TARGET Instant Payment Settlement

User Detailed Functional Specifications

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Introduction

This document describes all the features of the TIPS service and TIPS Actors' interactions with it, focusing on application-to-application communication.

This document is intended to guide TIPS Actors to the proper understanding of the service and to offer all the information needed for the implementation of software interfaces on their side.

The UDFS document focuses on the provision of information to TIPS Actors to design and build the interface of their business applications with TIPS (A2A) and it is available for the whole community: in order to ensure the same level of knowledge for all TIPS Actors the information relevant for CBs, TIPS Participants, Ancillary Systems, Reachable Parties, Instructing Parties and the TIPS Operator is contained in one single book of UDFS.

The document is divided into three main chapters:

- The **first chapter** provides a full description of all the TIPS features and the related reference and transactional data models, non-technical details concerning access to the service and connectivity, dependencies and interactions with other services, operations and support features. The background information provided in Chapter 1 guides the understanding of Chapter 2. Information provided in Chapter 1 on the TIPS feature is mainly user-oriented, but it also includes some details on the internal TIPS processes, when relevant.
- The **second chapter** provides a formalized description of the (A2A) dialogues, which allow TIPS Actors' applications to interact with TIPS. This part aims at providing an exhaustive description of the different (successful and unsuccessful) use cases TIPS actors may face, by providing many detailed examples. The section guides the reader through the steps of the different scenarios – highlighting the actions undertaken by TIPS and all the involved TIPS Actors. The following parts compose a scenario:
    - End-to-end description of the process – by means of activity diagrams and explanatory text;
    - Involved actors;
    - Exchanged messages;
    - List of meaningful business cases.

  The description of each step of the process includes an exhaustive list of all the checks performed by TIPS. The detailed description of the business rules is reported in the list at the end of the document (4.1 "Business Rules").
- The list of meaningful business cases is composed by:
    - A sample data constellation;
    - The content of the main fields of the relevant inbound messages;

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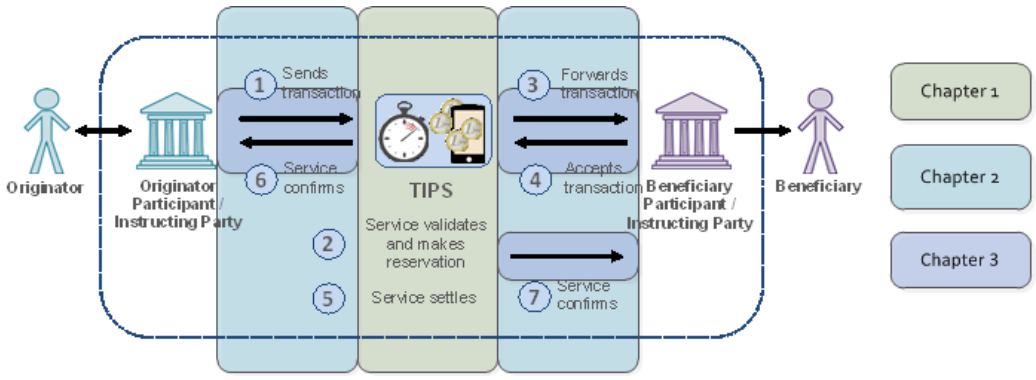
  - A description of the main steps taking place in TIPS;
  - The content of the main fields of the resulting outbound messages.
- The **third chapter** provides a detailed description of all XML messages
- Actors may use to interact in A2A mode with TIPS. Each message specification includes the following elements:
  - Reference name and identifier – e.g. LiquidityCreditTransfer (camt.050.001.07)
  - List of fields included in the message. Each field specification includes the following elements:
    - EPC Reference (if applicable)
    - Reference name
    - Short description
    - XML Path
    - Boolean attribute specifying whether the field is used in TIPS
    - Boolean attribute specifying whether the field is mandatory or not

  Wherever a message or its fields are referenced throughout the document, only the reference name is used.

Reader's guide

The document is structured as to guide the readers through the steps of the whole A2A interaction and processing details as exemplified by the figure below.

Figure 1 – Scope of UDFS



Different readers may have different needs and priorities and may not need to read the whole book. For instance, business readers, interested mainly in organisational issues, may not wish to enter into the full details of each and every message description, but they might prefer going through a description of the application processes and the information flows between their own business applications and the TIPS service. On the other hand, technical readers involved in the specification and development of technical

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interfaces to TIPS may not be interested in the complete description of the TIPS application processes that are leading to the sending of a given message. They would probably search the necessary information to design and build the interface of the TIPS Actors' business application with TIPS service. Every reader can decide their own reading plan and it is not mandatory for every reader to read the entire UDFS book.

The following paragraphs show with a couple of examples how business readers and technical readers may follow different reading patterns, in order to fulfil their needs.

Business oriented perspective

The business reader may be interested in the way information is structured in TIPS. This user may want to follow the reading plan described below to find information about the operations that are needed in order to process an Instant Payment in TIPS:

- The business reader finds in section 1.3 "TIPS Actors and account structure" a general description of the main Reference data needed to work on TIPS, specifying how they are used for the settlement of Instant Payment transactions (e.g. what is a Participant and the related Accounts it owns and how to authorise a BIC to use an account to settle Instant Payment transactions). Also section 1.4 "Dynamic data model" is important to understand how the information is managed in TIPS.
- From this point, the business reader may jump to section 2.2 "Instant Payment transaction " to find a description of the processing of an Instant Payment. Here they can find useful examples in order to understand the main scenarios involving Instant Payments.
- For further details on the validations to be performed, they may jump to section 4.1 "Business Rules", where the functional checks are described.

Technical oriented perspective

For a technical reader, it is more likely that the reading plans would pass through:

- Chapter 2 "Dialogue between TIPS and TIPS Actors", where a complete overview of the possible A2A dialogue with TIPS is required, e.g. when structuring the interface of a TIPS Actor towards TIPS. Each sub-section of this chapter describes, then, the flows involving the functionalities of TIPS. The readers can focus on the functionality they are interested in analysing the process and the main scenarios.
- Chapter 3 "Catalogue of messages", where a detailed description of the content of a given XML message is provided, e.g. when specifying the details of the interface of a TIPS Actor towards TIPS.
- For further details on the checks to be performed and ISO codes used in the message, they may jump to chapter 4 "Appendices".

All readers, whether business or technical, are invited to read the following UDFS sections, which are providing a background to the understanding of any other UDFS section:

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- 1.3 “TIPS Actors and account structure”, which provides the basis for reference data organisation in TIPS;
- 1.5 “TIPS Features”, which is a summary providing the basis for the understanding of the main TIPS concepts (access to TIPS, authentication and authorisation processes, security).

1. General features of TIPS

The present chapter, after a short introduction of the TIPS service, describes all the features provided by the service.

Section 1.2 introduces the details regarding the access of TIPS Actors to TIPS, covering the different modes of connectivity, the authentication and authorisation processes, as well as security aspects and an introduction to the Graphical User Interface (GUI).

Sections 1.3 and 1.4 describe respectively the reference data and the dynamic data models of TIPS, including a description of all the relevant entities and their relationships.

Section 1.5 describes the various features of TIPS and the underlying business processes, including Instant Payment settlement, liquidity management, reference data management, queries, reports and archiving.

Section 1.6 describes the interactions that TIPS, as a part of the Eurosystem Market Infrastructure, has with the other main services provided by the Eurosystem.

The last section describes processes supporting the TIPS Operator in the operational management of the system and the exact perimeter of the system introducing its limitations.

1.1. Introduction to the TIPS Service

TARGET Instant Payment Settlement (TIPS) is a harmonised and standardised pan-European service with common functionality across different countries and jurisdictions for settling payments instantly in Central Bank Money, with high capacity and around-the-clock availability.

The primary aim of TIPS is to offer instant settlement services in euro to its participants, extending the services offered by T2. TIPS is, in any case, designed to be currency-agnostic in order to provide settlement in non-euro Central Bank Money, if requested, by connecting to any RTGS System.

In addition, TIPS offers on optional basis an instant settlement service for cross-currency transactions involving both euro and non-euro currencies.

The TIPS service provides:

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- Real-time gross settlement in Central Bank Money for domestic, cross-border and cross-currency (one-leg out)[1] Instant Payment transactions received from TIPS Actors;
- Liquidity management functionalities to support the Instant Payment process;
- Queries and reporting tools to support monitoring and reconciliation.

In order to reach these objectives, TIPS enables communication and provides authentication services and secure messaging to and from the centralised settlement component. The participants (i.e. Payment Service Providers[2] or PSPs) have a settlement interface to send Instant Payment transactions and receive payment confirmations or any other payment related messages based – when possible – on ISO 20022 standards and, in case of euro transactions, in accordance with the SEPA Instant Credit Transfer (SCT^{Inst}) scheme. For cross-currency (one-leg out) transactions, a cross-currency model based on the One-Leg Out Instant Credit Transfer (OCT^{Inst}) scheme has been designed and implemented in TIPS: for this scheme two settlement models have been defined. A first settlement model, called regular cross-currency settlement model, which foresees the orchestration of the two legs of the cross-currency transaction by external actors (Exit and Entry Leg PSPs), and a second one, the "Enhanced Linked Transaction" (LKT) settlement model, which does not need an "out-of-band" orchestration of the payment, while contemporarily (i) guarantees that the payment is instant end-to-end and (ii) offers certainty of the delivery of the funds to the ultimate beneficiary. The participants are also provided with the functionalities to either recall settled Instant Payments transactions or initiate investigations on Instant Payments (including cross-currency payments) submitted to TIPS whose status confirmation has not been received yet. Additionally, TIPS Participants or Instructing Parties can initiate Outbound Liquidity Transfers.

TIPS Accounts in euro are legally opened in T2-CLM by the responsible Central Bank and have to be dedicated to the settlement of Instant Payments transactions in TIPS. In the specific scenario of T2-CLM, the TIPS Account balances are taken into account for the calculation of the minimum reserve and marginal lending facility. For this reason, a snapshot of the balance on the TIPS Account for the fulfilment of the minimum reserve requirement is taken at the closing time of T2-CLM, immediately after the last execution of the Algorithm 3 (i.e. shortly after the Bank-to-Bank cut-off at 18:00 CET). TIPS Accounts in other currencies are legally opened in the relevant RTGS System by the responsible Central Bank and have to be dedicated to the settlement of Instant Payments transactions in TIPS in the given currency. Also these TIPS Accounts are captured in CRDM by the responsible Central Bank. The TIPS Accounts' balances denominated in other currencies are communicated to relevant RTGS System during its End-of-Day phase by means of a General Ledger file.

TIPS operates on a 24/7/365 basis and it makes use of the following components:

[1] According to the definition provided within the One-leg out scheme, the reference to "cross-currency" through the one-leg out model shall also include the scenario of a transfer in EUR from a SEPA country to EUR in a non-SEPA country, i.e. without a FX-conversion

[2] The definition of Payment Service Provider used in this document is purely technical and aims at keeping the terminology consistent with the EPC scheme and the TIPS URD

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- The **Eurosystem Single Market Infrastructure Gateway** (ESMIG) which allows users to gain access to all Eurosystem services, including TIPS, after being authenticated and authorised to access the relevant service. The ESMIG, moreover, guarantees sanitisation of messages for security purposes and technical validation of the standard messages sent to the different services.
- The **Common Reference Data Management** (CRDM), i.e. the centralised, harmonised reference data management component that handles in a single point all data that is shared by more than one Eurosystem service. The CRDM allows users to configure, create and keep up-to-date all the reference data needed in the different Eurosystem services, including TIPS. As an example, the setup of reference data related to a TIPS Participant like the creation of an account is up to the responsible National Central Bank (NCB) whereas a TIPS Participant is responsible for the setup and configuration of Credit Memorandum Balances (CMBs).
- The **Billing** (BILL) common component, which (i) produces invoices, (ii) delivers the invoices to the customers and (iii) optionally debits the relevant accounts for the related amount based on consumption data it collects from TIPS.
- The **Legal Archiving** (LeA) component, which collects and stores business transaction and reporting data from different Eurosystem services, including TIPS. The Legal Archiving component stores data in a secure manner and in its original content and format and makes it accessible throughout a predefined retention period.
- The **Enhanced Information Database** (EIDB) component receives aggregated transactional data from the TIPS Operational Database on a daily basis, with a data retention period of three months. Aggregated data exploration and visualization is possible for authorized TIPS National Central Bank users through a dedicated tool (i.e. Apache Superset) reachable from the ESMIG Portal.

TIPS Actors can access TIPS through two different channels:

- **Application-to-Application** (A2A) channel, that is application-oriented and allows TIPS Actors' systems to interact with TIPS;
- **User-to-Application** (U2A) channel, that is user-oriented and offers human-friendly application access through a Graphical User Interface (GUI).

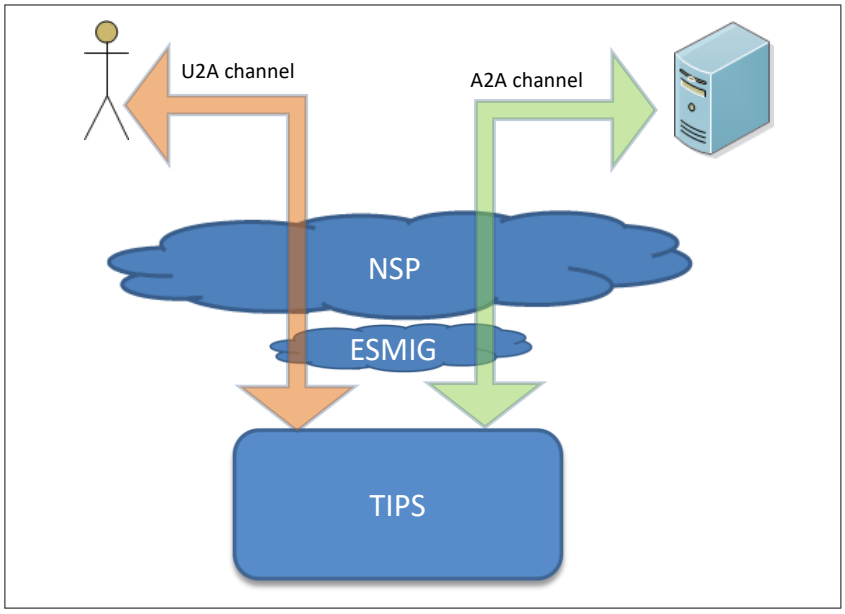
1.2. Access to TIPS

The purpose of this section is to introduce the basic connectivity to TIPS. It does not aim to describe in details the technical connection with TIPS.

TIPS Actors access TIPS, in A2A or U2A mode, via the respective Network Service Providers (NSPs) and through the ESMIG component. TIPS Actors must bilaterally define a relationship with one or more selected NSPs for the purpose of getting connected to TIPS.

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Figure 2 – TIPS Connectivity



1.2.1. Connectivity (A2A/U2A)

TIPS supports access to the service through two different channels: Application-to-Application (A2A) channel and User-to-Application (U2A) channel.

- A2A: software applications can communicate with TIPS exchanging single messages. A2A communication relies on ISO 20022 standard XML messages, where applicable, for both inbound and outbound communication. Otherwise, i.e. when there is no ISO 20022 standard message available or when the usage of XML technology is not advisable for technical reasons (e.g. performance or network traffic constraints) flat data files may be used. At the current stage, there is no business case requiring flat data files to be used instead of ISO 20022 standard messages.

  All the exchanges of messages are executed through a realtime transfer service. This means that both parties (i.e. the Originator Participant and Instructing Party acting on behalf of the Originator Participant or Reachable Party on one side and the Beneficiary Participant and Instructing Party acting on behalf of the Beneficiary Participant or Reachable Party on the other side) must be available and reachable when the message is sent. In case the message cannot be delivered, no retry mechanism is foreseen.
- U2A: for specific functionalities, the TIPS Actors can access TIPS through a Graphical User Interface. This channel is foreseen for a small subset of functionalities and queries (see 1.2.5 “Graphical user interface”).

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1.2.2. Authentication and authorisation process

Any individual or application interacting with TIPS is identified by a Distinguished Name (DN). A DN is a sequence of attribute-value assertions separated by commas, e.g.:

<cn=smith,ou=tips-ops,o=bnkacct,o=nsp-1>

DNs are uniquely linked to digital certificates[3], which TIPS Actors assign to their individuals (interacting with TIPS in U2A mode) or applications (interacting with TIPS in A2A mode).

Certificates are issued by each NSP. For each request submitted to TIPS in U2A and A2A mode, the relevant connectivity provider performs authentication of the sender at network infrastructure level. If the authentication is successful, the connectivity provider forwards the request and the sender's DN to the ESMIG component.

The ESMIG component carries out an authorisation check at service level, in order to verify whether the DN is enabled to submit requests to TIPS. The ESMIG documentation contains exhaustive information on all the checks the ESMIG carries out. If these checks are successful, the request and the sender's DN are forwarded to TIPS.

TIPS then carries out the authorisation of the sender at application level based on the DN's access rights profile. Section 1.2.3 "Access rights" provides details on this process.

Distinguished Names, their connection to TIPS Actors, as well as access rights profiles and authorisations for DNs to submit requests related to specific BICs are defined in the Common Reference Data Management (CRDM) component. Additional information on the setup of access rights and on the underlying concepts can be found in the CRDM documentation.

1.2.3. Access rights

TIPS authorises requests from specific users (i.e. individuals or applications identified by means of a DN) based on their relevant access rights profile. Each interaction with TIPS that can be triggered either in A2A mode by means of a message (e.g. sending an Instant Payment transaction) or U2A mode via GUI screen (e.g. blocking of a TIPS Account) is defined as a TIPS user function. The capability to trigger a specific TIPS user function is granted by means of the related Privilege.

All Privileges that are relevant for TIPS are defined and stored within the CRDM, which also offers the possibility to group different Privileges into sets known as Roles. Each of these Roles will define a specific business role for TIPS Actors to use to interact with TIPS. TIPS users will be assigned one or more roles in the CRDM depending on their requirements, and these roles will define their access rights configuration.

Roles are then granted to users identified by specific DNs. This allows the DN linked to the Role to trigger user functions in TIPS by exercising the Privileges contained within the Role.

[3] A digital certificate is an electronic document binding an identity to a pair of electronic keys, a private key (used to sign digital information to be sent to a counterpart or to decrypt digital information received from a counterpart) and a public key (used to encrypt digital information to be sent to a counterpart or to perform the authentication and to ensure the integrity of digital information received from a counterpart)

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TIPS authorises the sender of a given request only if the DN fulfils both of the following conditions:

1. The DN has the relevant privilege(s) required to submit the request;
2. The DN is enabled to submit the request on the requested business object(s).

The first condition depends on the DN's access rights profile, which is defined by the role(s) assigned to it in the CRDM. For example, a DN may be enabled to send Instant Payment transactions but not liquidity transfers.

The second condition is based on the business object itself on which a request is being performed. For instance, in an Instant Payment transaction, the object is represented by the TIPS Account being debited; in an Account balance and status query, the object is the TIPS Account being queried. TIPS applies specific business logic, which differs depending on the type of request, to determine whether a certain DN is authorised to act on a certain object. If a certain DN is authorised to exercise a type of request (related to a specific Privilege) on a specific object, that object is said to be within the DN's data scope for that Privilege.

The concept of Instructing Party is also defined in this way. Instructing Parties are DNs that are authorised to send or receive instructions on behalf of a specific Party. This configuration is defined by means of a relationship set up within the CRDM.

The entire access rights configuration process is carried out within the CRDM: the CRDM documentation provides additional details on these aspects.

1.2.4. Security

This section aims at describing the main processes performed by TIPS in terms of principles applied to ensure TIPS Actors can securely exchange information with TIPS.

It means that the following security conditions are met:

- **Confidentiality**: Ensuring that information is accessible only to authenticated and authorised TIPS Actors;
- **Integrity**: Safeguarding the accuracy and completeness of information;
- **Availability**: Ensuring that authorised users have access to information and associated assets when required;
- **Monitoring**: Detecting operational and technical problems and recording appropriate information for crisis management scenarios and future investigations;
- **Auditability**: Ensuring the possibility to establish whether a system is functioning properly and that it has worked properly.

1.2.4.1. Confidentiality

The confidentiality of data is ensured by the possibility to grant specific access rights for any given set of data, as detailed in section 1.2.3 "Access rights". In conjunction with mechanisms of authentication

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and authorisation applied to all requests received by TIPS in both A2A and U2A mode, this guarantees that each TIPS Actor's data is treated confidentially and is not accessible to non-authorised actors.

1.2.4.2. Integrity

Within TIPS, various business validations ensure the integrity of information. If a business validation fails, TIPS has a concept of Error handling in place. The requested action is not processed and TIPS provides the user with detailed information regarding the nature of the error.

In U2A mode, TIPS offers users in addition the possibility to further ensure the data integrity via usage of a dual authorisation concept, the 4-Eyes principle. In case this option is chosen for a specified set of TIPS operations, a second independent verification and confirmation is required before an operation becomes active in TIPS. If, for example, a critical set of data should be modified and the person requesting the change is only allowed to do so under the 4-Eyes principle, then a second person of the same Party has to confirm the correctness of the request. Otherwise, the requested change is not implemented.

1.2.4.3. Availability

The overall availability of the TIPS services is ensured by the innovative architectural design, and is pursued through node redundancy and self-recovery capability (built at application level). In the event of unavailability of some local nodes of the application cluster or unavailability of an entire site, TIPS adapts its behaviour as far as possible to continue operating.

1.2.4.4. Monitoring

TIPS operational monitoring provides tools to the TIPS Operator for the detection in real-time of functional or operational problems. Technical monitoring allows for the detection of hardware and software problems via real-time monitoring of the technical components involved in the processing, including the network connections.

1.2.4.5. Auditability

TIPS provides an audit trail with which it is possible to reconstruct user activities, exceptions and information security events. More in detail, the following data are collected:

- payment transaction and liquidity transfer records;
- authentication successes and failures of normal and privileged users;
- security related messages (e.g. changes of access rights, alerts and exceptional events).

1.2.5. Graphical user interface

TIPS offers a set of functions accessible via a dedicated Graphical User Interface (GUI) in U2A mode. Authorised users are able to access TIPS functions and data via the GUI based on their access rights profile.

The following table provides the exhaustive list of TIPS U2A functions provided through the GUI.

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Each TIPS Actor may trigger all or only a subset of these functions depending on the participant type (e.g. Central Bank, TIPS Participant, etc.) and only in relation to the objects in its own data scope. These functions, with the exception of the Advanced Payment Transaction status query and the Advanced Liquidity Transfer status query, which may be subject to a less restrictive service level agreement, are available on a 24/7/365 basis.

Table 1 – TIPS U2A functions

Function	Actor
Block/Unblock TIPS Participant and Ancillary System	CB, TIPS Operator[4]
Block/Unblock TIPS Account and TIPS AS Technical Account	CB, TIPS Operator[4]
Block/Unblock Credit Memorandum Balance	TIPS Participant, Ancillary System, Instructing Party[5], CB, TIPS Operator
Adjust Credit Memorandum Balance Limit	TIPS Participant, Ancillary System, Instructing Party[6], CB, TIPS Operator
Query Account Balances and Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Query CMB Limit and Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Query Payment Transaction Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Advanced Payment Transaction Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Liquidity Transfer Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Advanced Liquidity Transfer Status	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Initiate Outbound/Intra-service Liquidity Transfer	TIPS Participant, Ancillary System, Instructing Party[7], CB, TIPS Operator

[4] TIPS Operator can block TIPS Participants, Ancillary Systems, TIPS Accounts or TIPS AS Technical Accounts in contingency and upon request of the responsible Central Bank

[5] An Instructing Party acting on behalf of a TIPS Participant or an Ancillary System may block/unblock CMBs owned by the relevant TIPS Participant or Ancillary System, unless restricted via access rights

[6] An Instructing Party acting on behalf of a TIPS Participant or an Ancillary System may adjust the limit of the CMBs owned by the relevant TIPS Participant or Ancillary System, unless restricted via access rights

[7] An Instructing Party acting on behalf of a TIPS Participant may be authorised to instruct Liquidity Transfers

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Function	Actor
Query Broadcast	TIPS Participant, Ancillary System, Instructing Party, CB, TIPS Operator
Create Broadcast	TIPS Participant, Ancillary System, Instructing Party[8], CB, TIPS Operator

The TIPS User Handbook (see TARGET Instant Payment Settlement User Handbook) provides exhaustive information on each of the screens listed above, including the type of actors authorised to trigger the corresponding functionality.

1.3. TIPS Actors and account structure

1.3.1. Parties and TIPS Actors

Entities that interact with the TIPS service are generally known as TIPS Actors. The TIPS participation model envisions different types of Actors, with different roles and responsibilities, as outlined in section 1.3.1.2. "Concept of party in TIPS" TIPS Actors are defined as different entities in the Common Reference Data Management component.

This section provides a detailed description of all the reference data CRDM stores and TIPS uses for all TIPS Actors. More in detail, section 1.3.1.1 identifies the reference data related to the setup of actors for TIPS and it provides detailed information as to who is responsible for the setup of these reference data. Section 1.3.1.2 defines the concept of party in the CRDM component and the way this concept relates with the different types of legal entities that can interact with TIPS. Section 1.3.1.3 describes the so-called hierarchical party model, i.e. the organisational structure of parties in the CRDM repository. Sections 1.3.1.4 and 1.3.1.5 illustrate in detail the reference data required by TIPS for each actor, i.e. the way a party can be identified in TIPS and which attributes have to be stored for each actor.

1.3.1.1. Setup of TIPS Actors

The setup of TIPS Actors takes place in the Common Reference Data Management component.

The TIPS Operator is responsible for setting up and maintaining party reference data for all Central Banks in TIPS. Central Banks are responsible for setting up and maintaining party reference data for the parties of their national community. In addition, each party can set up data for their individual Instructing Parties.

The following table summarises, for each reference data object related to the setup of TIPS Actors, the Actor responsible for its configuration and it specifies which mode the Actor can use for the configuration.

[8] An Instructing Party (or SIP) acting on behalf of a TIPS Participant may be authorised to create and send Broadcasts

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Table 2 – Setup of Parties for TIPS

Reference Data Object	Responsible Actor	Mode
Party (CB)	TIPS Operator	U2A
Party (Participant)	Central Bank	U2A, A2A
Party (Reachable Party)	Central Bank	U2A, A2A
Party (Ancillary System)	Central Bank	U2A, A2A
Instructing Party	Central Bank[9], TIPS Participant, Ancillary System, Reachable Party	U2A

1.3.1.2. Concept of party in TIPS

Any TIPS Actor, meaning any legal entity or organisation participating in and interacting with TIPS either directly or indirectly (i.e. through an Instructing Party), is defined as an entity in the Common Reference Data Management (CRDM) repository. Depending on their role in TIPS, TIPS Actors may be defined as a Party (or several parties, as explained later in this section) in CRDM. Each party belongs to one of the following party types:

- TIPS Operator
- Central Bank
- Participant
- Ancillary System
- Reachable Party

In addition, a TIPS Actor may act as an Instructing Party, which does not involve the definition of a specific Party.

The **TIPS Operator** is the legal and organisational entity that operates TIPS. They are responsible for the initial setup and day-to-day operations of TIPS and act as single point of contact for Central Banks and directly connected TIPS Actors[10]. They are responsible for monitoring the system and carrying out corrective actions in case of incidents or in the event of service unavailability. The TIPS Operator is also responsible for setting up and maintaining Central Banks reference data in the Common Reference Data Management repository and, if required, they may operate on behalf of any TIPS Actor, upon request of the respective Central Bank. They have full access to all live and all archived reference data and transactional data in TIPS.

Central Banks are responsible for setting up and maintaining reference data in the Common Reference Data Management repository for all the TIPS Actors belonging to their community. Central Banks can also act as Participants (see below) themselves. In addition and as far as the submission of liquidity

[9] The Central Bank defines the Technical Address Network Service (TANSL) setup pertaining to instructing parties

[10] TIPS Actors different from Central Banks may contact the Service Desk only for connectivity-related incidents

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transfers or the maintenance of reference data are concerned, they can act on behalf of one of their Actors in case of need. The European Central Bank owns and manages a single Transit Account (see section 1.3.2.3 "Transit Accounts") in euro that must exist in TIPS, in order to allow the transfer of liquidity from T2-CLM to TIPS and vice versa. With the same purpose, for each other settlement currency in TIPS, the relevant non-euro Central Bank shall define a single Transit Account for their currency.

Participants represent entities that hold one or more than one TIPS Accounts. They are identified by a BIC11 and they receive liquidity on their TIPS Accounts by means of Liquidity Transfers from the relevant RTGS System. In this respect, TIPS Participants do not necessarily own a T2-CLM Main Cash Account; therefore, a TIPS Participant may receive liquidity in TIPS from another T2-CLM Participant. TIPS Participants can setup and maintain CMBs (see section 1.3.2.4 "Credit Memorandum Balance") linked to their own accounts as well as configuring Instructing Party (see below) roles for themselves or for their Reachable Parties (see below). In addition, they define the access rights configuration of said Instructing Parties. They can also act as Instructing Parties as by definition they are able to specify DNs with the prerogatives of an Instructing Party for what concerns their own accounts (for details, see section 1.3.1.5 below).

Each **Ancillary System** holds a TIPS AS Technical Account for the settlement of Instant Payments and it is identified by a BIC11. The liquidity on the TIPS Technical Accounts is provided by the TIPS Accounts by means of intra-service Liquidity Transfers.

Reachable Parties are also identified by a BIC11, but they do not hold TIPS Accounts and have to rely on a Participant's account to settle payments in TIPS; they may be defined as responsible for one or more CMBs, allowing them to query the CMB data. They can also act as Instructing Parties, which allows them to interact directly with TIPS.

The role of **Instructing Party** allows an Actor to send (or receive) Instant Payments to (or from) TIPS. Instructing Parties are not defined as Parties, but as Distinguished Names that Participants and Reachable Parties can define and authorize to act on their behalf. This allows third parties, not necessarily TIPS Participants or a Reachable Parties, to act as Instructing Parties on behalf of other Participants or Reachable Parties, taking on a subset or the whole set of functionalities that are available to the Participant or Reachable Party granted them in terms of access rights. Participants and Reachable Parties can act as Instructing Parties as well.

Each legal entity may play different roles in TIPS. Generally speaking, any legal entity playing multiple business roles in TIPS results in the definition of multiple parties.

For example, a Central Bank willing to make use of TIPS also for the settlement of Instant Payments, needs to be defined as two parties, one Central Bank party and one TIPS Participant party.

Similarly, a financial institution holding two accounts within the books of two different Central Banks, would be defined as two different Participant parties, each of them belonging to one of the two Central Banks.

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1.3.1.3. Hierarchical party model

The party model of TIPS is based on a hierarchical three-level structure. The TIPS Operator is the only party on the top level of the hierarchy and it is responsible for the setup of each party of the second level, i.e. each Central Bank in TIPS. Similarly, each party belonging to the second level (i.e. a Central Bank) is responsible for the setup of all parties of its community (i.e. Participants, Ancillary Systems and Reachable Parties), represented by parties of the third level. Instructing Parties are not part of the hierarchical party model, because as described in the previous section, they are not a type of party in TIPS, but rather a role that allows an Actor (a TIPS Participant, a Reachable Party or a third party not participating in TIPS) to instruct for a given party in TIPS.

The hierarchical model also determines the so-called reference data scope, i.e. the area of responsibility of each Central Bank and of the TIPS Operator. More into detail:

- The reference data scope of a Central Bank includes its reference data, plus the reference data of all its parties;
- The reference data scope of the TIPS Operator includes all the remaining reference data, i.e. all the reference data not included in the data scope of any Central Bank (e.g. countries and currencies reference data).

Each Central Bank and the TIPS Operator are responsible for their own reference data scopes, i.e. each of them is responsible for the input and maintenance of all information included in its reference data scope. The TIPS Operator may also act, upon request, on the reference data scope of a Central Bank.

1.3.1.4. Party identification

Each legal entity is identified in the financial market by a BIC (Business Identifier Code), according to the ISO 9362 standard. As previously described, each legal entity or organisation may result in the definition of multiple parties in the Common Reference Data Management repository. This implies that the usage of BIC is not enough to ensure uniqueness in the identification of parties, as these parties may be related to the same legal entity and, consequently, they may have been assigned the same BIC. For this reason, the CRDM component requires two BICs to identify each party. More precisely, the CRDM service identifies each party with the BIC of the party itself and the BIC of the party with which it has established a business relation. Therefore:

- Each Participant, Ancillary System and Reachable Party is identified by the 11-character BIC of its Central Bank plus its own 11-character BIC;
- Each Central Bank is identified by the 11-character BIC of the TIPS Operator plus its own 11-character BIC.

TIPS imposes a constraint in the assignment of BICs related to its parties, due to the fact that the settlement process must be able to infer the accounts to be debited and credited by an Instant Payment transaction based on the BICs of the Originator Participant and of the Beneficiary Participant (see also section 2.2). This circumstance implies the need to ensure that any given BIC can only be assigned to one TIPS party and that two different TIPS parties must have assigned two different BICs. For this

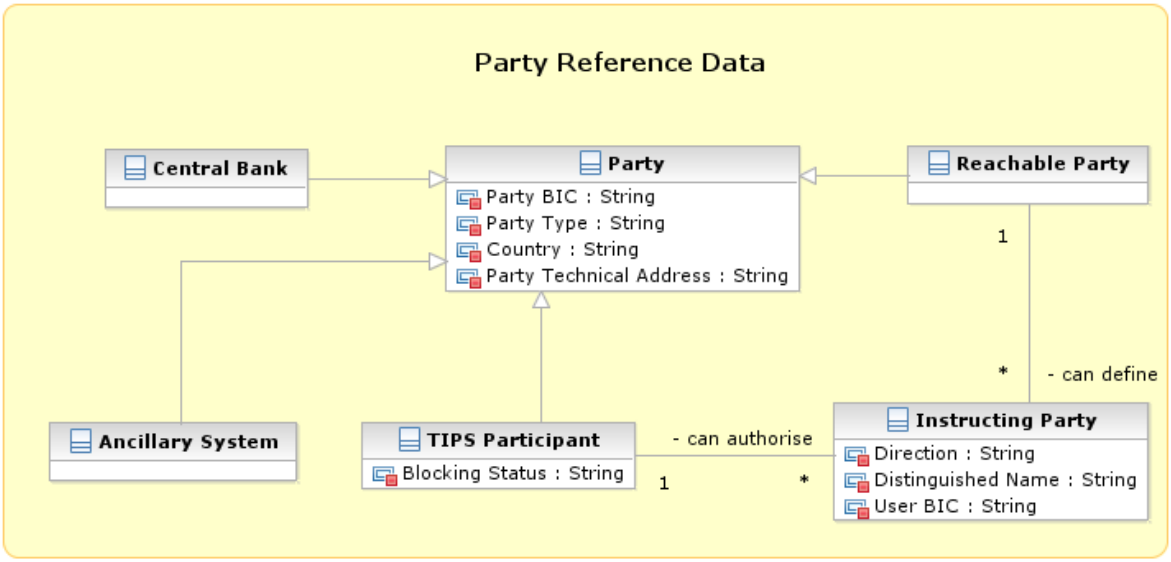
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reason, the CRDM component prevents allowing two different parties to be defined as TIPS parties if they are identified by the same 11-character BIC (this may happen, for example, when one financial institution is defined two times as a party by two different Central Banks). Therefore, in order to allow a given financial institution to be defined as two different TIPS parties (by the same Central Bank or by two different Central Banks), the same financial institution must be defined in the CRDM repository as two parties identified by two different 11-character BICs.

1.3.1.5. Reference data for parties in TIPS

The following diagram shows the conceptual data model for party reference data in TIPS. All related entities, attributes and relationships between different entities are described in detail in the rest of this section.

Figure 3 – Party reference data model



The following table shows the exhaustive list of Party reference data attributes that TIPS receives from the Common Reference Data Management component and stores in its Local Reference Data Management (LRDM) repository.

Table 3 – Party reference data

Attribute	Description
Party BIC	11-character Business Identifier Code (BIC11) to uniquely identify the party in TIPS.

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Attribute	Description
Party Type	Type of party. The exhaustive list of party types is as follows: • TIPS Operator • Central Bank • Participant • Ancillary System • Reachable Party
Country	Country code of the Central Bank the party belongs to.
Party Technical Address	Distinguished Names defined for the receipt of messages relevant for the Party as account owner, such as reports, broadcasts and floor/ceiling notifications.
Blocking Status	Blocking status for the Party, only relevant for TIPS Participants. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.

All other party reference data are stored in the Common Reference Data Management repository, as they are not needed for settlement in TIPS.

Each Participant party is linked to one or many TIPS Accounts (see section 1.3.2.1), as account owner. An Ancillary System is linked to one TIPS AS Technical Account (see section 1.3.2.2) as account owner. Each Central Bank party may be linked to one and only one Transit Account (see section 1.3.2.3), as account owner of the Transit Account for a given currency.

The following table shows the exhaustive list of Instructing Party reference data attributes that TIPS receives from the Common Reference Data Management component and stores in its Local Reference Data Management repository.

Table 4 – Instructing Party reference data

Attribute	Description
Direction	It specifies whether the link between the DN and the BIC authorises the Instructing Party to act as Originator Participant (inbound routing) or as Beneficiary Participant (outbound routing). The exhaustive list of possible values is as follows: • Inbound • Outbound

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Attribute	Description
Distinguished Name	When Direction is “Inbound”, it specifies the DN the Instructing Party uses to send messages to TIPS. When Direction is “Outbound”, it specifies the DN TIPS uses to send messages to the Instructing Party.
User BIC	This field is only relevant for cases where a DN is acting on behalf of a specific BIC, such as in instant payments. When Direction is “Inbound”, it specifies the BIC the Instructing Party uses as Originator in the payment messages sent to TIPS. When Direction is “Outbound”, it specifies the BIC TIPS uses in the payment messages sent to the Instructing Party as Beneficiary.

For inbound routing purpose, one Distinguished Name may be linked to many Parties and, optionally, many Originator BICs, which means the same entity may play the Instructing Party role for many Participants and Reachable Parties, possibly for many Originator BICs within the same Participant or Reachable Party. Conversely, one Party may be linked to many Distinguished Names, potentially specifying many Originator BICs, which means one Participant or Reachable Party may authorise many entities to play the Instructing Party role, for one or many of their BICs. Such a scenario may be used in case a TIPS Participant needs to instruct its own accounts and, at the same time, give a third party the possibility to instruct on its behalf on the same accounts.

For outbound routing purpose, any given Beneficiary BIC may be linked to one and only one Distinguished Name, which means each Participant and Reachable Party must authorise one and only one entity to play the Instructing Party role on the Beneficiary side. Conversely, one Distinguished Name may be linked to many Beneficiary BICs, which means one entity may play the Instructing Party role for many Participants and Reachable Parties.

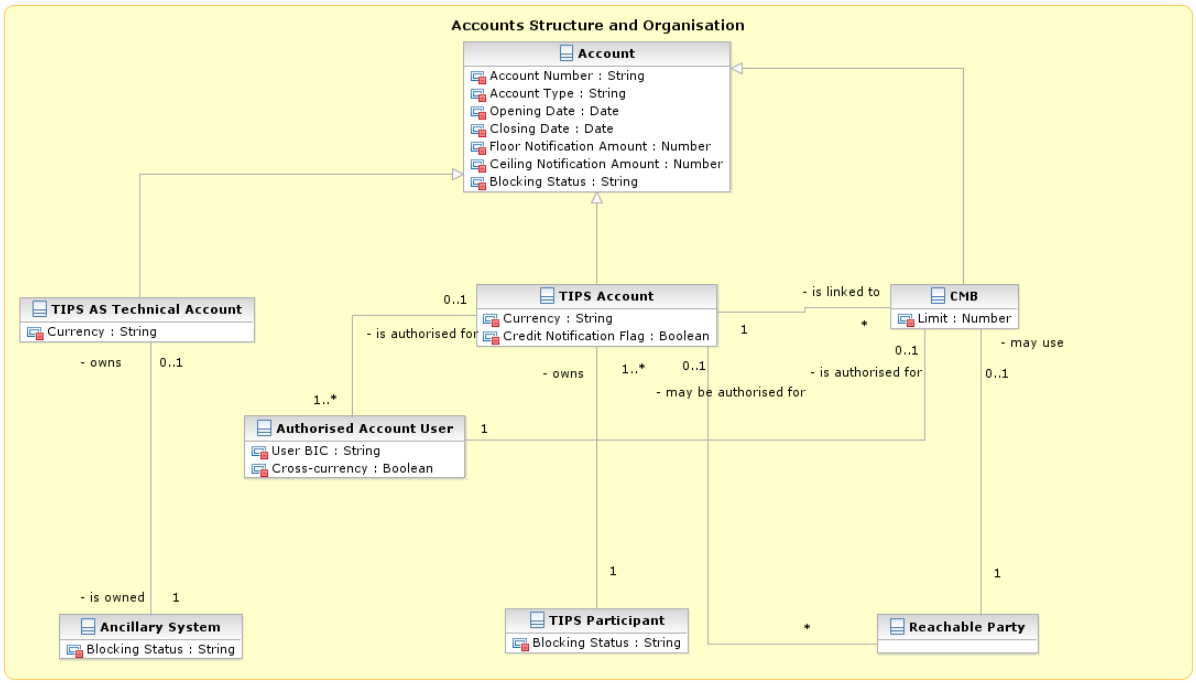
The relationships between DNs and Originator/Beneficiary BICs are defined in the DN-BIC Routing table within CRDM. One Instructing Party may act both as Originator and Beneficiary, possibly using the same Distinguished Name for both directions (Inbound and Outbound).

1.3.2. Accounts structure and organisation

Accounts are opened in TIPS for the provision of liquidity and the settlement of Instant Payment transactions. The following diagram shows the conceptual data model for account reference data in TIPS. This section provides a detailed description of all the reference data CRDM stores and TIPS uses for all its accounts.

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Figure 4 – Account structure and organisation



The TIPS Operator and Central Banks input and maintain in the Common Reference Data Management repository the following categories of accounts, depending on their role:

- TIPS Account
- TIPS AS Technical Account
- Transit Account

Furthermore, TIPS Participants may define Credit Memorandum Balances (CMBs) linked to their TIPS Accounts, in order to define payment capacity limits for their Reachable Parties. Similarly, Ancillary Systems may define CMBs linked to their AS Technical Accounts.

The following four sections define the above-mentioned reference data objects, whereas section 1.3.2.5 provides a detailed description of the reference data required by TIPS for the same reference data objects.

1.3.2.1. TIPS Accounts

TIPS Accounts are accounts that Participants use for the settlement of Instant Payments and Liquidity Transfers. They cannot have a negative balance.

Each Participant may own one or many TIPS Accounts and they may use them for their settlement activities or to give the possibility to settle to Reachable Parties or other Participants as well as authorising several BICs to use the account for settlement. For the purpose of cross-currency settlement, each Participant has to specify whether a given authorised BIC can accept cross-currency

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payments. The Participant that holds the TIPS Account, in any case, remains the owner and legal responsible for the TIPS Account itself.

Central Banks create TIPS Accounts for their Participants.

1.3.2.2. TIPS AS Technical Accounts

Ancillary Systems use TIPS AS Technical Accounts for Instant Payments, positive Recall Responses and Liquidity Transfers settlement. The account cannot have a negative balance.

Each Ancillary System may own at most one TIPS AS Technical Account to give to their Reachable Parties or Participants the permission to settle on it by authorising their BICs to use the account for settlement. Each Ancillary System that holds a TIPS AS Technical Account remains, in any case, the owner and legally responsible for it.

Central Banks open TIPS AS Technical Accounts for their Ancillary Systems.

1.3.2.3. Transit Accounts

Transit Accounts in TIPS are accounts that belong to Central Banks which may have either zero or negative balance as they reflect any movement of liquidity from/to the RTGS System. The transit accounts are technical accounts involved in the liquidity transfer process. They cannot be involved in the settlement of Instant Payment transactions. Only one Transit Account per settlement currency can exist in TIPS. The Transit Account for euro belongs to the European Central Bank. The TIPS Operator creates Transit Accounts for the Central Banks. For contingency reason, e.g. in the event of an interruption in the communication between TIPS and the relevant RTGS, it will be possible for the responsible Central Bank to push/pull liquidity from/to the Transit Account to/from a TIPS Account by means of Internal Contingency Liquidity Transfers.

1.3.2.4. Credit Memorandum Balance

A Credit Memorandum Balance (CMB) represents a limit, e.g. defined for a Reachable Party, in the usage of the liquidity of a given TIPS Account or TIPS AS Technical Account. As such, each CMB is linked to exactly one TIPS Account, but each TIPS Account may have any number of CMBs, each CMB representing a credit line for a Reachable Party in TIPS. The same logic applies to CMBs linked to TIPS AS Technical Accounts.

On optional basis (i) TIPS Participants can create CMBs for their TIPS Accounts and (ii) Ancillary Systems can create CMBs for their TIPS AS Technical Account.

CMBs offer the possibility to define limit management flexibly on a TIPS Account, without dedicating liquidity exclusively for each single customer. Specifically, the sum of all CMB limits on a TIPS Account may be higher than the balance of the same Account at any time.

When defining a CMB, it is possible to specify a limit, which may be initially set to zero. In this case, the related user cannot make use of the payment capacity of the TIPS Account linked to the CMB until either (i) the limit is set by the TIPS Participant to a value greater than zero or (ii) the CMB starts receiving

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Instant Payments in credit. In order to propagate the CMB data to TIPS (if the CMB has been created) it is compulsory to define a Limit.

Additionally, the TIPS Participant (or the Ancillary System) may create an unlimited[11] CMB. In this case, the related authorised account user can make use of the full payment capacity of the TIPS Account (or the TIPS AS Technical Account) linked to the CMB.

1.3.2.5. Reference data for accounts and CMBs in TIPS

The following table shows the exhaustive list of Account reference data attributes that TIPS receives from the Common Reference Data Management component and stores in its Local Reference Data Management repository.

Table 5 – Account reference data

Attribute	Description
Account Number	It specifies the unique number of the account.
Account Type	Type of account. The exhaustive list of account types is as follows: • TIPS Account • TIPS AS Technical Account • Transit Account
Currency	It specifies the currency of the account.
Opening Date	Opening date of the account.
Closing Date	Closing date of the account.
Floor Notification Amount	It specifies the lower threshold for notifying the account owner. When equal to zero, the notification is not produced.
Ceiling Notification Amount	It specifies the upper threshold for notifying the account owner. When equal to zero, the notification is not produced.
Credit Notification Flag	Boolean attribute specifying whether the account owner must receive a credit notification after the settlement of any inbound Liquidity Transfer from the relevant RTGS System.
Debit Notification Flag	Boolean attribute specifying whether the account owner must receive a debit notification after the settlement of any Outbound Liquidity Transfer to the relevant RTGS System.

[11] An unlimited CMB is defined by using the limit value 999999999999999999 in the camt.01

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Attribute	Description
Blocking Status	Blocking status for the account. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.

All other account reference data are stored in the Common Reference Data Management repository, as they are not needed for settlement in TIPS.

In terms of account ownership, the following rules apply:

- Each TIPS Account is linked to one TIPS Participant;
- Each TIPS AS Technical Account is linked to one Ancillary System;
- Each Transit Account is linked to one Central Bank (the European Central Bank for the euro Transit Account, the relevant Central Bank for any other settlement currency).

After the closing date is exceeded, a TIPS Account or a TIPS AS Technical Account is removed from the Local Reference Data Management database only if its balance is equal to zero. Otherwise, only the responsible Central Bank (and the Operator, upon request, in contingency) is authorised to instruct Outbound Liquidity Transfers on the closed account to repatriate the liquidity to the relevant RTGS System.

Furthermore, each TIPS Account or TIPS AS Technical Account may be linked to one or many CMBs and to one or many Authorised Account Users (see Table 7 below).

The following table shows the exhaustive list of CMB reference data attributes that TIPS receives from the Common Reference Data Management component and stores in its Local Reference Data Management repository.

