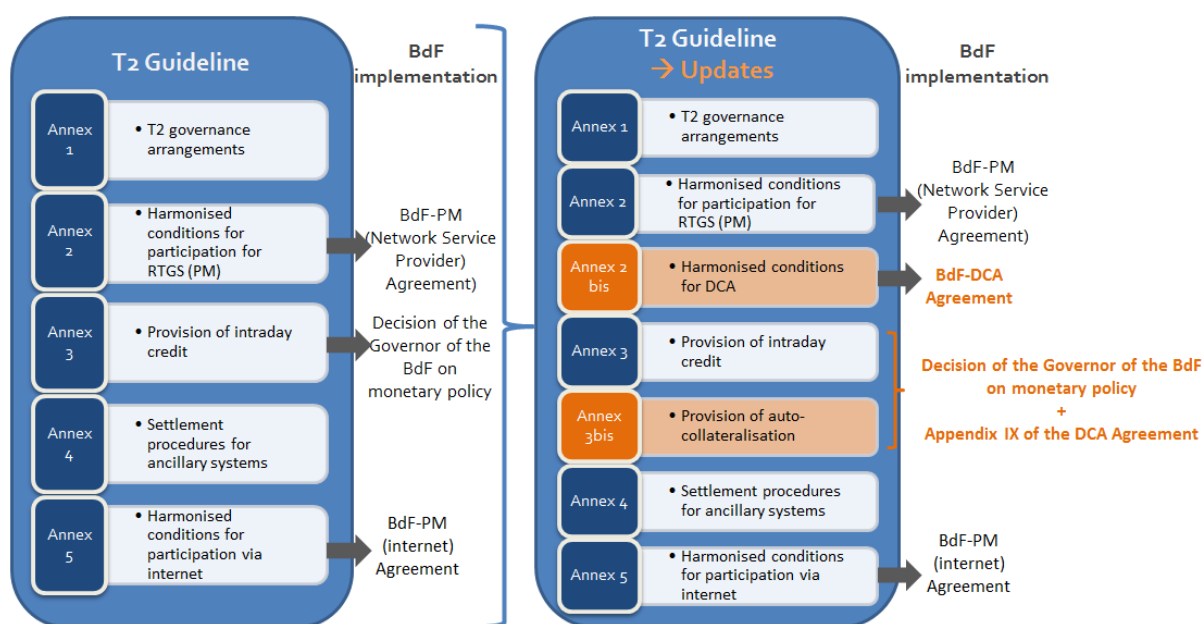
Diagram 21 :   *Structure of T2 Guideline, before and after T2S*

To implement these Eurosystem provisions in a regulatory and/or contractual framework applicable to the Banque de France:

- The provisions stipulated in Annex II bis of the TARGET2 Guideline are covered by a Banque de France-DCA agreement that must be signed by parties wishing to open a DCA.

- Provisions relating to the granting of intraday credit for auto-collateralisation are incorporated

  - In the decision by the Banque de France Governor[35] on monetary policy and intraday credit. These provisions apply to all parties that hold a 3G securities basket and / or wish to avail themselves of auto-collateralisation in T2S.

  - In the Appendix IX of the DCA Agreement, which must be signed – in addition to the DCA Agreement itself – by T2S participants wishing to benefit from auto-collateralisation.

The participant should contact the Banque de France directly to sign the Banque de France-DCA agreement, while DCA holders should contact the Banque de France directly as regards all aspects linked to cash settlement in T2S.

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35   https://publications.banque-france.fr/ndeg-2015-02-du-1er-septembre-2015-modifiant-la-decision-ndeg-2015-01-du-22-avril-2015-relative-la

Diagram 22 :   *Legal impact for a payment bank in the French market*

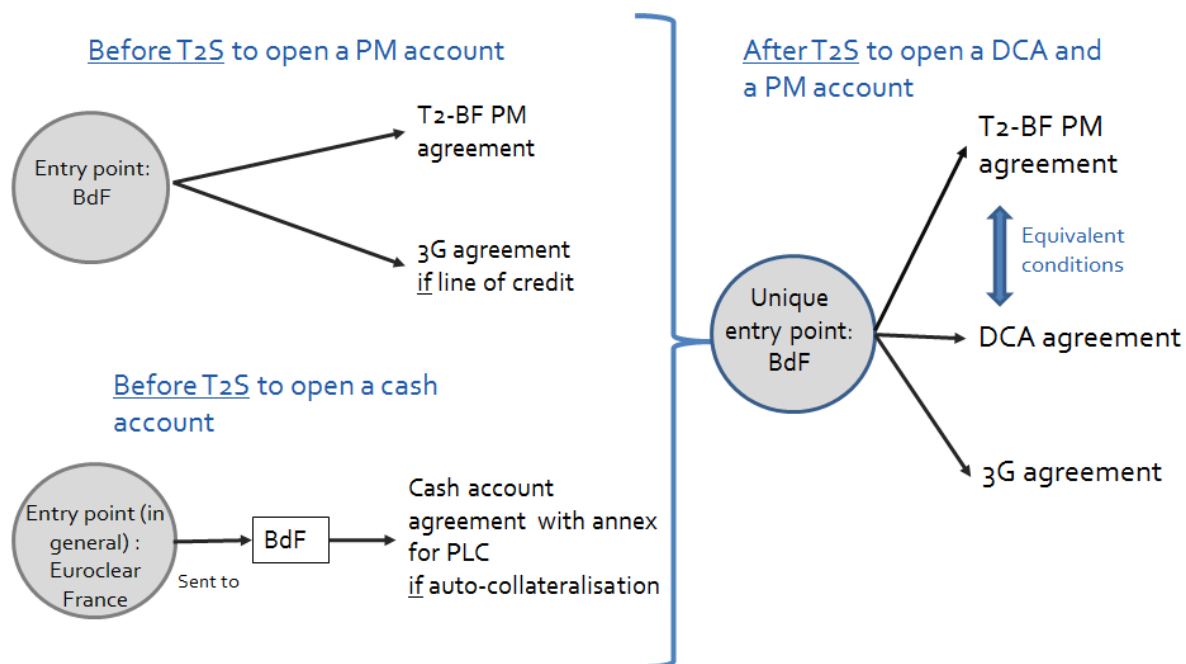The provision by a payment bank of the service of client collateralisation to other T2S parties forms part of a commercial service between the payment bank and its clients and will be governed by a private contract between these parties. The Banque de France will not be involved in implementation or the legal arrangements of these services.

The contractual relationship between the Banque de France and DCA holders is governed by French law. The Paris Commercial Court (Tribunal de commerce de Paris) shall have sole jurisdiction over any dispute relating to this relationship.

12. Market governance for the T2S migration

12.1. T2S National Coordination Committee

This committee, which is co-chaired by the Banque de France and Euroclear France, was comprised of the members of Euroclear France's Market Advisory Committee (MAC) and representatives of cash businesses, including the chair of the TARGET2 National User Group (NUG).

This committee allowed direct coordination between those in charge of operational functions relating to securities processing and their counterparts on the liquidity side to prepare for the migration to T2S:

- Provide effective coordination for the migration to T2S by the securities and cash establishments
- Coordinate testing schedules and make recommendations in the event of conflicts
- Ensure that all market participants are correctly informed
- Establish guidelines in the event of problems or risks relating to the interconnections between cash and securities projects

- Alert the French NUG and MAC in the event of material risks to the migration project or if measures are required from the ECB or the authorities.

12.2. T2S National User Group (French NUG T2S)

The Banque de France is responsible for the presidency and secretariat of this group, which brings together the suppliers and users of securities settlement services in the national market to support T2S development and implementation.

This forum draws up the positions of the French market, which are then shared with the Advisory Group (AG), the governing body for the T2S project at European level. The French NUG T2S establishes a formal link between the AG and the national market.