Table 6 – CMB reference data

Attribute	Description
CMB Number	It specifies the unique number of the CMB.
Opening Date	Opening date of the CMB.
Closing Date	Closing date of the CMB.
Floor Notification Amount	It specifies the lower threshold of the CMB headroom (see section 1.4) for notifying the owner of the account which the CMB is linked to. When equal to zero, the notification is not produced.
Ceiling Notification Amount	It specifies the upper threshold of the CMB headroom for notifying the owner of the account which the CMB is linked to. When equal to zero, the notification is not produced.

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Attribute	Description
Limit	It specifies the limit amount for the CMB.
Blocking Status	Blocking status for the CMB. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.

All other CMB reference data are stored in the Common Reference Data Management repository, as they are not needed for settlement in TIPS.

Each CMB is linked to either one TIPS Account or one TIPS AS Technical Account.

The following table shows the exhaustive list of Authorised Account User reference data attributes that TIPS receives from the Common Reference Data Management component and stores in its Local Reference Data Management repository. Each Authorised Account User specifies a BIC which is allowed to use the related TIPS Account, TIPS AS Technical Account or CMB for settlement.

The BIC of an Ancillary System cannot be authorised to settle on a TIPS Account nor on a TIPS AS Technical Account.

Table 7 – Authorised Account User reference data

Attribute	Description
User BIC	BIC authorised for settling on the account or CMB.
Cross-currency	Boolean attribute specifying whether the BIC is authorised to accept cross-currency instant payments.

All other Authorised Account User reference data are stored in the Common Reference Data Management repository, as they are not needed for settlement in TIPS.

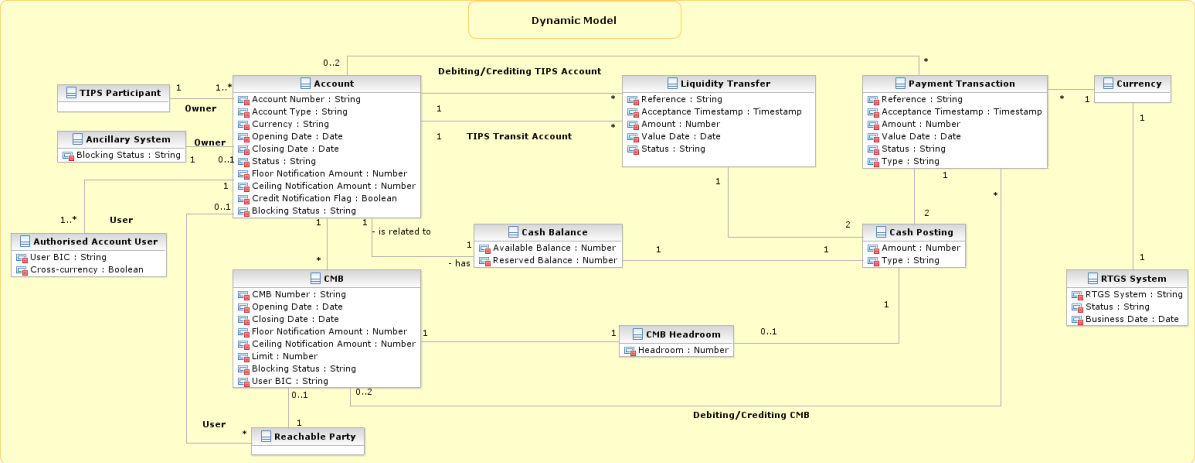
Each Authorised Account User can be linked to one and only one TIPS Account, TIPS AS Technical Account or CMB; each CMB can have no more than one Authorised Account User, while TIPS Accounts and TIPS AS Technical Accounts may have any number.

1.4. Dynamic data model

This section describes the dynamic data model of TIPS. It contains all the data concerning settlement-related messages (i.e. Instant Payment transactions and Liquidity Transfers), such as transaction data, account balances and CMB headrooms. Furthermore, it also includes dynamic data related to local reference data objects, e.g. the blocking status of parties, accounts and CMBs, limit values. Finally, it also encompasses dynamic data concerning the different RTGS Systems connected to TIPS (e.g. current status and business date).

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Figure 5 – Dynamic data model



1.4.1. Payment Transaction

This entity represents data related to TIPS Instant Payment transactions following the SCT^{Inst} scheme, non-Euro denominated transactions or Single Instructing Party (SIP) settlement model processing.

Table 8 – Payment Transaction data

Attribute	Description
Reference	The Originator PSP's reference number of the SCT^{Inst} Transaction message, non-Euro Transaction, SIP Transaction message or cross-currency Transaction message.
Acceptance Timestamp	Timestamp of the SCT^{Inst} Transaction, non-Euro Transaction, SIP Transaction or cross-currency Transaction.
Amount	Amount intended to be settled by the transaction
Currency	The currency relevant for the transaction
Crediting Account	TIPS Account (or TIPS AS Technical Account) to be credited
Crediting Account Status	Blocking status for the TIPS Account (or TIPS AS Technical Account) to be credited. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.
Crediting CMB	CMB to be credited

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Attribute	Description
Crediting CMB Status	Blocking status for the CMB to be credited. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked
Debiting Account	TIPS Account (or TIPS AS Technical Account) to be debited.
Debiting Account Status	Blocking status for the TIPS Account (or TIPS AS Technical Account) to be debited. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.
Debiting CMB	CMB to be debited.
Debiting CMB Status	Blocking status for the CMB to be debited. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.
Status	Status of the transaction for SCT^{Inst} and non-Euro schemes, and cross-currency settlement model. Exhaustive list of possible values: - Received - Validated - Reserved - Settled - Failed - Rejected - Expired For the SIP settlement model the exhaustive list of possible status values is the following: - Received - Validated - Settled - Failed - Expired

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Attribute	Description
Type	Type of the underlying payment transaction. Exhaustive list of possible values: - Instant Payment - Positive Recall Response
Value Date	Transaction settlement date in accordance to the related RTGS System.

Each Instant Payment transaction creates two Cash Postings related to the impacted Accounts or CMBs.

1.4.2. Liquidity Transfer

This entity represents data related to liquidity transfers submitted by TIPS Actors or received from the relevant RTGS System. Liquidity Transfer data includes the following attributes.

Table 9 – Liquidity Transfer data

Attribute	Description
Reference	Reference number of the liquidity transfer.
Acceptance Timestamp	Timestamp assigned to the liquidity transfer when received by TIPS.
Amount	Amount intended to be transferred.
Currency	The currency relevant for the liquidity transfer.
Crediting Account	TIPS Account, transit account, TIPS AS Technical Account, Main Cash Account or RTGS System Account to be credited.
Crediting Account Status	Blocking status for (i) the TIPS Account to be credited for an inbound liquidity transfer or (ii) TIPS AS Technical Account for an intra-service liquidity transfer. Exhaustive list of possible values: - Blocked for credit; - Blocked for debit; - Blocked for credit and debit; - Unblocked.
Debiting Account	TIPS Account, transit account, TIPS AS Technical Account, Main Cash Account or RTGS System Account to be debited.
Debiting Account Status	Blocking status for (i) the TIPS Account to be debited for an outbound liquidity transfer or (ii) TIPS AS Technical Account for an intra-service liquidity transfer. Exhaustive list of possible values: - Blocked for credit;

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Attribute	Description
	- Blocked for debit; - Blocked for credit and debit; - Unblocked.
Status	Status of the liquidity transfer. Exhaustive list of possible values: - Received - Validated - Settled - Failed - Rejected by RTGS - Transient
Value Date	Liquidity transfer settlement date in accordance to the related RTGS System.

Each Liquidity Transfer references a credited and a debited Account.

1.4.3. Cash Posting

Cash Postings are created for each Payment transaction or Liquidity Transfer that results in a reserved or settled amount on either a TIPS Account or a TIPS AS Technical Account. Cash Posting data includes the following attributes.

Table 10 – Cash Posting data

Attribute	Description
Amount	Amount reserved or settled by the transaction or liquidity transfer.
Type	Specifies the origin of the Cash Posting. Exhaustive list of possible values: - Payment transaction - Liquidity Transfer

Each Cash Posting is linked to a single Payment transaction or Liquidity Transfer, as well as a single Cash Balance. In addition, a Cash Posting can reference up to one CMB.

1.4.4. Cash Balance

A Cash Balance is created for each TIPS Account and modified each time a Payment Transaction or Liquidity Transfer results in a reserved or settled amount. Cash Balance data includes the following attributes.

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Table 11 – Cash Balance data

Attribute	Description
Available Balance	Current balance available for settlement on the TIPS Account (or TIPS AS Technical Account)
Reserved Balance	Balance that has been temporarily reserved on the TIPS Account (or on the TIPS AS Technical Account) while the related Instant Payment transactions are executed.

Each Cash Balance is linked to a single TIPS Account (or TIPS AS Technical Account) as well as a single Cash Posting.

1.4.5. CMB Headroom

TIPS keeps track of the utilisation and available headroom for each CMB for which a limit is defined. Whenever an Instant Payment transaction is settled against a given Originator or Beneficiary CMB, TIPS debits/credits the linked TIPS Account, or the TIPS AS Technical Account, and decreases/increases the relevant CMB Headroom accordingly at the same time. If the amount of an Instant Payment transaction would exceed the current CMB Headroom to be debited, then it is rejected.

For unlimited CMBs, the headroom must always be considered infinite and, conversely, the utilisation always zero.

A CMB Headroom is created for each CMB and modified each time an Instant Payment transaction impacting the CMB is processed or the CMB limit is adjusted. CMB Headroom data includes the following attributes:

Table 12 – CMB Headroom data

Attribute	Description
CMB Headroom	Current value of the limit available for settlement on the related CMB.

Each CMB Headroom is linked to a single CMB as well as a single Cash Posting.

1.4.6. RTGS Systems

TIPS maintains information about the RTGS Systems that interact with it, along with the respective currency, status (i.e. whether they are open and ready to receive liquidity transfers or not), distinguished name and business date. The distinguished name of the RTGS System is recognised as a dedicated RTGS System user authorised to send any messages or queries to TIPS (e.g. to manage the transfer of liquidity from the RTGS System to TIPS and to query the balances of the TIPS Accounts linked to the RTGS System account).

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As for the RTGS status field, besides the values (i) '*Open*' where any authorised participant can inject inter-service liquidity transfers and (ii) '*Closed*' where nobody can inject inter-service liquidity transfers, the status (iii) '*Partially Closed*' is used to authorize only the Central Bank(s) to instruct inter-service LTs.

Similarly to status '*Open*' and '*Closed*', also the '*Partially Closed*' is activated per currency. Currently, its activation is only foreseen for the Danish community in the time slot between 17:00 and 18:00 of the RTGS business date for the DKK. During the partial closure window for a currency, TIPS rejects any outbound inter-service LT attempt in that currency from a non-Central Bank user whereas any inbound inter-service LT attempt can only be blocked in the connected RTGS system.

Given that a Push/Pull Rule-based LT is not generated by a Central Bank user, it will be rejected by TIPS whenever the RTGS System is in status 'Partially Closed' for that particular currency.

It is worth specifying that Intra-service Liquidity transfers are not impacted by the above-mentioned '*Partially Closed*' status as they can be processed in TIPS on a 24/7 basis, without limitations.

The status and the business date are updated automatically upon receiving a ReturnBusinessDayInformation message from the relevant RTGS System and can be modified manually by the TIPS Operator in contingency situations. RTGS System data includes the following attributes.

Table 13 – RTGS Systems data

Attribute	Description
RTGS System	Identifier of the RTGS System interacting with TIPS.
RTGS Currency	Settlement currency of the related RTGS System.
RTGS Status	Current status of the related RTGS System. Possible values: - Open - Closed - Partially Closed
Business Date	Current business date of the RTGS System.
Distinguished Name	DN of the RTGS System

The following RTGS status transitions are therefore allowed, taking into consideration the example of DKK currency:

- From '*Open*' to '*Closed*': Any Inter-service Outbound Liquidity Transfer is rejected by TIPS, regardless of the sender.
- From '*Closed*' to '*Partially Closed*': Inter-service Outbound Liquidity Transfers are rejected by

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TIPS if a sender does not belong to the Central Bank[12] operating on the specific currency for which partial closure applies.

- From '*Partially Closed*' to '*Closed*': Any Inter-service Outbound Liquidity Transfer is rejected by TIPS, regardless of the sender.
- From '*Closed*' to '*Open*': Any Inter-service Outbound Liquidity Transfer is accepted by TIPS, regardless of the sender.

1.5. TIPS Features

1.5.1. General concepts

TIPS processes instructions continuously during the day, on a 24/7/365 basis without any scheduled service downtime. In this context, the term "instructions" refers not only to Instant Payments or Liquidity Transfers, but also to local reference data updates and any other type of request that leads to the update of reference or dynamic data in TIPS.

All these types of instructions are processed in a strictly ordered sequence as part of the same input flow, so that a single sequence of instructions leads deterministically to a single possible status.

For example, TIPS may receive an Instant Payment transaction that attempts to debit an account and a concurrent request to block the same account for debiting. If TIPS receives the ordered sequence where the debiting precedes the blocking, the Instant Payment transaction will be processed before the account is blocked. If, conversely, TIPS receives the ordered sequence where the account blocking is executed prior to the Instant Payment transaction, the account will be blocked whereas the transaction will be rejected.

The possible types of instructions processed by TIPS are listed below:

- Instant Payment transactions for the settlement of cash on a TIPS Account/TIPS AS Technical Account
- Beneficiary replies to confirm or reject an Instant Payment transaction on the beneficiary side
- Recall instructions to request a refund from the Beneficiary Participant for previously settled Instant Payment transactions
- Recall Responses from the Beneficiary Participant for either the refund or the rejection in response to a recall instruction
- Investigation and Request for Status Update on a Recall
- Liquidity transfers to instruct the transfer of liquidity between TIPS and an RTGS System
- Rule-based liquidity transfers to pull/push liquidity from/to a Main Cash Account

[12] Push/Pull Rule-based LTs denominated in a currency for which a partial closure window applies will be rejected during the partial closure window for that currency

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- Internal Contingency Liquidity transfers to instruct the transfer of liquidity between a Transit Account and a TIPS Account
- Intra-service Liquidity transfers between a TIPS Account and a TIPS AS Technical Account
- Reference data maintenance instructions to modify TIPS local reference data.

Note that for the cross-currency settlement only Instant Payment transactions and Investigations are supported for the time being.

Local reference data maintenance within TIPS is limited to the following set of operations that can be performed at any point in time (i.e. 24/7/365) with immediate effect:

- Blocking/unblocking of a TIPS Participant or Ancillary System;
- Blocking/unblocking of an account or CMB;
- Update of a CMB limit.

All other reference data setup and maintenance operations are performed in CRDM; reference data are then propagated from CRDM to TIPS asynchronously, on a daily basis (as described in section 1.6.3).

TIPS also offers querying and reporting functionalities.

Data included in reports depends on the access rights profile of the subscribing TIPS Actor and is based on periodical snapshots taken at specific points in time in TIPS. TIPS offers two types of reports:

- Statement of Account Turnover;
- Statement of Accounts.

TIPS Actors can subscribe for the types of reports they want to receive.

For the Statement of Accounts the TIPS Actors can also configure whether they want to receive it in full mode (complete set of data) or in delta mode (including only the data produced since the last generation of the same type of report for the same actor) along with the frequency they want to receive it at each day.

TIPS triggers the production of full reports when the relevant RTGS System notifies TIPS about the end of the current business day. In addition, delta reports can be scheduled to be produced and sent at regular intervals corresponding to the moments when snapshots are taken (every number of hours, e.g. every 3 hours, every 6 hours, etc.). When subscribing for a report in Delta mode, the end of the business day of the relevant RTGS System triggers in any case a last report generation for the business day which contains all the data remaining between the trigger itself and the last Delta report produced for the interested Actor.

In addition, upon notification from an RTGS System that a new business date has been reached, TIPS provides the same RTGS System with data on the business day that just elapsed and that the RTGS System uses to build and provide General Ledgers to the Central Banks.

Queries, with the exception of the Advanced Payment Transaction status query and the Advanced Liquidity Transfer status query which may be subject to a less restrictive service level agreement, are

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available on a 24/7/365 basis, and allow users to access data in real time. TIPS provides six types of queries:

- Account balance and status query;
- CMB limit and status query;
- Payment transaction status query;
- Advanced Payment transaction status query;
- Liquidity transfer status query;
- Advanced Liquidity transfer status query.

With the exception of the Advanced Payment transaction status query, the Liquidity transfer status query and the Advanced Liquidity transfer status query, which are available in U2A only, the remaining queries can be triggered both in U2A and A2A modes.

The following subsections go in depth on the aforementioned features.

1.5.2. Settlement of Instant Payment transactions

TIPS supports the different process flows foreseen in the SCT^{Inst} scheme, i.e. Instant Payments, recalls and investigations.

Moreover, TIPS supports four additional process flows for Instant Payment processing:

- Non-Euro settlement scheme;
- Single Instructing Party (SIP) settlement model;
- Regular Cross-currency settlement model;
- LKT Cross-currency settlement model.

The cross-currency models include the business case of the settlement of a mono-currency transaction in EUR between a PSP established in and/or licensed to operate in the SEPA Schemes' Geographical Scope and operating in the Euro Leg and a Financial Institution which operates outside the SEPA Schemes' Geographical Scope. The table below contains an overview of the types of instructions TIPS Actors can exchange with TIPS for payment purposes.

Table 14 – TIPS Payment transaction types

Instruction Type	Description	Model/Flow
Instant Payment transaction	Forwarded from an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party to TIPS to instruct the settlement of cash on a TIPS Account or on a TIPS AS Technical Account. It is also forwarded by TIPS to the intended Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party to request confirmation for the settlement.	SCT^{Inst}, non-Euro settlement scheme, cross-currency (one-leg out) settlement model

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Instruction Type	Description	Model/Flow
Instant Payment transaction without reservation (for SIP settlement model)	Sent from an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party to TIPS to instruct the immediate settlement of cash on a TIPS Account or on a TIPS AS Technical Account., without preliminary reservation of funds. In order to activate such a settlement model, TIPS checks that (i) the DN acting on behalf of the Originator and the Beneficiary coincide and (ii) the same DN is granted with the appropriate privilege to Instruct as SIP[13].	SIP settlement model
Beneficiary Reply	Forwarded from a Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party to TIPS as response to an Instant Payment transaction. It contains the Beneficiary Participant's positive or negative response. In the event of a positive response, it is also forwarded by TIPS back to both (i) the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party and (ii) an additional confirmation is sent to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party as confirmation that settlement has been performed or ended in error. In the event of a negative response, it is forwarded by TIPS back to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party.	SCT^{Inst}, non-Euro settlement scheme, cross-currency (one-leg out) settlement model
Recall	Sent by an Originator Participant of a previously settled Instant Payment transaction to request that the given transaction is refunded and a refunded amount – equal or possibly lower than the original one – is credited back to the original account. It is submitted by the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party to TIPS and, after successful validation, it is forwarded by TIPS to the relevant Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party.	SCT^{Inst}, non-Euro settlement scheme

[13] The privilege to 'Instruct as SIP' is independent from the TIPS privilege to 'Instruct instant Payments'. This means that the two privileges can coexist in the same access right profile of a TIPS Actor. However, if the same technical sender is willing to send IPs for both settlement models, i.e. instruct IP with reservation of funds and SIP, in a fully segregated way it shall use two different DNs.

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Instruction Type	Description	Model/Flow
Recall Response	Sent by a Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party to TIPS as either a positive response to refund the cash, reversing the effect of the original Instant Payment transaction, or a negative response to a Recall instruction. In both cases, after successful validation, it is forwarded by TIPS to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party as confirmation.	SCT^{Inst}, non-Euro settlement scheme
Investigation	The investigation is sent by the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or Reachable Party to TIPS in order to retrieve the last generated payment transaction status advice.	SCT^{Inst}, non-Euro settlement scheme, SIP settlement model, cross-currency (one-leg out) settlement model
Request for Status Update on a Recall	The Request for Status Update on a Recall is sent by Recall Assigner to TIPS in order to retrieve the status of the Recall Response. It is also forwarded by TIPS to the intended Recall Assignee to request confirmation about the status of the Recall.	SCT^{Inst}, non-Euro settlement scheme

1.5.2.1. Instant Payment transaction settlement process (with reservation of funds)

An Instant Payment transaction is initiated by an Originator Participant or Instructing Party acting on behalf of the Originator Participant, Ancillary System or a Reachable Party, e.g. a TIPS Participant, requesting to debit one of their accounts and to credit the account of a Beneficiary Participant. The perimeter of TIPS is limited to the interactions with these participants, which represent financial institutions or parties acting on their behalf. The communication between the actual Originator and Beneficiary of a payment (i.e. the individuals or institutions transferring funds between each other, which may be customers of the Originator/Beneficiary Participants) is out of the TIPS scope and handled by each participant independently.

In the following description, for the sake of readability, the expression “Originator side” means “the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party“ and “Beneficiary side” means “Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party”.

TIPS keeps track of the cash balance for each TIPS Account and TIPS AS Technical Account. The settlement process begins with an Instant Payment transaction message submitted by the Originator side to TIPS. TIPS validates the message and, if no errors are detected and sufficient funds are

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available, reserves the amount to be debited on the Originator side's account by creating a related cash posting. TIPS thereafter forwards the Instant Payment transaction to the Beneficiary side. While the cash amount is reserved, it cannot be used for settlement in a different payment or liquidity transfer; in addition, if either (i) the account owner or (ii) the account is blocked after the reservation and before the payment can be settled, the reserved amount is still eligible for settlement.

The Beneficiary side shall respond to TIPS with a beneficiary reply, either confirming or rejecting the payment. Upon receiving this reply, TIPS will respectively settle or release the reserved amount, removing the cash posting and updating the cash balances of the Originator and Beneficiary Participant accounts. Subsequently, TIPS will forward a status advice to both the Originator and Beneficiary sides. Payments are always settled for the full amount; partial settlement is not foreseen in TIPS.

If TIPS does not receive a reply from the Beneficiary Participant within a standard, configurable timeout period, the reserved amount is automatically released and can then be once again used for settlement. In the aforementioned scenario, TIPS sends a negative status report to both the Originator and Beneficiary sides and removes the relating cash posting.

Instant Payment transactions that involve CMBs are handled similarly to the above description. A CMB Headroom is created for each CMB in TIPS, and it is always kept equal to the CMB limit minus the current limit utilisation. A CMB can also be unlimited; in this case the related user can make use of the full payment capacity of the TIPS Account linked to the CMB, the headroom in considered infinite and the utilisation always zero.

When an Instant Payment transaction involving one or two CMBs with limit is settled, in addition to updating the cash balances for the involved accounts, the headroom and the limit utilisation of the related CMBs are also modified. For the unlimited CMBs, the headroom remains unlimited and the utilisation remains zero.

The limit of a CMB can never be set to a negative value, although the headroom and utilisation can go negative.

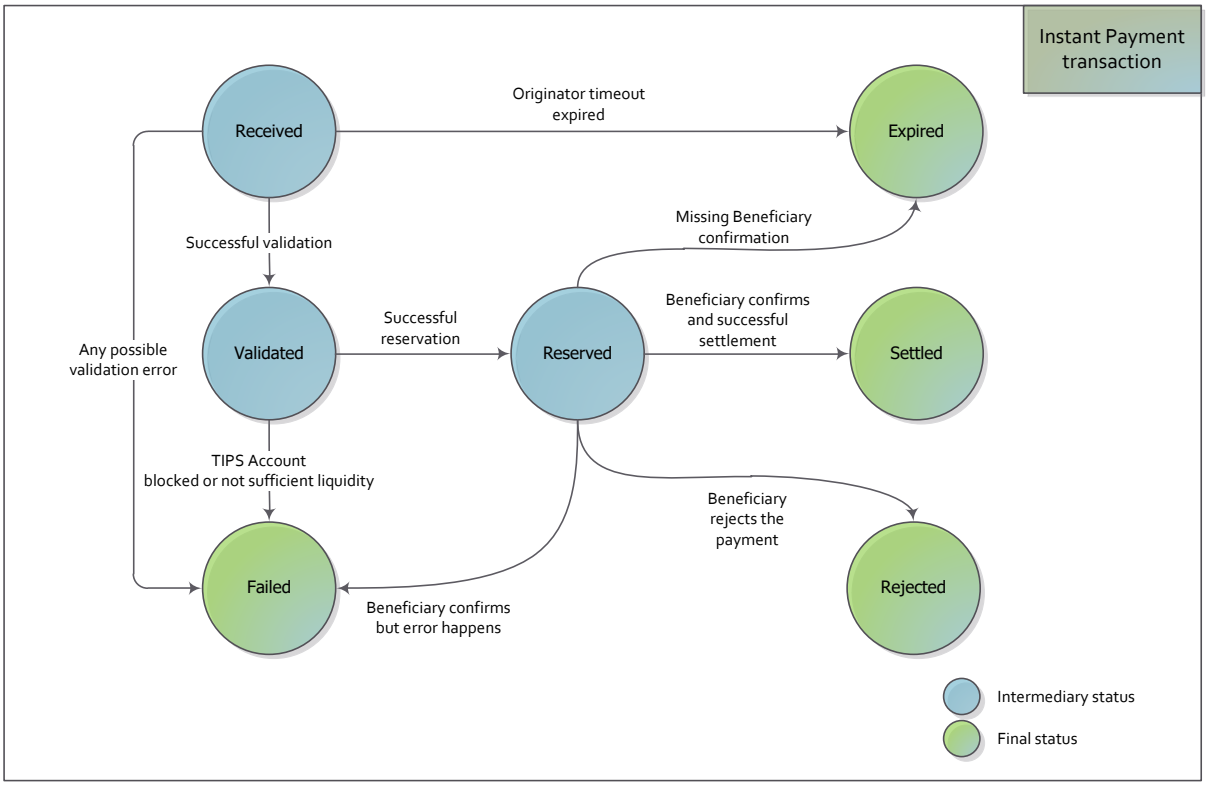
The utilisation can become negative when the headroom to exceed the limit as a result of crediting payments or liquidity transfers.

The headroom can become negative as a result of a CMB limit decrease, since when updating the limit the headroom and utilisation are updated accordingly. When the headroom becomes negative, the CMB only accepts instant payments and liquidity transfers in credit until the headroom goes above zero.

The following diagram shows the possible statuses of an Instant Payment transaction.

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Figure 6 – Instant Payment Transaction status transition diagram



An Instant Payment transaction entering the system for the first time is temporarily in *Received* status while it undergoes the TIPS validations. While in this status, it is already possible for an Instant Payment transaction to exceed the timeout period, leading it to the final *Expired* status from which it will no longer be submitted to settlement. This can happen when TIPS receives a message from the Originator Participant, Ancillary System or Instructing Party that has an Acceptance Timestamp already older than the tolerable timeout; TIPS records the received message, replies with a timeout error message to the sender and saves the transaction as *Expired*.

If the Instant Payment transaction passes all validations successfully, it becomes *Validated*. At this point the actual settlement process begins with the attempt to reserve the required cash amount on the relevant debit account. If the reservation is successful, the transaction is set to *Reserved* status; if for any reason the reservation is unsuccessful (e.g. because either the cash balance on the account is insufficient or the account is blocked) its status changes to *Failed*.

A *Reserved* Instant Payment transaction may subsequently change its status into one of the four final statuses, depending on the outcome of the settlement attempt:

1. If TIPS does not receive the Beneficiary side reply within the standard timeout period, the Instant Payment times out and the transaction moves to status *Expired;*
2. If the Beneficiary side rejects the Instant Payment, the transaction moves to status *Rejected;*

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3. If the Beneficiary side confirms or rejects the Instant Payment but any kind of error occurs, the transaction moves to status *Failed;*
4. Finally, if the Beneficiary side confirms the Instant Payment and TIPS settles it successfully, the transaction moves to status *Settled.*

The detailed flow of the process, with the relevant steps, is described (i) in section 2.2.1 – "Instant Payment (SCT^{Inst} scheme)" and Figure 22 – Instant Payment transaction flow for Euro currency, (ii) in section 2.2.2 – "Instant Payment (non-Euro currencies scheme)" and Figure 63 – Instant Payment transaction flow for non-Euro currencies, (iii) in 2.2.4 Instant Payment (cross-currency scheme – regular settlement model) and Figure 121 – Instant Payment transaction flow for Instant Payment transaction flow for regular cross-currency settlement model and (iv) in 2.2.5 Instant Payment (cross-currency scheme – LKT settlement model) and Figure 140 – Instant Payment transaction flow for cross-currency LKT settlement model.

1.5.2.2. Instant Payment transaction settlement process (without reservation of funds)

An Instant Payment transaction for the SIP settlement model - without preliminary reservation of funds - can be used for the settlement of Instant Payment transactions. In principle, from a functional viewpoint, the model can be used regardless of the scheme and the currency denomination of the two accounts involved in the Instant Payment transaction. The transaction is initiated by an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, e.g. a TIPS Participant, requesting to debit one of their TIPS Accounts and to credit the TIPS Account of a Beneficiary Participant.

In order to trigger the SIP settlement model, the Instructing Party that submits the Instant Payment has to be granted with a dedicated privilege in CRDM. Moreover, TIPS will check that the same DN is acting for both counterparties.

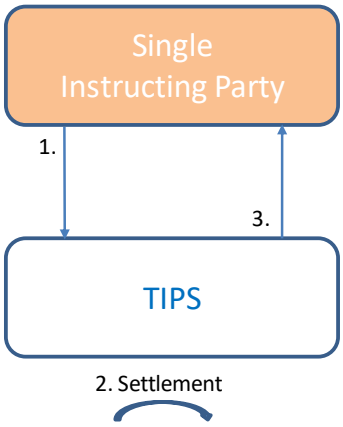
The SIP settlement model envisages the immediate settlement of Instant Payments received by TIPS, after the Instant Payments have already been validated by a Single Instructing Party (SIP), with the involvement of both the Originator PSP and the Beneficiary PSP (which accepts the transaction before it is submitted to TIPS).

The diagram in Figure 7 shows the SIP settlement model, which is based on the following processing steps:

1. After having validated an instant payment with both PSPs, the Single Instructing Party sends it to TIPS for settlement.
2. Settlement attempt takes place in TIPS immediately, without preliminary reservation of funds.
3. The Single Instructing Party is notified about the outcome of the settlement attempt, so that the settlement confirmation can be forwarded to the Originator PSP and to the Beneficiary PSP.

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Figure 7 – Single Instructing Party settlement model for Instant Payments



The SIP settlement process begins with an Instant Payment transaction message submitted by the Single Instructing Party to TIPS. TIPS checks whether the sender DN has the suitable access rights to trigger the SIP settlement model and validates the message. If the DN is granted with the correct access rights and no errors are detected, provided that sufficient funds are available on the account to be debited, TIPS settles the full amount by directly updating the cash balances of the Originator and Beneficiary Participant accounts. Subsequently, TIPS forwards a status advice to the Single Instructing Party DN. Instant payments are always settled for the full amount; partial settlement is not foreseen in TIPS.

Instant Payment transactions that involve CMBs are handled similarly to the above description. A CMB Headroom is created for each CMB in TIPS, and it is always kept equal to the CMB limit minus the current limit utilisation. A CMB can also be unlimited; in this case, the related user can make use of the full payment capacity of the TIPS Account linked to the CMB, the headroom in considered infinite and the utilisation always zero.

When an Instant Payment transaction involving one or two CMBs with limit is settled, in addition to updating the cash balances for the involved accounts, the headroom and the limit utilisation of the related CMBs are also modified. For the unlimited CMBs, the headroom remains unlimited and the utilisation remains zero.

The limit of a CMB can never be set to a negative value, although the headroom and utilisation can go negative.

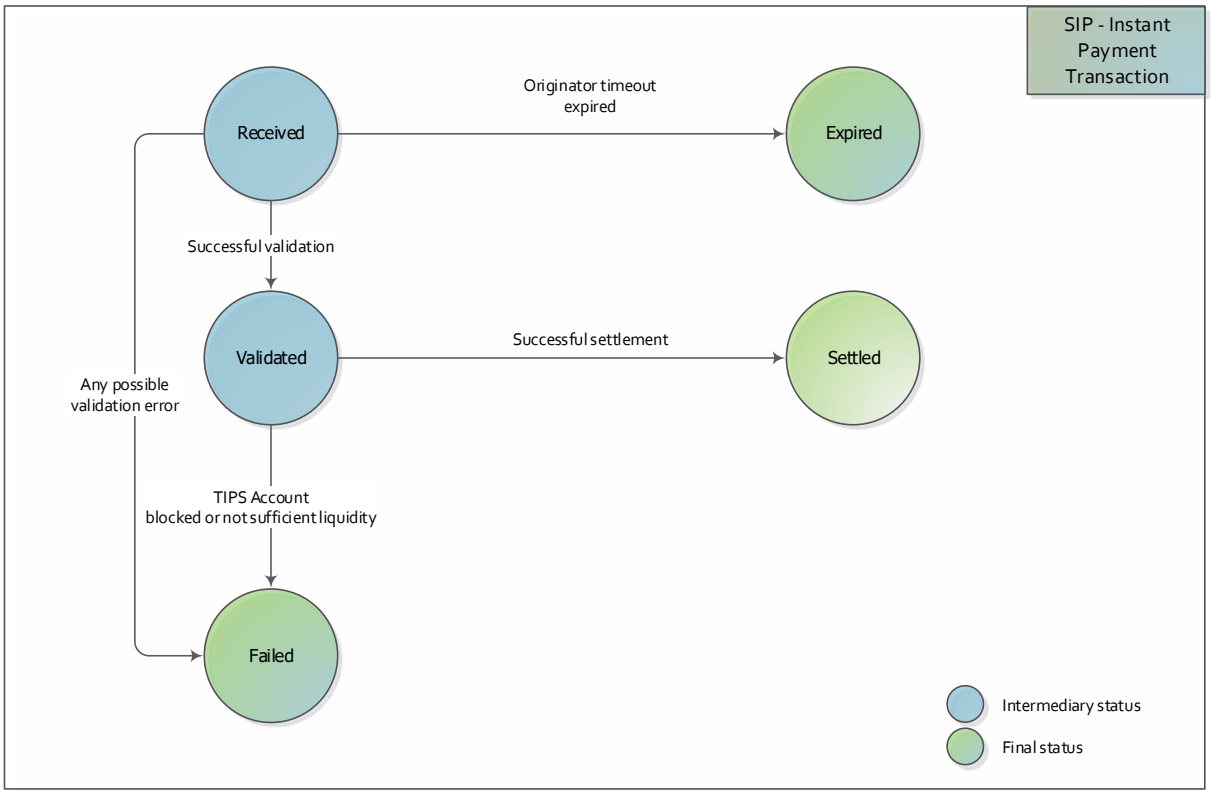
The utilisation can become negative when the headroom to exceed the limit as a result of crediting payments or liquidity transfers.

The headroom can become negative as a result of a CMB limit decrease, since when updating the limit the headroom and utilisation are updated accordingly. When the headroom becomes negative, the CMB only accepts instant payments and liquidity transfers in credit until the headroom goes above zero.

The following diagram shows the possible statuses of an Instant Payment transaction in the scenario of a SIP settlement model.

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Figure 8 – SIP Instant Payment Transaction status transition diagram



An Instant Payment transaction entering the system for the first time is temporarily in *Received* status while it undergoes the TIPS validations. While in this status, it is already possible for an Instant Payment transaction to exceed the timeout period, leading it to the final *Expired* status from which it will no longer be submitted to settlement. This can happen when TIPS receives a message from the Single Instructing Party that has an Acceptance Timestamp already older than the tolerable timeout; TIPS records the received message, replies with a timeout error message to the sender and saves the transaction as *Expired*.

If the Instant Payment transaction passes all validations successfully, it moves to status *Validated*. At this point, the actual settlement process begins with the attempt to settle the required cash amount on the relevant debit account. If the settlement is successful, the transaction is set to *Settled* status; if for any reason the settlement is unsuccessful (e.g. because the cash balance on the TIPS Account is insufficient or the account is blocked) its status changes to *Failed*.

The detailed flow of the SIP settlement model process, with the relevant steps, is described in section 2.2.3 - Instant Payment (SIP settlement model) and Figure 100 – Instant Payment transaction flow for SIP settlement model.

1.5.2.3. Recall settlement process

The Originator Participant, Ancillary System or Instructing Party of a previously settled Instant Payment transaction (the Recall Assigner) can send to TIPS a specific recall message in order to request the

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return of funds previously settled. TIPS validates that the requestor is duly authorised to initiate the recall process and the Recall Assignee, which is the Beneficiary Participant of the original Instant Payment, can be reached via TIPS. No further validations are performed by TIPS which simply forwards the request to the intended recipient.

The Beneficiary Participant is authorised to send to TIPS a Recall Response containing either the acceptance or the rejection of the request. The sender can be also an Instructing Party acting on behalf of the Beneficiary Participant. There is no time limit enforced in TIPS for the receiver of the Recall (i.e. the Recall Assignee) to respond; TIPS does not perform any timeout check and it is up to the Participants or Instructing Parties to adhere to specific time rules pertaining to recalls.

Once the Recall Response is received, TIPS performs several checks using the most recent reference data; this means that changes done to the reference data affecting access rights may change the outcome of the authorisation check between processing of the recall and processing of the Recall Response.

In case the Recall Assignee replies with a negative Recall Response, if the checks are successful, the negative Recall Response is immediately forwarded by TIPS to the Recall Assigner.

In case the Recall Assignee replies with a positive Recall Response, additional processing has to be performed by TIPS. The system determines from the Originator Participant or Reachable party BIC and Beneficiary Participant or Reachable party BIC within the positive Recall Response message the accounts and CMBs that TIPS has to use for settlement of the recall. In order to reverse the direction of the cash flow from the original payment transaction that is recalled, TIPS interprets the Originator Participant or Reachable Party BIC as the Beneficiary participant or Reachable party BIC for the reversed cash flow, and vice versa.

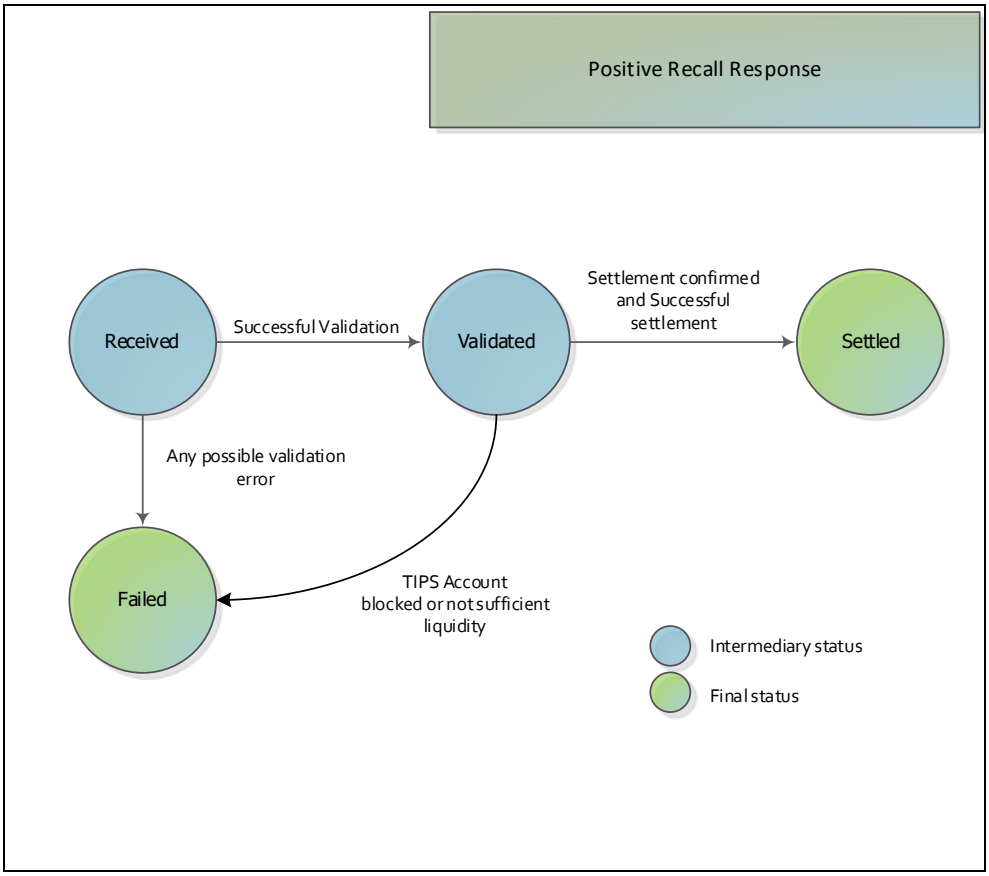
Once the above data are retrieved, TIPS determines a suitable payment transaction dataset and immediately attempts to settle the reversed cash flow using the same or a different amount (the Recall Assignee may apply a fee for recalls). The payment process stated for the settlement of an Instant Payment transaction is for the most part applied also for payment transactions automatically generated by TIPS during the processing of a positive Recall Response. The latter differs from processing an Instant Payment transaction only because there is no reservation of funds and their acceptance is implicitly assumed by issuing the recall in the first place.

If any check on either positive or negative Recall Response fails or the transaction cannot be settled, e.g. due to insufficient funds on the debited account, TIPS informs the sender of the Recall Response with a FIToFIPaymentStatusReport.

The following figure shows the possible statuses of a positive Recall Response, whose content determines the dataset of the payment transaction that should be settled in TIPS. As mentioned above TIPS acts as a channel between the Assigner and the Assignee without storing any messages data or internal statuses related to each Recall, Request for Status Update on a Recall and negative Recall Response.

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Figure 9 – Positive Recall Response status diagram



The positive Recall Response is *Received* once technical validation and authentication checks are executed; its status skips to *Validated* just after TIPS has performed successfully the required Access Rights and Duplicate check. If the checks are not successful the status of the Recall Response is set to *Failed*. Simultaneously TIPS sends a message to the Recall Assignee containing the proper error code. At this point the validated Recall Response is submitted for settlement with the attempt to reverse the cash flow on the relevant debit account. If the settlement attempt is successful, the instruction is set to *Settled* status; if for any reason the attempt is unsuccessful (e.g. because the cash balance on the account is insufficient or the account is blocked) the settlement fails and the status of the positive Recall Response changes to *Failed*.

1.5.2.4. Investigation process

As defined in both the SCT^{Inst} and OCT^{Inst} rulebooks, the investigation procedure is foreseen for exceptional situations whereby no confirmation message has reached the Originator PSP after the time-out deadline.

In line with both the SCT^{Inst} and OCT^{Inst} scheme rulebooks, TIPS supports a transaction status investigation process, which can be initiated only by Participants or Instructing Parties acting on behalf of Participants or Reachable Parties on the originator side using the transaction status inquiry message. This allows TIPS Actors to retrieve the last generated payment transaction status advice for either a

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single or a set of transactions contained in the status request. If no payment transaction status advice is present, an error is returned for each transaction under investigation.

TIPS retains information for responding to investigations for a configurable timeframe, initially set to exactly 5 calendar days (see Table 19). Furthermore, according to both the SCT^{Inst} and OCT^{Inst} scheme rulebooks, the investigation functionality will be available only after the certainty of completion of the settlement phase of a transaction, which translates into SCT^{Inst} Timestamp Timeout expiration + Investigation Offset for both SCT^{Inst} and cross-currency transactions.

The investigation functionality will be described in the section 2.4 “Investigation”.

1.5.3. Liquidity Management

TIPS provides liquidity management functionalities to allow the transfer of liquidity between TIPS Accounts and RTGS System Accounts, in both directions. Additionally, internal contingency liquidity transfers are envisaged in emergency situation to allow the transfer of liquidity between Transit Accounts and TIPS Accounts. A dedicated system parameter, switched on by the TIPS Operator upon request, enables to settle internal contingency liquidity transfers, which involve the transit accounts. Liquidity transfers can only be settled between accounts that are denominated in the same currency.

TIPS foresees four different types of Liquidity Transfer: Inbound (from an RTGS System to TIPS), Outbound (from TIPS to an RTGS System), rule-based (from a TIPS DCA to an MCA, or vice versa) and intra-service (from a TIPS Account to a TIPS AS Technical Account or vice versa). TIPS AS Technical Accounts can only be used in intra-service Liquidity Transfer processing. In a contingency condition, Liquidity Transfer between a Transit Account and a TIPS Account, in both directions, is also allowed.

Inbound, outbound and rule-based Liquidity Transfers are settled by moving the liquidity through an RTGS System Transit Account. TIPS has one and only one Transit Account defined for each currency. The Central Bank responsible for the RTGS System related to a given currency is the Central Bank accountable for the Transit Account. The ECB is responsible for the Transit Account denominated in euro whereas each non-Euro Central Bank is responsible for the Transit Account denominated in their currency.

Liquidity transfers do not entail a reservation of funds, unlike Instant Payment transactions, and are settled immediately.

Besides the cases described above, it shall also be possible for an authorised actor to move liquidity from TIPS to other TARGET Services or components (e.g. T2S) and vice versa. However, from a TIPS viewpoint these types of transfers will always be intermediated by the T2-CLM component.

1.5.3.1. Inbound Liquidity Transfer

An Inbound Liquidity Transfer moves liquidity from an RTGS System Account to a TIPS Account in the same currency. Inbound Liquidity Transfer orders can be triggered only in the RTGS System and are received by TIPS.

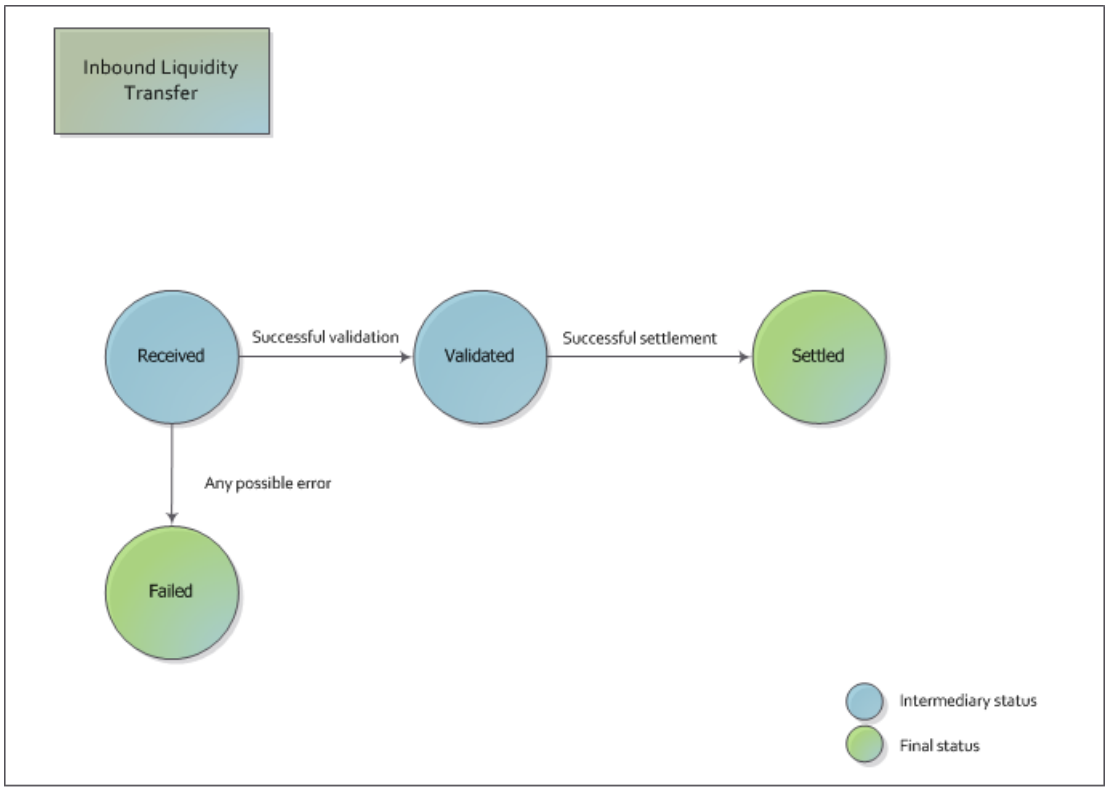
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Authorised Account holders in the RTGS System may trigger Inbound Liquidity Transfer orders in the corresponding RTGS System; the order is received, as a Liquidity Transfer message, in TIPS. A TIPS Account to be credited must be specified in the message. Originators of Inbound Liquidity Transfer orders do not necessarily need to be TIPS Actors. For instance, any entity who owns a Main Cash Account in T2-CLM may trigger Inbound Liquidity Transfers in euro, even if it does not own an account in TIPS.