The NUG may be involved in the process of managing changes to the T2S User Requirements Document (URD) and plays an important role in assessing these requests within the framework of national market operations. In accordance with T2S principles, the NUG should actively promote harmonisation.

12.3. T2S BdF Users Group

The Banque de France is responsible for the presidency and secretariat of this group, which brings together the different "cash" participants in order to concretely prepare the French market opinion on T2S change requests. The work of this group is coordinated with the "securities" change requests that are managed for the French market by Euroclear.

The meetings are held on a regular basis, at least before the CRG (Change Review Group) meetings in order to:

- Analyse the proposed CR and their potential impact on the participants applications
- Define the recommended prioritisation for the implementation of the CRs for the future releases and
- Create a CR on behalf of the French participants.

13. Training and information for future T2S users

13.1. Organisation of training by the Banque de France

The ECB organises training sessions for CSDs and central banks. This training program comprises four modules: Basic, Technical, Functional and Operational.

Since this training is not available to payment banks, the Banque de France offered representatives of these institutions the opportunity to attend shared sessions to receive the information on liquidity management issues.

The Banque de France posted the training materials prepared by the Eurosystem on its T2 and T2S extranet: http://www.target2bf.fr/identification.htm

13.2. Organisation of themed workshops by the Banque de France

Supplementing the shared training sessions, and to provide all French participants with as much information as possible, the Banque de France organised regular themed workshops on specific aspects linked to T2S operations or the preparation for the migration to T2S.

Previous events:

- 10 October 2012: Launch of T2S migration project for the market, jointly with Euroclear France

- 1 March 2013: Workshop on auto-collateralisation in T2S, jointly with Euroclear France

- 10 June 2013: Workshop on the structure of cash accounts and liquidity management

- 18 November 2013: Workshop on T2S connectivity

- 25 March 2014: Workshop on questions and answers on the Blueprint

- 19 September 2014: Workshop on tests and migration

- 11 December 2014 : Workshop on account configuration

- 17 April 2015: Launch of the T2S wave 2 migration

- 20 May 2015: Workshop on the forms for the wave 2

- 15 September 2015: Workshop on tests and migration for the wave 2

- 21 September 2015: Presentation of the T2S GUI to T2S DCPs

- 25 January 2016: Invoicing and Tests & Migration.

All the materials presented during these workshops may be consulted on the Banque de France T2 and T2S extranet.

In addition to the specific Banque de France workshops, the Banque de France has been actively involved in the ESES T2S *Implementation Community* (TIC) organised by Euroclear in order to communicate the Central Bank progress updates to participants.

The Banque de France and Euroclear France regularly organised joint workshops and training for the French market in order to prepare the French participants for the migration to T2S.

13.3. Migration group for participants of each migration wave

The Banque de France created a migration group for participants opening a DCA with the Banque de France (including the interim solution for auto-collateralisation) in wave 1 and organised meetings on a regular basis (physical meetings or conference calls), until the migration of wave 1 to T2S (in particular on the auto-collateralisation interim solution).

Up to the final wave, the Banque de France will continue this organisation in order to support its participants for each wave.

13.4. Distribution and provision of information

The Banque de France regularly distributes information about T2S, the T2S migration, and the future terms of use for T2S through the market groups that it leads or in which it participates (NUG T2 and T2S, France Liaison Group (GLF-AFTI), Treasurers' Working Group (GTTPF), Technical User Group (GTU)).

It thus conveys information issued by the Eurosystem, supplementing this with information specific to the French market.

This information and all the official T2S documentation may be consulted on the Banque de France website, the Banque de France T2 and T2S extranet, and the website of the European Central Bank.