If the received message passes all the business checks successfully, TIPS transfers the requested amount from the relevant Transit Account to the TIPS Account. After settlement, TIPS informs the RTGS System and, optionally, the owner of the TIPS Account about the successful settlement.

Liquidity transfer orders can have different statuses depending on the executed steps of the settlement process. The possible statuses of an Inbound Liquidity Transfer order are described in the following diagram.

Figure 10 – Inbound Liquidity Transfer status diagram



An Inbound Liquidity Transfer order is *Received* and *Validated* by TIPS if it passes all validation checks (see Table 32 – Inbound Liquidity Transfer Order steps) successfully and the related TIPS Account is not 'blocked for credit' or 'blocked for debit and credit'; otherwise its status is set to *Failed*. Subsequently, it changes to *Settled* status once TIPS settles the full amount of the order. Inbound liquidity transfers involve messages LiquidityCreditTransfer (camt.050.001.07) and Receipt (camt.025.001.07) as well as BankToCustomerDebitCreditNotification (camt.054.001.12) for credit notifications and ReturnAccount (camt.004.001.10) if the account ceiling threshold is exceeded.

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Examples involving Inbound Liquidity Transfers are listed in section 2.5.1.1.

1.5.3.2. Outbound Liquidity Transfer

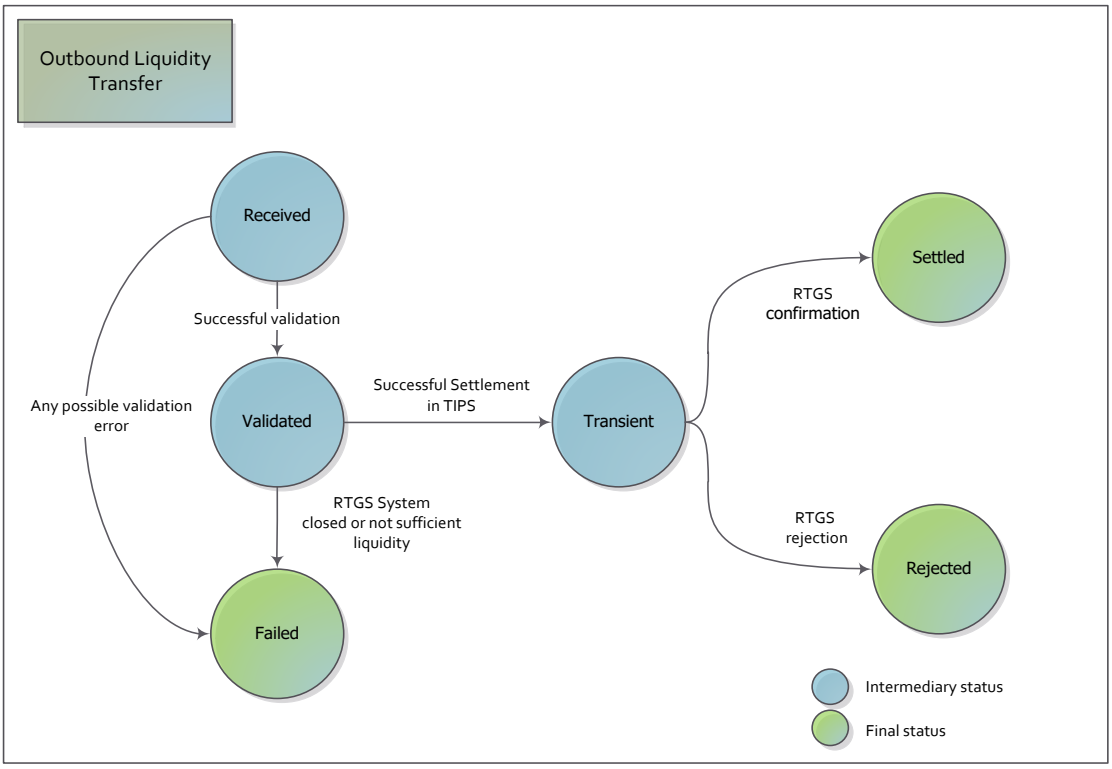
An Outbound Liquidity Transfer is used in order to repatriate liquidity from a TIPS Account to the relevant RTGS System. Outbound Liquidity Transfer orders can be triggered in TIPS and are received by the relevant RTGS System. Moreover, if the corresponding RTGS System supports pull functionality, Outbound Liquidity Transfer orders could also be triggered in the RTGS System.

The process foresees that an authorised entity, e.g. a TIPS Participant, Ancillary System, Instructing Party or Central Bank acting on behalf, triggers an Outbound Liquidity Transfer order towards the corresponding RTGS System, in the form of a Liquidity Transfer message. A target account in the RTGS System must be specified in the message. No reservation of funds occurs in this scenario and settlement takes place immediately.

If the Liquidity Transfer request passes all the business checks successfully, TIPS transfers the requested amount from the TIPS Account to the relevant Transit Account and informs the RTGS System. TIPS then expects the RTGS System to reply with either a confirmation or a rejection message.

The possible statuses of an Outbound Liquidity Transfer order are shown in the following diagram.

Figure 11 – Outbound Liquidity Transfer status diagram



An Outbound Liquidity Transfer order is first *Received* and *Validated* by TIPS if it passes all validations (see Table 33 – Outbound Liquidity Transfer Order steps) successfully; otherwise its status turns into a

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Failed status. Subsequently, it changes to *Transient* status if settled correctly, when the funds are moved to the technical Transit Account denominated in the same currency of the corresponding liquidity transfer. Conversely, if the involved TIPS Account is blocked or has insufficient funds, the Liquidity Transfer is set to *Failed*.

The business case of a Liquidity Transfer with status set to *Transient* may then reach its final status (i.e. *Settled)* upon TIPS receiving positive confirmation from the related RTGS System, or be *Rejected* if the RTGS System responds with a negative reply. If the RTGS System sends a negative reply, funds are automatically reversed from the Transit Account to the TIPS Account.

If the RTGS System does not respond properly and the status is not set to *Settled* or *Rejected* within a configurable timeframe, an alert is raised to the TIPS Operator, in order to take corrective measures as explained in 2.5.2.2 “RTGS Alert scenario – No reply from RTGS”.

Outbound liquidity transfers can be performed in U2A as well as A2A mode, involving messages LiquidityCreditTransfer (camt.050.001.07), Receipt (camt.025.001.07), BankToCustomerDebitCreditNotification (camt.054.001.12) for debit notifications and ReturnAccount (camt.004.001.10) if the account floor threshold is exceeded.

Examples involving Outbound Liquidity Transfers are listed in section 2.5.2.1.

1.5.3.3. Intra-service Liquidity Transfers

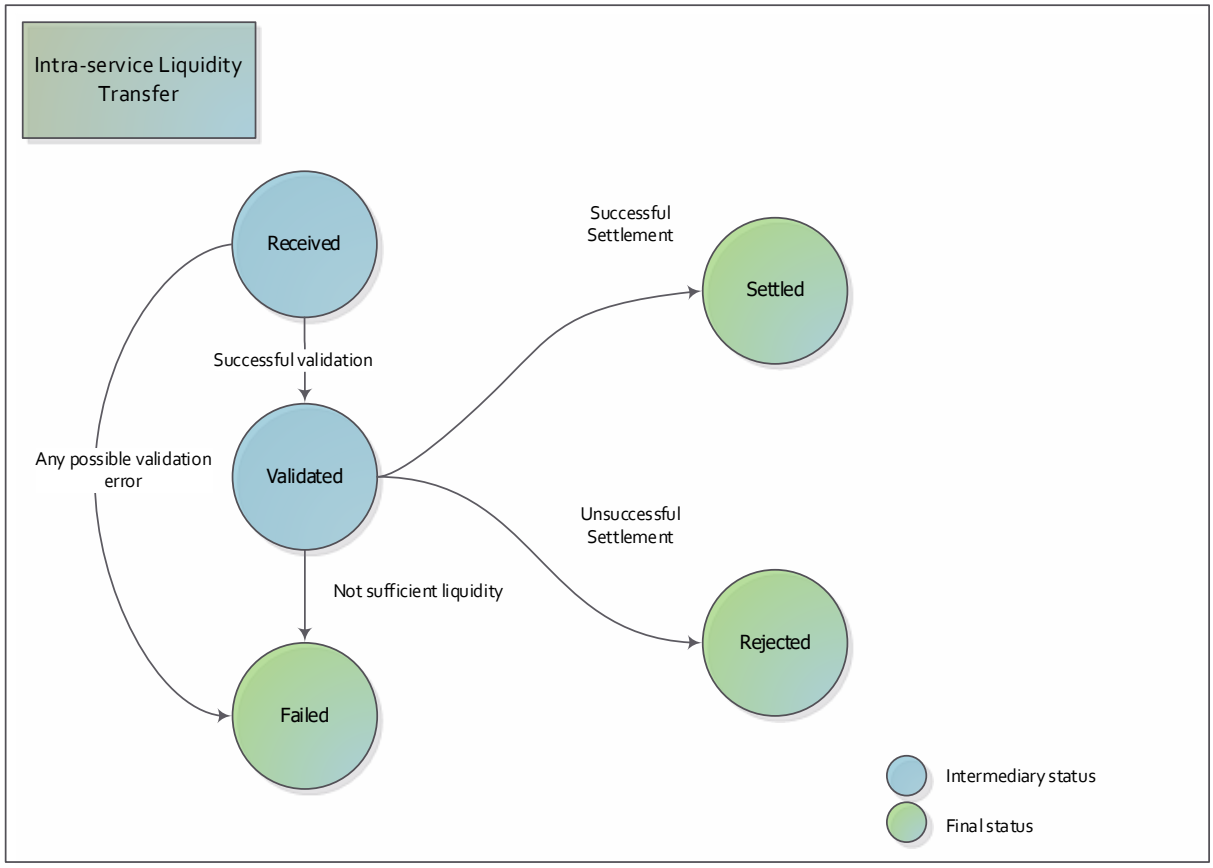
An Intra-service Liquidity Transfer moves liquidity from a TIPS Account to a TIPS AS Technical Account (or vice versa) denominated in the same currency. The type of liquidity transfer is used to fund/defund a TIPS AS Technical Account to allow an Ancillary System to process Instant Payments transactions in TIPS.

If the received message passes all the business checks successfully, TIPS transfers the requested amount from the relevant TIPS Account to the TIPS AS Technical Account (or vice versa).

Liquidity transfer orders can have different statuses depending on the executed steps of the settlement process. The possible statuses of an Intra-service Liquidity Transfer order are described in the following diagram.

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Figure 12 – Intra-service Liquidity Transfer status diagram



An Intra-service Liquidity Transfer order is *Received* and *Validated* by TIPS if it passes all validation checks (see Table 35 – Intra-service Liquidity Transfer steps) successfully and the related TIPS Account or TIPS AS Technical Account is not 'blocked for credit' or 'blocked for debit and credit'; otherwise its status is set to *Failed*. Subsequently, it changes to *Settled* status once TIPS settles the full amount of the order. Intra-service liquidity transfers involve messages LiquidityCreditTransfer (camt.050.001.07) and Receipt (camt.025.001.07) as well as BankToCustomerDebitCreditNotification (camt.054.001.12) for credit and debit notifications and ReturnAccount (camt.004.001.10) if either the account ceiling or floor thresholds are exceeded.

Examples involving Intra-service Liquidity Transfers are listed in section 2.5.3.1.

1.5.3.4. Internal Contingency Liquidity transfer

An Internal Contingency Liquidity Transfer (ICLT) moves liquidity either from a TIPS Transit Account to a TIPS Account in the same currency or vice-versa, provided that the system is in a contingency situation that makes the standard functionalities of liquidity provision and/or repatriation ineffective. ICLT orders can be initiated via U2A (both inbound and outbound) or A2A (outbound only).

Authorised Transit Account holders may trigger inbound Internal Contingency Liquidity Transfer orders to debit the Transit account and credit one of the TIPS Account.

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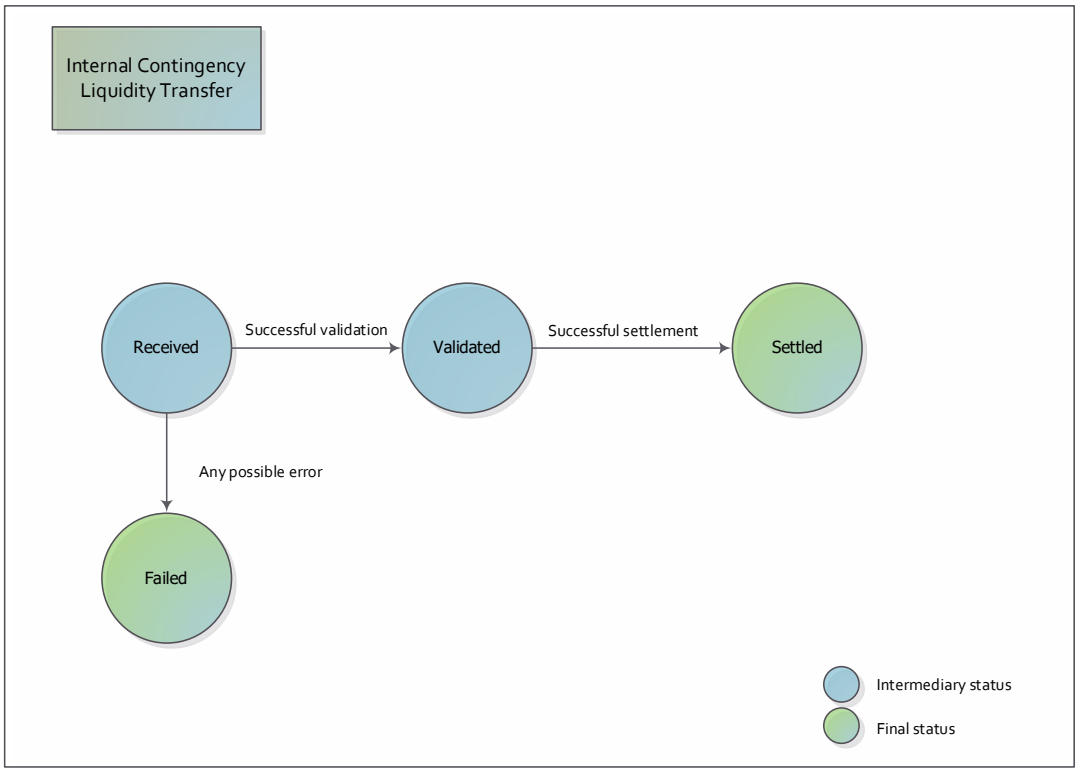
If the received message passes all the business checks successfully, TIPS transfers the requested amount from the relevant Transit Account to the TIPS Account immediately. After settlement, TIPS informs the RTGS System and, optionally, the owner of the TIPS Account about the successful settlement.

The responsible Central Bank on behalf of the TIPS DCA holder or the TIPS DCA holder may trigger outbound Internal Contingency Liquidity Transfer to debit the TIPS DCA and to credit the RTGS Transit Account.

If the received message passes all the business checks successfully, TIPS transfers the requested amount from the relevant TIPS Account to the Transit Account immediately. After settlement, TIPS informs the party instructing the liquidity transfer while the Central Bank holding the transit account receives the BankToCustomerDebitCreditNotification message (camt.054), if previously subscribed.

Internal Contingency Liquidity Transfer orders can have different statuses depending on the executed steps of the settlement process. The possible statuses of an Internal Liquidity Transfer order are described in the following diagram.

Figure 13 – Internal Contingency Liquidity Transfer status



An Internal Contingency Liquidity Transfer order is *Received* and *Validated* by TIPS if it passes all validation checks successfully and the related TIPS account is not 'blocked for credit' or 'blocked for debit and credit'; otherwise its status is set to *Failed*. Subsequently, it moves to the status *Settled* once TIPS settles the full amount of the order. Internal Contingency liquidity transfers involve

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LiquidityCreditTransfer (camt.050.001.07) and Receipt (camt.025.001.07) messages, as well as BankToCustomerDebitCreditNotification (camt.054.001.12) for debit/credit notifications and ReturnAccount (camt.004.001.10), if the account floor/ceiling threshold is exceeded.

1.5.3.5. Reserve calculation

TIPS Accounts in euro and all their balances are, from a legal perspective, considered to be in the jurisdiction of T2-CLM. In this respect, TIPS balances can be taken into account for the calculation of the minimum reserve requirements in T2-CLM.

Given the 24/7/365 nature of settlement in TIPS, it is necessary to define a single point in time to perform the calculation in a synchronised way between TIPS and T2-CLM. To make sure that the balances used for the calculation in TIPS and T2-CLM are coherent, TIPS prepares snapshots of the balances during the RTGS System end of day procedure, ensuring that no liquidity transfers are pending confirmation from the related RTGS System. These snapshots are the basis for the General Ledger produced by TIPS and forwarded to the linked RTGS Systems.

1.5.3.6. Rule-based Liquidity Transfer

A rule-based Liquidity Transfer is automatically generated by TIPS in the event of either a floor or ceiling breach in order to re-establish the target balance of a TIPS DCA. The rule-based LT setup shall be configured in CRDM and it will be propagated to TIPS in order to trigger the proper transfer of liquidity.

There are two categories of rule-based liquidity transfer envisioned:

- Push Rule-based[14] LT, whose aim is to push a specific amount of liquidity - defined into the rule-based setup in CRDM - from the TIPS DCA to a predefined MCA.
- Pull Rule-based LT[15], whose aim is to pull a specific amount of liquidity - defined into the rule-based setup in CRDM - from a predefined MCA.

The CRDM configuration received by TIPS shall contain at least the following fields:

- TIPS DCA for which a rule-based LT is defined
- Reference to an MCA to pull/push liquidity from/to
- Type of rule-based configuration:
  - Only notification
  - Only automated rule-base LT
  - Both notification and automated rule-base LT
- *Target Amount After Breaching Floor*[16] to be reached after an event of floor breach

[14] From TIPS viewpoint, a Push rule-based LT is fully equivalent to an Outbound LT, for which a Receipt is expected by T2-CLM

[15] From TIPS viewpoint, a Pull rule-based LT is a camt.050 generated by TIPS and forwarded to T2-CLM. Once the Pull LT is processed in T2-CLM, it will trigger a camt.050 in the opposite direction (Pull response), which is equivalent to an Inbound LT

[16] The Target Amount After Breaching Floor is defined as a target balance X (greater than Y, being Y the floor threshold of the TIPS DCA) that has to be restored after the floor breach event. Therefore, if the TIPS DCA balance after the floor breach is Y-

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- *Target Amount After Breaching Ceiling*[17] to be reached after an event of ceiling breach

Should a negative response to a rule-based LT attempt be received from the specific RTGS System, no retry mechanism shall be put in place to avoid multiple failures or endless loops.

The mechanism of rule-based LTs shall be temporarily switched off in TIPS when the corresponding RTGS System is either in status '*closed*' or '*partially closed*', i.e. when settlement of inter-service liquidity transfer is not permitted.

Depending on the specific currency, the Rule-based LT mechanism will be put on hold during any time window in which the RTGS System is not available (e.g. during the EoD procedure, or during the partial closure phase). When the RTGS System resumes its normal inter-service liquidity transfer processing for a given currency, the balances of the TIPS DCAs (denominated in the same currency) for which a rule-based LT configuration exists will be compared against their floor/ceiling thresholds. As a result of this comparison, if a TIPS DCA balance is still below the floor or above the ceiling, an appropriate rule-based liquidity transfer will be triggered in order to restore the predefined target balance of the TIPS DCA as it was defined in CRDM.

1.5.3.6.1 Push rule-based LT

A Push rule-based Liquidity Transfer order is generated by TIPS towards the corresponding RTGS System, by using a Liquidity Transfer message. A credited MCA in T2-CLM shall be specified in the message. No reservation of funds is envisioned and settlement takes place immediately.

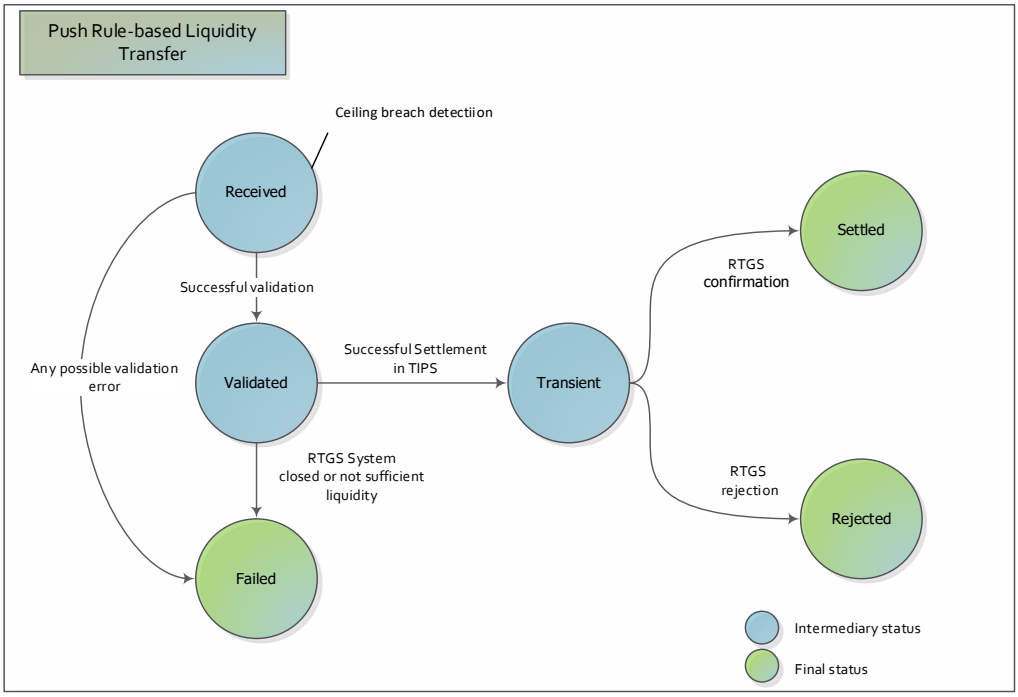
The status transitions of Push rule-based Liquidity Transfer are shown in the following diagram.

A, the TIPS DCA balance has to be replenished with amount [X-(Y-A)], whose value will be inserted in the TIPS-generated Pull Rule-based LT

[17] The Target Amount After Breaching Ceiling is defined as a target balance W (lower than Z, being Z the ceiling threshold of the TIPS DCA) that has to be reached after the ceiling breach event. Therefore, if the TIPS DCA balance after the ceiling breach is Z+B, the TIPS DCA balance has to be reduced by the amount [(Z+B)-W], whose value will be inserted in the TIPS-generated Push Rule-based LT

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Figure 14 – Push Rule-based Liquidity Transfer status diagram



Upon a ceiling breach condition occurs, a Push Rule-based Liquidity Transfer order is generated by TIPS with status *Received*. If the formal validations are executed successfully a settlement attempt will take place; otherwise its status is set to *Failed*. Subsequently, after successful settlement in TIPS the status moves to *Transient*, i.e. (i) the funds are credited to the Transit Account denominated in the same currency of the given liquidity transfer and (ii) the message is routed to the relevant RTGS System for further processing. Conversely, if the involved TIPS Account is blocked or has insufficient funds, the Push Rule-based Liquidity Transfer is set to *Failed*.

The business case of a Push Rule-based Liquidity Transfer whose status is *Transient* shall reach its final status (i.e. *Settled or Rejected)* upon the reception of either a positive or negative receipt from the involved RTGS System. If the RTGS System sends a negative reply, funds are automatically reversed from the Transit Account and credited back to the given TIPS DCA.

If the RTGS System does not respond properly so that the status cannot be set to either *Settled* or *Rejected* within a configurable timeframe, an alert is raised to the TIPS Operator, in order to take corrective measures as explained in 2.5.2.2 “RTGS Alert scenario – No reply from RTGS”.

Push Rule-based Liquidity Transfers can only be internally generated in A2A mode, by using LiquidityCreditTransfer (camt.050.001.07), Receipt (camt.025.001.07) and BankToCustomerDebitCreditNotification (camt.054.001.12) for debit notifications.

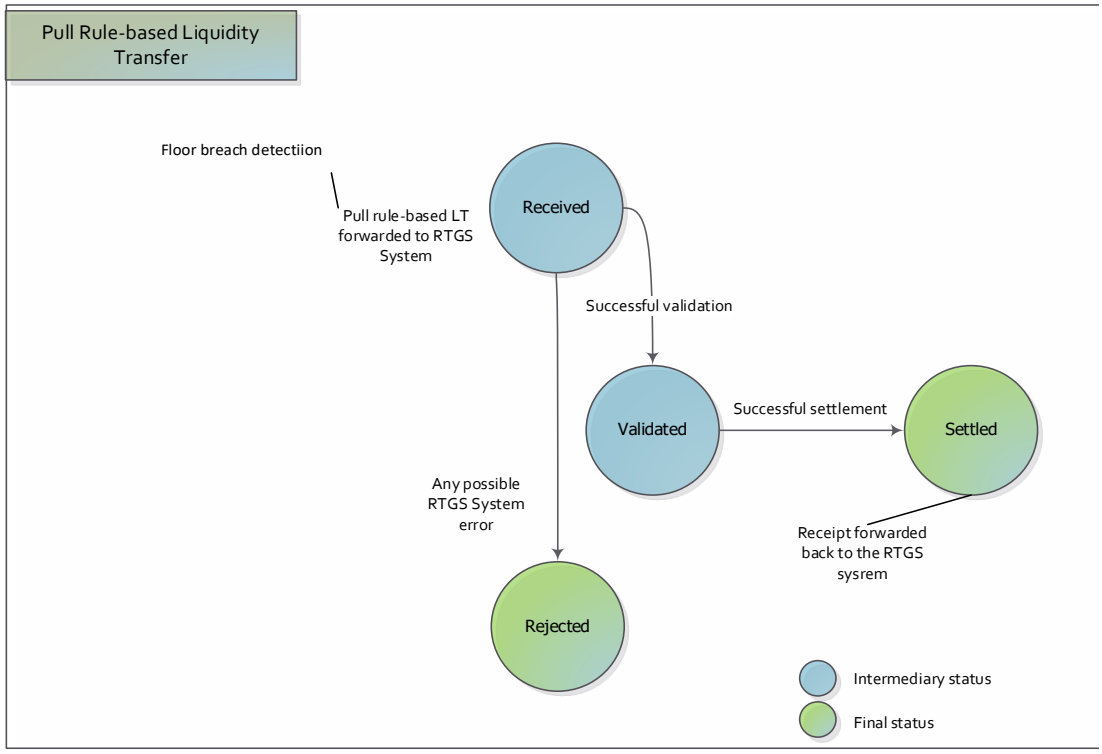
All rights reserved.

1.5.3.6.2 Pull rule-based LT

A Pull rule-based Liquidity Transfer order is generated by TIPS towards the corresponding RTGS System, by using a Liquidity Transfer message. A debited MCA in T2-CLM shall be specified in the message.

The status transitions of a Pull Rule-based Liquidity Transfer are shown in the following diagram.

Figure 15 - Pull rule-based Liquidity Transfer status diagram



Upon a floor breach condition occurs, a Pull rule-based Liquidity Transfer order is generated by TIPS and routed to the relevant RTGS System for further processing.

Upon the settlement attempt in the RTGS System, in reply to a Pull Rule-based LT two scenarios may occur:

1) The LT is accepted and settled by the RTGS System. The RTGS System sends back a Liquidity Transfer message in order to settle the Rule-based LT in TIPS. Upon successful settlement in TIPS the status of the LT is set to *Settled*. TIPS replies back to the RTGS system with a Receipt message.
2) Should the RTGS System communicate a failure, the corresponding Rule-based LT in TIPS will be set to *Rejected*.

Pull Rule-based Liquidity Transfer can only be internally generated in A2A mode, by using LiquidityCreditTransfer (camt.050.001.07), Receipt (camt.025.001.07) and BankToCustomerDebitCreditNotification (camt.054.001.12) for credit notifications.

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1.5.4. Reference data management

TIPS Reference data offers Participants, Central Banks and the TIPS Operator an integrated and consistent set of common information, along with the ability to input and maintain reference data of TIPS Participants and their Accounts.

TIPS Reference Data Management is split between TIPS itself and the external Common Reference Data Management component (CRDM). The CRDM allows users to setup and maintain reference data that is common to multiple Eurosystem services, and propagates such data to the relevant services. In this respect, changes to TIPS reference data fall into two categories:

- Common reference data changes: this class of operations covers most TIPS reference data changes, notably the creation, update and deletion of Participants and Accounts. These operations are carried out by authorised users in the CRDM via its dedicated interface and propagated to TIPS on a daily basis before the change of RTGS System business day. As the CRDM interface is available 22 hours a day and during the weekdays, this type of operation is only available during that time window. Please refer to CRDM documentation for additional details.

  The propagation of Common Reference Data to TIPS is effected through a process that progressively updates all TIPS processing nodes without impacting the 24-hour settlement process.

  As the propagation of Common Reference Data requires a certain amount of time each day, it is necessary to input all changes needed for a certain business day before a specific pre-defined cut-off time in advance of said date.

- Immediate reference data changes: this class of operations refers to high-priority settlement-relevant reference data changes that need to be implemented in TIPS as soon as they are instructed. These operations are carried out by authorised users directly in TIPS via the TIPS interface (available 24 hours a day) and processed in the same flow as Instant Payment transactions. The possible immediate reference data changes in TIPS are listed below:
  - Blocking/unblocking of a participant;
  - Blocking/unblocking of an account or CMB;
  - Update of a CMB limit (and adjustment of the related headroom).

Blocking/unblocking status and CMB limit data maintenance operations are also available in the CRDM – refer to 1.6.3 “Common Reference Data Management” for additional information.

Within TIPS, Reference Data maintenance instructions can be submitted in U2A and A2A mode depending on the individual object. Regardless of the connection mode, all instructions are submitted to the Reference Data Manager component in the same format.

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U2A functions can also be triggered in 4-Eyes mode, so that a final approval from a different user is required before the change comes into effect. 4-Eyes mode is not available in A2A mode. When a 4-Eyes instruction is submitted, it is provisionally validated and put on hold until a second user, different from the initial submitter and with the adequate privileges, confirms or revokes it. If the instruction is confirmed, it is submitted to TIPS as any other Reference Data Management instruction.

The following table lists the reference data operations that are available within TIPS, the types of TIPS Actors that are responsible for them and the respective availability in U2A and A2A. All the following operations are available on a 24/7/365 basis and they are implemented with immediate effect in TIPS reference data. Additional reference data management operations are available in the CRDM and are implemented in TIPS as described in section 1.6.3.

Table 15 – Reference data management functions available in TIPS

Entity	Possible operations	Responsible Actors(s)	U2A availability	A2A availability
Participant	Update of blocking status	TIPS Operator[18], CB	Yes	Yes
Account	Update of blocking status	TIPS Operator[18], CB	Yes	Yes
CMB	Update of blocking status, update of CMB limit	TIPS Operator, CB, TIPS Participant, Ancillary System, Instructing Party[19]	Yes	Yes

The update of the RTGS System Status table is normally performed on automatic basis upon the receipt of a ReturnBusinessDayInformation message from the relevant RTGS System. In contingency situations, it can be carried out manually by the TIPS Operator.

1.5.4.1. Blocking Participants

TIPS allows Central Banks to block immediately a TIPS Participant or an Ancillary System falling under their data scope for credit operations, debit operations or both.

Blocking a TIPS Participant for debiting/crediting results in an equivalent blocking on all Accounts owned by that Participant and all the CMBs linked to that Account. The individual Account and CMB blocking status is not overwritten, but a blocking at Participant level always overrides the blocking status at Account or CMB level. In other words, when crediting or debiting a TIPS Account, TIPS also checks the Owner Participant blocking status in addition to the Account or CMB blocking status.

This means, for example, that if a TIPS Participant is blocked for credit, all the Accounts owned by the Participant and all the linked CMBs are also blocked for credit regardless of their individual blocking status for credit; regarding debit operations, all the accounts and CMBs retain their individual blocking

[18] TIPS Operator can block/unblock Participants, Ancillary Systems, TIPS Accounts, TIPS AS Technical Accounts and CMBs in contingency and upon request of the responsible Central Bank

[19] An Instructing Party acting on behalf of a TIPS Participant or Ancillary System may block/unblock CMBs owned by the relevant TIPS Participant or Ancillary System, unless restricted via access rights

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status for debit. If the TIPS Participant is subsequently unblocked for credit, all the accounts and CMBs also revert to their individual blocking status for credit.

Blocking does not affect reserved amounts; if an amount is reserved for an ongoing payment when the blocking is applied, the payment transaction is completed regardless of participant blocking status.

Unblocking the TIPS Participant means that all of its Accounts and CMBs revert back to their individual blocking status.

The block is performed setting a restriction (through CRDM or directly in TIPS) on the party identifying the TIPS Participant. TIPS performs the block request executing it immediately, without checking if the TIPS Participant is already blocked but overwriting the previous block or adding a new one.

For example, if a TIPS Participant is blocked for credit and TIPS receives a new request of blocking for debit, the Participant (and all related accounts and CMBs) results in a block for both credit and debit operations. If a Participant is blocked for credit and TIPS receives a new request of blocking for credit, the blocking for credit is applied again and the sender of the request is notified with a positive reply.

Similarly, blocking of an Ancillary system results in the blocking of the corresponding TIPS AS Technical Account. If any, also CMBs linked to the TIPS AS Technical Account will be considered as blocked.

Participant blocking can be performed in U2A as well as A2A mode, the latter involving messages PartyModificationRequest and PartyStatusAdvice.

Examples involving TIPS Participant and Ancillary System blocking are listed in sections 2.9.1.1, 2.9.1.2, 2.9.1.3 and 2.9.1.4.

1.5.4.2. Blocking accounts and CMBs

TIPS allows Central Banks to block immediately an account[20] or a CMB linked to TIPS Participant or Ancillary System falling under their data scope for (i) credit operations, (ii) debit operations or (iii) both. TIPS allows TIPS Participants and Ancillary Systems to block immediately a CMB linked to accounts under their data scope for (i) credit operations, (ii) debit operations or (iii) both.

Blocking a TIPS Account or a TIPS AS Technical Account for debiting/crediting results in an equivalent blocking on all CMBs linked to that account. The individual CMB blocking status is not overwritten.

This means, for example, that if a TIPS Account is blocked for credit, all the CMBs linked to the account are also blocked for credit regardless of their individual blocking status for credit; regarding debit operations, all the CMBs retain their individual blocking status for debit. If the TIPS Account is subsequently unblocked for credit, all the CMBs also revert to their individual blocking status for credit.

Blocking does not affect reserved amounts; if an amount is reserved for an ongoing payment when the blocking is applied, the payment transaction is completed regardless of account or CMB blocking status.

Unblocking an account means that all linked CMBs revert back to their individual blocking status.

[20] A TIPS Account or a TIPS AS Technical Account depending on the owner party type

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As explained in case of blocking of a TIPS Actor (see 1.5.4.1 “Blocking Participants”), TIPS performs the block request executing it immediately, without checking if the object itself is already blocked but overwriting the previous block or adding a new one.

Account and CMB blocking can be performed in U2A as well as A2A mode, the latter involving messages AccountExcludedMandateMaintenanceRequest, AccountRequestAcknowledgement and AccountRequestRejection.

Examples involving Account and CMB blocking are listed in sections 2.9.1.5, 2.9.1.6 and 2.9.1.7.

1.5.4.3. Limit management

TIPS allows Central Banks and TIPS Participants to update the Limits related to CMB falling under their data scope.

When a CMB limit is modified, the headroom of the CMB is updated accordingly. The CMB Headroom is updated (increased or decreased) on the basis of the difference between the new limit value of the CMB and the old limit value: if this difference is positive, the headroom is increased; if the difference is negative, the headroom is decreased.

It is possible, thus, that a change in the limit leads the headroom to becoming negative. In this case the CMB will only accept Instant Payments transactions in credit until the headroom once again goes over zero.

Limit management can be performed in U2A as well as A2A mode, the latter involving messages ModifyLimit (camt.011.001.08) and Receipt.

Examples involving limit management are listed in sections 2.9.1.8 and 2.9.1.9.

1.5.5. Queries and reports

TIPS allows to perform different categories of real-time queries and a set of pre-defined reports on production data. The dataset on the basis of the Queries and Reports feature are calculated and aggregated on a continuous basis i.e. each time a given instruction is executed, any calculated or aggregated data that depends on the executed instruction is immediately updated.

1.5.5.1. Queries

TIPS provides the query functionality to TIPS actors to satisfy their information needs on demand. It is possible to obtain information on the status of Payment transactions, Liquidity Transfer Orders, Accounts or CMBs by submitting the corresponding query request to TIPS.

In order to manage in a timely manner the liquidity over the accounts and CMBs in the user data scope, the following queries are available both in A2A and U2A modes:

- Account balance and status query;
- CMB limit and status query.

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In order to check the status of a previously submitted or received Instant Payment transaction or Recall Response the following query is available both in A2A and U2A modes:

- Payment transaction status query.

In order to check the status of a previously submitted Liquidity Transfer order the following query is available in U2A mode only:

- Liquidity transfer status query.

The following advanced queries for Liquidity Transfers and Payment Transactions are available in U2A mode only:

- Advanced Liquidity transfer status query;
- Advanced Payment transaction status query.

The processing of a Query Request consists in the three following steps:

- execution of the checks on the Query Request message regarding authorisation of the sender and validation of the query;
- retrieval of the data corresponding to the submitted Request and its input parameters;
- sending of the Query Response to the original sender (i.e. the same DN of the query sender).

TIPS shall take into account all access rights while processing queries and only return results if the interested data are part of the TIPS Actor data scope, as defined in the Table 37 – Query permissions.

A brief outline of the purpose of each query and the exact description of its respective selection and return parameters are given

- In section 2.7 “Queries” for the A2A mode;
- In the relevant section of the UHB (see TARGET Instant Payment Settlement User Handbook) for the U2A mode.

1.5.5.2. Reports

TIPS informs TIPS Actors with a set of predefined reports in order to support business monitoring and reconciliation activities. The predefined reports offered by TIPS are the Statement of Account Turnover and the Statement of Accounts.

The Statement of Account Turnover provides information on the opening/closing balances at start/end of RTGS System business day and the sum of debits/credits for all the TIPS Accounts or TIPS AS Technical Account in the data scope of the TIPS Actor.

The Statement of Accounts provides information on the closing balance at the end of the reported period and also on the opening balance (for full reports only) for all the TIPS Accounts in the data scope of the TIPS Actor. For each account, detailed information on the related settled transactions (liquidity transfers or Instant Payments) during the reporting period is provided.

TIPS actors can configure their report subscription in the Common Reference Data Management.

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These reports are available in A2A push mode only and the data scope of any of them and the moment of generation may be different for different users and depend on their access profiles and configuration (see Table 39 – Report permissions and data scope).The Statement of Account report can be produced in Full or Delta mode; delta reports include only the relevant data that has changed since the generation of the previous version. The Statement of Account Turnover report is provided in Full mode only.

All the timestamps included in the reports are expressed in UTC.

The creation of a report is triggered at the end of day of the corresponding RTGS System or at the frequency scheduled in the report subscription; the latter is specified in hours (e.g. every 3 hours, every 6 hours, etc.) and it is not relevant for full reports. Report generation process is based on data made available by snapshots of in-memory balances (and transactional data) produced at the time scheduled in the report subscription as explained in detail in section 2.8 "Reports". The report generation starts immediately after the snapshot and the report is sent to the recipient as soon as it is available.

TIPS applies compression to the outgoing reports whenever possible by using ZIP industry standard algorithm.

1.5.6. Raw Data extraction

TIPS produces, on a daily basis, raw data files related to all the activities performed during the day. TIPS relies on the end of day of the underlying RTGS Systems that is communicated via A2A message (see 1.6.1 "T2 and other RTGS Systems"). The raw data files contain the information related to the RTGS Systems business day that has been completed. TIPS does not produce raw data for reference data, as they are provided by the Common Reference Data Management component.

For performance reasons, TIPS does not produce the raw data for billing immediately after the change of business date but during the night. The file is then sent to the BILL common component.

All of the timestamps included in the raw data are expressed in UTC.

TIPS applies compression to the raw data whenever possible by using industry standard algorithms.

The list of expected raw data sent daily to the common components is shown in the following table.

Table 16 – Raw data

Raw data file	Related information	Receiving Component
Raw data for billing	Information related to billable items	Billing
Raw data for archiving	Transactional data and authentication and security data	Archiving

Concerning data related to Payment Transactions in non-Euro currencies, TIPS provides on a daily basis a file containing the consumption data to the relevant RTGS System.

1.5.6.1. Raw data for Archiving

TIPS provides the following information to the LeA common component for the Archiving:

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- Message signing and content of the settlement messages: FI To FI Customer Credit Transfer, Payment Return, Liquidity transfer, FI To FI Payment Status Report sent from the Beneficiary side to TIPS;
- Transactional data (payment transactions, status messages, liquidity transfers);
- Incoming camt.050 and camt.025 messages received on the internal interface with T2-CLM.

1.5.6.2. Raw data for Billing

The raw data for Billing exported by TIPS contains the information on transactional data. The exhaustive list of exported data is as follows.

Table 17 – Raw data for Billing

Attribute	Description
Transaction Identifier	Identifier of the Instant Payment transaction or of the positive Recall Response transaction.
Business Date	RTGS System business date on which the transaction was processed.
Transaction Type	Type of transaction. The exhaustive list of possible values is as follows: • IP (Instant Payment) • RA (positive Recall Response)
Originator BIC	In case of an IP transaction (Transaction Type = "IP"), it is the BIC11 specified in the "Debtor Agent"[21] field of the related incoming FI to FI Customer Credit Transfer. In case of a positive Recall Response (Transaction Type = "RA"), it is the BIC11 specified in the "Debtor Agent"[22] field of the related incoming Payment Return.
Beneficiary BIC	In case of an IP transaction (Transaction Type = "IP"), it is the BIC11 specified in the "Creditor Agent"[23] field of the related incoming FI to FI Customer Credit Transfer. In case of a positive Recall Response (Transaction Type = "RA"), it is the BIC11 specified in the "Creditor Agent"[24] field of the related incoming Payment Return.
Originator Country Code	Country code of the Central Bank which the Originator account belongs to.
Beneficiary Country Code	Country code of the Central Bank which the Beneficiary account belongs to.
Originator Account Number	In case of an IP transaction (Transaction Type = "IP"), it is the identification number of the debited TIPS Account/TIPS AS Technical Account. In case of a positive Recall Response (Transaction Type = "RA"), it is the identification number of the credited TIPS Account/TIPS AS Technical Account.

[21] This is the BIC authorised for payments on the account to be debited of the IP and included in the block FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt of the pacs.008 message

[22] This is the BIC authorised for payments on the account to be credited of the RA and included in the block PmtRtr/TxInf/OrgnlTxRef/DbtrAgt of the pacs.004 message

[23] This is the BIC authorised for payments on the account to be credited of the IP and included in the block FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt of the pacs.008 message

[24] This is the BIC authorised for payments on the account to be debited of the RA and included in the block PmtRtr/TxInf/OrgnlTxRef/CdtrAgt of the pacs.004 message

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Beneficiary Account Number	In case of an IP transaction (Transaction Type = “IP”), it is the identification number of the credited TIPS Account/TIPS AS Technical Account. In case of a positive Recall Response (Transaction Type = “RA”), it is the identification number of the debited TIPS Account/TIPS AS Technical Account.
Final Status	Final processing status of the transaction. The exhaustive list of possible values is as follows: • Settled • Failed • Rejected • Expired

1.5.6.3. Raw data for Statistics

TIPS produces raw data for statistics on a daily basis. Data are collected and aggregated every day after midnight. Therefore, in order to create an EPC report, the selected period has to be mandatorily over.

1.5.6.3.1 Liquidity transfer raw data for non-Euro currency

For the DKK currency a dedicated new raw data extraction is introduced whose content is the granular data relating to settled Liquidity Transfers (LTs) in TIPS according to the classification below:

- Internal Contingency LTs (e.g. from a TIPS Transit Account to a TIPS DCA),
- inbound LTs (e.g.. from an MCA, RTGS DCA or T2S DCA to a TIPS DCA),
- outbound LTs (e.g.. from a TIPS DCA to an MCA, RTGS DCA or T2S DCA) and
- intra-service LTs (e.g. from a TIPS DCA to an TIPS AS technical account, or viceversa).

The raw data is produced in the form of a flat-file and shall include the following fields, for each liquidity transfer:

- Debtor BIC,
- Creditor BIC,
- Debtor account,
- Creditor account,
- Transaction identifier,
- Settlement timestamp,
- Business date,
- Amount,
- Currency,
- Transaction Classification.

The Transaction Classification indicates the Liquidity Transfer category to which the entry pertains, namely “Internal Contingency LT”, "inbound LT," "outbound LT," or "intra-service LT."

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Transactional data shall be accrued on a daily basis into the monthly raw data report. The generation of the raw data report and statistics for DKK shall be triggered by the TIPS Operator through a dedicated functionality for creating monthly and quarterly reports via the TIPS GUI.

1.5.6.4. TIPS Consumption file

To support the billing of Payment Transactions in Swedish Krona, a consumption file is provided to the RTGS system for SEK (i.e. RIX) on a daily basis containing information at transaction level.

1.5.6.4.1 Structure

The file is generated as a fixed length record flat file encapsulated in a XML envelope.

The structure of the records of the TIPS Consumption file is as follows:

Table 18 - RTGS consumption file structure

O/M	FIELD No.	FIELD NAME	FORMAT	DESCRIPTION
M	1	Business Date	DATE(YYYYMMDD)	RTGS business date on which the reported transaction was processed.
M	2	Interested BIC	CHAR(11)	This field reports: 1. BIC11 specified in the "Debtor Agent"[21] field of the pacs.008 of all the aggregated Settled and Unsettled IP transactions – Debtor side and in the "Debtor Agent"[22] field of the pacs.004 of all the aggregated Setted and Unsettled RA transactions – Creditor side. 2. BIC11 specified in the "Creditor Agent"[23] field of the pacs.008 of all the aggregated Settled and Unsettled IP transactions – Creditor side and in the "Creditor Agent"[24] field of the pacs.004 of all the aggregated Settled and Unsettled RA Transactions – Debtor side;
M	3	Country Code	CHAR(2)	Country code of the Central Bank which the account belongs to.

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M	4	Account Number	CHAR(34)	Identification number of the TIPS Account interested by the reported transactions (Debtor and Creditor sides).
M	5	Settled IP Transactions – Debtor	NUMERIC(10)	Number of settled IP transactions – Debtor side (i.e. with final status equal to "Settled") which debited the account.
M	6	Unsettled IP Transactions – Debtor	NUMERIC(10)	Number of unsettled IP transactions – Debtor side (i.e. with final status different from "Settled") which tried to debit the account.
M	7	Settled IP Transactions – Creditor	NUMERIC(10)	Number of settled IP transactions – Creditor side (i.e. with final status equal to "Settled") which credited the account.
M	8	Unsettled IP Transactions – Creditor	NUMERIC(10)	Number of unsettled IP transactions – Creditor side (i.e. with final status different from "Settled") which tried to credit the account.
M	9	Settled RA Transactions – Creditor	NUMERIC(10)	Number of settled RA transactions – Creditor side (i.e. with final status equal to "Settled") which credited the account.
M	10	Unsettled RA Transactions – Creditor	NUMERIC(10)	Number of unsettled RA transactions – Creditor side(i.e. with final status different from "Settled") which tried to credit the account.
M	11	Settled RA Transactions – Debtor	NUMERIC(10)	Number of settled RA transactions – Debtor side (i.e. with final status equal to "Settled") which debited the account.
M	12	Unsettled RA Transactions – Debtor	NUMERIC(10)	Number of unsettled RA transactions – Debtor side (i.e. with final status different from "Settled") which tried to debit the account.