- Banque de France website:
  http://www.banque-france.fr/stabilite-financiere/infrastructures-des-marches-financiers-et-moyens-de-paiement-scripturaux/target2-securities.html

- Banque de France T2-T2S extranet:
  http://www.target2bf.fr/identification.html

- ECB website:
  https://www.ecb.europa.eu/paym/t2s/html/index.en.html

14. Glossary

Term	Definition
4CB	Group of four national central banks entrusted with developing the operational management of T2S: Banque de France, Deutsche Bundesbank, Banca d'Italia and Banco de España.
Application to Application (A2A)	Mode of technical communication that permits the exchange of information by file or message between T2S and the software applications of a directly connected T2S actor.
Auto-collateralisation	Intraday credit operation secured using securities. The operation is triggered automatically when a buyer has insufficient funds to settle a settlement instruction. In this document, the term auto-collateralisation is used instead of secured intraday credit.
Auto-collateralisation limit	In the case of central bank auto-collateralisation, the Banque de France must set an auto-collateralisation limit for each DCA.
Auto-collateral on flow	Securities being purchased are used as security for the provision of intraday credit.
Auto-collateral on stock	Securities already held by the buyer are used as security.
Automated cash sweep	Process of transferring liquidity from the DCA to the RTGS account during the operating day to ensure that the balance on the DCA is zero.
Automatic reimbursement	Each time that T2S generates an auto-collateralisation operation, a reimbursement instruction for this operation is created. Automatic reimbursement occurs whenever the amount of intraday credit granted exceeds the limit set. In the case of central bank auto-collateralisation, reimbursement instructions are triggered automatically during the process at the end of the operating day. No automatic reimbursement in the case of client collateralisation.

Term	Definition
Automatic substitution	If a settlement instruction concerns eligible securities that have already been used as collateral for auto-collateralisation, T2S automatically generates an auto-collateralisation reimbursement instruction to remove these securities and makes an automatic substitution to settle the settlement instruction.
Bilaterally Agreed Treasury Management (BATM)	Instruction linked to the settlement of an interbank repo transaction
BIC	A Business Identifier Code (BIC) is used in T2S to identify a party and the technical address for message routing. A party may use different BICs to identify itself and for its technical address.
Blocking (of cash balance)	Process used to prevent the transfer of a specified amount from one cash account to another cash account by associating it with a specific transaction or purpose. Blocking in T2S may not result in a negative balance, i.e. it is not possible to block an amount of funds greater than the balance on a cash account.
Cash settlement restriction	Restriction on the balance of a DCA to block or reserve an amount earmarked for specific purposes such as a dividend payment.
Central Bank Money (CeBM)	Settlement conducted directly and irrevocably using liquidity held in the books of a central bank.
Central bank auto-collateralisation	Service for granting secured intraday credit offered by the Banque de France to payment banks if the balance on the DCA is insufficient to settle the transaction.
Central Bank Operation (CBO)	Refinancing operations conducted by the Banque de France within the framework of monetary policy.
Certificate	A digital certificate is an electronic document associating the identity of a T2S user to a pair of cryptographic keys.
Certificate Distinguished Name	A Distinguished Name (DN) is a sequence of comma-separated attributes such as <cn = smith, ou = o = t2s-ops bnkacctt, o = dk-1> that identifies the digital certificate.
Client collateralisation	Service for granting intraday credit offered by a payment bank to clients settling instructions in its DCA.
Client collateralisation limit	Collateralisation limit set by a payment bank to cap intraday credit granted to its clients, since this credit is secured outside T2S. This limit is used once the external guarantee limit has been reached. It is limited to the capacity of the client to provide T2S eligible collateral.
Close links	Ownership links between a T2S party and the issuer of a security. A security may not be used as collateral by a party with close links to the issuer of a security. Situation in which the T2S party and issuer/ debtor/guarantor of debt securities are linked directly or indirectly by significant ownership ties (i.e. 20% threshold). Affected securities are ineligible and may not be used as collateral.
Collateral	Asset provided to secure intraday credit that payment banks (or payment bank clients) receive from the Banque de France or their payment bank. To be accepted as collateral, assets must meet specific eligibility criteria.
Collateralisation	Automated optimisation mechanism allowing payment banks to obtain liquidity from a central bank, or allowing a bank to obtain liquidity from another payment bank, in exchange for eligible securities.