The name of the flat file that contains the Consumption data is as follows: TIPSCONFILEYYYYMMDD where YYYYMMDD specifies the year, month and day on which the reported transaction was processed.

1.5.6.4.2 XML Envelope

TIPS Consumption file content is embedded into a XML Envelope.

The following is the XML schema used to embed the file into a message:

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```
<?xml version="1.0" ?>
<xs:schema xmlns="urn:TIPS:TIPSConsumptionfile"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
 targetNamespace=" urn:TIPS:TIPSConsumptionfile"
 elementFormDefault="qualified">
<xs:simpleType name="RestrictedFileType">
 <xs:restriction base="xs:string">
  <xs:pattern value="(.{135,135}\n)+"/>
 </xs:restriction>
</xs:simpleType>
<xs:element name="File" type="File"/>
 <xs:complexType name="File">
  <xs:simpleContent>
   <xs:extension base="RestrictedFileType">
    <xs:attribute name="fileId" type="xs:string" default="" />
   </xs:extension>
  </xs:simpleContent>
 </xs:complexType>
</xs:schema>
```

The produced XML file should look as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<File fileId = “TIPSCONFILE20220523”
xmlns="urn:TIPS:TIPSConsumptionfile">Record1
Record2
…
Recordn
</File>
```

1.6. Interactions with other services

This section describes all interactions between TIPS and other services provided by the Eurosystem or other RTGS Systems.

1.6.1. T2 and other RTGS Systems

This sub-section describes all the needed interactions between TIPS and the RTGS Systems.

TIPS is designed to be multi-currency and to provide settlement in euro and non-euro Central Bank Money.

The interactions with the RTGS System aim at informing TIPS about:

- the need for settlement of Liquidity Transfers coming from the RTGS System (see 1.5.3.1 “Inbound Liquidity Transfer”);

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- the confirmation of a Liquidity Transfer settlement received from TIPS by the RTGS System (see 1.5.3.2 “Outbound Liquidity Transfer”);
- the current status of the relevant RTGS System, needed for the validation of Inbound and Outbound Liquidity Transfers;
- the current Business Date of the RTGS System, needed for the reconciliation of Recall Responses, Instant Payments and Liquidity Transfers;
- the moment of change of Business Date in the relevant RTGS System, in order to start the creation of reports and the General Ledger message;
- the moment to generate and transmit to the relevant RTGS System a snapshot containing the account balances denominated in a specific currency.

TIPS foresees three main interactions with the RTGS Systems covering the above listed information: the Liquidity Transfer management, the closure of the RTGS System (for the maintenance window and the weekend or holidays) and the change of business date of the RTGS System.

Besides these interactions, on an optional basis, an RTGS System may require specific snapshots in connection to particular cut-offs of its operating day.

The following sub-sections provide detailed information on these three main interactions, with specific reference to T2-CLM.

1.6.1.1. Liquidity Transfer management

As described briefly in 1.5.3.1 “Inbound Liquidity Transfer” and 1.5.3.2 “Outbound Liquidity Transfer”, the TIPS Service communicates with the relevant RTGS System for settling liquidity transfers in a specific currency.

As a general rule, when receiving an Inbound Liquidity Transfer, TIPS accepts the request and settles without checking the status of the RTGS System itself; TIPS takes for granted that the RTGS System requests a liquidity transfer when the system is open.

On the contrary, in the processing of an Outbound Liquidity Transfer, TIPS interacts with the RTGS System as follows:

- TIPS checks that the relevant RTGS System is open and ready for settlement by querying the related instance in the RTGS System table;
- Upon successful settlement, TIPS forwards the liquidity transfer to the RTGS System for the settlement;
- TIPS waits for a confirmation of settlement of the liquidity transfer from the RTGS System; if the confirmation is:
    - positive, then the transaction is confirmed inside TIPS;
    - negative, then TIPS performs an automatic reverse of funds;

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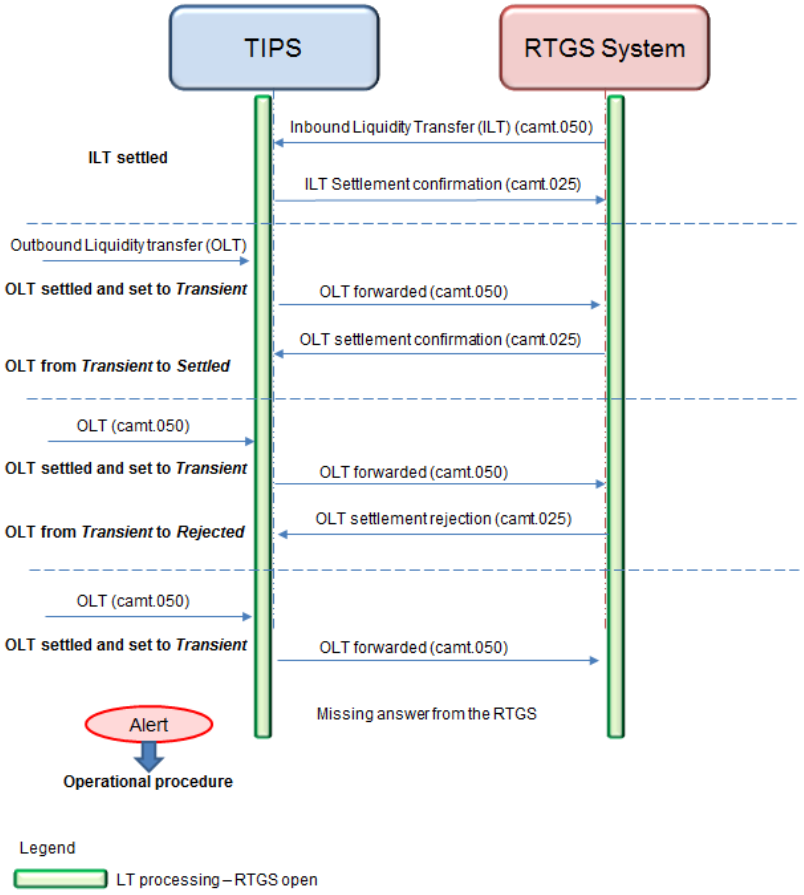
- missing, then TIPS, after a configurable timeframe, raises an alert to trigger a suitable operational procedure.

In any case, the liquidity transfer business case is considered closed only after an explicit confirmation/rejection from the relevant RTGS system.

In case the RTGS System supports the Liquidity Transfer functionality in 'pull' mode, it shall be possible for an authorised RTGS System user to pull liquidity from TIPS back to the RTGS System by sending a liquidity transfer message which is, from TIPS viewpoint, fully equivalent to an Outbound Liquidity Transfer.

The following flow represents the above-described details of the interaction.

Figure 16 – Interaction with RTGS System for Liquidity Transfers



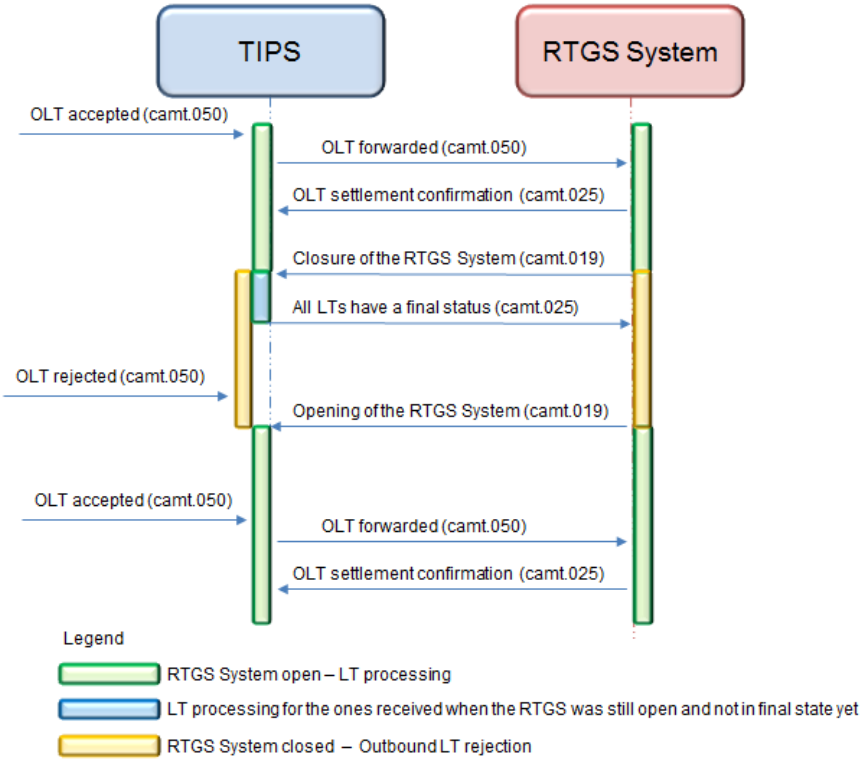
1.6.1.2. Closure of the RTGS System

The RTGS System informs TIPS that it is going to close via camt.019 ('STOP') message; in this specific case, the RTGS System is closing normal operations to enter the time-window needed for daily change of business date, the optional maintenance window, if activated, weekends or banking holidays. Similarly, the RTGS System informs TIPS, via camt.019 ('STRT') message, when it is back to normal operations, e.g. capable to process inter-service Liquidity Transfers.

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The following flow represents the interaction between TIPS and the RTGS System for the closure and opening of the RTGS System:

Figure 17 – Closure and opening of the RTGS System



1.6.1.3. Change of business date of the RTGS System

The change of business date of the RTGS System is a key point for TIPS. When informed about the change of business date of a given currency, TIPS prepares the data for the balances of the business date operations and for the General Ledger message. The designed interaction between TIPS and the relevant RTGS System aims at avoiding any possible discrepancy from TIPS and RTGS System data that may come from the presence of pending Liquidity Transfers in either direction.

The interaction foresees the following steps:

1) the RTGS System sends a status message informing TIPS that the cut-off for Liquidity Transfers has been reached;
2) any other Outbound Liquidity Transfer message reaching TIPS after the reception of this status message must be rejected;
3) any Pull/Push rule-based Liquidity Transfer internally generated stemming from a floor/ceiling breach in TIPS after the reception of the status message shall be immediately rejected;
4) meanwhile, both TIPS and the RTGS System keep settling the Liquidity Transfers received before the cut-off. The RTGS System keeps sending the related receipt to TIPS, in order to align all the pending transactions. TIPS keeps accepting and processing the Incoming Liquidity

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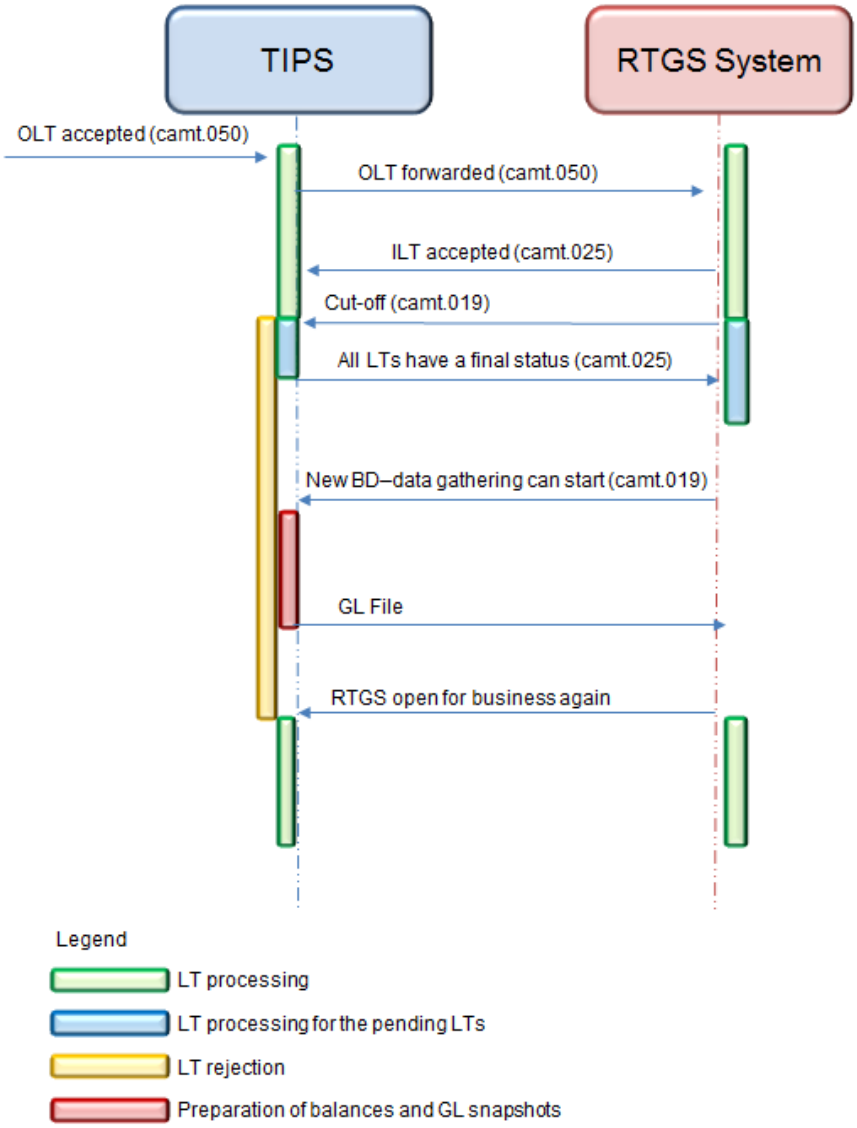
Transfers, including the incoming leg relating to any Pull rule-based LTs originated by TIPS prior to the cut-off;

5) when TIPS receives the confirmation of settlement or the rejection for all the *transient* Liquidity Transfers, it informs the RTGS System that it can proceed;
6) when the RTGS System completes the settlement of the pending liquidity transfers on its side and has received the TIPS confirmation to proceed, it sends another status message informing TIPS that the change of business date can be performed. This status message contains the new business date the RTGS System is moving to. TIPS updates the status and the business date in the RTGS System table and starts the gathering of balances information;
7) TIPS takes the snapshot of the balances and sends the General Ledger message to the RTGS System;
8) RTGS System sends another status message informing TIPS that Liquidity Transfers can be accepted and processed again.

The following flow represents the steps listed above.

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Figure 18 – RTGS System change of business date



1.6.1.4. TIPS General Ledger

In the specific case of the RTGS System for euro, TIPS provides a general ledger to T2-CLM for accounting and Reserve Management purposes. As for non-Euro currencies, TIPS provides the relevant RTGS System with a General Ledger carrying the information related to TIPS Accounts (and transit account) denominated in the given currency for the past business date. In order to convey such a set of information to the relevant RTGS System a BankToCustomerStatement (camt.053.001.12) message is used.

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1.6.1.4.1 TIPS General Ledgers production

When T2-CLM starts its End-of-Day process (e.g. for the euro currency), it sends a ReturnBusinessDayInformation to TIPS, in order to inform the latter that, from this point onward, no new liquidity transfers denominated in euro will be accepted by T2-CLM. The same logic applies also to Pull/Push rule-based LT triggered by a floor/ceiling breach of a euro denominated TIPS DCA after the cut-off. Simultaneously, TIPS starts to finalise all pending liquidity transfers denominated in euro towards T2-CLM.

After the finalisation of the pending liquidity transfers, TIPS confirms it with the delivery of a Receipt (camt.025.001.07) to T2-CLM.

After that and upon request via ReturnBusinessDayInformation from T2-CLM, TIPS generates and provides a general ledger message based on "TIPS EoD account balances" data related to the business day that just elapsed and that T2-CLM uses to build and provide general ledgers to the Central Banks.

Exactly the same communication protocol applies also to the End-of-Day processing related to any other non-Euro RTGS System connected to TIPS.

1.6.1.4.2 Content

The general ledger message contains all accounts in a given currency held in TIPS, including the transit account and the TIPS AS Technical Accounts denominated in the same currency.

TIPS sends to each RTGS System (e.g. T2-CLM for euro) a single not compressed[25] camt.053 General Ledger message containing statements without a particular order.

TIPS delivers general ledger data that fulfil the following condition: the sum of all balances of the accounts denominated in a given currency (excluding the transit account for that currency) must be equal to the balance on the transit account for that currency in absolute value.

1.6.1.5. TIPS Snapshot

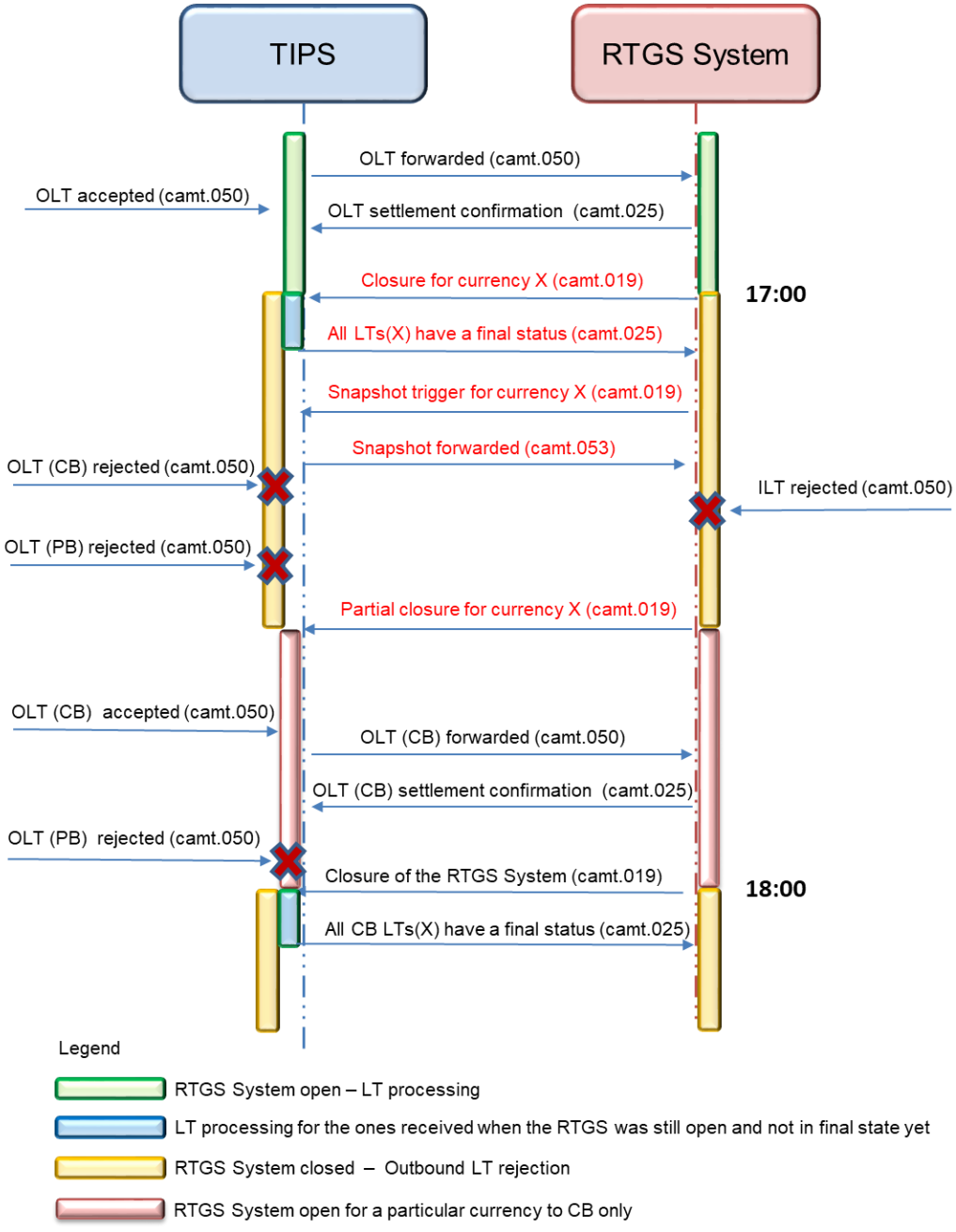
Similarly to the current End-of-Day mechanism, that leads to the generation and delivery of the TIPS General Ledger towards the RTGS System, the TIPS snapshot function is used to take a consistent picture of the balance available on the accounts of a given currency at a specific moment in time. In order to ensure consistency, there should be no liquidity transfer[26] "in flight" between TIPS and the RTGS system when the snapshot is taken. Moreover, for the sake of consistency, before executing the snapshot command, no Pull/Push Rule-based liquidity transfer shall be pending. For this reason the following workflow between the RTGS system and TIPS shall be implemented.

[25] Compression may apply at network protocol level, if explicitly deemed necessary in the communication with an external RTGS System interacting with TIPS

[26] Denominated in the same currency for which the account balances snapshot is requested

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Figure 19 – Snapshot generation and partial closure status



After the snapshot generation and delivery to the relevant RTGS System, the RTGS System communicates to TIPS the new status of partial closure where only the responsible Central Bank (or the TIPS Operator acting on its behalf) is authorized to instruct Inter-service Liquidity Transfers in a specific currency. All the other settlement currencies active in the system are not impacted by this processing.

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1.6.1.5.1 TIPS Snapshot production

When the appropriate currency-specific Snapshot cut-off, configured in the RTGS system operating day, is reached the RTGS system sends a ReturnBusinessDayInformation to TIPS, in order to inform that for the corresponding currency:

- liquidity transfers from RTGS system to TIPS are no longer accepted by the RTGS system;
- any new outbound liquidity transfers received by TIPS shall be rejected;
- TIPS should finalise all pending liquidity transfers and notify the RTGS system.

After the finalisation of all the pending liquidity transfers, TIPS delivers a Receipt (camt.025.001.07) to the RTGS system.

Once the processing on the pending liquidity transfer in the specific currency is completed in the RTGS system, it delivers a second ReturnBusinessDayInformation that is used by TIPS as a trigger to generate the Snapshot message reporting the current balances available on all the TIPS Accounts denominated in the specific currency.

Once the generation is complete, TIPS delivers the snapshot message to the RTGS system. After reception of the snapshot in the RTGS system, a third ReturnBusinessDayInformation communicates that the status of the RTGS system can be set to '*Partially Closed*', i.e. from that moment onward only the Central Bank operating the specific currency can instruct inter-service Outbound Liquidity Transfer. The corresponding block on the inter-service Inbound Liquidity Transfers has to be set up in the RTGS system.

1.6.2. Eurosystem Single Market Infrastructure Gateway

The Eurosystem Single Market Infrastructure Gateway (ESMIG) component provides access to the Market Infrastructure services, including TIPS, in both A2A and U2A channel.

In A2A the ESMIG allows the access from the outside world to TIPS establishing the communication channel between TIPS and the Network Service Providers and checks the A2A message has a valid format (XML schema validation). The NSPs are expected to perform the checks of authentication of the sender and the verification of the signature for the messages received by TIPS. Thus, a message arriving to TIPS must be considered authenticated, properly signed, well-formed after technical validation and sent by a sender recognised as a properly configured one for using the TIPS service.

TIPS performs, then, the authorisation tasks for the sender. The authorisation tasks consist in checking that the access rights configuration of the sender allows it to submit the given request.

In U2A, the ESMIG Identity Access Management component of the ESMIG executes the authentication for U2A users entering the TIPS Graphical User Interface (GUI). Once the user has been successfully authenticated, the GUI retrieves the granted roles and checks that the requested action is allowed for the user.

For further details, please refer to ESMIG documentation.

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1.6.3. Common Reference Data Management

The Common Reference Data Management (CRDM) component provides features that allow duly authorised users to set up, maintain and query all reference data that are shared by multiple services (e.g. T2S, TIPS) for their processing activities.

The access to CRDM is possible in U2A mode (for all functions) and in A2A mode (for a subset of functions) via ESMIG (see section 1.2).

In order to ensure a timely and consistent propagation of common reference data to the relevant services, CRDM implements a publish-subscribe feature allowing each service to receive all the common reference data (and their changes) they require for their processing.

In a nutshell:

- CRDM publishes all changes (in push mode) of common reference data (e.g. creations of new objects, updates of already existing objects);
- Other subscriber services get those changes (in pull mode) and apply them to their Local Reference Data Management component, according to their needs.

Other detailed information can be found in the CRDM documentation.

As far as TIPS is concerned, as anticipated in 1.5.1 “General concepts” and in 1.5.4 “Reference data management”, all reference data setup and maintenance operations – other than the immediate changes in the local reference data management – are performed in the CRDM and reference data are then propagated from the CRDM to TIPS either asynchronously on a daily basis or, for specific operations corresponding to the immediate changes available in TIPS (i.e. blocking/unblocking of participants, accounts or CMBs and updates of CMB limits) with immediate effect. The dialogue between CRDM and TIPS envisages three types of interactions:

1. **Daily propagation**: this is the main interaction between CRDM and TIPS. Every CRDM opening day, an ad hoc event triggers the propagation of all TIPS reference data from CRDM to TIPS. The event takes place at 17:00 CET, so to ensure a smooth and complete reference data propagation before TIPS receives the notification that a new business day is starting. The set of reference data that TIPS receives on business day T includes all the active data on the mentioned business date. If an item, propagated on date T, contains a validity date in the future (e.g. T+2), TIPS acquires it during the daily propagation but the item will be available in TIPS only when the validity date is reached.
2. **Contingency propagation:** in case of contingency the TIPS Operator may trigger an ad hoc Daily propagation from CRDM to TIPS. The contingency propagation is a daily propagation triggered intraday if an immediate change of a set of data (not manageable directly into TIPS) must be performed. In this case, the following steps happen:
   a. All the data eligible for the daily propagation and valid at the moment of the contingency propagation are propagated;

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b. The daily propagation is performed as scheduled and includes all the active data on the relevant business date.

3. **Immediate propagation**: specific operations, corresponding to the immediate reference data changes available from the TIPS interface, can be carried out in CRDM with immediate effect also in TIPS. If the related attributes are modified directly in TIPS (for example, while CRDM is unavailable) the values in CRDM and TIPS may differ. In such a scenario, it is necessary to restore the alignment between CRDM and TIPS by performing the same change(s) in CRDM as well.

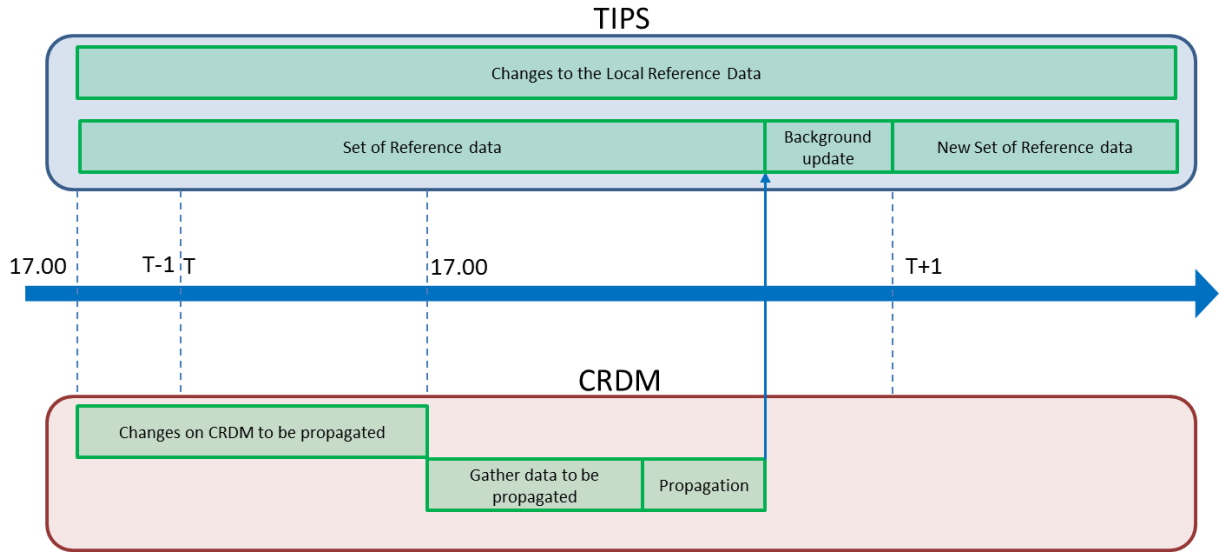
   While the values are not aligned, changes to the relevant attributes(s) may only be carried out in TIPS until the CRDM values are set to the same values. During this time, any other operation on the differing values on CRDM side will be rejected. Once the values are aligned on CRDM side, it will once again be possible to carry out any change from CRDM.

   The possible CRDM changes triggering immediate propagation in TIPS are:

   - Blocking/unblocking of a participant;
   - Blocking/unblocking of an account or CMB;
   - Update of a CMB limit (and adjustment of the relevant headroom).

The following diagram shows a conceptual overview of the daily propagation between CRDM and TIPS.

Figure 20 – Interaction between CRDM and TIPS[27]



[27] The cut-off considered for the loading of new data is the business date change received from the RTGS System. Therefore, it is essential that all users with a validity date (such as Cash Accounts) are ready and propagated to TIPS before TIPS receives this business date change signal. For this reason the diagram conventionally marks the beginning of the data change process at 5 p.m

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1.6.4. Archiving

The Archiving common component provides features that allow the archiving of legally relevant data for regulatory purposes. Instant Payment transactions, Liquidity Transfers, incoming camt.050 and camt.025 received on the internal interface with T2-CLM, status message data and reference data are archived for a period of exactly ten years. Authentication and security data are archived for a period of exactly three months. Please refer to 1.7.3 “Archiving management” for details on how to access archived data.

TIPS produces every day the needed data of payment transaction and status message to be archived. Please refer to 1.5.6 “Raw Data extraction” for additional details.

1.6.5. Billing

For billing purposes, TIPS relies on the features exposed by BILL common component.

TIPS produces every day the needed data and send them to the Billing common component, as Raw Data. The reader may refer to section 1.5.6 “Raw Data extraction” for additional details.

TIPS is not expected to prepare or send consumption files and invoices to the customers but only to gather the data and provide them to the Billing common component.

1.7. Operations and support

1.7.1. Service configuration

TIPS relies on system parameters configured and maintained by the TIPS Operator. The parameters are configured in the CRDM and propagated to TIPS once a day.

The following table includes the exhaustive list of system parameters and their default values.

Note that the system parameters defined for SCT^{Inst} transactions are also valid for both non-Euro and cross-currency payments with the following exceptions:

- a different *Cross-currency Timestamp Timeout* is defined for cross-currency payments
- a different *Investigation Offset* paramenter is defined for non-Euro payments in SEK currency and for cross-currency payments

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Table 19 – System Parameters

Parameter name	Description	Default value
Retention Period	The retention period[28] for transactional data (i.e. Instant Payment transactions, recall, liquidity transfers) expressed in calendar days. This parameter is used also for detecting the timeframe within which two instructions with the same Originator BIC (field AT-D002 in DS-02) and Originator reference (field AT-T054 in DS-02) must be considered as duplicates. The parameter defines the maximum period of time for which the historical data can be accessed either via TIPS GUI or via A2A queries. The retention period starts by the time the transactional data is received by the system.	5
SCT^{Inst} Timestamp Timeout	The time window foreseen in SCT^{Inst} scheme after which an Instant Payment transaction must be rejected due to timeout. This parameter is expressed in milliseconds.	7,000
Cross-currency Timestamp Timeout	The time window foreseen in cross-currency scheme after which an Instant Payment transaction must be rejected due to timeout. This parameter is expressed in milliseconds.	20,000
Originator Side Offset	It is a configurable offset for evaluation of the SCT^{Inst} Timestamp Timeout applied to the reception of the message sent by Originator Participant or Instructing Party acting on behalf of the Originator Participant or a Reachable Party. This parameter can only have values smaller than or equal to zero. An Instant Payment Transaction sent by the Originator Participant or Instructing Party acting on behalf of the Originator Participant or a Reachable Party can be rejected due to timeout in the event that the message is submitted to TIPS with a timestamp (the SCT^{Inst} timestamp, field AT-T056 in DS-02) that is already past the timeout window (SCT^{Inst} Timestamp Timeout + Originator Side Offset). This parameter is expressed in milliseconds.	-1,000
Beneficiary Side Offset	It is a configurable offset for evaluation of the SCT^{Inst} Timestamp Timeout applied to the reception of the message sent by Beneficiary Participant or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party. Rejections due to timeout can occur in the event that the Beneficiary Reply message is not received or if it is submitted to TIPS with a timestamp (the SCT^{Inst} timestamp, field AT-T056 in DS-02) that is already past the timeout window (SCT^{Inst} Timestamp Timeout + Beneficiary Side Offset). This parameter is expressed in milliseconds.	0,000
Sweeping Timeout	The time window after which the sweeping daemon looks for pending payments for which: (i) a valid and timely confirmation from the Beneficiary Participant has not been received yet and (ii) the SCT^{Inst} Timestamp Timeout is elapsed. The value can impact on the performances of the system and must be changed only after green light received by the technical support. The parameter is expressed in seconds.	*2*

[28] TIPS maintains a list of received messages for its own internal consistency. For this reason, based on this buffer, TIPS could still detect the duplicate even after the retention period

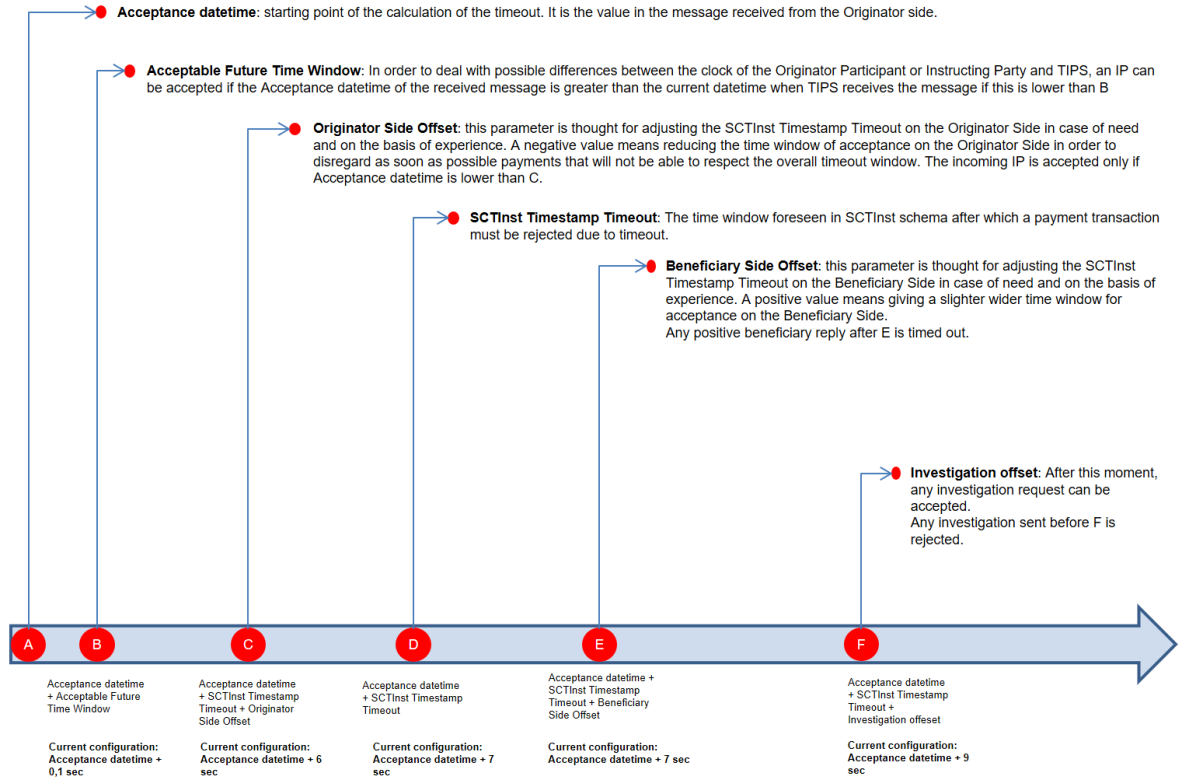
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Parameter name	Description	Default value
Maximum Amount	Maximum amount – defined for each settlement currency – which can be transferred by both a single Instant Payment and a cross-currency transaction. The parameter must allow an "unlimited" value.	*Unlimited (for Euro)* *Unlimited (for SEK)* *Unlimited (for DKK)*
Acceptable Future Time Window	The acceptable time range for future timestamps. The rejection of an Instant Payment transaction is triggered if the received timestamp is greater than the acceptable time window (current timestamp plus this time window value). It is expressed in milliseconds.	100
Investigation Offset	Configurable offset foreseen in SCT^{Inst} scheme. An Investigation request can be accepted only if it is received after SCT^{Inst} Timestamp Timeout of the Instant Payment transaction + Investigation Offset. This parameter is expressed in milliseconds.	2,000
Investigation Offset (cross-currency)	Configurable offset foreseen in the cross-currency scheme. An Investigation request can be accepted only if it is received after Timestamp Timeout of the Instant Payment transaction + Investigation Offset (cross-currency). This parameter is expressed in milliseconds.	5,000
Investigation Offset (non-Euro currency)	Configurable offset foreseen in the non-Euro currency scheme. An Investigation request can be accepted only if it is received after Timestamp Timeout of the Instant Payment transaction + Investigation Offset (non-Euro currency). This parameter is expressed in milliseconds and can hold a negative value.	*-5,000 (for SEK)* *2,000 (for DKK)*
RTGS Alert	Configurable timeframe after which the TIPS Operator is notified about a missing answer from the RTGS System to an Outbound liquidity transfer. The parameter value is expressed in minutes.	15
Enable ICLT	The parameter enables the liquidity transfer via the transit account in contingency scenario. The Operator has the rights to change this parameter for a given RTGS system in order to allow selectively the opportunity to move liquidity from/to the transit account of a given currency to/from a TIPS account denominated in the same currency. The default parameter value is set to false and shall be configurable per currency.	False

In order to properly configure the parameters, the following diagram depicts the meaning of SCT^{Inst} Timestamp Timeout, Originator Side Offset, Beneficiary Side Offset and Investigation Offset in the timeout scenario.

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Figure 21 – Timeout parameters for SCT Inst



For UTC clock synchronization, TIPS uses an NTP stratum-1 server based on GPS transmissions.

1.7.2. Business and operations monitoring

The Business and operations monitoring integrates information coming from different sources in order to monitor the business and operational status of the service, to detect possible problems in real-time or to proactively recognise a possible deterioration of the service performance and to provide up-to-date information for crisis management scenarios.

Business and operations monitoring gives the TIPS Operator the possibility to perform a real-time supervision of the platform in terms of:

- Performance;
- Transactions transit and response times;
- Ongoing fulfilment of SLA commitments and expectations;
- Volumes and values exchanged;
- Actors activity on the system;
- Usage of liquidity;
- Hardware and software problems.

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The goal is to allow an early detection of possible anomalies through the continuous comparison of reported data with standard patterns. Besides that, the data can be used to improve the service behaviour or its usage through a better understanding of the relevant dynamics.

The Business and operations monitoring application process extracts, merges and organizes the data in forms of tables, grids and graphs to ensure both the depth of the underlying information and its prompt usability.

In order to exclude any even remote impact on the service performances, the Business and operations monitoring application makes use of a different set of data which are replicated from the original ones.

TIPS provides the TIPS Operator also with a tool for the detection in real-time of functional or operational problems, called Technical Monitoring. It allows for the detection of hardware and software problems via real-time monitoring of the technical components involved in the processing, including the network connections.

Business and operations monitoring interfaces are available in U2A mode only.

The TIPS Operator is also provided with a contingency tool in order to inject messages to act on the system in case of need. For example, this tool allows to update the RTGS System Status table simulating the receipt of a ReturnBusinessDayInformation message from the relevant RTGS System or the sending of a Receipt (camt.025.001.07) message in order to finalise a pending liquidity transfer.

The list of possible messages the TIPS Operator can inject is:

- ReturnBusinessDayInformation;
- LiquidityCreditTransfer;
- Receipt (camt.025.001.07);
- AccountExcludedMandateMaintenanceRequest;
- ModifyLimit (camt.011.001.08);
- PartyModificationRequest.

1.7.3. Archiving management

TIPS provides raw data to the Archiving shared service on a daily basis, as described in 1.5.6.1 “Raw data for Archiving”.

The TIPS Operator is responsible for the retrieval of the archived information from LeA upon Central Bank request. The Central Bank can also request the retrieval of archived data on behalf of one of their TIPS Actors.

TIPS Operator is allowed to retrieve archived Instant Payment transaction, Liquidity Transfers, incoming camt.050 and camt.025 messages received on the internal interface with T2-CLM, status message data and reference data for a period of exactly ten years. Moreover, TIPS Operator shall be able to retrieve archived authentication and security data for a period of exactly three months.

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2. Dialogue between TIPS and TIPS Actors

This section aims at describing the interactions in A2A mode between TIPS Actors and TIPS.

In the first sub-section, it describes the general communication process: what is the general process when a message arrives to TIPS and which functions of TIPS are interested in the process.

The following sub-sections describe the interactions the TIPS Actors can have with TIPS. These sub-sections describe the scenarios the user can go through, specifying:

- The involved actors;
- The involved messages;
- The conditions of executions and the possible returned errors.

In such a way, this section aims both to describe the process for the TIPS Actors, guiding them in the use of the involved messages, and to give the necessary details needed for implementing the software on their side.

When a message is referenced, it is linked to the relevant section within chapter 3 - "Catalogue of messages" where to find the detailed information.

2.1. Message routing

In A2A mode, TIPS Actors and TIPS can exchange messages and files by means of two types of transfer services:

- The real-time message, which requires that all the interested actors are available at the same time;
- The store-and-forward file transfer, which enables TIPS to transmit messages or files even when the receiver is not available.

The following table shows how the main types TIPS data exchanges are mapped against the technical features of the different network services for inbound and outbound communication.

Table 20 – Network services

Data Exchange	Inbound transfer services	Outbound transfer services
Instant Payment transactions	Instant messaging	Instant messaging
Liquidity transfers	Instant messaging	Instant messaging
Investigations	Instant messaging	Instant messaging
Queries	Instant messaging	Instant messaging
Recall	Instant messaging	Instant messaging

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Data Exchange	Inbound transfer services	Outbound transfer services
Notifications	n/a	Instant messaging
Broadcasts	n/a	Instant messaging
Reports (push)	n/a	File-based, store-and-forward
Raw data and General Ledger	n/a	File transfer to T2-CLM
General Ledger message	n/a	Instant messaging to any external RTGS System

The File-based store-and-forward network service is used only by TIPS and only to send outbound Reports.

As described in the section 1.2, TIPS allows Participants and Instructing Parties to use multiple distinguished names (DNs) to communicate with the network service.

Thanks to the functionalities available in the CRDM, a TIPS actor with the suitable permissions is able to set up routing configurations, allowing TIPS to accept messages coming from specified DNs and to route a predefined set of outbound communication to a specified DN. A routing configuration is a link between a Participant or Reachable Party's BIC and a distinguished name.

Depending on the direction of communication, we can distinguish between:

- Inbound messages: TIPS shall allow a many-to-many relation between sender distinguished names and Parties, meaning that the same Instructing Party can play its role for many Parties and that a Participant or Reachable Party can authorise many Instructing Parties to act on its behalf. Moreover, it is possible to authorise a specific Instructing Party DN to act on behalf of a specific BIC, for instance for instructing Instant Payments. The couple (DN, BIC) is stored in the "Inbound DN-BIC Routing" table.
- Outbound messages: TIPS shall ensure that there is a many-to-one relation between Beneficiary Participant or Reachable Party and receiver distinguished names, meaning that any given Beneficiary Participant BIC may be linked to one and only one Distinguished Name for the receipt of instant payment messages. The couple (DN, BIC) is stored in the "Outbound DN-BIC Routing" table. In addition, it is possible to configure separate Distinguished Names per TIPS Participant as "Party Technical Addresses"; one for the receipt of broadcasts and notifications relevant for account owners, such as floor/ceiling notifications, and one or more for the receipt of reports. The types of messages to be routed to each Party Technical Address can be configured through a Routing configuration.

In the following it will be clarified in what case and under what condition TIPS uses those links to manage input and output messages and in which other conditions it manages messages without querying them.

TIPS uses the routing information contained in the Inbound DN-BIC Routing table to check authorisation of instant payment input messages: only messages with the couple DN-BIC for which an entry in the Inbound DN-BIC Routing table exists are accepted by TIPS.

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For other message types, such as outbound liquidity transfers or queries, TIPS checks that the requestor DN is defined as an Instructing Party for the relevant TIPS Participant (such as the owner of the account on which the liquidity transfer is being executed).

Regarding how to route outbound communication, the general behaviour of TIPS is as follows:

- When TIPS receives an input message *x* from a TIPS actor *a*, it stores the DN of the message sender and uses it to send or to forward any kind of communication regarding *a* and the transaction represented by *x.*
- In case *x* concerns another TIPS Actor (*b)* assuming a different role i.e. the Beneficiary of an Instant Payment or the Assignee of a Recall, TIPS cannot infer its DN from the message coming from *a*. For this reason, TIPS retrieves the DN *z* of *b* based on the configured data. TIPS relates *b* to the DN *z* throughout the entire transaction life-cycle.

Therefore, as a general rule, when TIPS cannot identify an actor DN from an input message or in case of push-mode communication, TIPS uses the Outbound DN-BIC routing table or the Party Technical Address (in combination with the Routing Configuration) to find the correct outbound DN.

Based on the transaction types and on the role assumed by the Actors, the following table specifies the type of outbound routing used for the different data exchange scenarios.

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Table 21 – Outbound routing

Data Exchange	Outbound DN-BIC	Party Technical Address + Routing	Sender DN
Instant Payment transactions answer (Originator role)	✗	✗	✓
Instant Payment transactions answer (Beneficiary role)	✓	✗	✗
Instant Payment transactions answer (SIP settlement model) when Single Instructing Party is acting for both Originator and Beneficiary	✗	✗	✓
Timeout message generated by TIPS	✓	✗	✓
Liquidity transfers receipts	✗	✗	✓
Investigation answers	✗	✗	✓
Query answers	✗	✗	✓
Recall Responses (Assigner role)	✗	✗	✓
Recall Responses (Assignee role)	✓	✗	✗
Error on input messages	✗	✗	✓
Reference data response messages	✗	✗	✓
Notifications	✗	✓	✗
Broadcasts	✗	✓	✗
Reports	✗	✓	✗

Entering in detail on the single message:

- "Outbound DN-BIC Routing" table is used to select the correct DN for a TIPS actor identified by a BIC, in case of:
    - Messages forwarded to other TIPS Actors, i.e.
        - FItoFICustomerCreditTransfer forwarded to the Beneficiary;
        - FIToFIPaymentCancellationRequest forwarded to the Recall Assignee;
        - ResolutionOfInvestigation forwarded to the Recall Assigner;
        - FIToFIPaymentStatusRequest forwarded to the Recall Assignee;
        - PaymentReturn forwarded to the Recall Assigner (Beneficiary).
    - FIToFIPaymentStatusReport sent to the Beneficiary in case of Timeout;
- "Party Technical Address" is used in combination with the "Routing Configuration" for the specific message to select the correct DN for a TIPS actor in case of:

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- Notifications, for the Owner of the Account/CMB, i.e.
  - Floor/Ceiling notification on Account/CMB;
  - Credit/Debit notification on Account.
- Broadcasts.
- Reports sent to the subscribing TIPS actors.

- The sender DN is used to answer to an input message in case of:
  - Error messages generated by TIPS as result of a failed check on an input message;
  - Every other answer, i.e.:
    - FIToFIPaymentStatusReport sent to the Originator of an Instant Payment transaction;
    - FIToFIPaymentStatusReport as result of an investigation;
    - Receipt of a Liquidity transfer order;
    - Answers to a Query:
      - ReturnAccount.
  - Reference data answer messages:
    - PartyStatusAdvice;
    - AccountRequestAcknowledgement;
    - AccountRequestRejection;
    - Receipt.

The different multiplicity of the DN-BIC correspondence between the Inbound and the Outbound DN-BIC routing table and the absence of constraints between the two types of configuration, makes it possible to setup a given Participant or Reachable Party BIC in the CRDM with different and disjoint sets of DNs for its Instructing Parties: one set (with cardinality greater than or equal to one) for the inbound routing and another one (with cardinality equal to one) for the outbound routing. This means that a BIC can be configured to send message with an Instructing Party (DN) but to receive messages with a different DN.

For example, a BIC *z* could be linked to the DN *a* in the Inbound DN-BIC routing table and with the DN *b* in the outbound DN-BIC routing table, with *a* being different from *b*. This would imply that the TIPS actor identified by BIC *z*, when acting as Originator of an Instant Payment transaction, can send messages to TIPS with *a* and receive the related answers from TIPS to *a*. The same actor, when playing the role of the Beneficiary of an Instant Payment transaction, receives messages from TIPS to *b* but has to send its answers to TIPS with *a*.

The Instant Payment transaction steps tables of the Chapter 2 – "Dialogue between TIPS and TIPS Actors" specify the DN considered by TIPS for each step, message and actor's role.

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2.2. Instant Payment transaction

2.2.1. Instant Payment (SCT^{Inst} scheme)

This section focuses on the settlement of Instant Payment transactions in the SCT^{Inst} scheme, describing the full scenario and the related steps.

The introductory part of the section presents the general flow, including all the steps.

A sub-section dedicated to the timeout follows, describing the specific case of timeout occurring when a Beneficiary reply is missing.

All the remaining sub-sections contain examples of the possible scenarios, starting from a successful one and detailing possible failure scenarios. Each example shows the relevant messages and how the main fields are filled.

The Instant Payment transaction process covers the scenarios in which an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party instructs TIPS in order to immediately transfer funds to the account of a Beneficiary Participant. The involved actors are:

- The Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, starting the scenario;
- The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party, receiving the request and either confirming or rejecting the payment.

The involved messages are:

- The FItoFICustomerCreditTransfer message sent by the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party in order to (i) instruct the payment, (ii) to reserve the corresponding amount and (iii) to inform the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party about the transaction received;
- The FIToFIPaymentStatusReport message sent (i) by the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party to TIPS to either accept or reject the Instant Payment transaction, or (ii) by TIPS to inform the actors about the result of the settlement (i.e. settled, rejected, timed out);
- The ReturnAccount message that can be sent, on optional basis, by TIPS to the Creditor Account Owner and/or the Debtor Account Owner. The message is sent by TIPS if (i) the owner of the account (or CMB) enables the floor and ceiling notifications and (ii) the configured threshold is breached.

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- Additionally, a LiquidityCreditTransfer message can be sent in push or pull, on optional basis, by TIPS to T2-CLM in case of floor/ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.

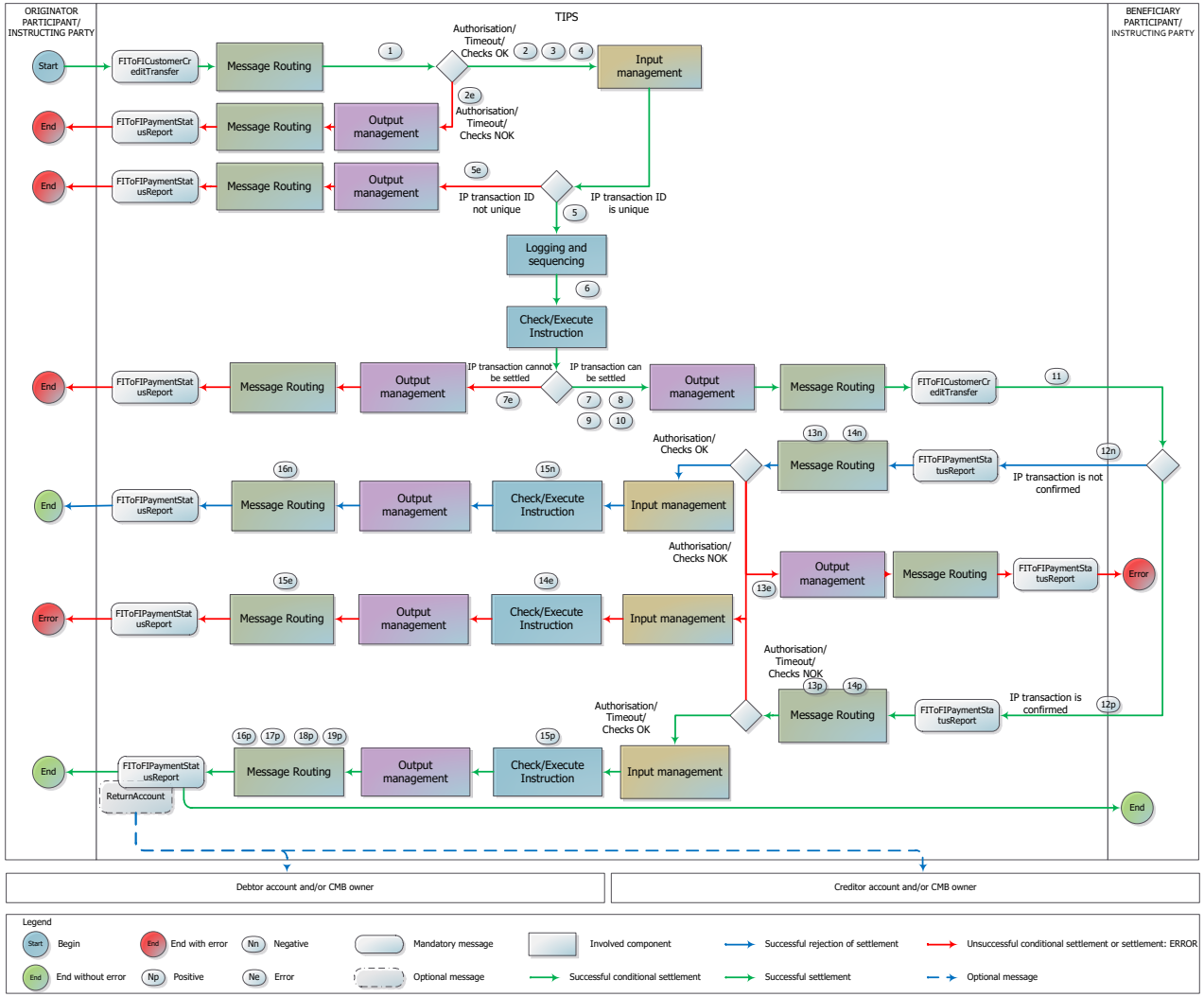
All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

It is important to keep in mind that when the Debtor or Creditor BIC contains a BIC8 instead of a BIC11, the message is accepted and the string is completed by appending “XXX” at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

Below is the diagram describing the process and the involved actors. The details of the steps are described in the following Table 22 – Instant Payment transaction steps.

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Figure 22 – Instant Payment transaction flow



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Table 22 – Instant Payment transaction steps

Step	Involved messages	Involved actors	Description
1	FItoFICustomerCreditTransfer	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an Instant Payment transaction from the Originator Participant or Instructing Party acting on behalf of the Originator Participant, Ancillary System or a Reachable Party starting the conditional settlement phase of the transaction. Technical validation, check of mandatory fields and authentication checks have already been successfully executed. The timeout for the Instant Payment transaction has not expired. TIPS logs the instruction as "*Received*".
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Instructing Party authorised; - Beneficiary correctly configured; - Beneficiary Account or CMB existence. See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks listed in **step 2**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. If the failed check is "Timeout Check - Originator Side", the status of the transaction is set to "*Expired*"; in all the other cases, the status is set to "*Failed*".

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Step	Involved messages	Involved actors	Description
3		TIPS	TIPS infers the account to be debited from the configured accounts information, the Originator Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or “TIPS AS Technical Account” exists, (ii) it is linked to the Originator Participant (field "Originator BIC") as authorised user, (iii) and it is denominated in the same currency as the one defined in the Settlement Amount. - If the check does not return any account, TIPS looks for a CMB linked to the Originator Participant (field "Originator BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Originator Account" and the possible CMB as "Debiting CMB".
4		TIPS	TIPS infers the account to be credited from the configured accounts information, the Beneficiary Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or “TIPS AS Technical Account” exists, (ii) it is linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user, (iii) and has a currency equal to the one defined in the Settlement Amount. - If the check does not return any account, TIPS looks for a CMB linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Beneficiary Account" and the possible CMB as "Crediting CMB".

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Step	Involved messages	Involved actors	Description
5		TIPS	TIPS successfully executes the check: - Duplicate check; See 4.1 - Business Rules for details.
5e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check listed in **step 5**. If the check is unsuccessful the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
6		TIPS	TIPS sends it to the Check and Execute Instruction process. TIPS sets the transaction status to "*Validated*".
7		TIPS	TIPS successfully executes the checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded; See 4.1 - Business Rules for details.
7e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 7**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
8		TIPS	The DN of the Sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Originator DN".

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Step	Involved messages	Involved actors	Description
9		TIPS	TIPS reserves funds in the Originator account. The full amount is reserved as Reserved Balance in the Cash Balance. TIPS sets the transaction status to "*Reserved*". If a Debiting CMB is involved, the system decreases its headroom by the same amount. After this moment, the settlement attempt is agreed and can either be confirmed or rejected by the counterpart or fail for a missing answer. The reserved amount cannot be considered for other payments.
10		TIPS	The DN of the beneficiary is identified in the "Outbound DN-BIC Routing" mapping table from the field Creditor Agent. From now on, this DN is referred to as "Beneficiary DN".
11	FItoFICustomerCreditTransfer	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Instant Payment transaction to the Beneficiary DN.
12p	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party starts the settlement phase of the transaction by sending a positive payment status report that is successfully delivered to TIPS. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
13p		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing; - Timeout Check - Beneficiary Side. See 4.1- Business Rules for details.
13e	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 13p**. At the first negative check the system stops and sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The reserved amount is released in the involved Originator Account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.
14p		TIPS	TIPS identifies the transaction using the Transaction ID. The transaction Id is related to a transaction that exists in TIPS and still in "*Reserved*" status.
15p		TIPS	TIPS retrieves the reserved transaction and confirms it. The amount is considered settled and the transaction is set to "*Settled*" status. The reserved amount of the Originator Account is decreased by the amount of the corresponding settled transaction. The same positive amount is added to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount. TIPS always executes the reserved transactions even though the involved accounts (or CMBs) have been blocked in the meantime.
16p	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.
17p	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS generates a positive Payment status report and sends it to the Beneficiary DN. The FIToFIPaymentStatusReport contains the Transaction ID and Originator BIC of the transaction.

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Step	Involved messages	Involved actors	Description
18p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender Debited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and floor breach)	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Originator account number or the Debiting CMB number. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new pull rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.
19p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender Credited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and ceiling breach)	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Beneficiary account number or the Crediting CMB number.

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Step	Involved messages	Involved actors	Description
			Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of the RTGS system.
12n	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party triggers the settlement phase of the transaction sending a negative payment status report that is successfully delivered to TIPS. In this scenario the settlement phase will end up with a rejection of the Instant Payment transaction and the un-reservation of corresponding funds. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
13n		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
13e		TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks at **step 13n**. At the first negative check the system stops and sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The reserved amount is released in the involved Originator account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.
14n		TIPS	TIPS identifies the transaction using the Transaction ID. The Transaction ID is related to a transaction existing in TIPS and still in "*Reserved*" status.
15n		TIPS	TIPS retrieves the Instant Payment transaction to be rejected and releases it. The reserved amount is released in the involved Originator Account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Rejected*" status.
16n	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.

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2.2.1.1. Timeout scenario: missing/delayed Beneficiary-side answer

This sub-section describes the specific scenario of TIPS not receiving a Beneficiary-side answer or receiving it later than allowed.

This scenario assumes that TIPS has successfully executed the conditional settlement phase of an Instant Payment.

A specific software component (Sweeping service) is always acting in background taking care of all the orphan payments – an orphan payment being a reserved Instant Payment transaction still waiting for a confirmation/rejection. Every X seconds (X being the "Sweeping Timeout" parameter configured in the system, see 1.7.1 "Service configuration") a process checks all the pending Instant Payments transactions and rejects only those that have exceeded the SCT^{Inst} Timestamp Timeout plus the Beneficiary side offset.

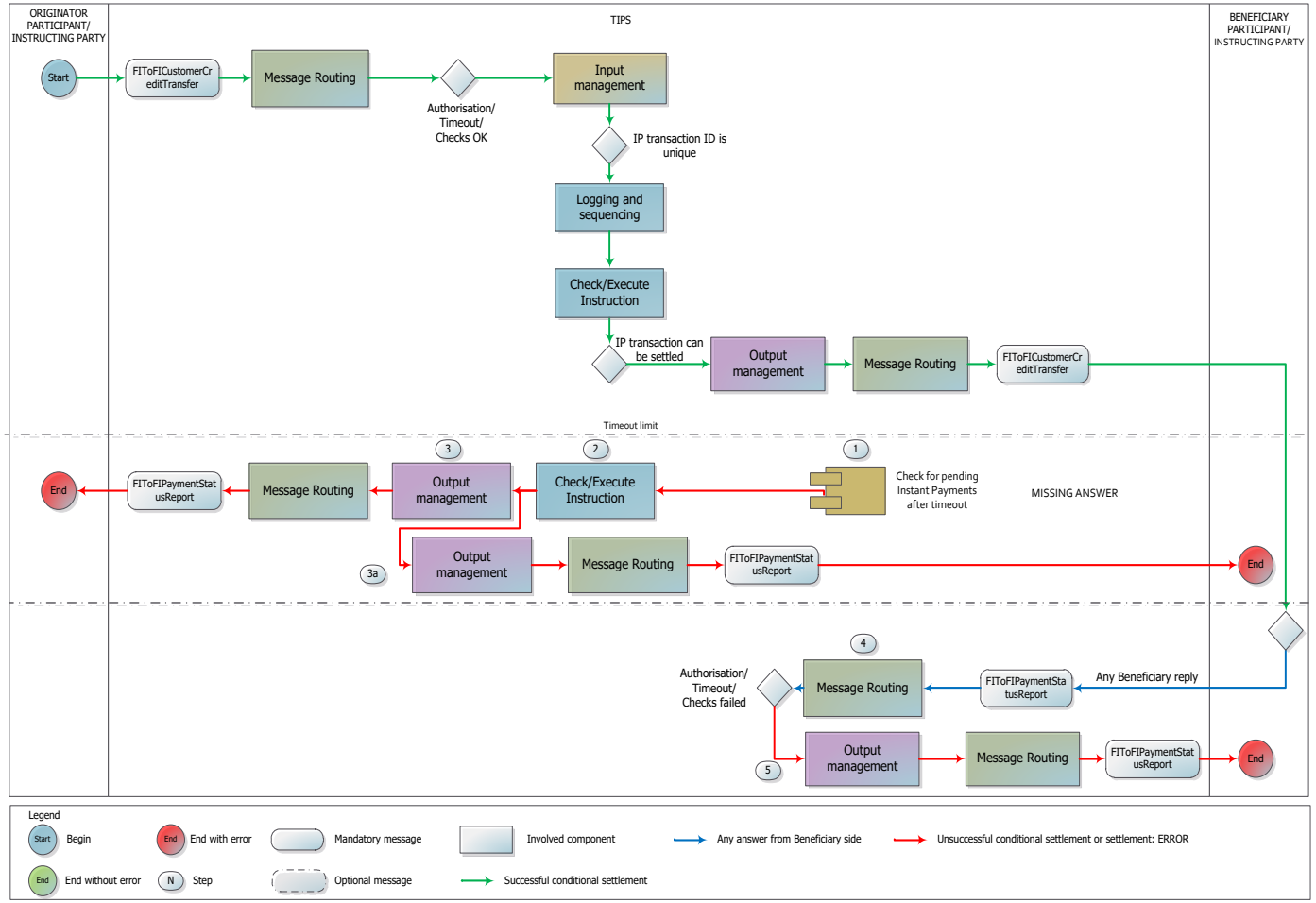
The time-out can also be triggered by an Investigation message from Originator Side that reaches TIPS requesting information for an existing Instant Payment transaction that is in status *Reserved* for which no Beneficiary-side answer is arrived yet and that has not been treated by Sweeping Service (see 2.4 "Investigation"). In this case, TIPS does not answer to the Investigation directly, but set to *Expired* the Instant Payment transaction, informing both Originator and Beneficiary side accordingly for the occurred time-out.

Any Beneficiary-side answer that arrives in TIPS for an orphan payment already treated by the Sweeping service generates an error since no reserved transaction is found.

The diagram below describes the specific process and the involved actors. The details of the steps are described in the following Table 23 – Instant Payment transaction missing/delayed Beneficiary-side answer steps.

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Figure 23 – Instant Payment transaction missing/delayed Beneficiary-side answer flow



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Table 23 – Instant Payment transaction missing/delayed Beneficiary-side answer steps

Step	Involved messages	Involved actors	Description
1		TIPS	Every X seconds, with "X" being defined in the "Sweeping timeout" parameter, the Sweeping service runs checking all the payment in status "*Reserved*". If the "Acceptance timestamp" of the payment has exceeded the "SCT^{Inst} Timestamp Timeout" value, the payment is elected for sweeping.
1	FIToFIPaymentStatusRequest	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an incoming Investigation request from the Originator Participant, Ancillary System or Instructing Party. There is no existing generated payment transaction status advice for the transaction and no answer from Beneficiary side has reached TIPS.
2		TIPS	TIPS executes these operations for each orphan payment: - TIPS retrieves the transaction to be rejected and its ID executing the check "Timeout Check - Missing answer" (see 4.1- Business Rules for details); - The transaction is set to "*Expired*" status; - The reserved amount is released in the involved Originator account and the possibly involved Debiting CMB is increased by the same amount TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime.
3	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party – same DN of the Sender taken from the transaction under analysis. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.
3a	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Beneficiary Participant, Ancillary System or Instructing Party identified as the default DN in the entity "Outbound DN-BIC Routing" related to the Beneficiary BIC in the transaction under analysis. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.
4		TIPS	TIPS unsuccessfully executes the check: - Pending transaction existing. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
5	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS sends a FIToFIPaymentStatusReport message to the Beneficiary Participant, Ancillary System or Instructing Party (DN of the sender of the message) containing the proper error code.

2.2.1.2. Examples

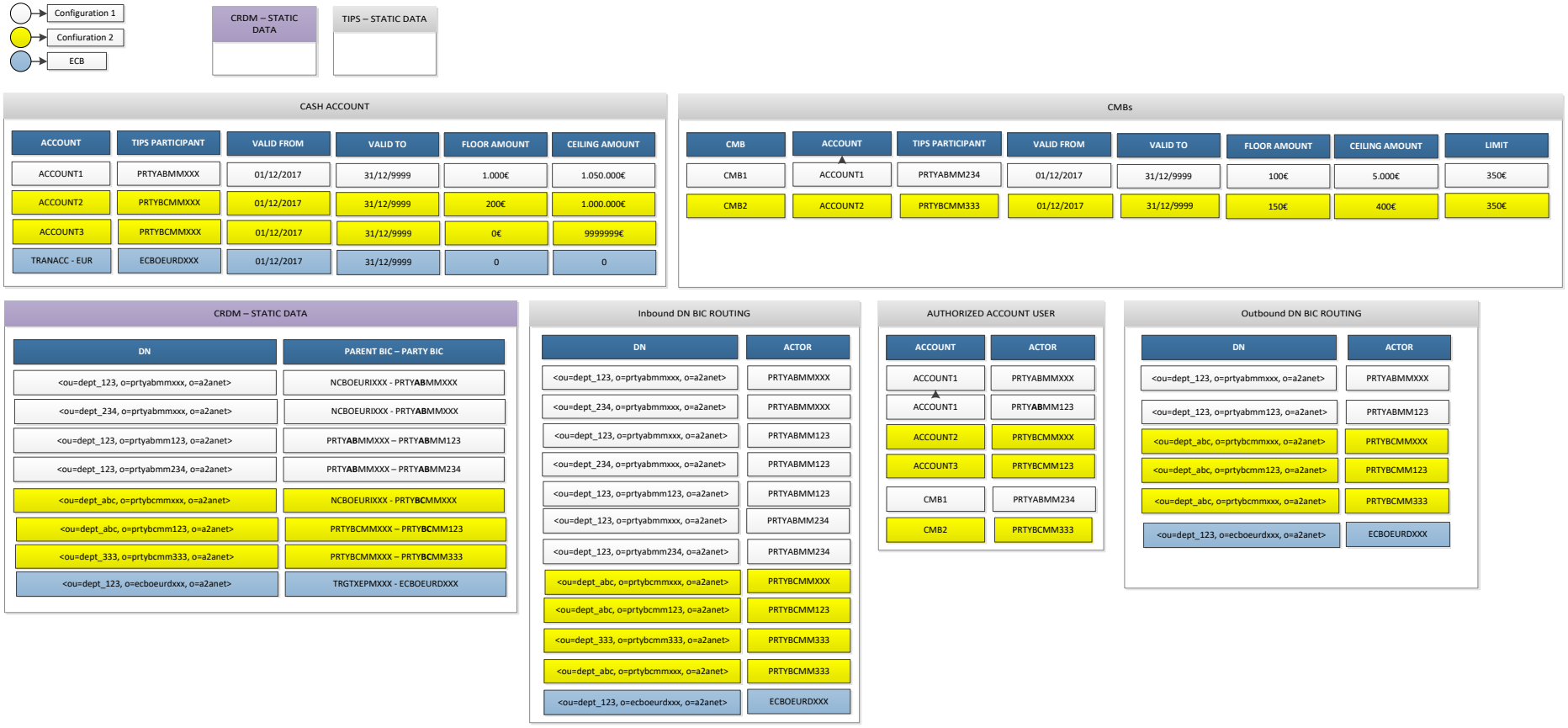
This sub-section includes a not exhaustive list of examples of TIPS transactions and related messages.

Each example is introduced by a description of the involved actors and involved messages and it highlights how the balances change in the accounts.

All the examples are based on the data constellation introduced below. The data constellation is depicted on the basis of the concepts introduced in 1.3.2 “Accounts structure and organisation”.

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Figure 24 – Instant Payment transaction examples data constellation



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2.2.1.2.1 Successful scenario with confirmed order – only accounts involved

This positive scenario describes a successful payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in the Figure 24 – Instant Payment transaction examples data constellation) are considered.

No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2017. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 25 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



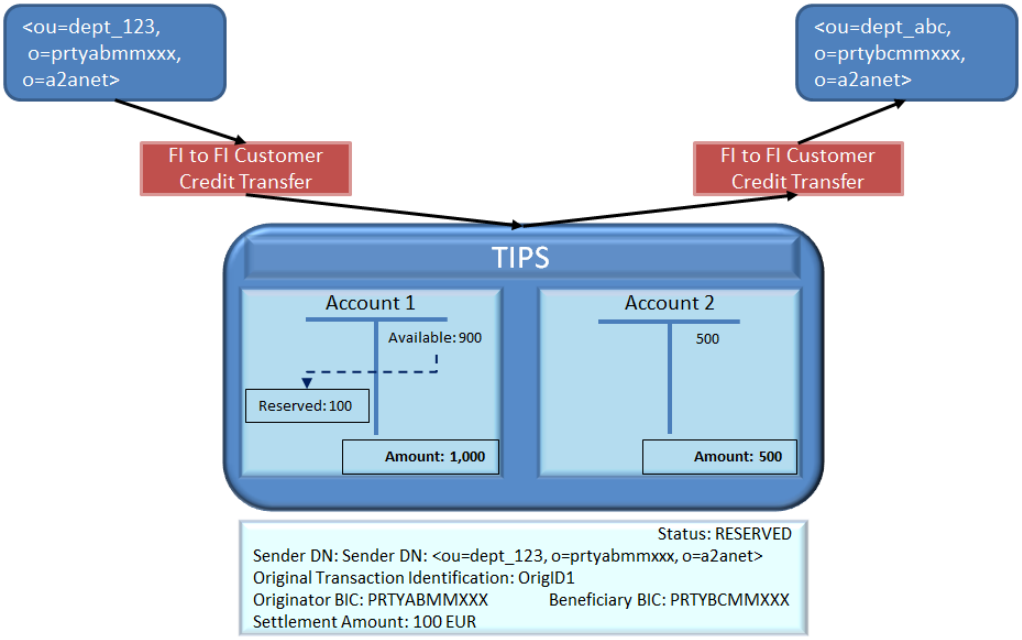
The system, after performing the expected checks successfully, sets up the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1 – the new availability for ACCOUNT1 decreases from 1,000.00 EUR to 900.00 EUR;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

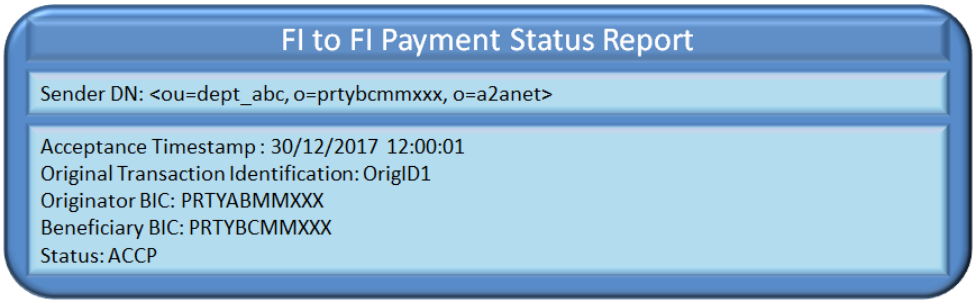
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Figure 26 – Successful Instant Payment transaction: reservation of funds



The answer from the Beneficiary triggers the settlement phase. In this scenario, the Beneficiary PSP confirms the payment by sending a FIToFIPaymentStatusReport message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT2.

Figure 27 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



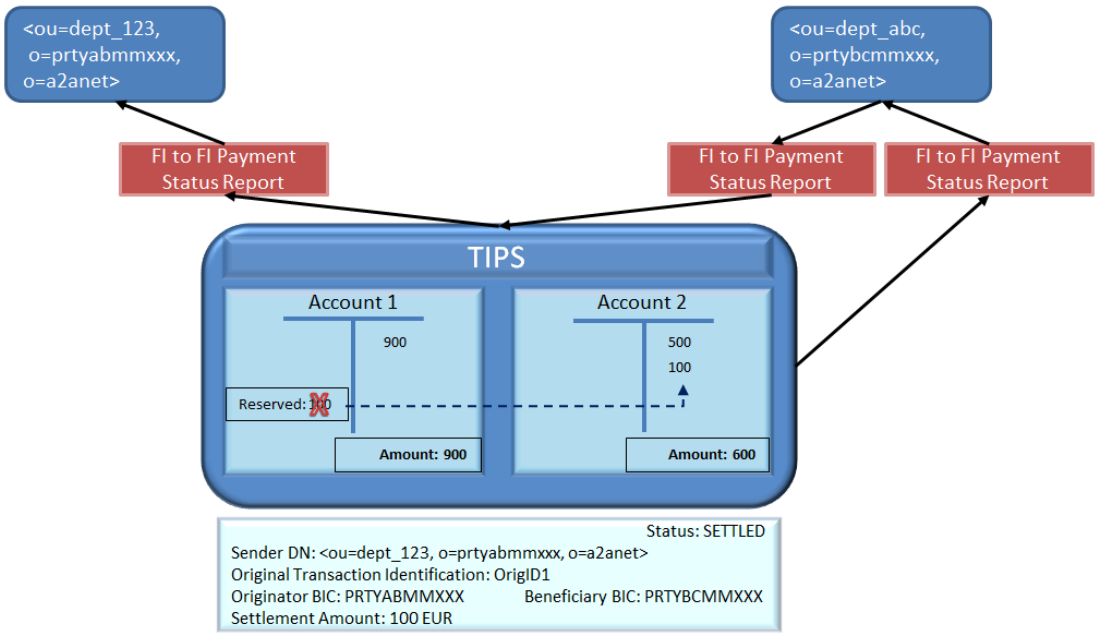
The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.
- it identifies the Originator Account (ACCOUNT1) and the Beneficiary Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT2;
- The transaction status is turned into *Settled*.

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TIPS then forwards the FIToFIPaymentStatusReport message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary.

Figure 28 – Successful Instant Payment transaction: settlement phase



2.2.1.2.2 Successful scenario with confirmed order – Creditor account and debtor CMB

This positive scenario describes a successful payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant B but used by a related Reachable Party. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

No errors or timeouts occur. No floor or ceiling notification is expected. The current business date, in the given example, is 30/12/2017. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 29 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



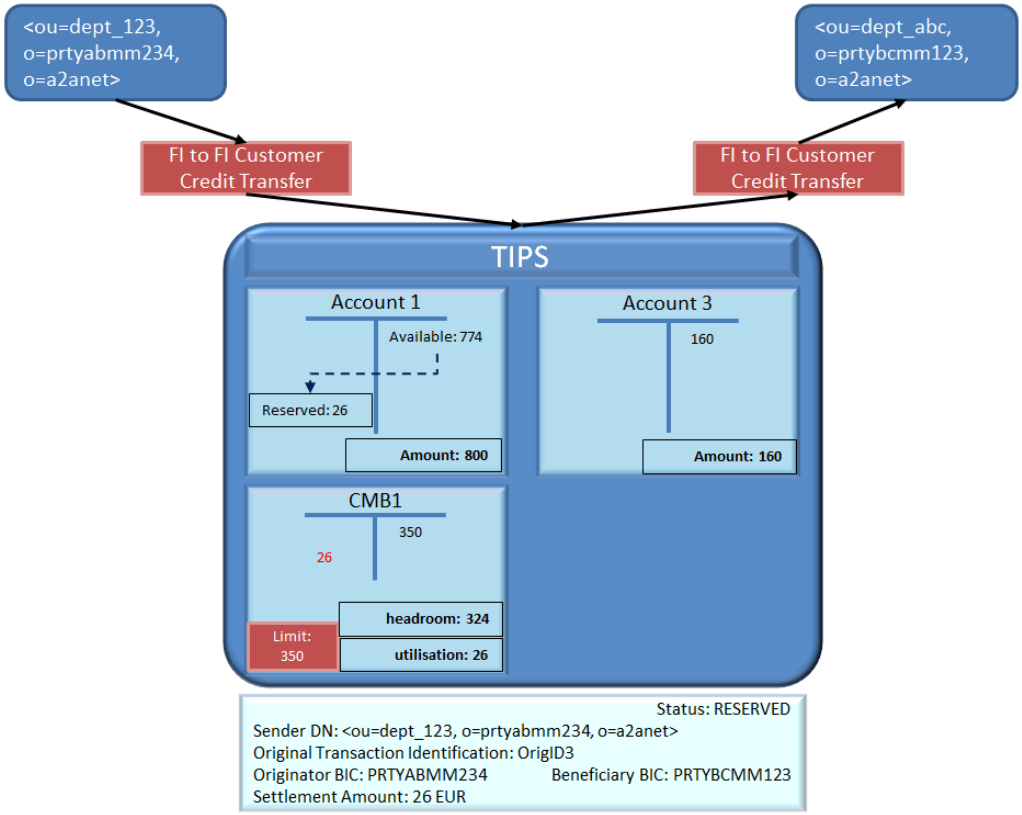
All rights reserved.

The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- It decreases the headroom for the involved CMB1;
- It reserves the amount for ACCOUNT1 related to the CMB – the new availability for ACCOUNT1 decreases from 800.00 EUR to 774.00 EUR;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

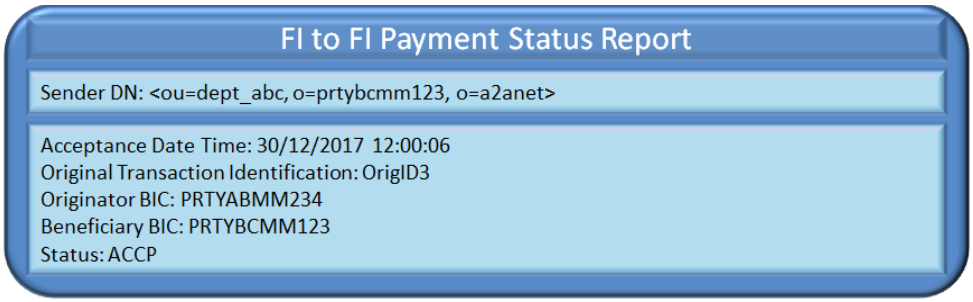
Figure 30 – Successful Instant Payment transaction: reservation of funds



The answer from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary Participant confirms the payment sending a FIToFIPaymentStatusReport message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT3. The movement on CMB1 is confirmed.

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Figure 31 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



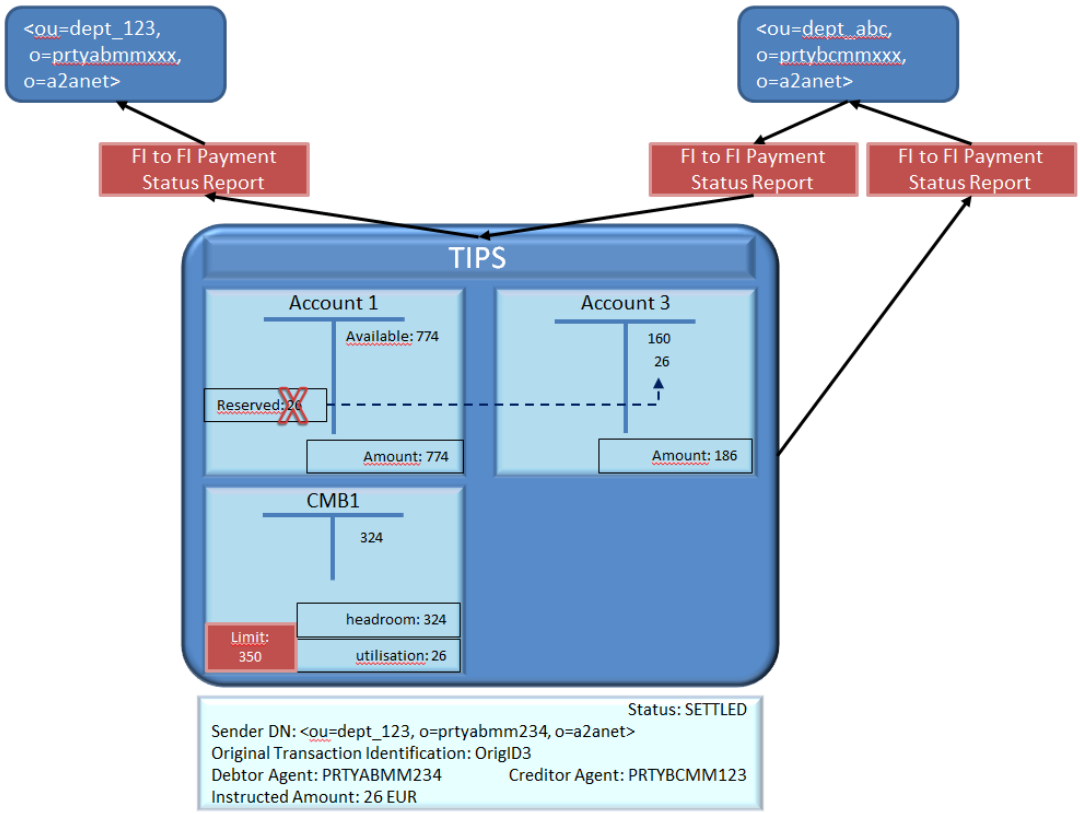
The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.
- It identifies the Originator Account (ACCOUNT1) and the Beneficiary Account (ACCOUNT3) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount by moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT3;
- The transaction status is turned into *Settled*.

In this example, CMB1 has no additional movements – the reduction of the headroom is confirmed. The settlement phase ends and TIPS then forwards the FIToFIPaymentStatusReport message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

All rights reserved.

Figure 32 – Successful Instant Payment transaction: settlement phase



2.2.1.2.3 Successful scenario with confirmed order – Creditor CMB and debtor Account

This positive scenario describes a successful payment transaction between a TIPS Account owned and held by a TIPS Participant A sending the messages on its own and a CMB held by a branch of a TIPS Participant B. The TIPS Participant B acts as Instructing Party for its branch. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

No errors or timeouts occur. No floor or ceiling notification is expected. The current business date, in the given example, is 30/12/2017. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 33 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



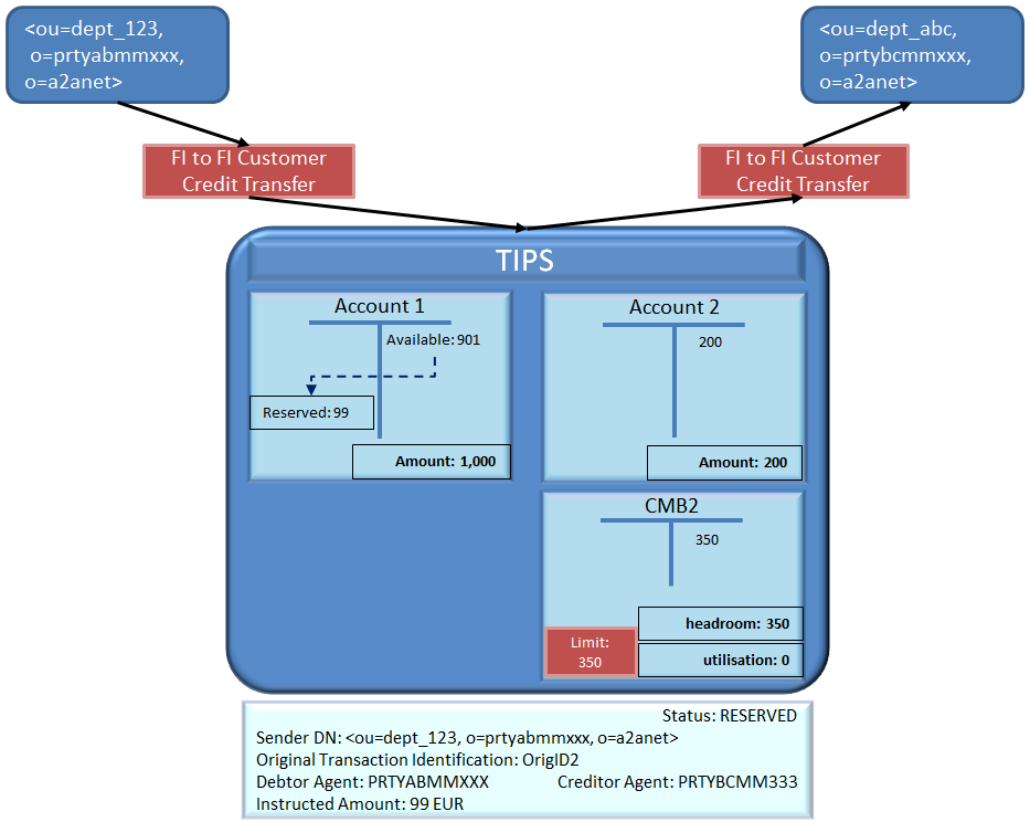
All rights reserved.

TIPS, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Crediting CMB (CMB2) from the Beneficiary BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the CMB2 in table CMBs;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1 – the new availability for ACCOUNT1 decreases from 1,000.00 EUR to 901.00 EUR;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

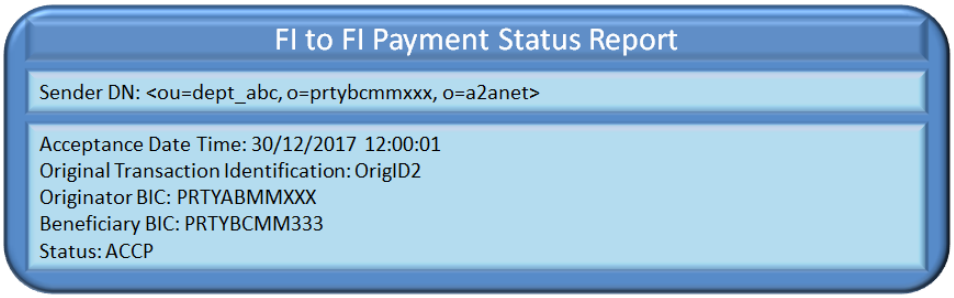
Figure 34 – Successful Instant Payment transaction reservation of funds



The answer from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary PSP confirms the payment sending a FIToFIPaymentStatusReport message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT2 and increasing the headroom for CMB2.

All rights reserved.

Figure 35 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



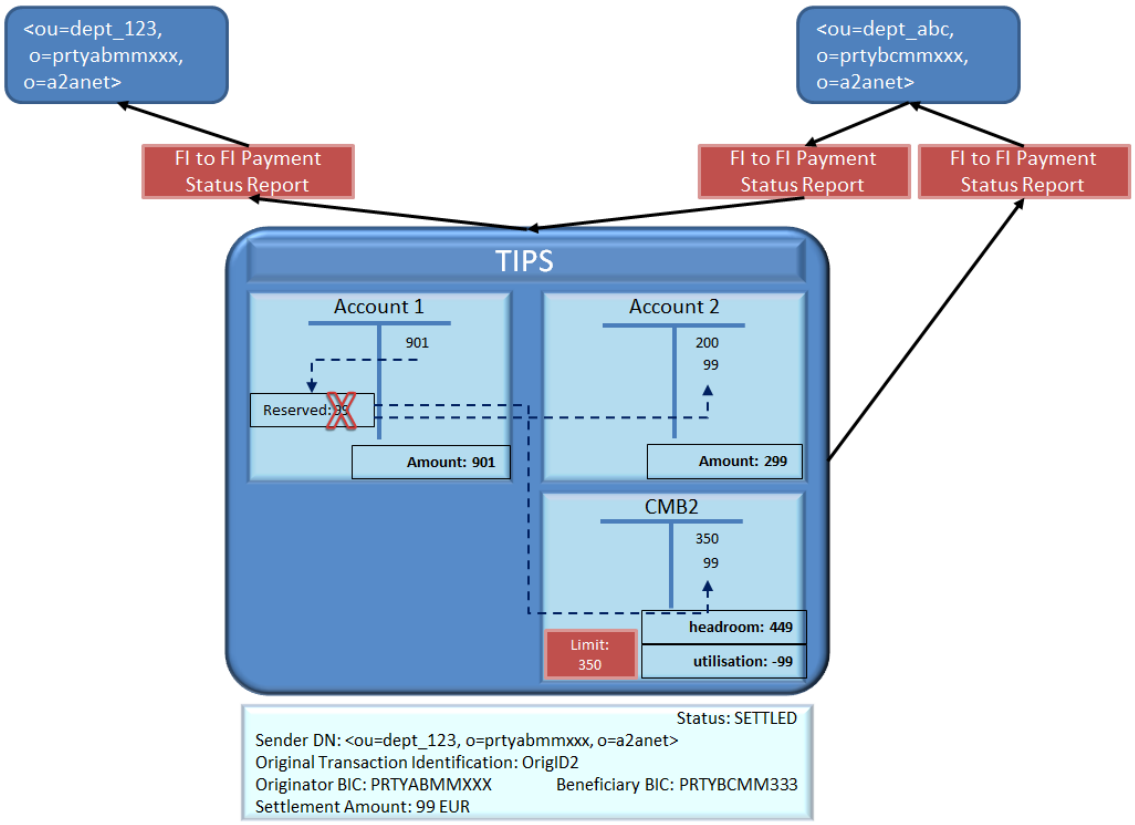
The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.
- It identifies the Originator Account (ACCOUNT1), the Crediting CMB (CMB2) and the Beneficiary Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT2;
- It increases the headroom of the CMB2;
- The transaction status is turned into *Settled*.

In this example, CMB2 exceeds the defined limit for the CMB (the limit defined remains 350, the headroom is 350 + 99 = 449 and the utilisation is -99 as depicted in Figure 36 – Successful Instant Payment transaction: settlement). The settlement phase ends and TIPS then forwards the FIToFIPaymentStatusReport message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

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Figure 36 – Successful Instant Payment transaction: settlement phase



2.2.1.2.4 Successful scenario with rejected order

This negative scenario describes a successful reservation of funds for a transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant B. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

After the successful reservation, the Beneficiary participant rejects the payment.

No errors or timeouts occur. No floor or ceiling notification is expected. The current business date, in the given example, is 30/12/2017. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 37 – Rejected Instant Payment transaction: FItoFICustomerCreditTransfer



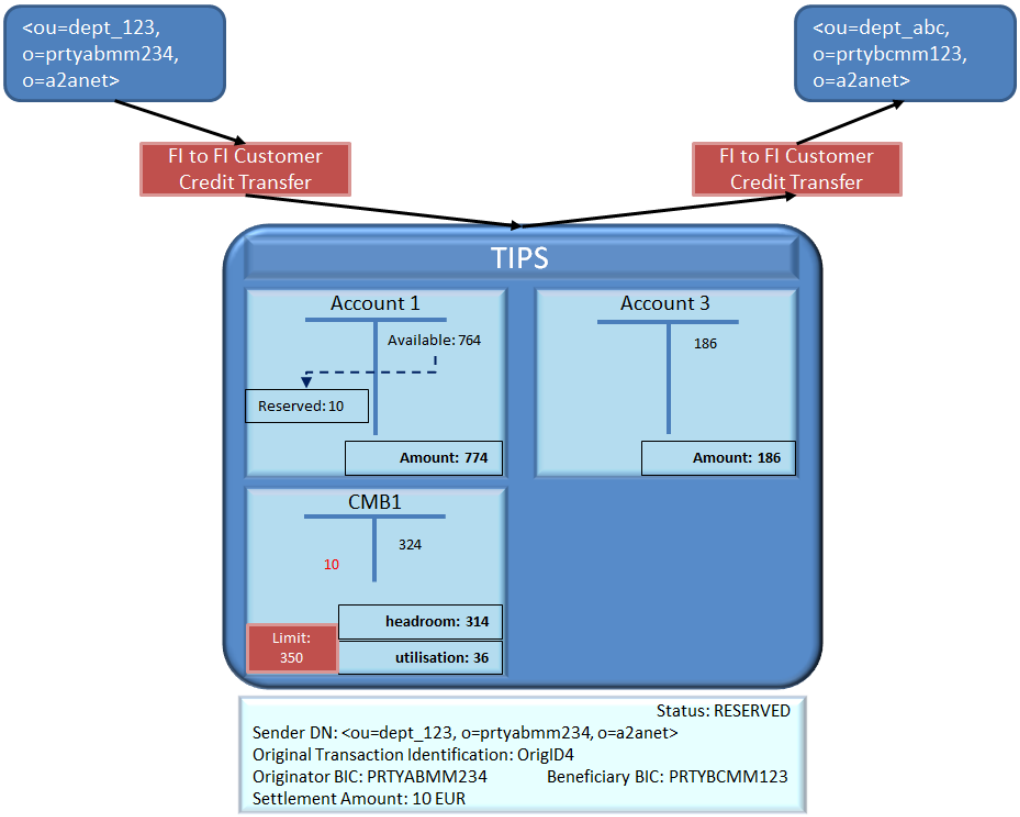
All rights reserved.