Term	Definition
Collateral management	Collateral management includes all the functions linked to the generation and processing of collateral that allow French banks to conduct unified and overall management of the collateral required for their refinancing operations with the Banque de France (French and foreign securities, private claims), whether in the context of monetary policy operations or to obtain intraday credit.
Collateral manager	For the purposes of collateral management, the Banque de France connects its collateral management system to T2S to input static data and manage the parameters linked to auto-collateralisation.
Collateral relocation	For all DCAs with a negative balance at the end of the operating day, T2S automatically applies an automatic relocation (transfer) of collateral to secure the credit extension processed in the RTGS. T2S generates a collateral relocation for each reimbursement instruction that remains pending after rebalancing liquidity between DCAs.
Cash Account (ESES)	In ESES, a cash account opened by a settlement bank in the books of the Banque de France under a cash account agreement. Operated by Euroclear CSDs on behalf of the central bank as part of ESES.
Conditional Securities Delivery (CoSD)	A procedure in which the final securities and/or cash booking is dependent on the successful completion of an action or event outside T2S (for example settlement of an instruction involving a CSD or NCB that is outside T2S).
Credit Memorandum Balance (CMB)	Mechanism for monitoring intraday credit granted by a central bank to a payment bank or by a payment bank to one of its clients. A primary CMB is created for auto-collateralisation granted by a central bank to a payment bank. A secondary CMB is created for collateralisation granted by a payment bank to its client.
Central Securities Depository (CSD)	Entity that records securities held, either in their own name or in the name of their clients, by financial intermediaries such as banks and brokers. CSDs provide the functions of securities administration, safekeeping of financial instruments and securities settlement.
CSD participant	Client of a CSD that has signed a contract with that CSD and holds a securities account with the CSD.
Current liquidity transfer order	Order to transfer a specific amount of a cash account to another cash account between T2 and T2S.
Directly Connected Party (DCP)	A user authorised by its CSD or NCB to access T2S directly by A2A and/or U2A.
Delivery versus Payment (DVP)	Process ensuring delivery of securities to the buyer and, simultaneously, payment of the corresponding funds to the seller in return.
Earmarking	Specifies that a position in a securities account is eligible for a specific transaction or process such as auto-collateralisation.
External guarantee limit	Cap on credit secured outside T2S that the payment bank sets for its client.
Free of Payment (FoP)	Process for delivery of securities to the buyer without a cash transfer.
Graphical User Interface (GUI)	Interface between T2S software applications and T2S system users.

Term	Definition
Immediate liquidity transfer order	Order to transfer a specific amount from one cash account to another in real time.
Investor CSD	CSD holding a security for which it is not the issuer CSD. The CSD may hold the security with the issuer CSD either directly or indirectly via one or more intermediaries.
Issuer CSD	CSD that holds the primary deposit of a security in dematerialised or physical form.
Limit amount	Limit amount set by the credit provider (Banque de France or payment bank) in the static data; may be increased or decreased over the course of the operating day.
Limit headroom	Amount corresponding to the maximum amount of intraday credit less the credit used. This amount varies over the course of the day according to the settlement of instructions, reimbursement of auto-collateralisation and limit amount updates.
Limit utilisation	Amount set to zero at the beginning of each operating day and updated following settlement of an instruction or reimbursement of auto-collateralisation.
Message subscription	Service allowing a CSD, NCB or DCP to subscribe to messages and copies of messages through T2S. Subscriptions are based on one or more parameters: - Message type - Instruction type - Instruction status - Participant - Account - ISIN
Multiple liquidity providers	Functionality allowing the holder of a DCA to receive liquidity from several RTGS accounts and use it in T2S according to the priority defined in the static data.
Non Repudiation of Origin (NRO)	The NRO functionality relies on an electronic signature which allows the message receiver to ensure that the message sender was the originator of the message and the message contents have not been changed.
Optional automated cash sweep	Process used during the operating day to transfer liquidity from the DCA to the RTGS account to ensure that the DCA balance is zero.
Participant Direct au Système Exogène (PDSE)	Concept specific to ESES. Credit institution that does not have a cash account in the T2 payment system.
Party administrator	Each party must have at least one administrator, i.e. a user with specific system privileges giving the right to assign roles and privileges to other users.
Payment bank	Central banks and credit institutions as central bank participants for cash settlement.
Payment Module account (PM)	Account open in the T2 Payment Module (PM), which is at the heart of the system for real-time payment settlement.
Pledge legal procedure	A pledge is a collateral procedure, without the transfer of ownership, for securities provided as collateral used by the Banque de France in the context of auto-collateralisation T2S. The legal framework is compatible with the use, in T2S, of a repo operational procedure.
Power of attorney	Authorisation given by one T2S party to another to allow it to execute certain tasks in the name of the delegating party.

Term	Definition
Predefined liquidity transfer order	Instruction to transfer a specific amount from one cash account to another cash account.
Privilege	Privilege used to assign rights to users to allow them to use a T2S function.
Real Time Gross Settlement System (RTGS)	A system of automated transfers carried out on a gross settlement basis (without netting) and in real time.
Removal of the repatriation requirement	The repatriation requirement has been part of the Correspondent Central Banking Model (CCBM) agreement since its creation in 1999 and requires Eurosystem counterparties to transfer assets to the issuer Securities Settlement System (SSS) before they may be used as collateral for Eurosystem credit operations. The repatriation requirement was removed in May 2014, eliminating the need to move securities from the investor system to the issuer system in CCBM operations.
Repo procedure / Repurchase agreement procedure	Legal framework with the transfer of ownership, for securities provided as collateral.
Reservation (of cash balance)	Process preventing the transfer of a specified amount from one cash account to another cash account by associating it with a specific transaction or purpose. It is possible to reserve an amount greater than the balance on the DCA. If the reservation results in a negative balance, all inbound cash is reserved automatically.
Restriction	Ability for an NCB to set cash restrictions or for a CSD to set securities restrictions, including blocking, earmarking and reservations. A restriction may be configured for several T2S objects, such as a settlement instruction, a security, a DCA, an RTGS account in T2S, a party, a securities position or a balance.
Role	Set of related privileges or privilege classes. The functions that a user performs to fulfil his/her responsibilities within an organisation define a role.
Securities settlement restriction	Restriction on the balance of a securities account.
Settlement bank	Financial institution that has an account with the Banque de France and a securities account with a CSD for the purpose of settling settlement transactions for itself and on behalf of others.
Settlement bank client	CSD participant that holds only securities accounts. To settle the cash leg of a transaction, it uses the clearing services of a settlement bank.
Standing order liquidity transfer (TARGET2)	Order triggered automatically to transfer liquidity from an RTGS account to a DCA in order to have liquidity to settle transactions.
Standing liquidity transfer order	Order to transfer a specific amount from one cash account to another cash account. The instruction is executed repetitively at a defined time or event in the T2S processing cycle.
T2S actor	CSD, CSD participants, central bank or central bank participants (payment banks).
T2S Dedicated Cash Account	Cash account in T2S open in the books of the Banque de France under a T2S cash agreement and operated by the Banque de France on the T2S platform. This account is used to settle securities in T2S and is linked to an RTGS/PM account.

Term	Definition
T2S Operator	4CB, put in charge of operational management of the T2S platform under a decision by the Governing Council.
T2S Party	Legal entity (or in some markets, an individual) that has a contractual relationship with a CSD or NCB in T2S for the processing of its activities in T2S.
TARGET2 / T2	System for real-time gross settlement of euro payments in central bank money.
Unsecured credit limit	Cap on unsecured credit in T2S that the payment bank sets for its client. Use of the unsecured credit limit is triggered after the client's secured intraday credit.
User to Application (U2A)	Defines a mode of technical communication that permits the exchange of information between T2S software applications and a T2S system user through a GUI.