The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- It decreases the headroom for the involved CMB1;
- It reserves the amount for the ACCOUNT1 related to the CMB;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

Figure 38 – Rejected Instant Payment transaction: reservation of funds

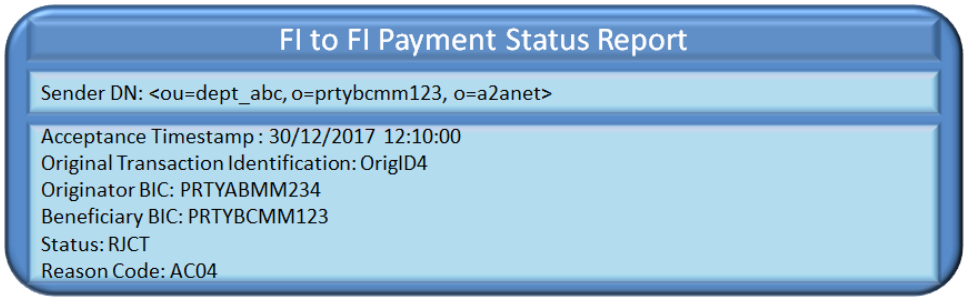


In this scenario, the Beneficiary Participant receives the forwarded FItoFICustomerCreditTransfer message with the transaction. The Beneficiary Participant rejects the payment sending a FIToFIPaymentStatusReport message with a negative answer.

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The answer from the Beneficiary Participant triggers the settlement phase for a negative scenario[29]. TIPS must then increase the CMB1 headroom of the same amount of the payment and release the amount on ACCOUNT1.

Figure 39 – Rejected Instant Payment transaction: FItoFIStatusReport



The system performs the expected checks successfully. The timeout check is not performed: a negative response from the Beneficiary side must always reach the Originator side with no changes and trigger the release of funds.

TIPS finds the reserved transaction, releases the funds on the accounts and increases the CMB headroom as follows:

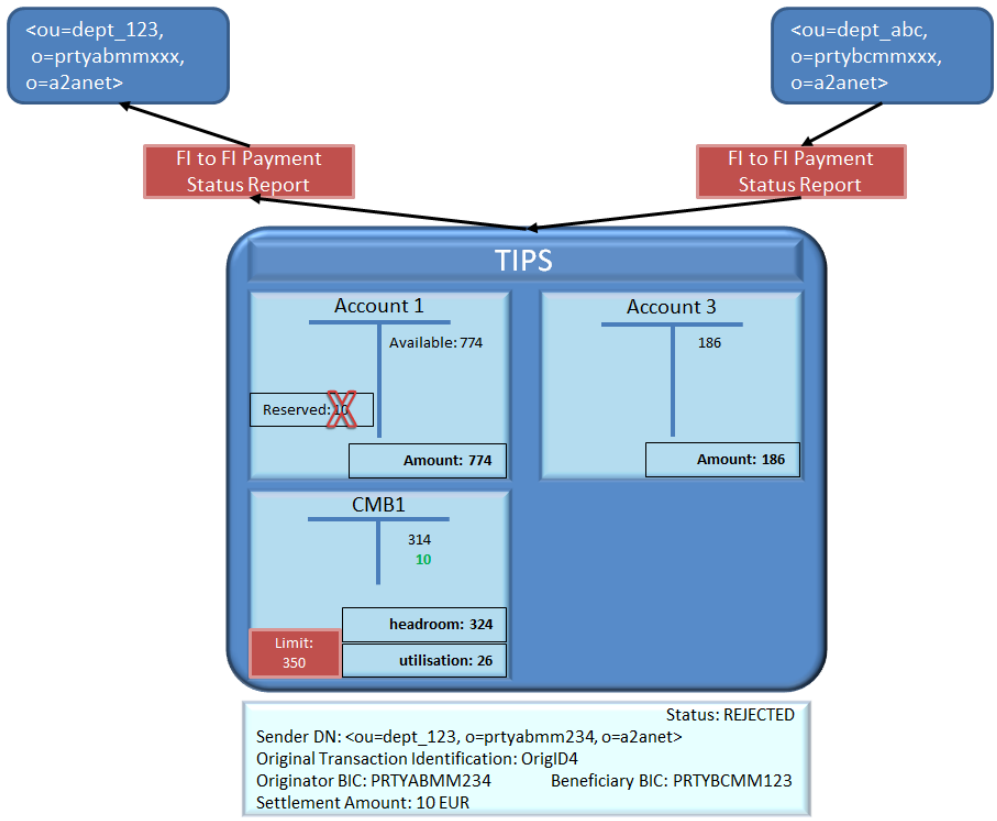
- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.
- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1 and adds the same amount of the payment to CMB1;
- The transaction status is turned into *Rejected*;
- It identifies the Originator DN from the transaction.

The settlement phase ends with the rejection of the payment and TIPS then forwards the FIToFIPaymentStatusReport message to the Originator DN.

[29] The error code AC04 is used as an example in Figure 39, however the message can contain any error code sent by the beneficiary side

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Figure 40 – Rejected Instant Payment transaction: release of funds



2.2.1.2.5 Successful scenario instant payment via TIPS AS Technical Account

This positive scenario describes a successful payment transaction between a TIPS AS Technical Account and a TIPS Account, the former owned by an Ancillary System and the latter owned by a TIPS Participant. Both actors send the messages on their own (without the involvement of an Instructing Party).

No errors or timeout condition is expected. The account owners did not configure any floor or ceiling notifications thresholds for their accounts. The current business date, in the given example, is 30/12/2021.

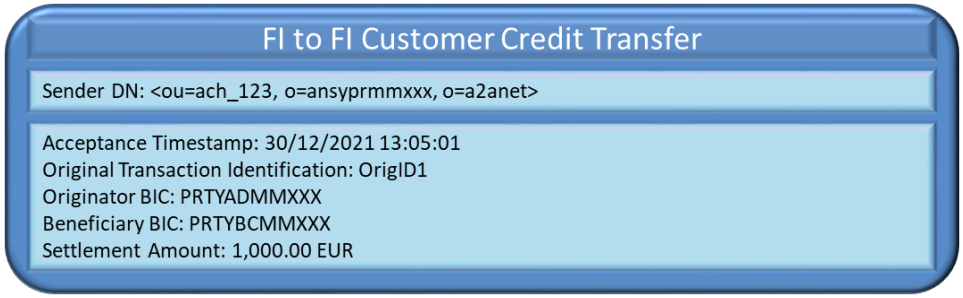
The following preconditions apply:

- PRTYADMMXXX is reachable via a selected Ancillary System (ANSYPRMMXXX) and it is authorised to settle on the corresponding TIPS AS Technical Account (TECHACCOUNTAS1);
- The initial balance on the TECHACCOUNTAS1 is 1,500,000.00 EUR.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario is the following one.

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Figure 41 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer

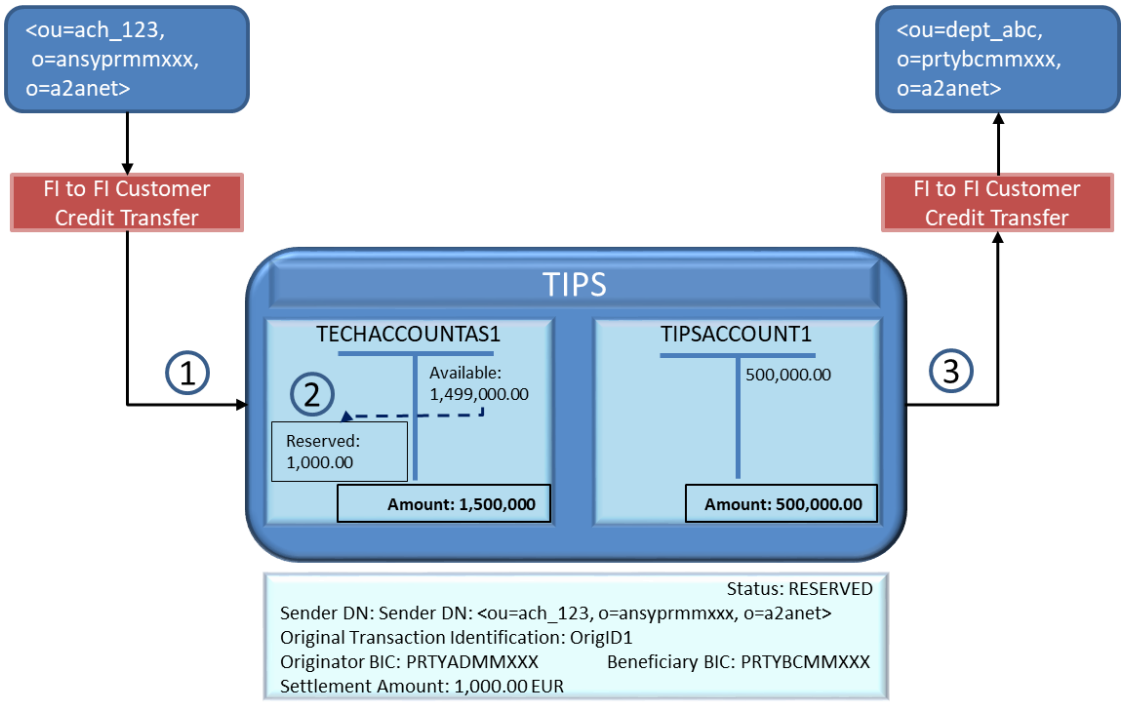


TIPS, after having performed successfully the checks on the incoming message, executes the following steps:

- It identifies the Originator Account (TECHACCOUNTAS1) from the Originator BIC;
- It identifies the Beneficiary Account (TIPSACCOUNT1) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in TECHACCOUNTAS1 – the balance available for new transactions on TECHACCOUNTAS1 decreases from 1,500,000.00 EUR to 1,499,000.00 EUR;
- The payment transaction is stored in TIPS with status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN terminates the Conditional Settlement phase.

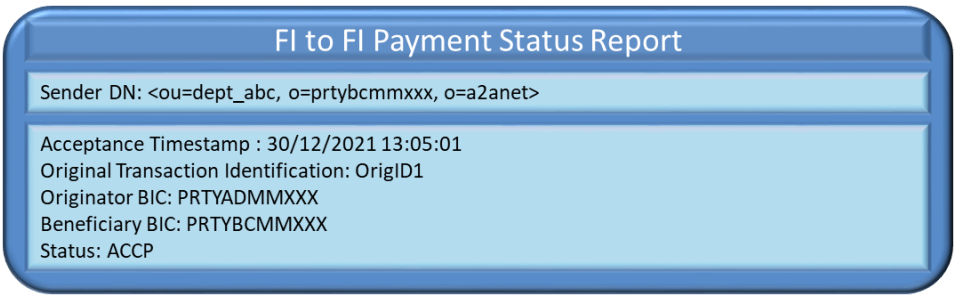
Figure 42 – Successful Instant Payment transaction: reservation of funds



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The answer from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary Participant confirms the payment by sending a FIToFIPaymentStatusReportt message with a positive answer.

Figure 43 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



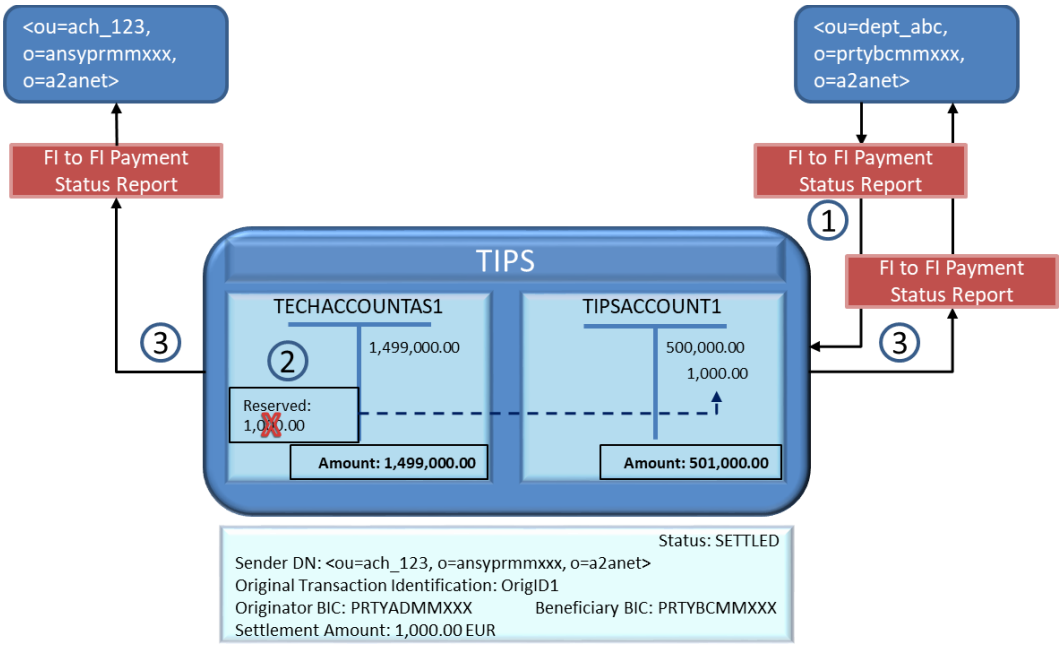
TIPS, after performing the expected checks successfully, looks up the underlying open business case and settle on the accounts as follows:

- It identifies the transaction from the Original Transaction ID. The transaction shall be in status *Reserved*.
- it identifies the Originator Account (TECHACCOUNTAS1) and the Beneficiary Account (TIPSACCOUNT1) from the retrieved transaction;
- It identifies the Originator DN from the transaction (i.e. <ou=ach_123, o=ansyprmmxxx, o=a2anet>;
- It settles the amount moving the reserved liquidity from the TECHACCOUNTAS1 to the TIPSACCOUNT1;
- The transaction status is moved to *Settled*.

TIPS then forwards the FIToFIPaymentStatusReportt message received by the Beneficiary Participant to the Originator DN and generates a confirmation message for successful settlement to the Beneficiary Participant.

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Figure 44 – Successful Instant Payment transaction successful: settlement phase



2.2.1.2.6 Error scenarios

This section describes some possible error scenarios that can happen when dealing with Instant Payment. This is a subset of possible error cases but the error mechanism is always the same.

For the complete list of possible error codes, see 4.2 “List of Error codes”.

Insufficient funds within the CMB

This error scenario describes a payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the requested amount exceeds the headroom of the involved CMB.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one:

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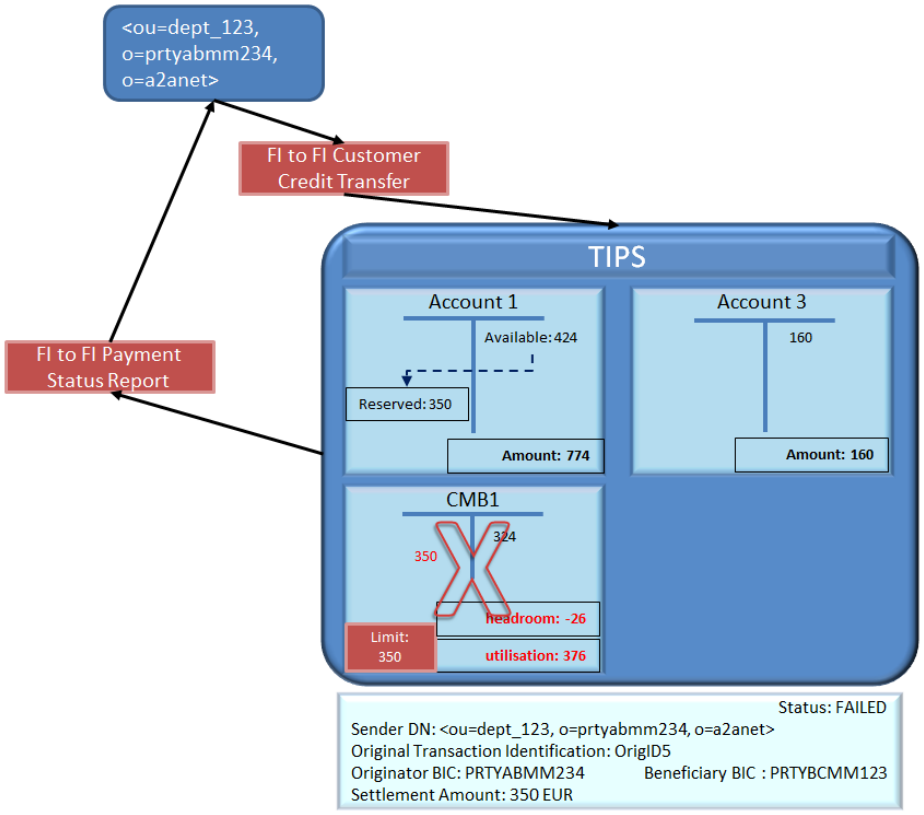
Figure 45 – Headroom error: FItoFICustomerCreditTransfer



The system executes these steps:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies that the headroom for the involved CMB1 is lower than the request amount;
- The transaction fails. The attempt is saved as failed transaction and the sender is informed of the error.

Figure 46 – Headroom error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport to the sender with the proper error code.

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Figure 47 – Headroom error: FItoFIPaymentStatusReport



Blocked Account

This error scenario describes a payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the account to be debited is blocked and not available for settlement.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 48 – Blocked account error: FItoFICustomerCreditTransfer

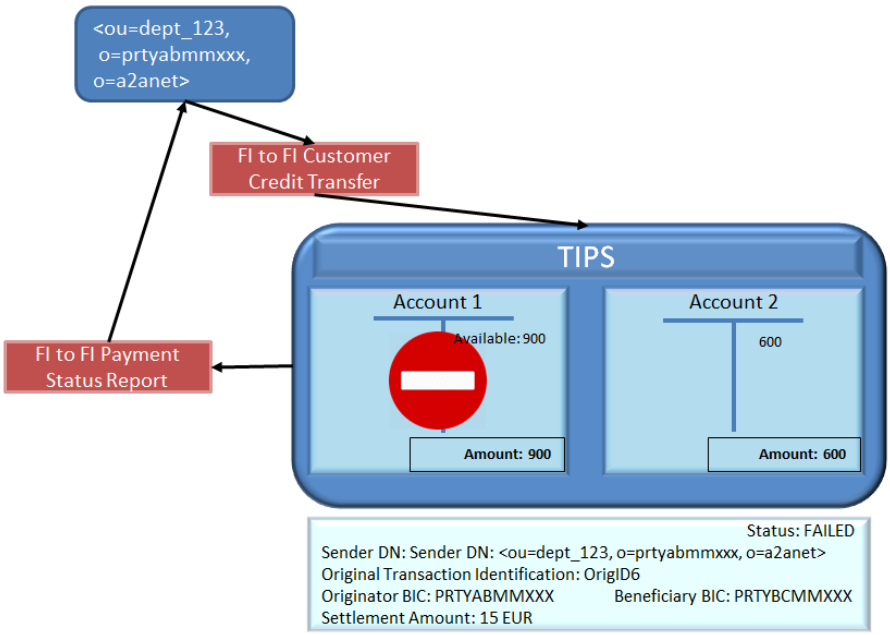


The system executes these steps:

- It identifies the Debiting Account (ACCOUNT1) from the Originator BIC;
- It detects that ACCOUNT1 is blocked (e.g. status is either ‘blocked for debit’ or ‘blocked for credit and debit’);
- The transaction fails. The attempt is saved as failed Instant Payment transaction and the sender is informed of the error.

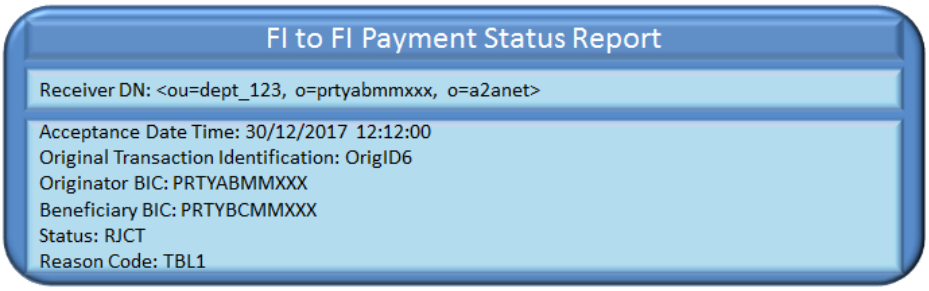
All rights reserved.

Figure 49 – Blocked account error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport to the sender with the proper error code.

Figure 50 – Blocked account error: FItoFIPaymentStatusReport



Beneficiary side timeout

This error scenario describes a payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the answer from the Beneficiary Participant reaches TIPS after the foreseen timeout period.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario is shown in the following diagram.

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Figure 51 – Beneficiary side timeout error: FItoFICustomerCreditTransfer

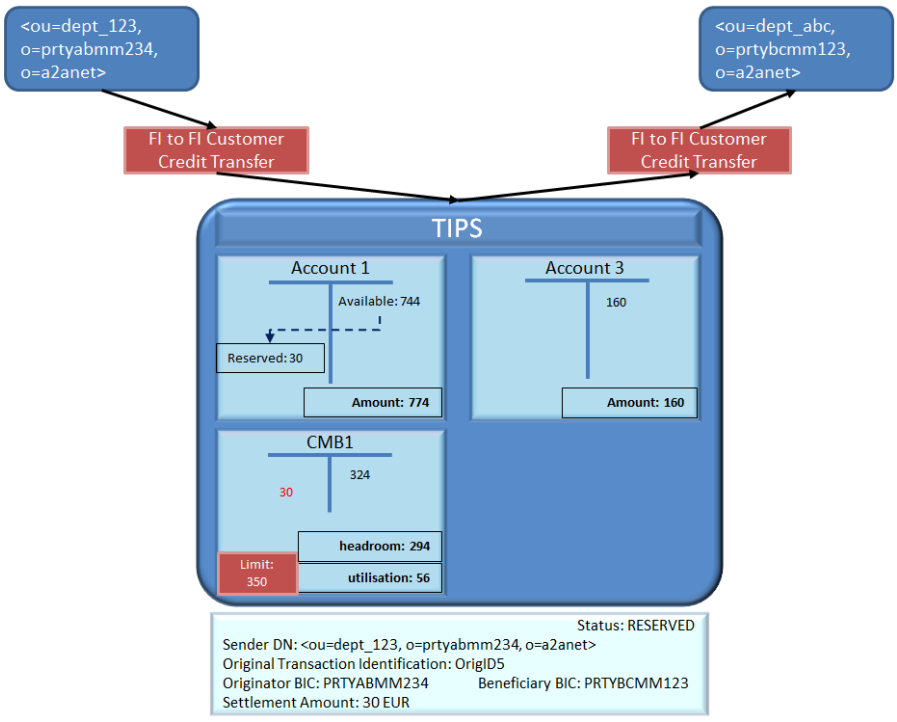


The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- It decreases the headroom for the involved CMB1;
- It reserves the amount for the ACCOUNT1 related to the CMB – the new availability for ACCOUNT1 decreases from 774.00 EUR to 744.00 EUR;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

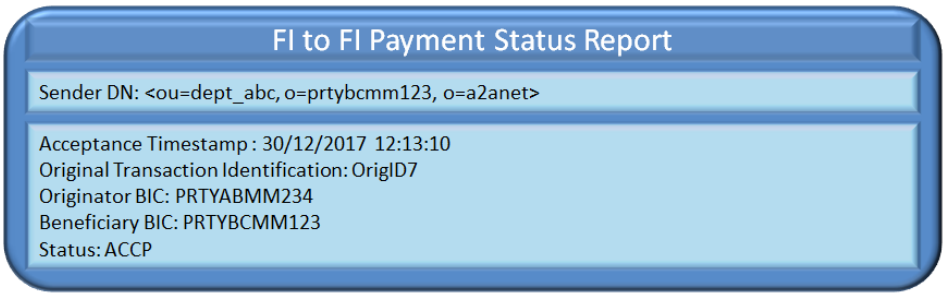
Figure 52 – Beneficiary side timeout error: reservation of funds



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The answer from the Beneficiary Participant arrives when the timeout period is exceeded.

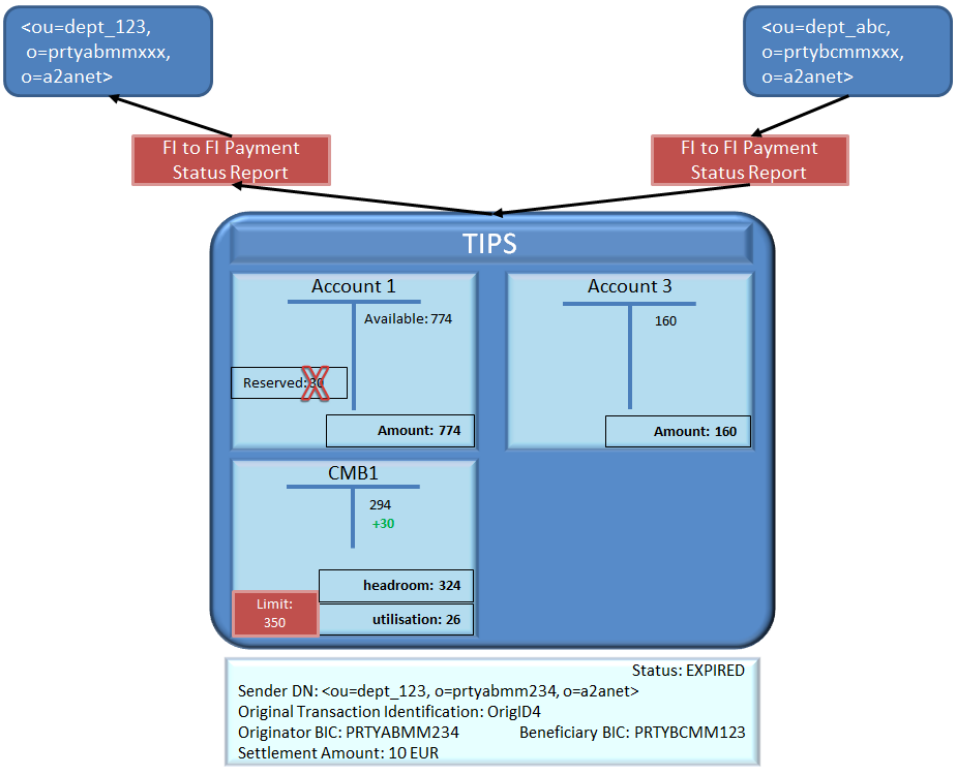
Figure 53 – Beneficiary side timeout error: FItoFIPaymentStatusReport



The timeout check on Beneficiary Participant side fails. TIPS finds the reserved transaction, releases the funds on the accounts and increases the CMB headroom as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*;
- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It un-reserves the amount on the ACCOUNT1 and adds the same amount of the payment to CMB1;
- The transaction status is turned into *Expired*;
- It identifies the Originator DN from the transaction.

Figure 54 – Beneficiary side timeout error: release of funds

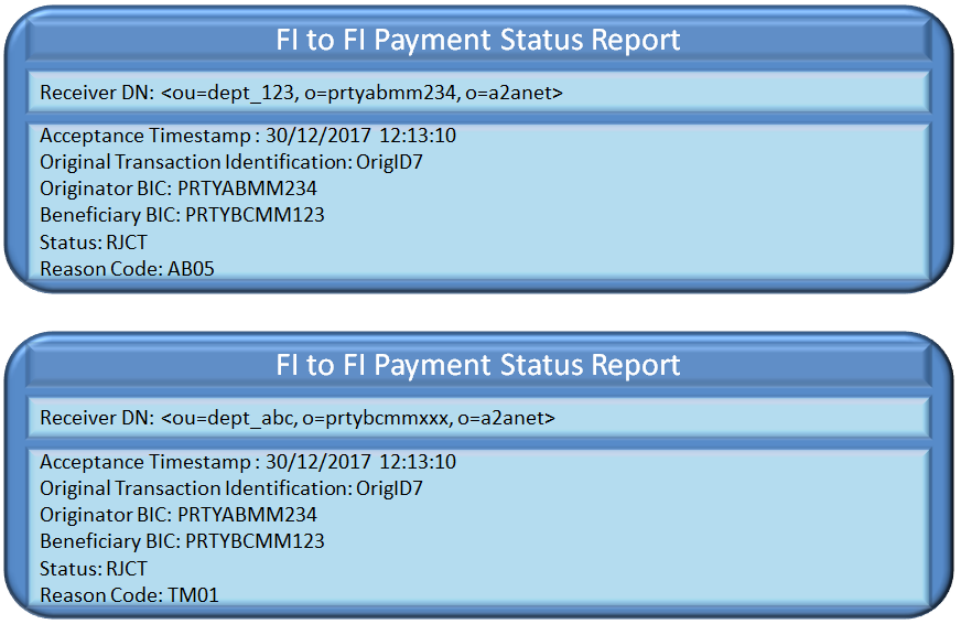


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TIPS informs both sides of the transaction about the expiration. TIPS sends the message to:

- The DN of the sender of the Instant Payment transaction;
- The Beneficiary DN as configured in the “Outbound DN-BIC Routing (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- The message for the Originator Participant (reason code equal to AB05) and the Beneficiary Participant (reason code equal to TM01) are respectively generated and sent as shown in the following diagram.

Figure 55 – Beneficiary side timeout error: FItoFIStatusReport



2.2.1.2.7 Delayed Beneficiary-side answer scenario

This error scenario describes a payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

In this scenario, the confirmation message from the Beneficiary Participant is delayed and, in the meantime, the Sweeper rejects the pending payment.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

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Figure 56 – Delayed Beneficiary-side answer: FItoFICustomerCreditTransfer

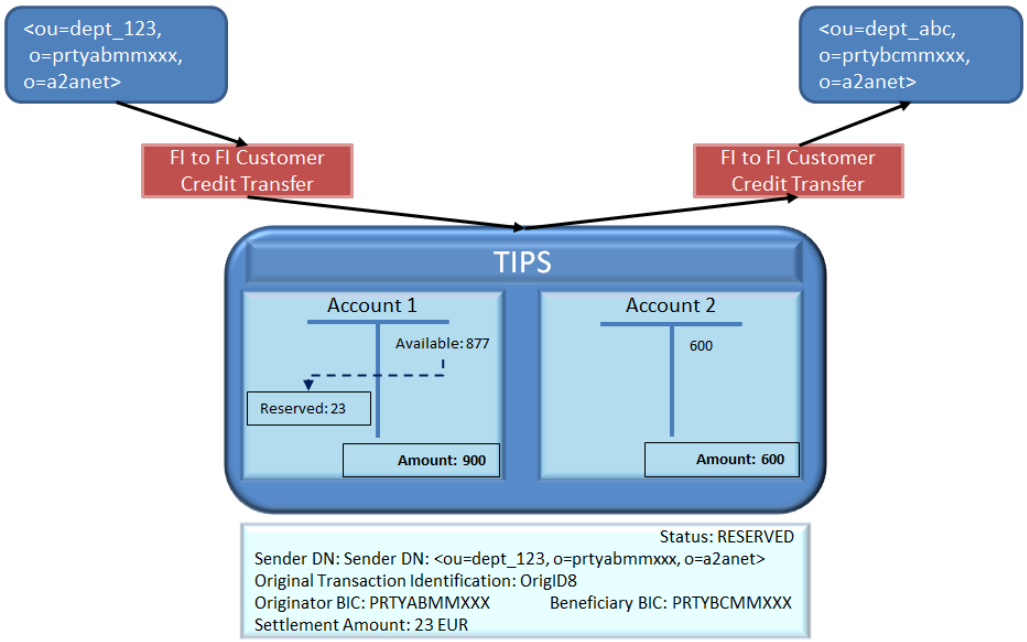


The system, after performing the expected checks successfully, sets up the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FItoFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

Figure 57 – Delayed Beneficiary-side answer: reservation of funds



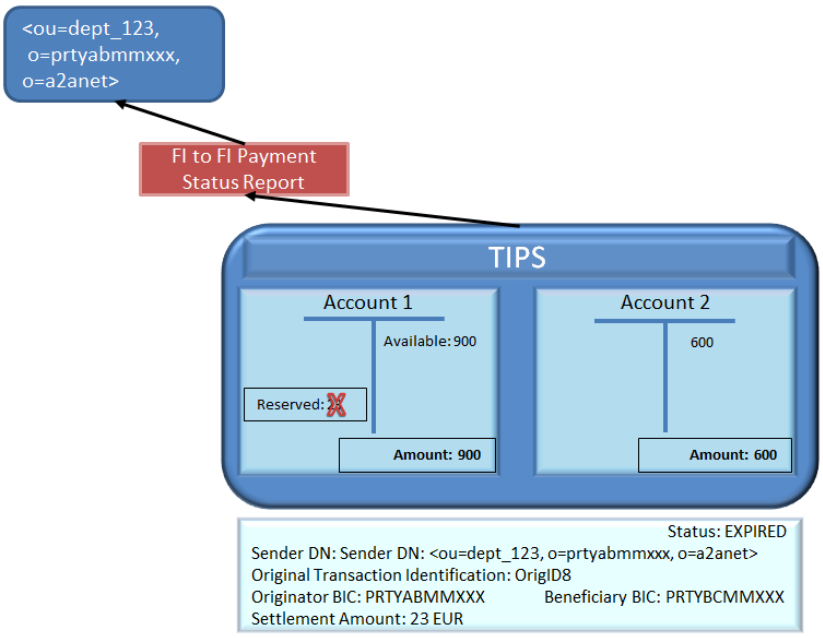
The answer from the Beneficiary side is delayed and does not reach TIPS in time to close the transaction. After a configured timeout, the Sweeper checks for pending payments. In case a pending

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payment is found for which the SCT^Inst Timestamp Timeout has elapsed, TIPS triggers a timeout, rejects the transaction, releases the funds on the debtor account as follows:

- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1;
- The transaction status is turned into *Expired*;
- It identifies the Originator DN from the transaction;
- It identifies the Beneficiary DN from the transaction.

Figure 58 – Delayed Beneficiary-side answer: release of funds



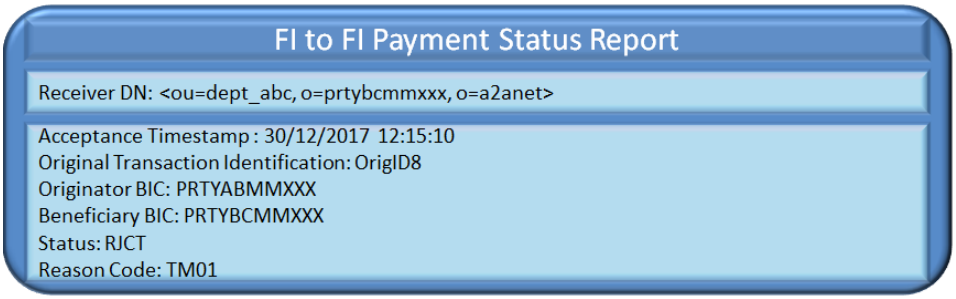
TIPS then sends a FIToFIPaymentStatusReport to both the Originator and the Beneficiary Participants with the proper error code (see respectively Figure 59 for Originator side and Figure 60 for Beneficiary side).

Figure 59 – Timeout answer: FItoFIPaymentStatusReport (Originator side)



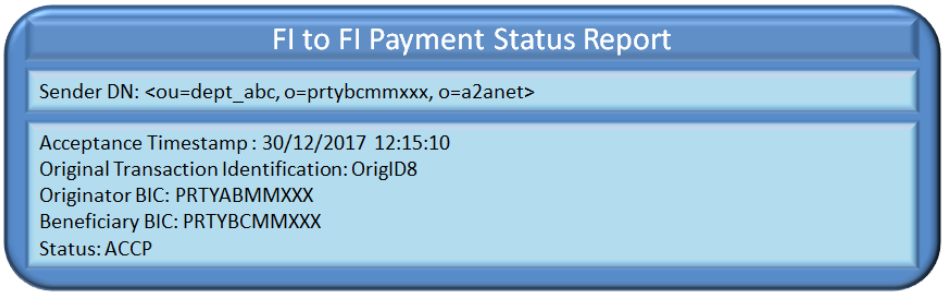
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Figure 60 – Timeout answer: FItoFIPaymentStatusReport (Beneficiary side)



This example scenario foresees that Beneficiary-side reply reaches TIPS after the rejection due to timeout and un-reservation of funds of the relevant pending transaction. The delayed reply message generated by the Beneficiary Participant is the following.

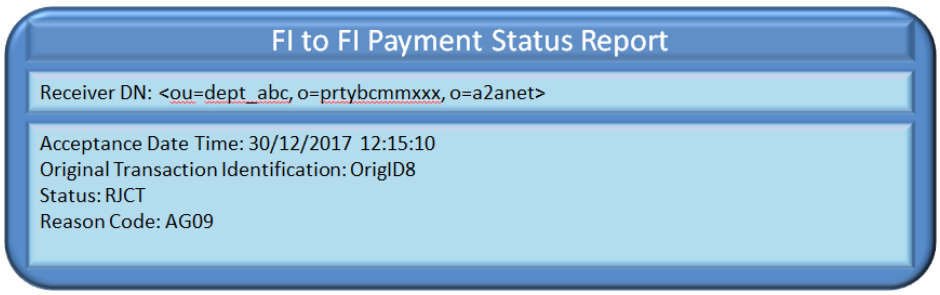
Figure 61 – Delayed Beneficiary-side response: FItoFIPaymentStatusReport



TIPS rejects the message since the underlying transaction has been already rejected by the Sweeper and it is no longer in status pending.

Therefore, TIPS sends FI to FI Status Report to the same DN that sent the Beneficiary reply. The Original Transaction Identification inserted in the FI to FI Status Report is the one received in the Beneficiary reply.

Figure 62 – Delayed Beneficiary-side response: FItoFIPaymentStatusReport



2.2.2. Instant Payment (non-Euro currencies scheme)

This section focuses on the settlement of Instant Payment transactions in non-Euro currencies, describing the full scenario and the related steps.

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The introductory part of the section presents the general flow, including all the steps. A sub-section dedicated to the timeout follows, describing the specific case of timeout occurring when a Beneficiary reply is missing.

All the remaining sub-sections contain examples of the possible scenarios, starting from a successful one and detailing possible failure scenarios. Each example shows the relevant messages and how the main fields are filled.

The Instant Payment transaction process covers the scenarios in which an Originator Participant or Instructing Party acting on behalf of the Originator Participant or a Reachable Party instructs TIPS in order to transfer funds to the account of a Beneficiary Participant. The involved actors are:

- The Originator Participant, or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, starting the scenario;
- The Beneficiary Participant, or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party, receiving the request and either confirming or rejecting the payment.

The involved messages are:

- The FIToFICustomerCreditTransfer message sent by the Originator Participant or Instructing Party acting on behalf of the Participant/Reachable Party in order to (i) instruct the payment, (ii) to reserve the corresponding amount in a currency different from Euro and (iii) to inform the Beneficiary Participant or Instructing Party acting on behalf of the Participant/Reachable Party about the transaction received;
- The FIToFIPaymentStatusReport (pacs.002.001.10) message sent (i) by the Beneficiary Participant or Instructing Party acting on behalf of the Participant/Reachable Party to TIPS to either accept or reject the Instant Payment transaction, or (ii) by TIPS to inform the actors about the result of the settlement (i.e. settled, rejected, timed-out);
- The ReturnAccount message that can be possibly sent by TIPS to Creditor Account Owner and/or Debtor Account Owner. The message is sent by TIPS if (i) the owner of the TIPS Account (or CMB) enables the floor and ceiling notifications and (ii) the configured threshold is crossed.
- Additionally, a LiquidityCreditTransfer message can be sent in push or pull, on optional basis, by TIPS to T2-CLM (serving the specific non-euro currency) in case of floor/ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.

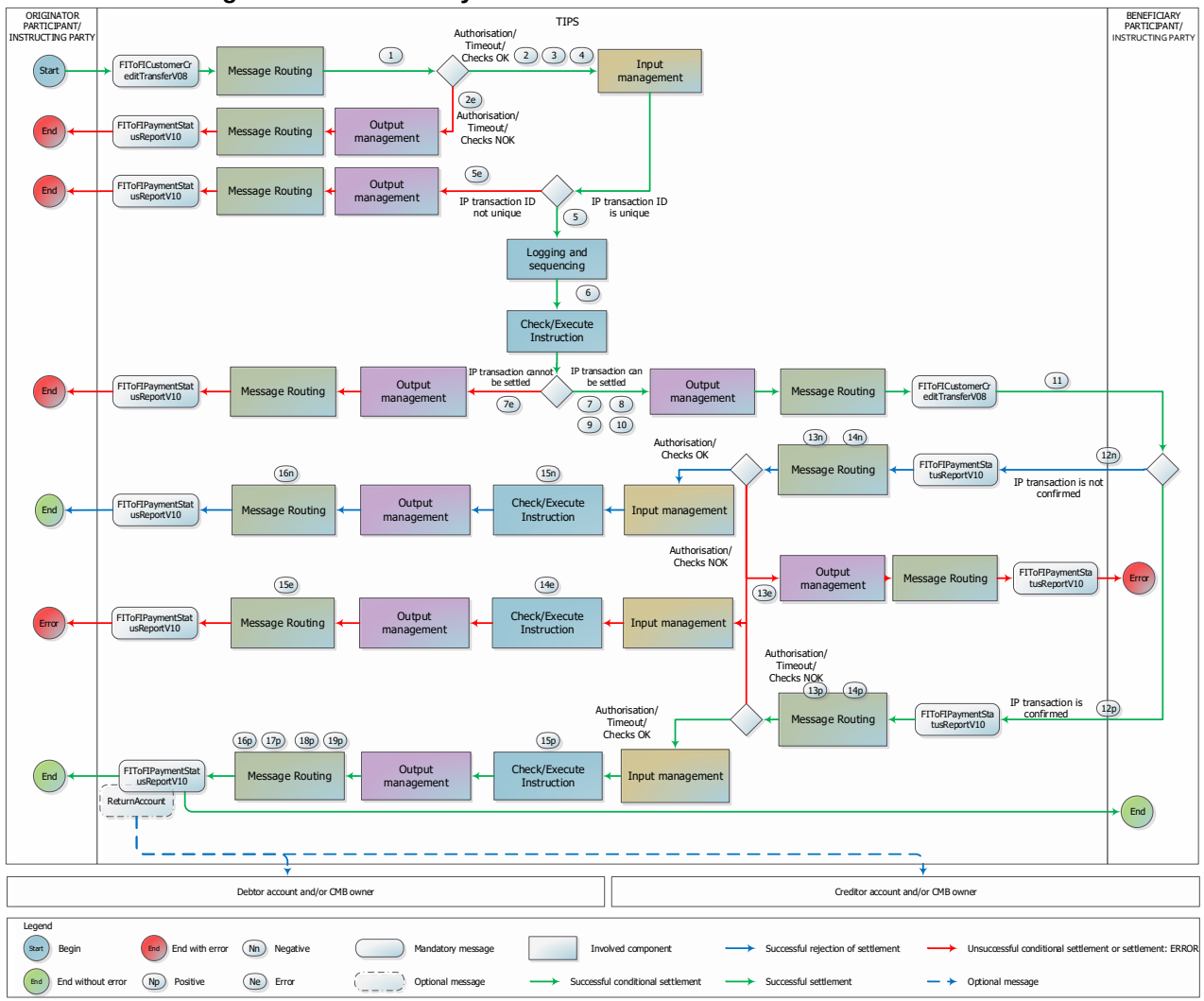
All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

As in the SCT^{Inst} processing, it is worth nothing that when the Debtor or Creditor BIC contains a BIC8 instead of a BIC11, the message is accepted and the BIC8 is translated into a BIC11 by appending “XXX” at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

Below is the diagram describing the process and the involved actors. The details of the steps are described in the following Table 24 – Instant Payment transaction steps for non-Euro currencies.

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Figure 63 – Instant Payment transaction flow for non-Euro currencies



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Table 24 – Instant Payment transaction steps for non-Euro currencies

Step	Involved messages	Involved actors	Description
1	FIToFICustomerCreditTransfer	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an Instant Payment transaction in non-Euro currency from the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party starting the conditional settlement phase of the transaction. Technical validation, check of mandatory fields and authentication checks have already been successfully executed. The timeout for the Instant Payment transaction has not expired. TIPS logs the instruction as "*Received*".
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Instructing Party authorised; - Beneficiary correctly configured; - Beneficiary Account or CMB existence. See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks listed in **step 2**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. If the failed check is "Timeout Check - Originator Side", the status of the transaction is set to "*Expired*"; in all the other cases, the status is set to "*Failed*".
3		TIPS	TIPS infers the account to be debited from the configured accounts information, the Originator Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or "TIPS AS Technical Account", exists, (ii) it is linked to the Originator Participant (field "Originator BIC") as authorised user, (iii) and it is denominated in the same currency as the one defined in the Settlement Amount.

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Step	Involved messages	Involved actors	Description
			- If the check does not return any account, TIPS looks for a CMB linked to the Originator Participant (field "Originator BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Originator Account" and the possible CMB as "Debiting CMB".
4		TIPS	TIPS infers the account to be credited from the configured accounts information, the Beneficiary Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or “TIPS AS Technical Account”, exists, (ii) it is linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user, (iii) and has a currency equal to the one defined in the Settlement Amount. - If the check does not return any account, TIPS looks for a CMB linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Beneficiary Account" and the possible CMB as "Crediting CMB".
5		TIPS	TIPS successfully executes the check: - Duplicate check; See 4.1 - Business Rules for details.
5e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check listed in **step 5**. If the check is unsuccessful the validation stops and TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender – containing the proper error code. The transaction is set to “*Failed*” status. See 4.1 - Business Rules for details.
6		TIPS	TIPS sends it to the Check and Execute Instruction process. TIPS sets the transaction status to "*Validated*".

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Step	Involved messages	Involved actors	Description
7		TIPS	TIPS successfully executes the checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded; See 4.1 - Business Rules for details.
7e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 7**. At the first negative check the validation stops and TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
8		TIPS	The DN of the Sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Originator DN".
9		TIPS	TIPS reserves funds in the Originator account. The full amount is reserved as Reserved Balance in the Cash Balance. TIPS sets the transaction status to "*Reserved*". If a Debiting CMB is involved, the system decreases its headroom by the same amount. After this moment, the settlement attempt is agreed and can either be confirmed or rejected by the counterpart or fail for a missing answer. The reserved amount cannot be taken into account for other payments or liquidity transfers.
10		TIPS	The DN of the beneficiary is identified in the "Outbound DN-BIC Routing" mapping table from the field Creditor Agent. From now on, this DN is referred to as "Beneficiary DN".
11	FIToFICustomerCreditTransfer	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Instant Payment transaction to the Beneficiary DN.
12p	FIToFIPaymentStatusReport (pacs.002.001.10)	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party starts the settlement phase of the transaction by sending a positive payment status report that is successfully delivered to TIPS. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.

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Step	Involved messages	Involved actors	Description
13p		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing; - Timeout Check - Beneficiary Side. See 4.1- Business Rules for details.
13e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 13p**. At the first negative check the system stops and sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The reserved amount is released in the involved Originator account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.
14p		TIPS	TIPS identifies the transaction using the Transaction ID. The transaction Id is related to a transaction that exists in TIPS and still in "*Reserved*" status.
15p		TIPS	TIPS retrieves the reserved transaction and confirms it. The amount is considered settled and the transaction is set to "*Settled*" status. The reserved amount of the Originator account is decreased by the amount of the corresponding settled transaction. The same positive amount is added to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount.

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Step	Involved messages	Involved actors	Description
			TIPS always executes the reserved transactions even though the involved accounts (or CMBs) have been blocked in the meantime.
16p	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received FIToFIPaymentStatusReport (pacs.002.001.10) to the Originator DN.
17p	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS generates a positive Payment status report and sends it to the Beneficiary DN. The FIToFIPaymentStatusReport (pacs.002.001.10) contains the Transaction ID and Originator BIC of the transaction.
18p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender Debited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and floor breach)	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Originator account number or the Debiting CMB number. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount.

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Step	Involved messages	Involved actors	Description
			If the following condition is successfully met, TIPS generates a new pull rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.
19p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender Credited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and ceiling breach)	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Beneficiary account number or the Crediting CMB number. Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of the RTGS system.

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Step	Involved messages	Involved actors	Description
12n	FIToFIPaymentStatusReport (pacs.002.001.10)	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party triggers the settlement phase of the transaction sending a negative payment status report that is successfully delivered to TIPS. In this scenario the settlement phase will end up with a rejection of the Instant Payment transaction and the un-reservation of corresponding funds. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
13n		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing. See 4.1- Business Rules for details.
13e		TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks at **step 13n**. At the first negative check the system stops and sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The reserved amount is released in the involved Originator account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.
14n		TIPS	TIPS identifies the transaction using the Transaction ID. The Transaction ID is related to a transaction existing in TIPS and still in "*Reserved*" status.