Annexe: auto-collateralisation linked to migration waves

After the migration of the last T2S wave, domestic and cross-border auto-collateralisation will be available as standard T2S functionalities.
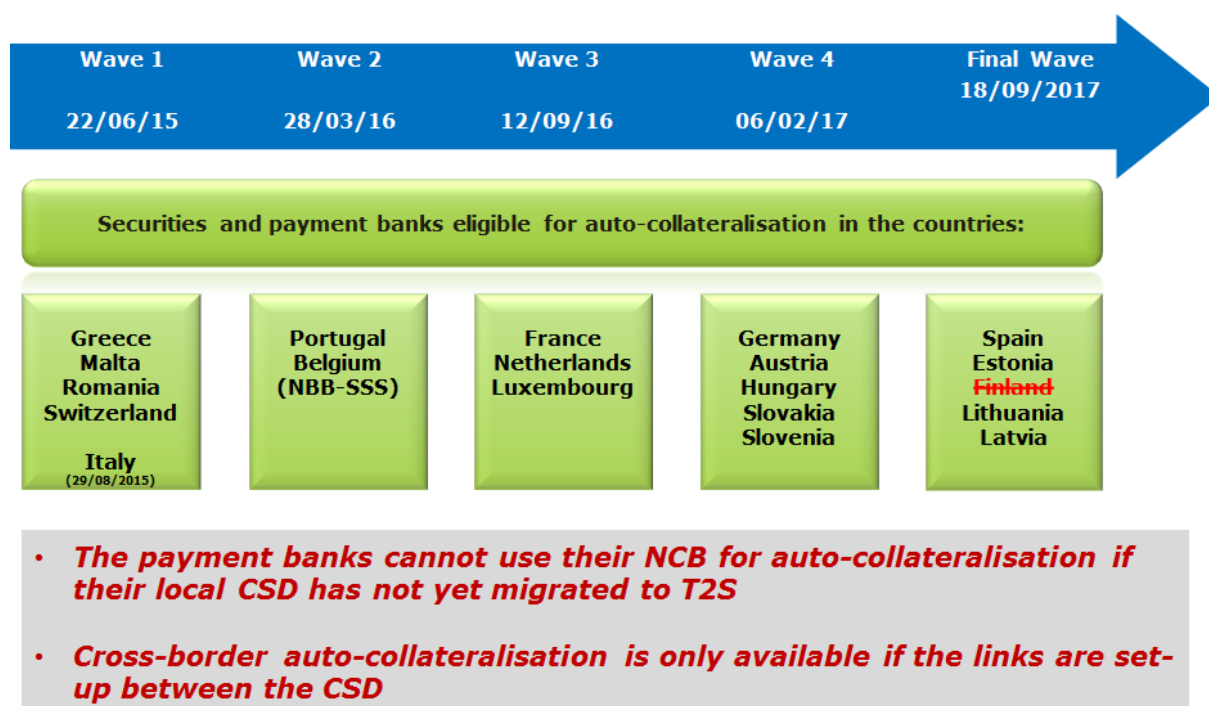

Diagram 23 :   *Auto-collateralisation (domestic and cross-border) by wave*

A mechanism was put in place from wave 1, so that payment banks can benefit from the cross-border auto-collateralisation for their operations with a CSD that has already migrated to T2S, whilst centralising their liquidity with their National Central Bank.

Then, when the national CSD has migrated to T2S, cross-border auto-collateralisation will be provided with the standard solution of the Eurosystem, that is to say, by the use of eligible links between the issuer CSD and the investor CSD.

For the French market, participants of Euroclear France will benefit from auto-collateralisation with the Banque de France as of the Euroclear France in wave 3.