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Step	Involved messages	Involved actors	Description
15n		TIPS	TIPS retrieves the Instant Payment transaction to be rejected and releases it. The reserved amount is released in the involved Originator Account and the possibly involved Debiting CMB is increased of the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime. The transaction is set to "*Rejected*" status.
16n	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.

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2.2.2.1. Timeout scenario: missing/delayed Beneficiary-side answer (non-Euro currencies scheme)

This sub-section describes the specific scenario of TIPS not receiving a Beneficiary-side answer or receiving it later than allowed.

This scenario assumes that TIPS has successfully executed the conditional settlement phase of an Instant Payment.

A specific software component (Sweeping service) is always acting in background taking care of all the orphan payments – an orphan payment being a reserved Instant Payment transaction still waiting for a confirmation/rejection. Every X seconds (X being the "Sweeping Timeout" parameter configured in the system, see 1.7.1 "Service configuration") a process checks all the pending Instant Payments transactions and rejects only those that have exceeded the Timestamp Timeout plus the Beneficiary side offset.

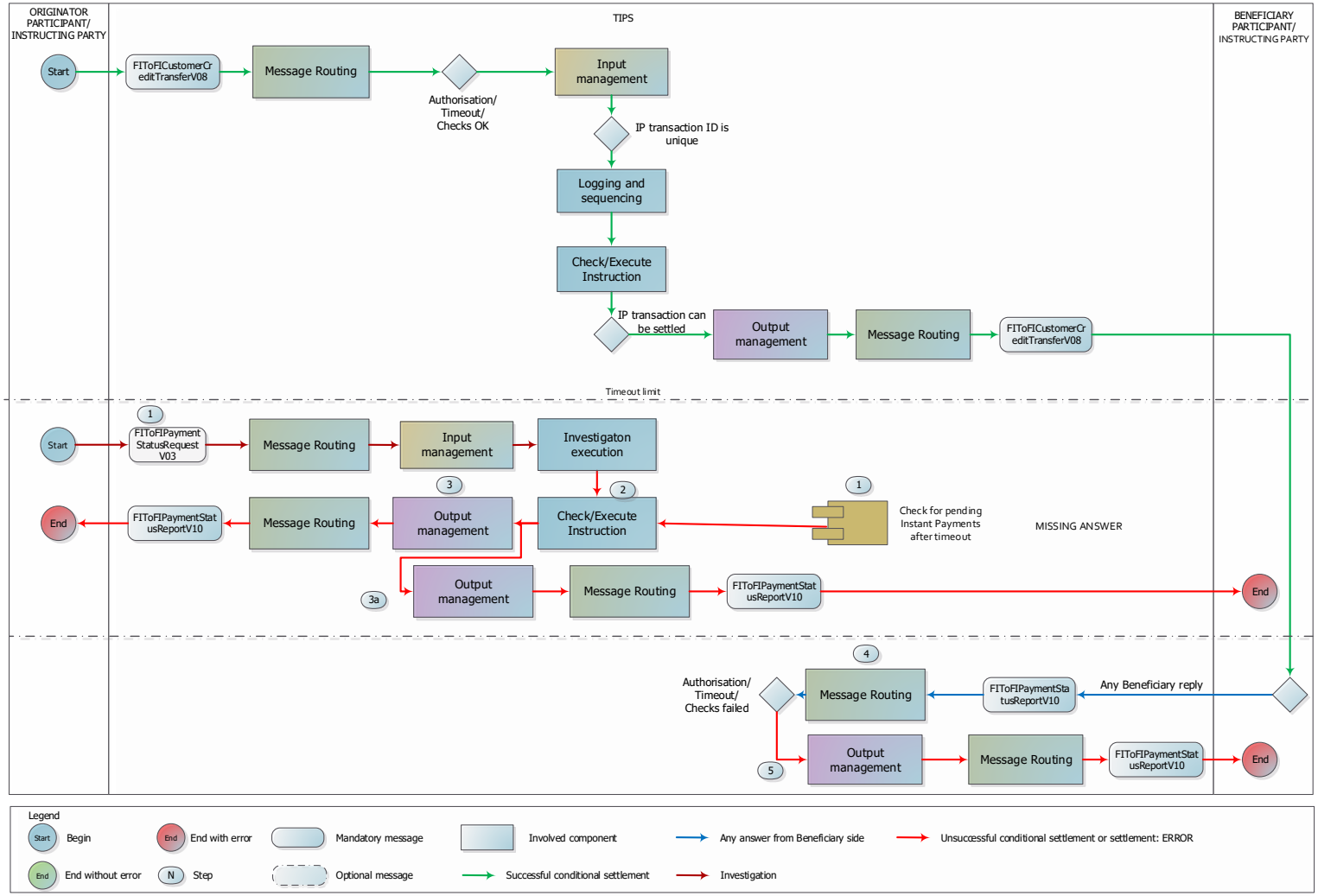
The time-out can also be triggered by an Investigation message from Originator Side that reaches TIPS requesting information for an existing Instant Payment transaction that is in status *Reserved* for which no Beneficiary-side answer is arrived yet and that has not been treated by Sweeping Service (see 2.4 "Investigation"). In this case, TIPS does not answer to the Investigation directly, but set to *Expired* the Instant Payment transaction, informing both Originator and Beneficiary side accordingly for the occurred time-out.

Any Beneficiary-side answer that arrives in TIPS for an orphan payment already treated by the Sweeping service generates an error since no reserved transaction is found.

The diagram below describes the specific process and the involved actors. The details of the steps are described in the following Table 25 – Instant Payment transaction missing/delayed Beneficiary-side answer steps (non-Euro currencies).

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Figure 64 – Instant Payment transaction missing/delayed Beneficiary-side answer flow (non-Euro currencies)



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Table 25 – Instant Payment transaction missing/delayed Beneficiary-side answer steps (non-Euro currencies)

Step	Involved messages	Involved actors	Description
1		TIPS	Every X seconds, with "X" being defined in the "Sweeping timeout" parameter, the Sweeping service runs checking all the payment in status "*Reserved*". If the "Acceptance timestamp" of the payment has exceeded the "Timestamp Timeout" value, the payment is elected for sweeping.
1	FIToFIPaymentStatusRequest	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an incoming Investigation request from the Originator Participant, Ancillary System or Instructing Party. There is no existing generated payment transaction status advice for the transaction and no answer from Beneficiary side has reached TIPS.
2		TIPS<	TIPS executes these operations for each orphan payment: - TIPS retrieves the transaction to be rejected and its ID executing the check "Timeout Check - Missing answer" (see 4.1- Business Rules for details); - The transaction is set to "*Expired*" status; - The reserved amount is released in the involved Originator Account and the possibly involved Debiting CMB is increased by the same amount TIPS always releases the reserved transactions even if the involved account or CMB have been blocked in the meantime.
3	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant or Instructing Party – same DN of the Sender taken from the transaction under analysis. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.
3a	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Beneficiary Participant or Instructing Party as receiver	TIPS sends a message to the Beneficiary Participant or Instructing Party identified as the default DN in the entity "Outbound DN-BIC Routing" related to the Beneficiary BIC in the transaction under analysis. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS unsuccessfully executes the check: - Pending transaction existing. See 4.1- Business Rules for details.
5	FIToFIPaymentStatusReport (pacs.002.001.10)	TIPS as sender Beneficiary Participant or Instructing Party as receiver	TIPS sends a FIToFIPaymentStatusReport (pacs.002.001.10) message to the Beneficiary Participant or Instructing Party (DN of the sender of the message) containing the proper error code.

2.2.2.2. Examples (non-Euro currencies scheme)

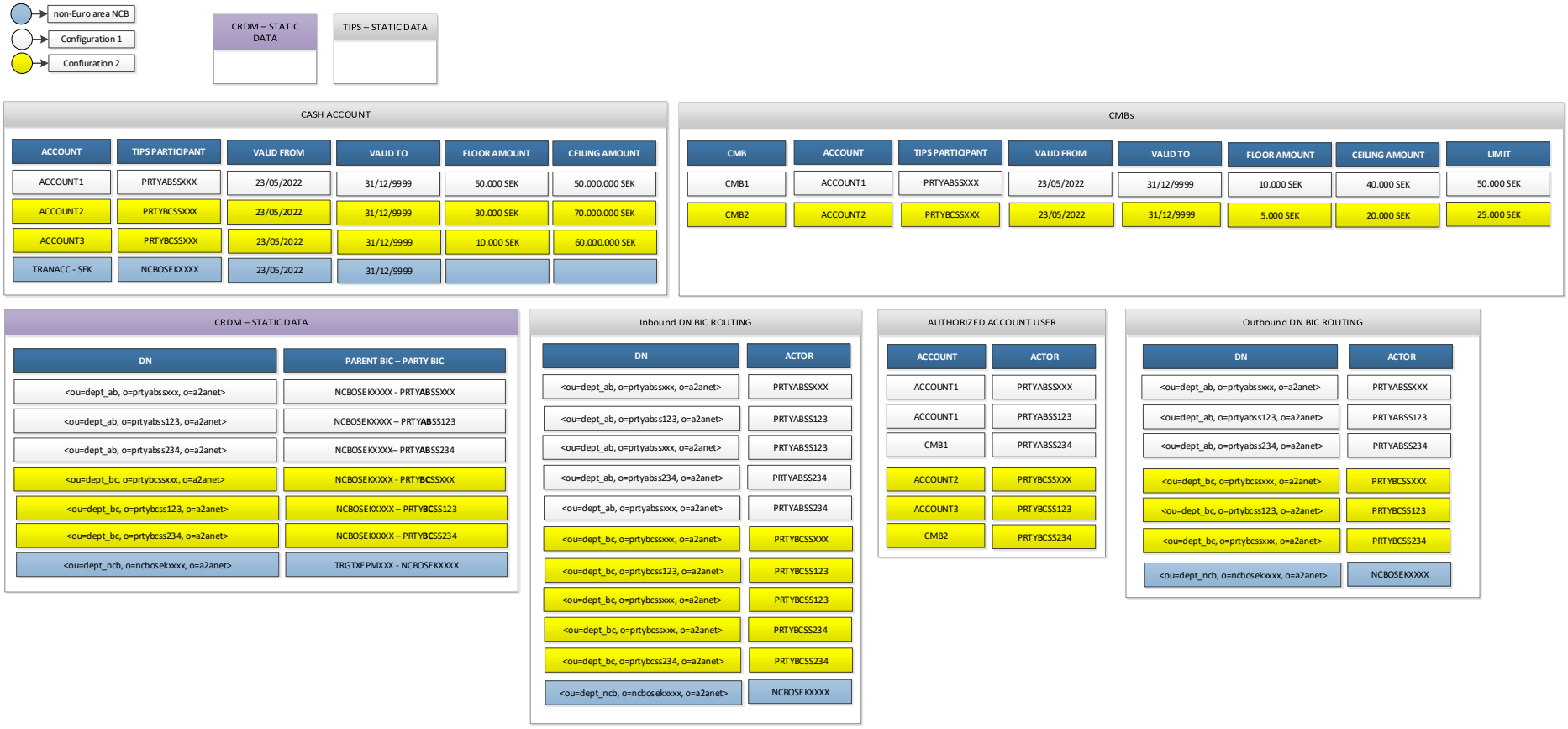
This sub-section includes a not exhaustive list of examples of TIPS transactions in non-Euro currencies and related messages.

Each example is introduced by a description of the involved actors and involved messages and it highlights how the balances change in the accounts.

All the examples are based on the data constellation introduced below. The data constellation is depicted on the basis of the concepts introduced in 1.3.2 “Accounts structure and organisation”.

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Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies



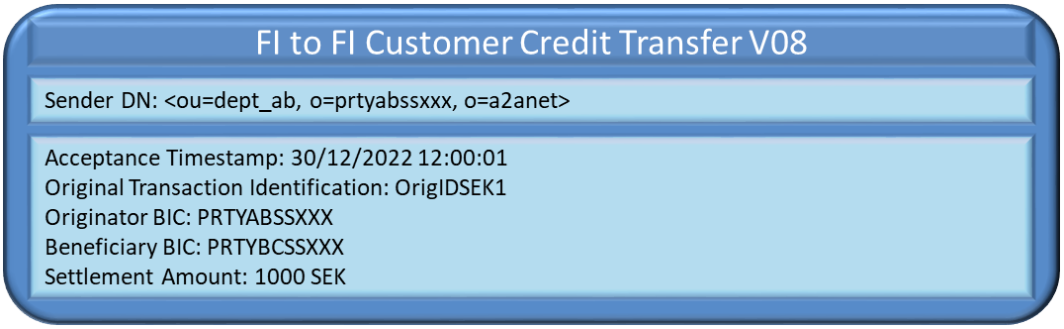
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2.2.2.2.1 Successful scenario with confirmed order – only accounts involved

This positive scenario describes a successful payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in the Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2022. The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 66 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



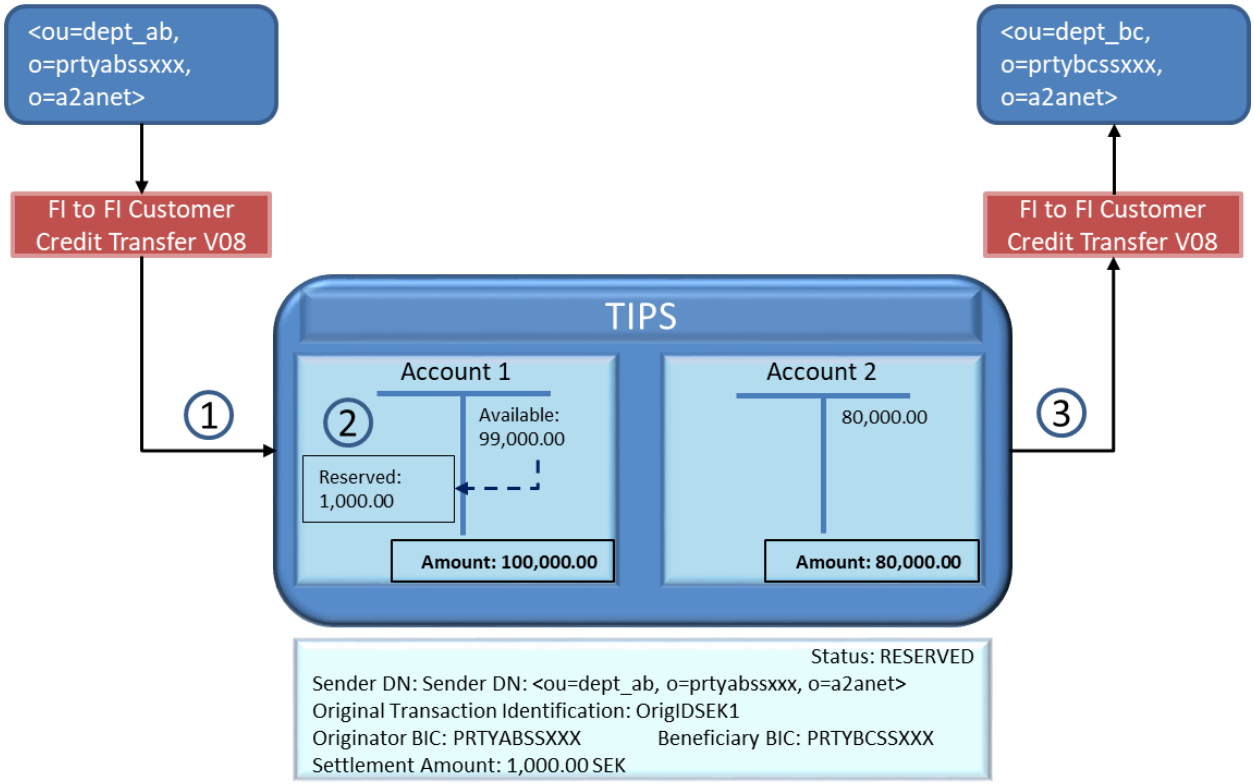
The system, after performing the expected checks successfully, sets up the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_bc, o=prtybcssxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1 – the new availability for ACCOUNT1 decreases from 100,000.00 SEK to 99,000.00 SEK;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

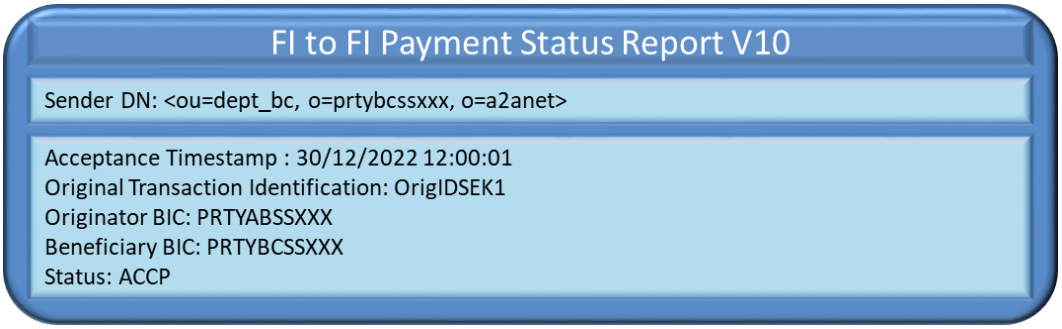
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Figure 67 – Successful Instant Payment transaction: reservation of funds



The answer from the Beneficiary triggers the settlement phase. In this scenario, the Beneficiary Bank confirms the payment by sending a FIToFIPaymentStatusReport (pacs.002.001.10) message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT2.

Figure 68 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

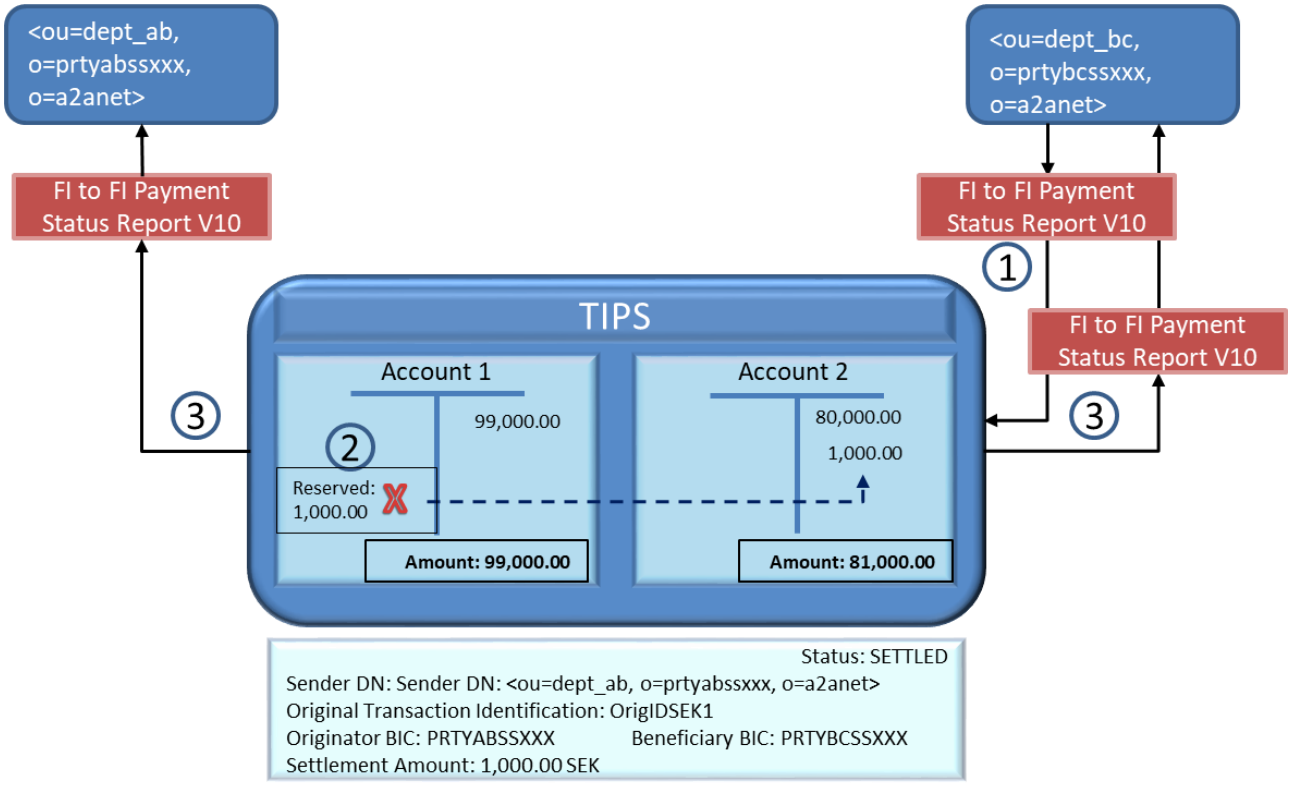
- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.

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- it identifies the Originator Account (ACCOUNT1) and the Beneficiary Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT2;
- The transaction status is turned into *Settled*.

TIPS then forwards the FIToFIPaymentStatusReport (pacs.002.001.10) message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary.

Figure 69 – Successful Instant Payment transaction: settlement phase



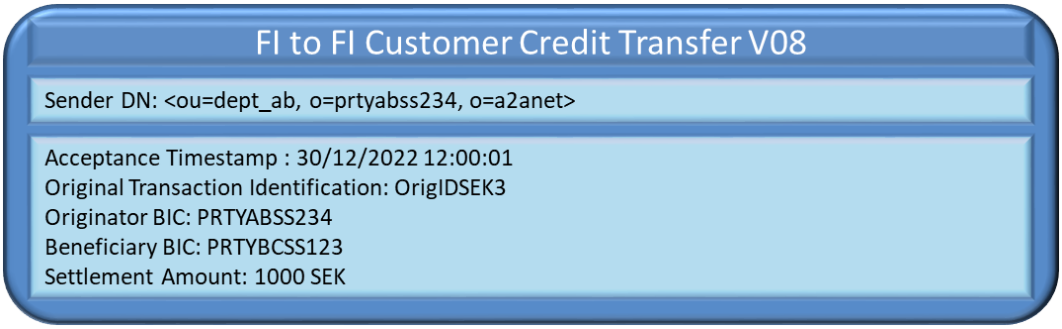
2.2.2.2.2 Successful scenario with confirmed order – Creditor account and debtor CMB

This positive scenario describes a successful payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant B but used by a related Reachable Party. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

No errors or timeouts occur. No floor or ceiling notification is expected. The current business date, in the given example, is 30/12/2022. The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

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Figure 70 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



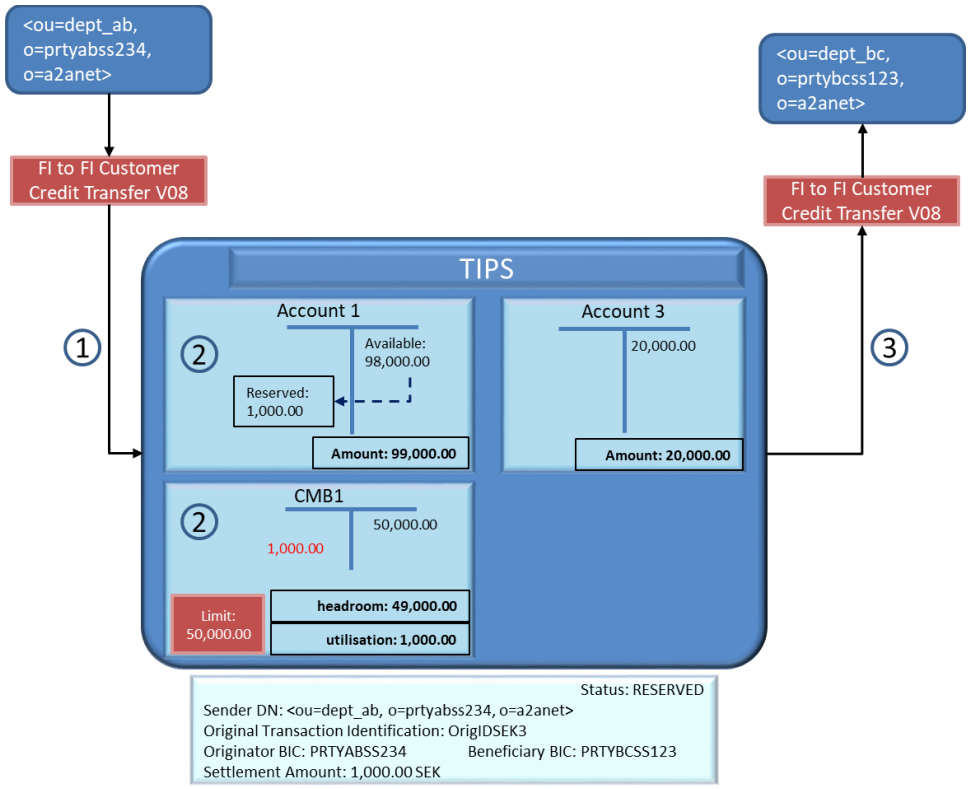
The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_bc, o=prtybcss123, o=a2anet>);
- It decreases the headroom for the involved CMB1;
- It reserves the amount for ACCOUNT1 related to the CMB – the new availability for ACCOUNT1 decreases from 99,000.00 SEK to 98,000.00 SEK;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

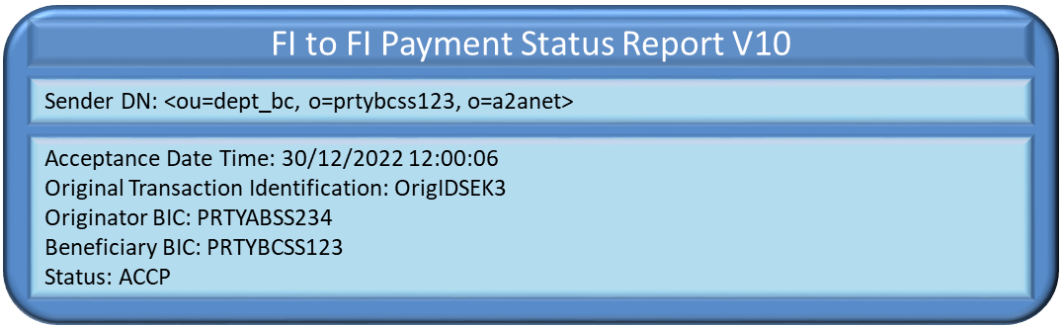
All rights reserved.

Figure 71 – Successful Instant Payment transaction: reservation of funds



The answer from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary Participant confirms the payment sending a FIToFIPaymentStatusReport (pacs.002.001.10) message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT3. The movement on CMB1 is confirmed.

Figure 72 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

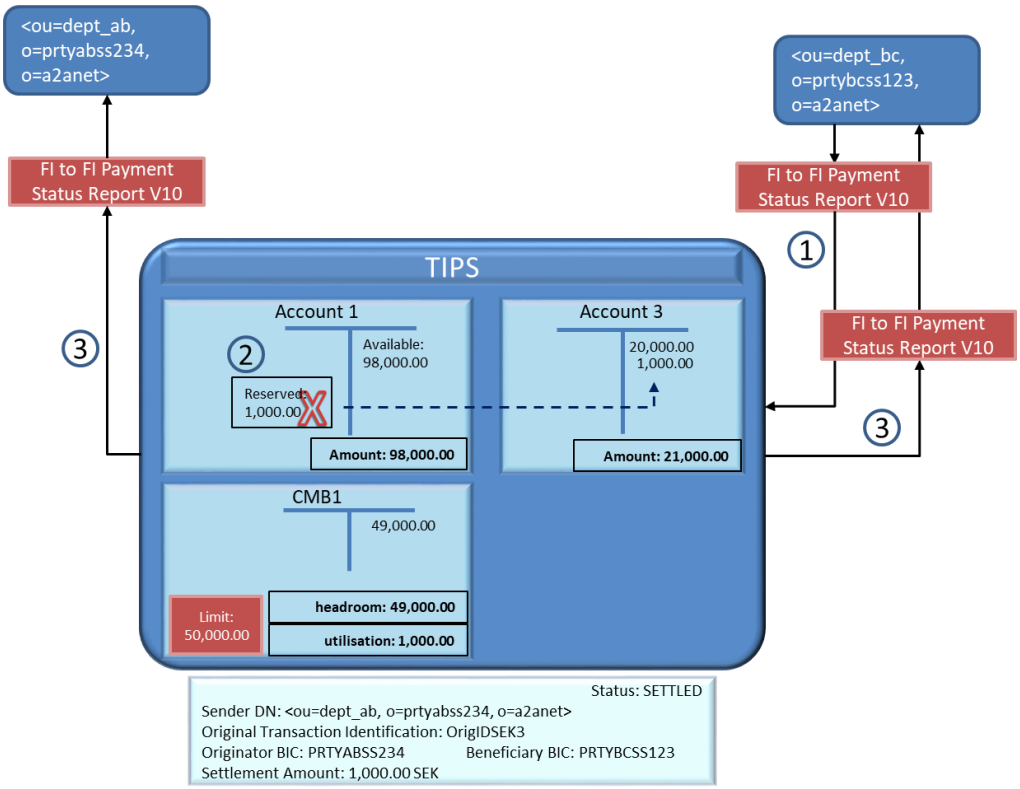
- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.

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- It identifies the Originator Account (ACCOUNT1) and the Beneficiary Account (ACCOUNT3) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount by moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT3;
- The transaction status is turned into *Settled*.

In this example, CMB1 has no additional movements – the reduction of the headroom is confirmed. The settlement phase ends and TIPS then forwards the FIToFIPaymentStatusReport (pacs.002.001.10) message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

Figure 73 – Successful Instant Payment transaction: settlement phase



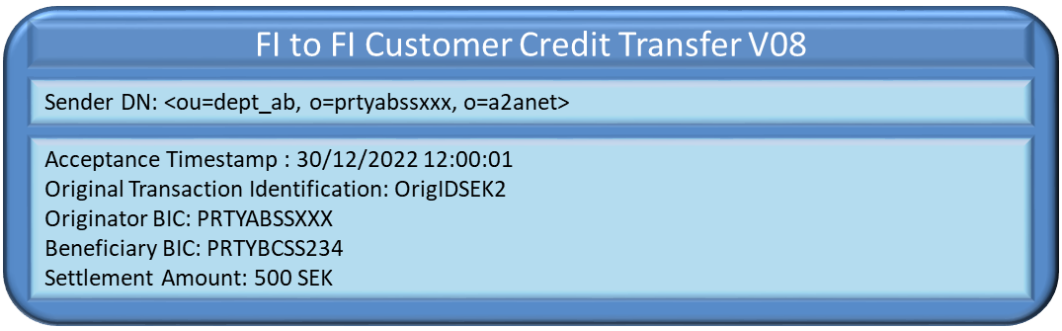
2.2.2.2.3 Successful scenario with confirmed order – Creditor CMB and debtor Account

This positive scenario describes a successful payment transaction between a TIPS Account owned and held by a TIPS Participant A sending the messages on its own and a CMB held by a branch of a TIPS Participant B. The TIPS Participant B acts as Instructing Party for its branch. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

All rights reserved.

No errors or timeouts occur. No floor or ceiling notification is expected. The current business date, in the given example, is 30/12/2022. The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 74 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



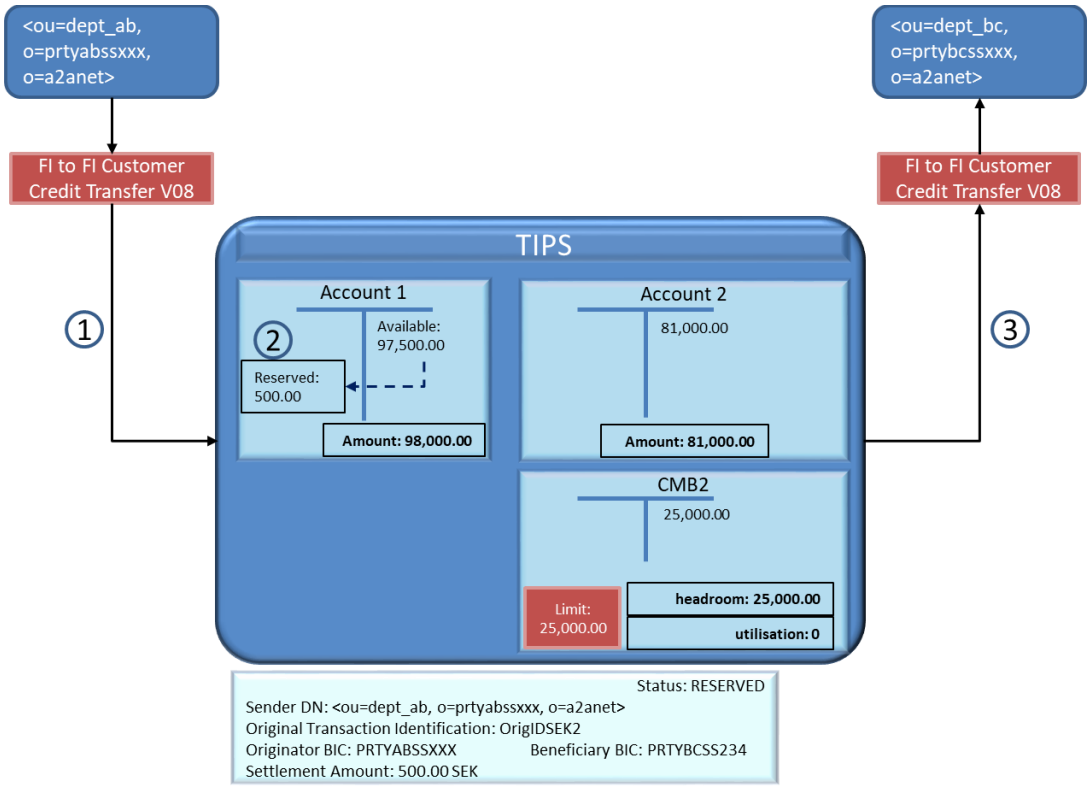
TIPS, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Crediting CMB (CMB2) from the Beneficiary BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the CMB2 in table CMBs;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_bc, o=prtybcssxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1 – the new availability for ACCOUNT1 decreases from 98,000.00 SEK to 97,500.00 SEK;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

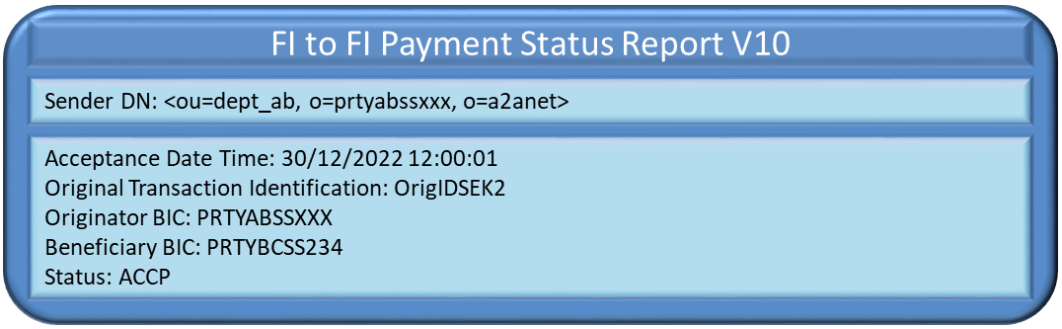
All rights reserved.

Figure 75 – Successful Instant Payment transaction: reservation of funds



The answer from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary Bank confirms the payment sending a FIToFIPaymentStatusReport (pacs.002.001.10) message with a positive answer. TIPS definitively settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT2 and increasing the headroom for CMB2.

Figure 76 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

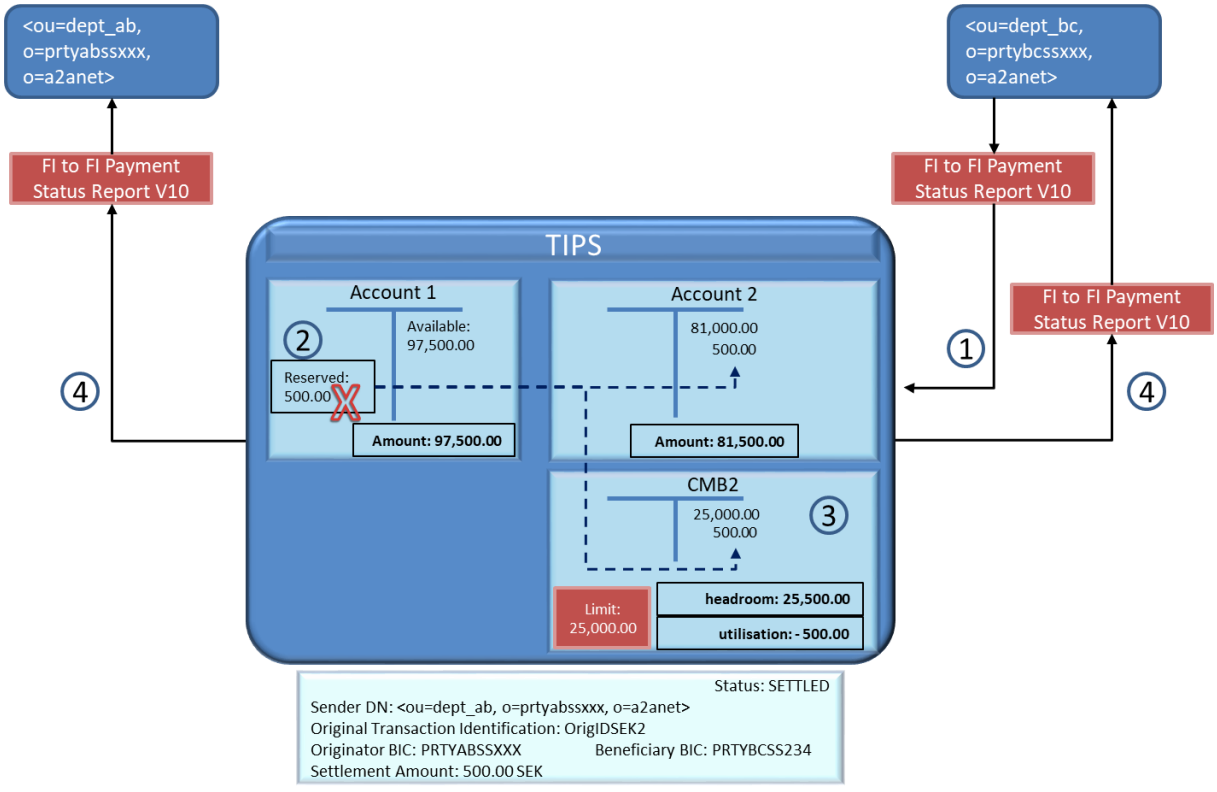
- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.

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- It identifies the Originator Account (ACCOUNT1), the Crediting CMB (CMB2) and the Beneficiary Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It definitively settles the amount moving the liquidity reserved in the ACCOUNT1 to the ACCOUNT2;
- It increases the headroom of the CMB2;
- The transaction status is turned into *Settled*.

In this example, CMB2 exceeds the defined limit for the CMB (the limit defined remains 25,000.00 SEK, the headroom is 25,000.00 SEK + 500.00 SEK = 25,500.00 SEK and the utilisation is – 500.00 SEK as depicted in Figure 77 – Successful Instant Payment transaction: settlement. The settlement phase ends and TIPS then forwards the FIToFIPaymentStatusReport (pacs.002.001.10) message to the Originator DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

Figure 77 – Successful Instant Payment transaction: settlement phase



2.2.2.2.4 Successful scenario with rejected order

This negative scenario describes a successful reservation of funds for a transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by

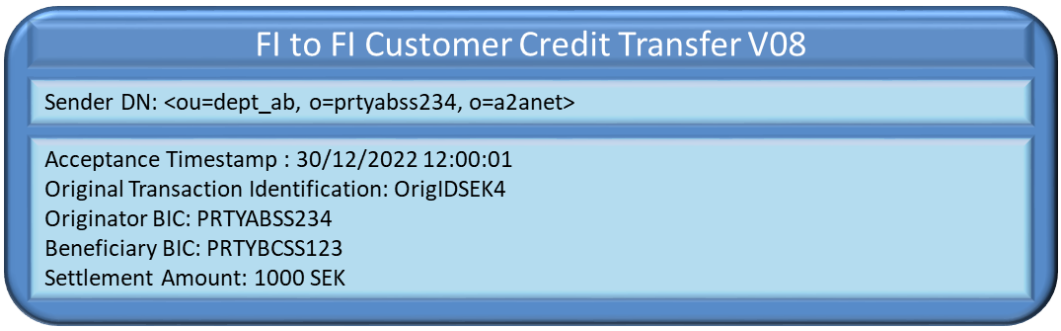
All rights reserved.

a TIPS Participant B. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

After the successful reservation, the Beneficiary participant rejects the payment.

The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 78 – Rejected Instant Payment transaction: FItoFICustomerCreditTransfer



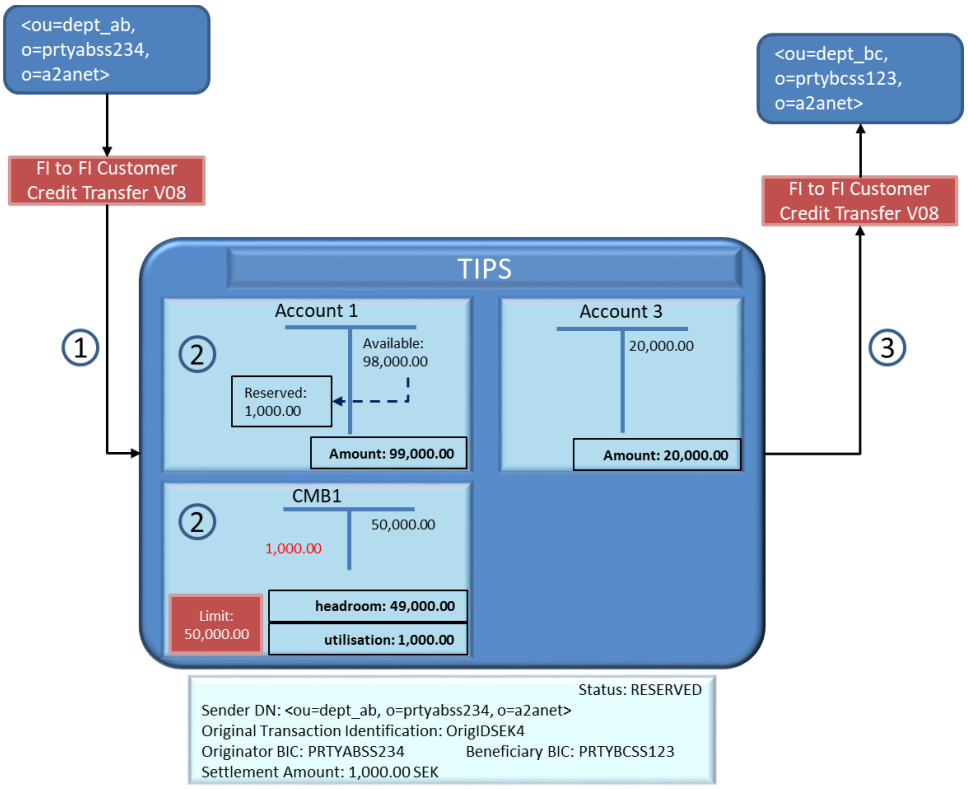
The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_bc, o=prtybcss123, o=a2anet>);
- It decreases the headroom for the involved CMB1;
- It reserves the amount for the ACCOUNT1 related to the CMB;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

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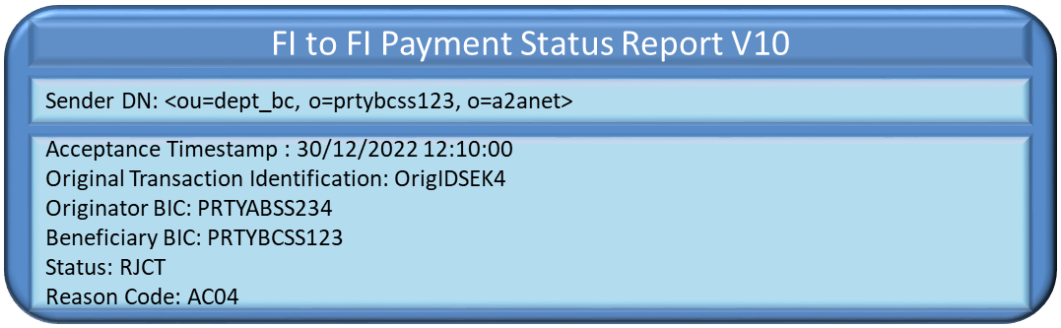
Figure 79 – Rejected Instant Payment transaction: reservation of funds



In this scenario, the Beneficiary Participant receives the forwarded FIToFICustomerCreditTransfer message with the transaction. The Beneficiary Participant rejects the payment sending a FIToFIPaymentStatusReport (pacs.002.001.10) message with a negative answer.

The answer from the Beneficiary Participant triggers the settlement phase for a negative scenario[30]. TIPS must then increase the CMB1 headroom of the same amount of the payment and release the amount on ACCOUNT1.

Figure 80 – Rejected Instant Payment transaction: FItoFIStatusReport



[30] The error code AC04 is used as an example in Figure 78, however the message can contain any error code sent by the beneficiary side

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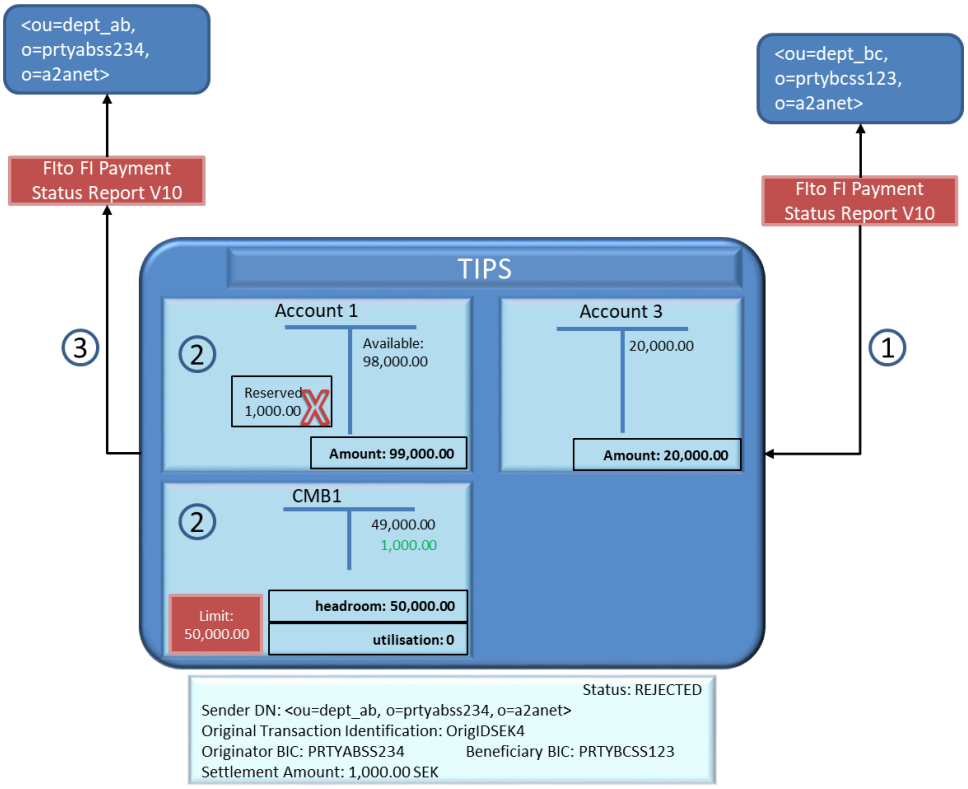
The system performs the expected checks successfully. The timeout check is not performed: a negative response from the Beneficiary side must always reach the Originator side with no changes and trigger the release of the previously reserved funds.

TIPS finds the reserved transaction, releases the funds on the accounts and increases the CMB headroom as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*.
- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1 and adds the same amount of the payment to CMB1;
- The transaction status is turned into *Rejected*;
- It identifies the Originator DN from the transaction.

The settlement phase ends with the rejection of the payment and TIPS then forwards the FIToFIPaymentStatusReport (pacs.002.001.10) message to the Originator DN.

Figure 81 – Rejected Instant Payment transaction: release of funds



2.2.2.2.5 Error scenarios

This section describes some possible error scenarios that can happen when dealing with Instant Payment in non-Euro currencies. This is a subset of possible error cases but the error mechanism is always the same.

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For the complete list of possible error codes, see 4.2 “List of Error codes”.

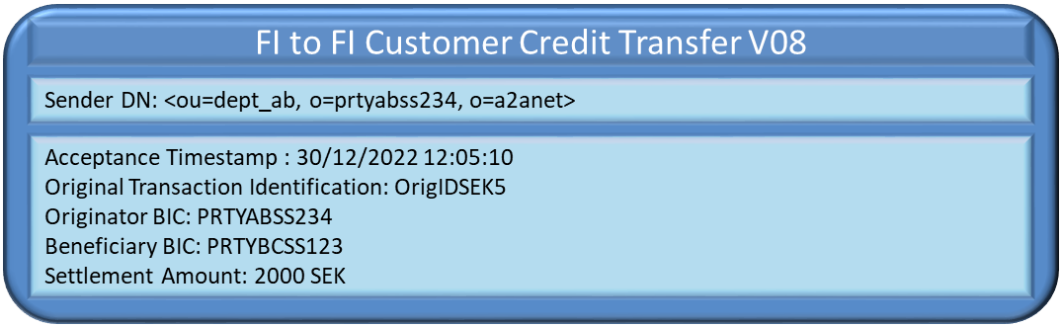
Insufficient funds within the CMB

This error scenario describes a payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

The transaction fails since the requested amount exceeds the headroom of the involved CMB.

The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one:

Figure 82 – Headroom error: FItoFICustomerCreditTransfer

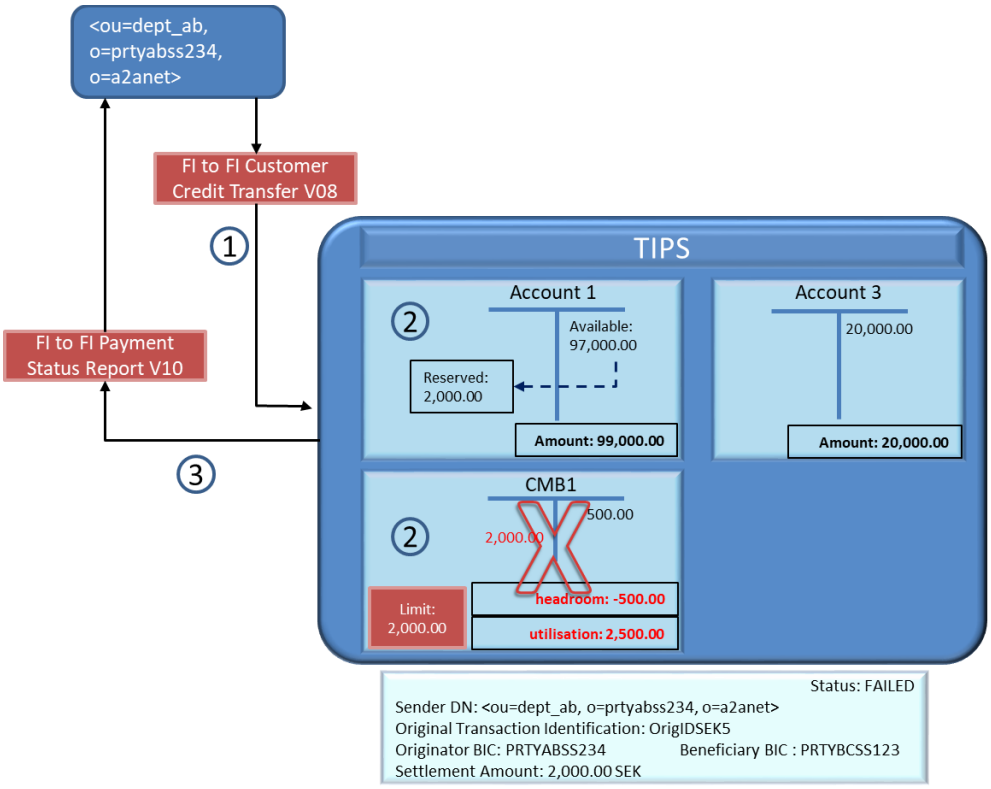


The system executes these steps:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies that the headroom for the involved CMB1 is lower than the request amount;
- The transaction fails. The attempt is saved as failed transaction and the sender is informed of the error.

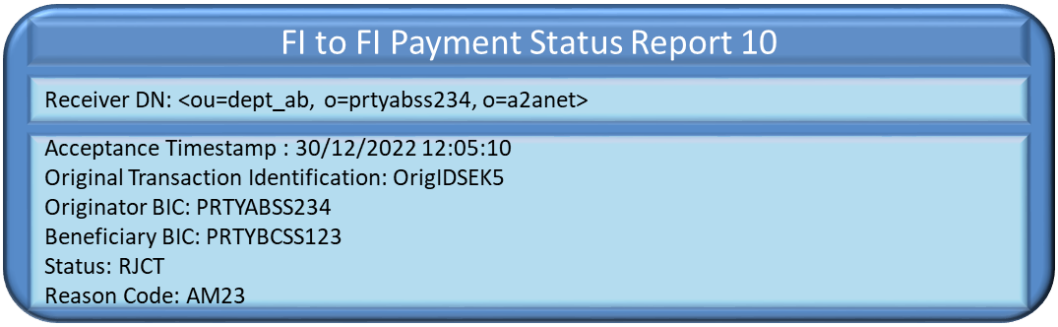
All rights reserved.

Figure 83 – Headroom error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport (pacs.002.001.10) to the sender with the proper error code.

Figure 84 – Headroom error: FItoFIPaymentStatusReport



Blocked Account

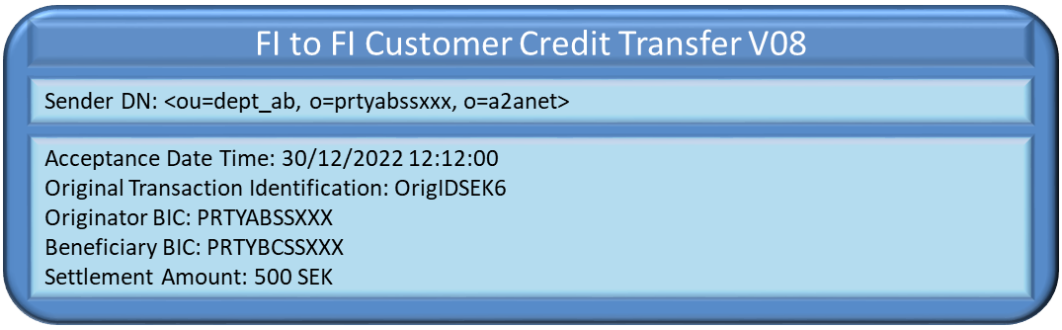
This error scenario describes a payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

The transaction fails since the account to be debited is blocked and not available for settlement.

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The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

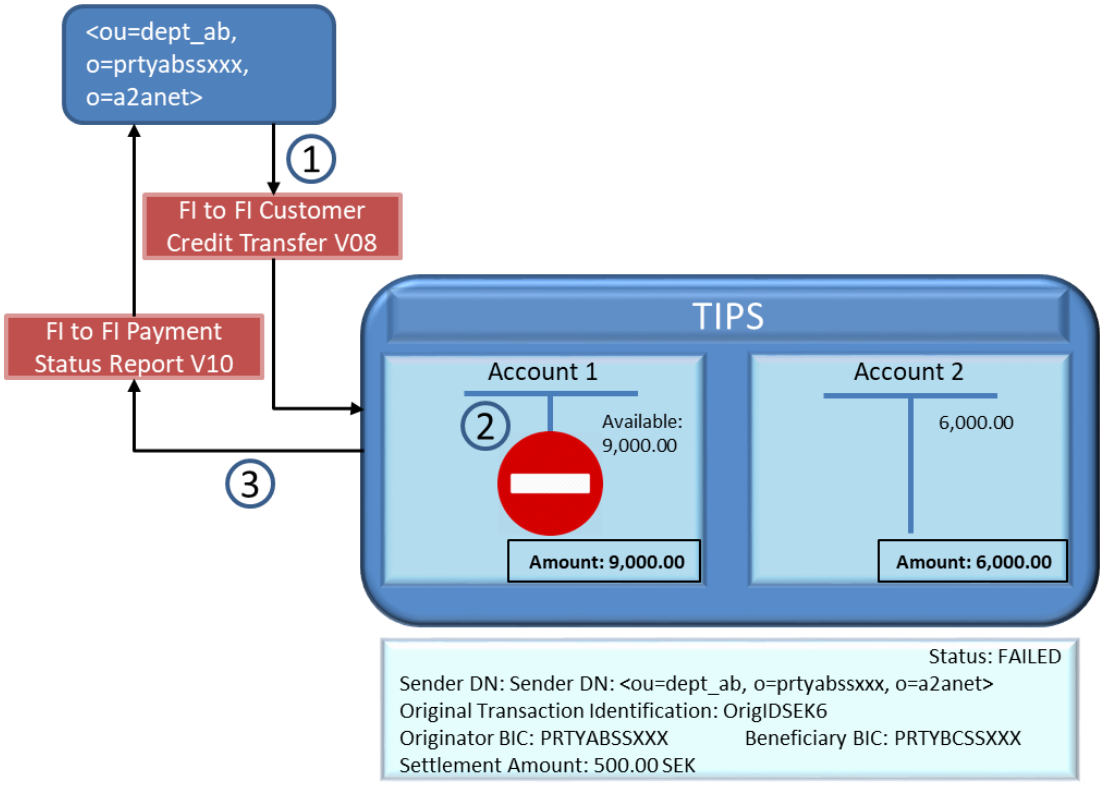
Figure 85 – Blocked account error: FItoFICustomerCreditTransfer



The system executes these steps:

- It identifies the Debiting Account (ACCOUNT1) from the Originator BIC;
- It detects that ACCOUNT1 is blocked (e.g. status is either 'blocked for debit' or 'blocked for credit and debit');
- The transaction fails. The attempt is saved as failed Instant Payment transaction and the sender is informed of the error.

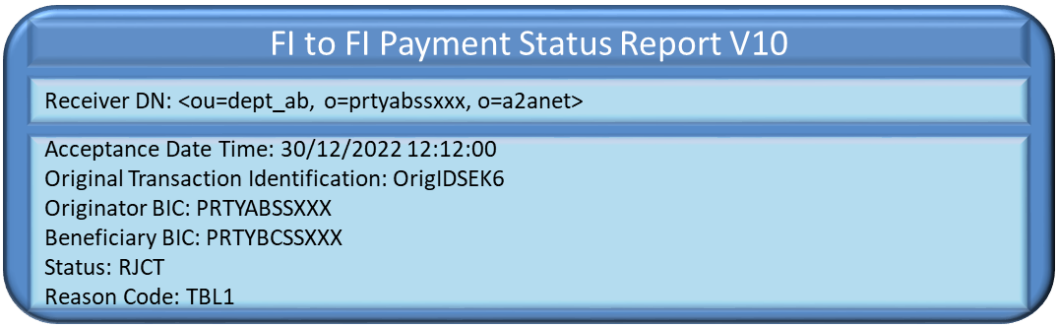
Figure 86 – Blocked account error: transaction failed



All rights reserved.

TIPS then sends a FIToFIPaymentStatusReport (pacs.002.001.10) to the sender with the proper error code.

Figure 87 – Blocked account error: FItoFIPaymentStatusReport



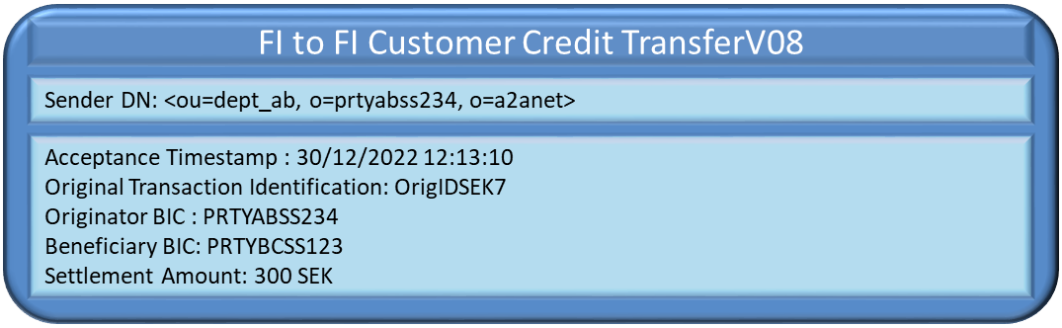
Beneficiary side timeout

This error scenario describes a payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant. "Configuration 1" and "Configuration 2" (highlighted in white and yellow in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

The transaction fails since the answer from the Beneficiary Participant reaches TIPS after the foreseen timeout period.

The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario is shown in the following diagram.

Figure 88 – Beneficiary side timeout error: FItoFICustomerCreditTransfer



The system, after performing the expected checks successfully, sets up the settlement on the accounts and on the CMB as follows:

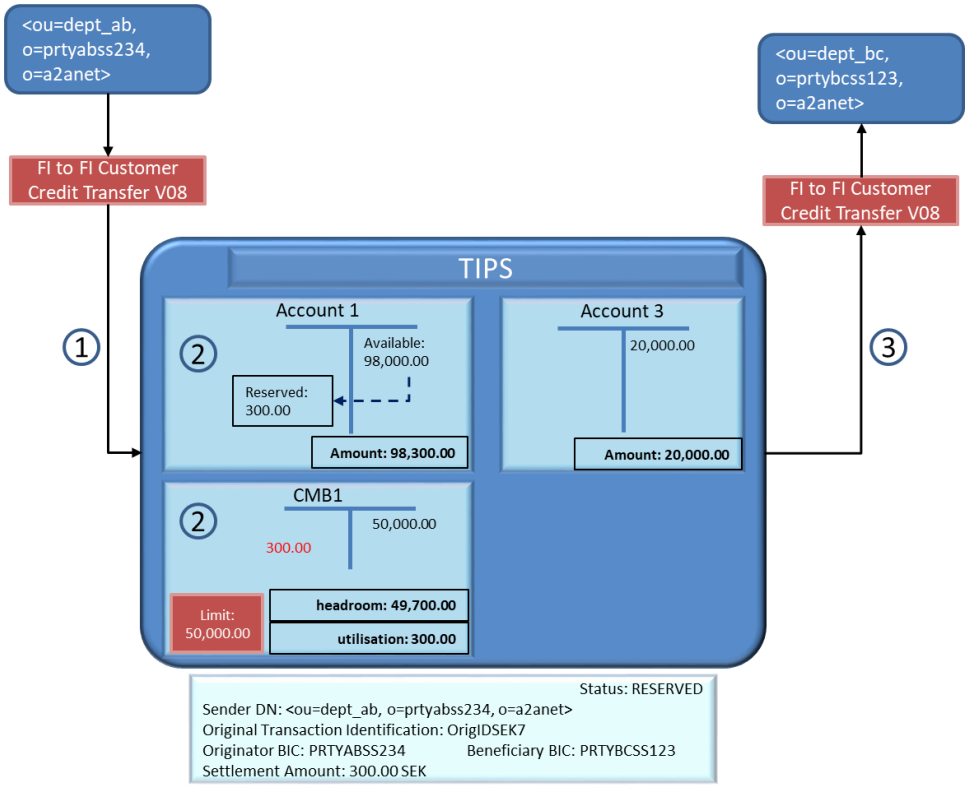
- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies the Originator Account from the CMB1 (ACCOUNT1);
- It identifies the Beneficiary Account (ACCOUNT3) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing (<ou=dept_bc, o=prtybcss123, o=a2anet>);

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- It decreases the headroom for the involved CMB1;
- It reserves the amount for the ACCOUNT1 related to the CMB – the new availability for ACCOUNT1 decreases from 98,300.00 SEK to 98,000.00 SEK;
- The transaction is saved and put in status *Reserved*.

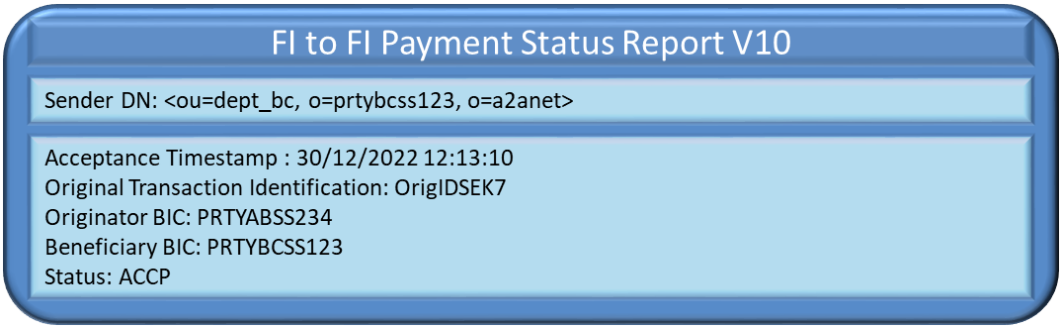
The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

Figure 89 – Beneficiary side timeout error: reservation of funds



The answer from the Beneficiary Participant arrives when the timeout period is exceeded.

Figure 90 – Beneficiary side timeout error: FItoFIPaymentStatusReport

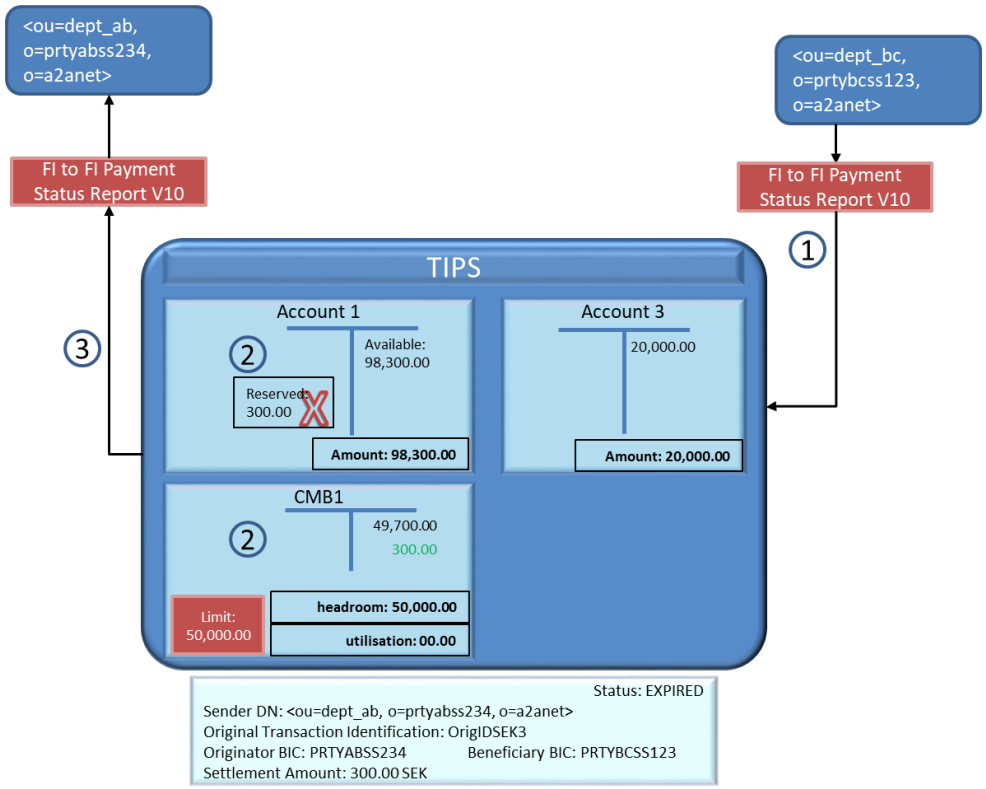


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The timeout check on Beneficiary Participant side fails. TIPS finds the reserved transaction, releases the funds on the accounts and increases the CMB headroom as follows:

- It identifies the transaction from the Original Transaction ID. The transaction must be in status *Reserved*;
- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1 and adds the same amount of the payment to CMB1;
- The transaction status is turned into *Expired*;
- It identifies the Originator DN from the transaction.

Figure 91 – Beneficiary side timeout error: release of funds

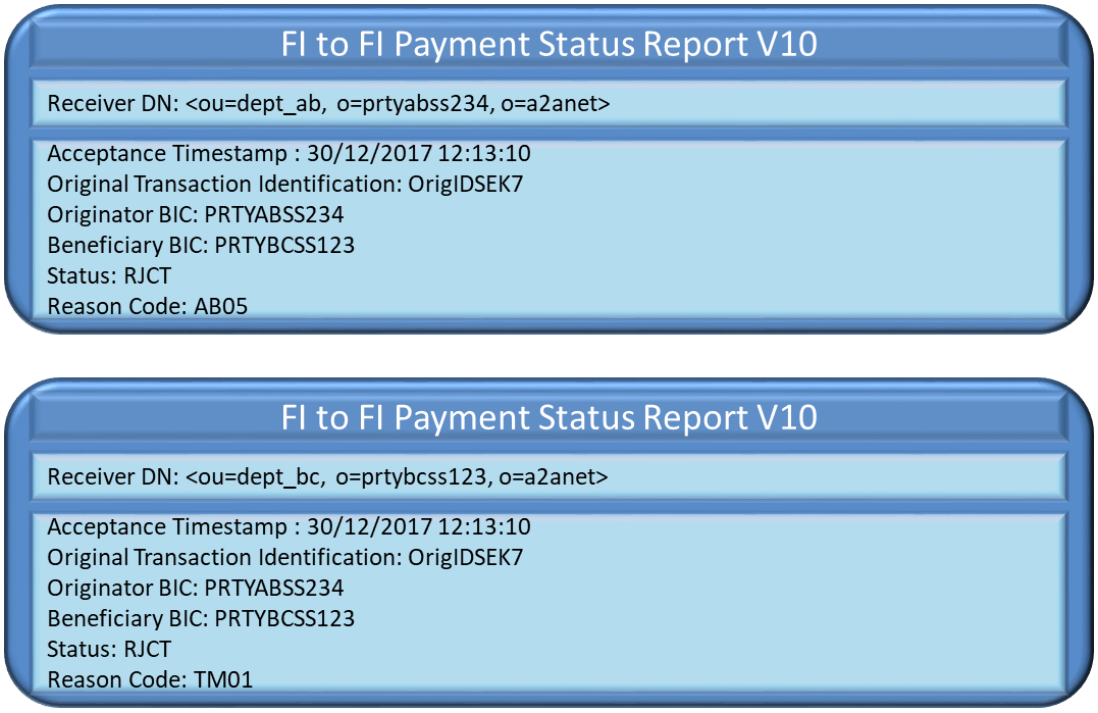


TIPS informs both sides of the transaction about the expiration. TIPS sends the message to:

- The DN of the sender of the Instant Payment transaction;
- The Beneficiary DN as configured in the “Outbound DN-BIC Routing (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- The message for the Originator Participant (reason code equal to AB05) and the Beneficiary Participant (reason code equal to TM01) are respectively generated and sent as shown in the following diagram.

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Figure 92 – Beneficiary side timeout error: FItoFIStatusReport



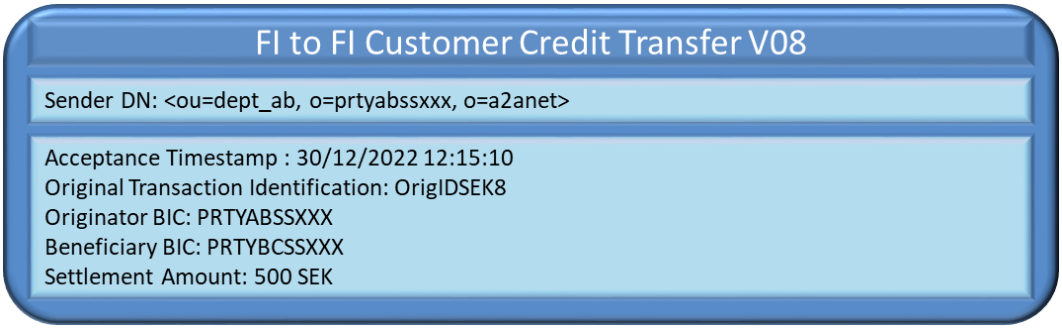
2.2.2.2.6 Delayed Beneficiary-side answer scenario

This error scenario describes a payment transaction between two TIPS Accounts owned and held by two TIPS Participants sending the messages on their own (no Instructing Party different from the TIPS Participant(s) foreseen). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in in Figure 65 – Instant Payment transaction examples data constellation for non-Euro currencies) are considered.

In this scenario, the confirmation message from the Beneficiary Participant is delayed and, in the meantime, the Sweeper rejects the pending payment.

The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 93 – Delayed Beneficiary-side answer: FItoFICustomerCreditTransfer



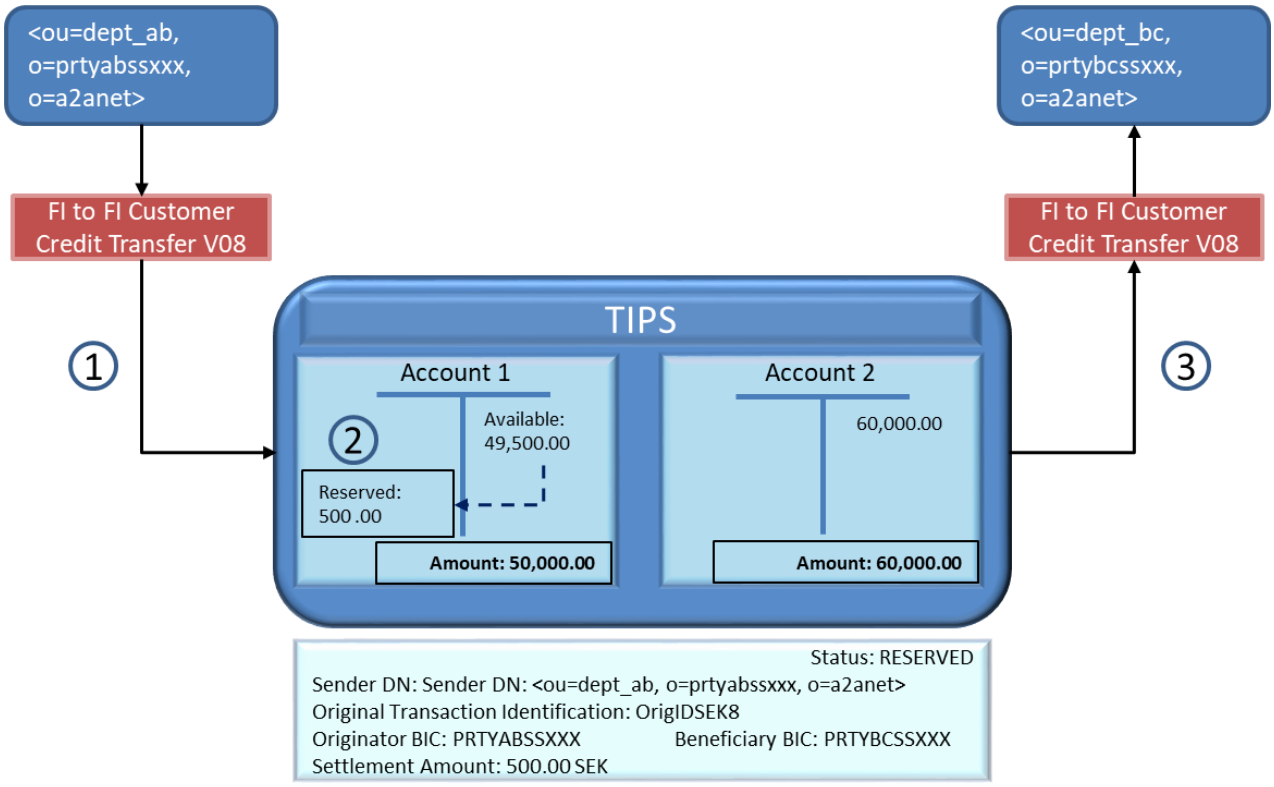
All rights reserved.

The system, after performing the expected checks successfully, sets up the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_bc, o=prtybcssxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1;
- The transaction is saved and put in status *Reserved*.

The forwarding of the FIToFICustomerCreditTransfer message to the Beneficiary DN ends the Conditional Settlement phase.

Figure 94 – Delayed Beneficiary-side answer: reservation of funds



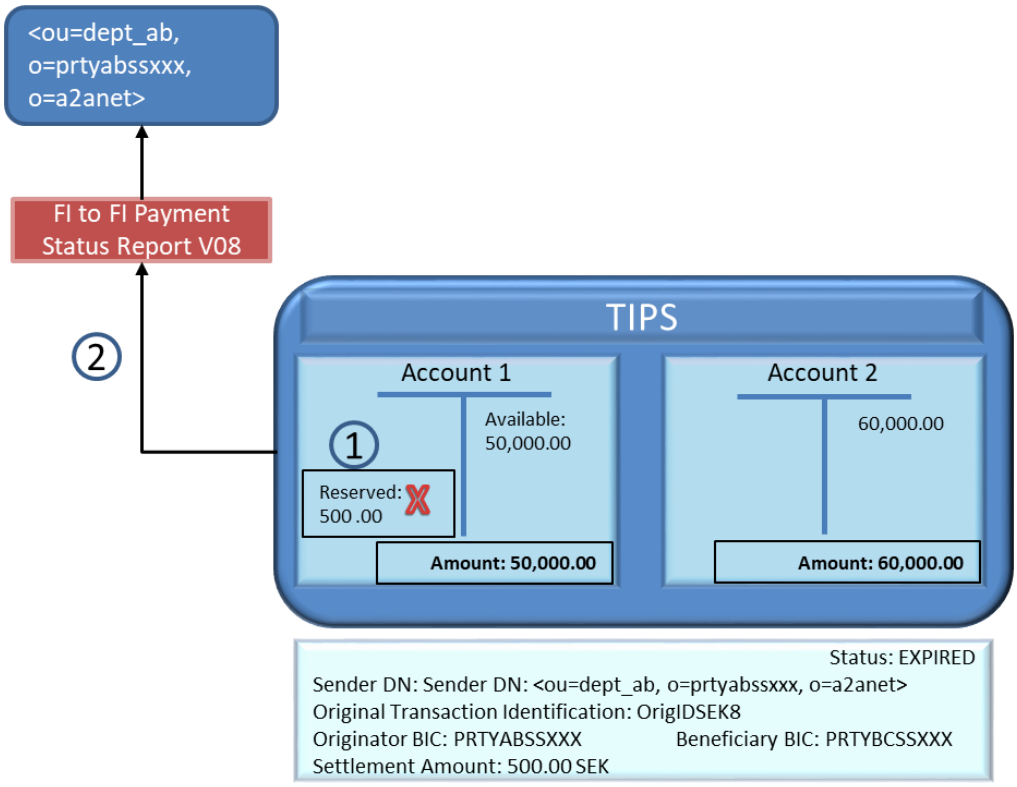
The answer from the Beneficiary side is delayed and does not reach TIPS in time to close the transaction. After a configured timeout, the Sweeper checks for pending payments. In case a pending payment is found for which the Timestamp Timeout has elapsed, TIPS triggers a timeout, rejects the transaction, un-reserves the funds on the debtor account as follows:

- It identifies the Originator Account (ACCOUNT1) from the retrieved transaction;
- It un-reserves the amount on the ACCOUNT1;
- The transaction status is turned into *Expired*;
- It identifies the Originator DN from the transaction;

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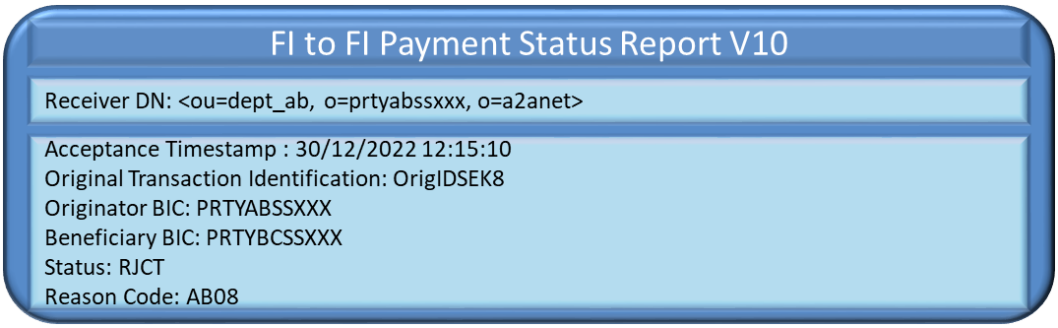
- It identifies the Beneficiary DN from the transaction.

Figure 95 – Delayed Beneficiary-side answer: release of funds



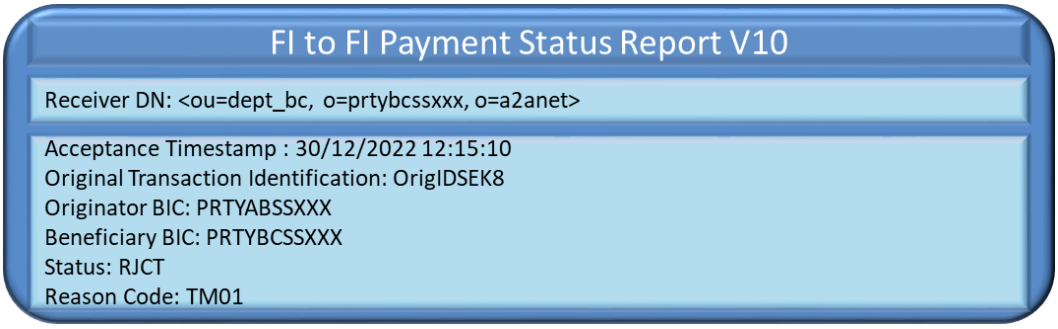
TIPS then sends a FIToFIPaymentStatusReport (pacs.002.001.10) to both the Originator and the Beneficiary Participants with the proper error code (see respectively Figure 96 for Originator side and Figure 97 for Beneficiary side).

Figure 96 – Timeout answer: FItoFIPaymentStatusReport (Originator side)



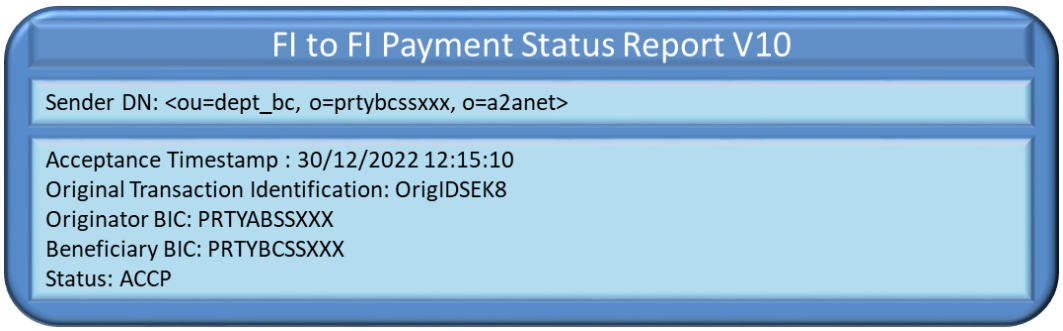
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Figure 97 – Timeout answer: FItoFIPaymentStatusReport (Beneficiary side)



This example scenario foresees that Beneficiary-side reply reaches TIPS after the rejection due to timeout and un-reservation of funds of the relevant pending transaction. The delayed reply message generated by the Beneficiary Participant is the following.

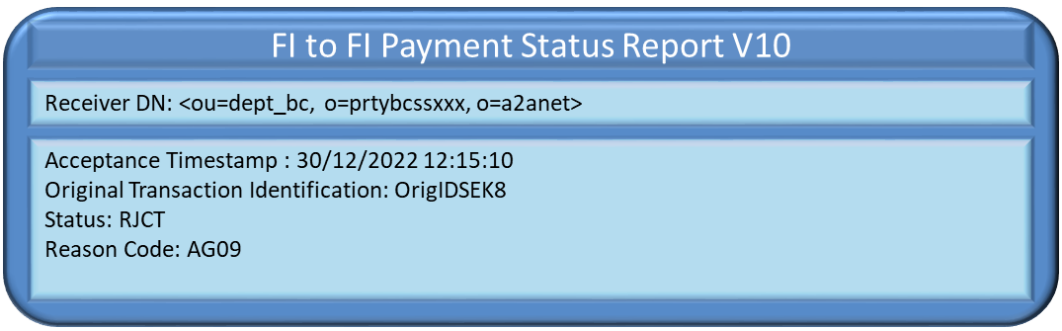
Figure 98 – Delayed Beneficiary-side response: FItoFIPaymentStatusReport



TIPS rejects the message since the underlying transaction has been already rejected by the Sweeper and it is no longer in status pending.

Therefore, TIPS sends FI to FI Status Report to the same DN that sent the Beneficiary reply. The Original Transaction Identification inserted in the FI to FI Status Report is the one received in the Beneficiary reply.

Figure 99 – Delayed Beneficiary-side response: FItoFIPaymentStatusReport



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2.2.3. Instant Payment (SIP settlement model)

This section focuses on the settlement of Instant Payment transactions adhering to the SIP settlement model, describing the full scenario and the related steps.

The introductory part of the section presents the general flow, including all the steps.

All the remaining sub-sections contain examples of the possible scenarios, starting from a successful one and detailing possible failure scenarios. Each example shows the relevant messages and how the main fields are filled.

The SIP settlement model covers the scenarios in which an Originator Participant or Instructing Party acting on behalf of the Originator Participant or a Reachable Party instructs TIPS in order to transfer funds to the account of a Beneficiary Participant without prior reservation of funds. The involved actors are:

- The Originator Participant, or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, starting the scenario;
- The Beneficiary Participant, or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party, receiving either the confirmation or the rejection of the payment.

The involved messages are:

- The FIToFICustomerCreditTransfer message sent by the Single Instructing Party acting on behalf of the counterparties in order to instruct the instant payment in a non-Euro currency;
- The FIToFIPaymentStatusReport (pacs.002.001.10) message sent by TIPS to inform the Single Instructing Party about the result of the settlement (i.e. settled, rejected, timed-out) in a non-Euro currency;
- The FIToFICustomerCreditTransfer message sent by the Single Instructing Party acting on behalf of the counterparties in order to instruct the instant payment in Euro currency;
- The FIToFIPaymentStatusReport message sent by TIPS to inform the Single Instructing Party actor about the result of the settlement (i.e. settled, rejected, timed-out) in Euro currency;
- The ReturnAccount message that is sent, on optional basis, by TIPS to the Single Instructing Party actor. The message is sent by TIPS if (i) the owner of the TIPS Account (or CMB) enables the floor and ceiling notifications and (ii) the configured threshold is crossed.
- Additionally, a LiquidityCreditTransfer message can be sent in push or pull, on optional basis, by TIPS to T2-CLM in case of floor/ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.

All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

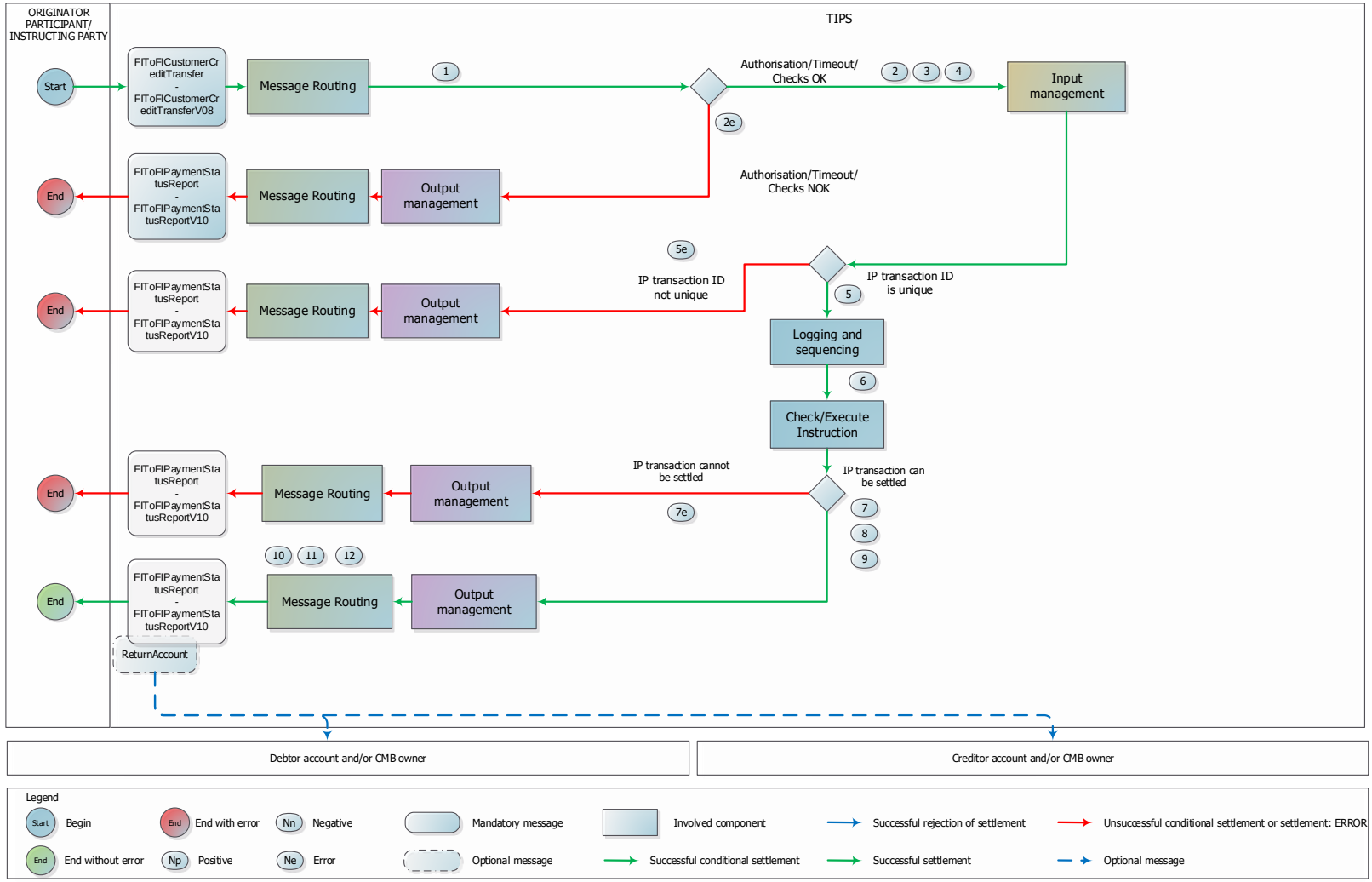
Similarly to the SCT^{Inst} processing, it is worth nothing that when the Debtor or Creditor BIC contains a BIC8 instead of a BIC11, the message is accepted and the BIC8 is translated into a BIC11 by appending “XXX” at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

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Below is the diagram describing the process and the involved actors. The details of the steps are described in the following Table 26 – Instant Payment transaction steps for SIP settlement model.

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Figure 100 – Instant Payment transaction flow for SIP settlement model



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Table 26 – Instant Payment transaction steps for SIP settlement model

Step	Involved messages	Involved actors	Description
1	FItoFICustomerCreditTransfer (instant payment in Euro currency) FIToFICustomerCreditTransfer (instant payment in a non-Euro currency)	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an Instant Payment transaction from the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed. The timeout for the Instant Payment transaction has not expired. TIPS logs the instruction as "*Received*". TIPS verifies whether the DN of the Sender matches the DN of the beneficiary. The latter is identified in the "Outbound DN-BIC Routing" mapping table from the field Creditor Agent. If the check is successful, the Instant Payment will be settled following the SIP settlement model. If not, TIPS verifies whether the sender of the instant Payment is granted with the privilege 'Instruct Instant Payment'. If the check is successful the Instant Payment will be settled following the standard settlement model which is described in Table 22 and Table 24, respectively for euro and non-euro currencies, otherwise the Instant Payment will be rejected due to lack of sufficient authorisation.
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Instructing Party authorised; - Beneficiary correctly configured; - Beneficiary Account or CMB existence. As part of the authorisation checks, TIPS verifies whether the sender of the Instant Payment is granted with the privilege "Instruct as SIP". If the check is successful, the Instant Payment will be settled following the SIP settlement model. If not, TIPS verifies whether the sender of the instant Payment is granted with the privilege 'Instruct Instant Payment'. If the check is successful the Instant Payment will be settled following the standard settlement model which is described in Table 22 and Table 24, respectively for euro and

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Step	Involved messages	Involved actors	Description
			non-euro currencies, otherwise the Instant Payment will be rejected to lack of sufficient authorisation. See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport (instant payment in Euro currency) FIToFIPaymentStatusReport (pacs.002.001.10) (instant payment in a non-Euro currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks listed in **step 2**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. If the failed check is "Timeout Check - Originator Side", the status of the transaction is set to "*Expired*"; in all the other cases, the status is set to "*Failed*".
3		TIPS	TIPS infers the account to be debited from the configured accounts information, the Originator Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or "TIPS AS Technical Account", exists, (ii) it is linked to the Originator Participant (field "Originator BIC") as authorised user, (iii) and it is denominated in the same currency as the one defined in the Settlement Amount. - If the check does not return any account, TIPS looks for a CMB linked to the Originator Participant (field "Originator BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Originator Account" and the possible CMB as "Debiting CMB".

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS infers the account to be credited from the configured accounts information, the Beneficiary Participant BIC and the currency of the Instant Payment transaction. In details TIPS checks that: (i) an account, with either type "TIPS Account" or “TIPS AS Technical Account”, exists, (ii) it is linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user, (iii) and has a currency equal to the one defined in the Settlement Amount. - If the check does not return any account, TIPS looks for a CMB linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Settlement Amount. From now on, the selected account is referred to as "Beneficiary Account" and the possible CMB as "Crediting CMB".
5		TIPS	TIPS successfully executes the check: - Duplicate check; See 4.1 - Business Rules for details.
5e	FIToFIPaymentStatusReport (instant payment in Euro currency) FIToFIPaymentStatusReport (pacs.002.001.10) (instant payment in a non-Euro currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check listed in **step 5**. If the check is unsuccessful the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender – containing the proper error code. The transaction is set to “*Failed*” status. See 4.1 - Business Rules for details.
6		TIPS	TIPS sends it to the Check and Execute Instruction process. TIPS sets the transaction status to "*Validated*".

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Step	Involved messages	Involved actors	Description
7		TIPS	TIPS successfully executes the checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded; See 4.1 - Business Rules for details.
7e	FIToFIPaymentStatusReport (instant payment in Euro currency) FIToFIPaymentStatusReport (pacs.002.001.10) (instant payment in a non-Euro currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 7**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
8		TIPS	The DN of the Sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Originator DN".
9		TIPS	The full amount is settled and the transaction is set to "*Settled*" status. The available balance of the Originator Account is decreased by the amount of the corresponding settled transaction. If a Debiting CMB is involved, the system decreases its headroom by the same amount. The same positive amount is added to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount.
10	FIToFIPaymentStatusReport (instant payment in Euro currency) FIToFIPaymentStatusReport (pacs.002.001.10) (instant payment in a non-Euro currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS generates a positive Payment status report and sends it to the Originator DN. The Payment status report contains the Transaction ID and Originator BIC of the transaction.

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Step	Involved messages	Involved actors	Description
11	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender Debited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and floor breach)	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Originator account number or the Debiting CMB number. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM (serving the given non-euro currency); • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new pull rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.
12	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender Credited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and ceiling breach)	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Beneficiary account number or the Crediting CMB number. Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration:

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Step	Involved messages	Involved actors	Description
			• If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM (serving the given non-euro currency); • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

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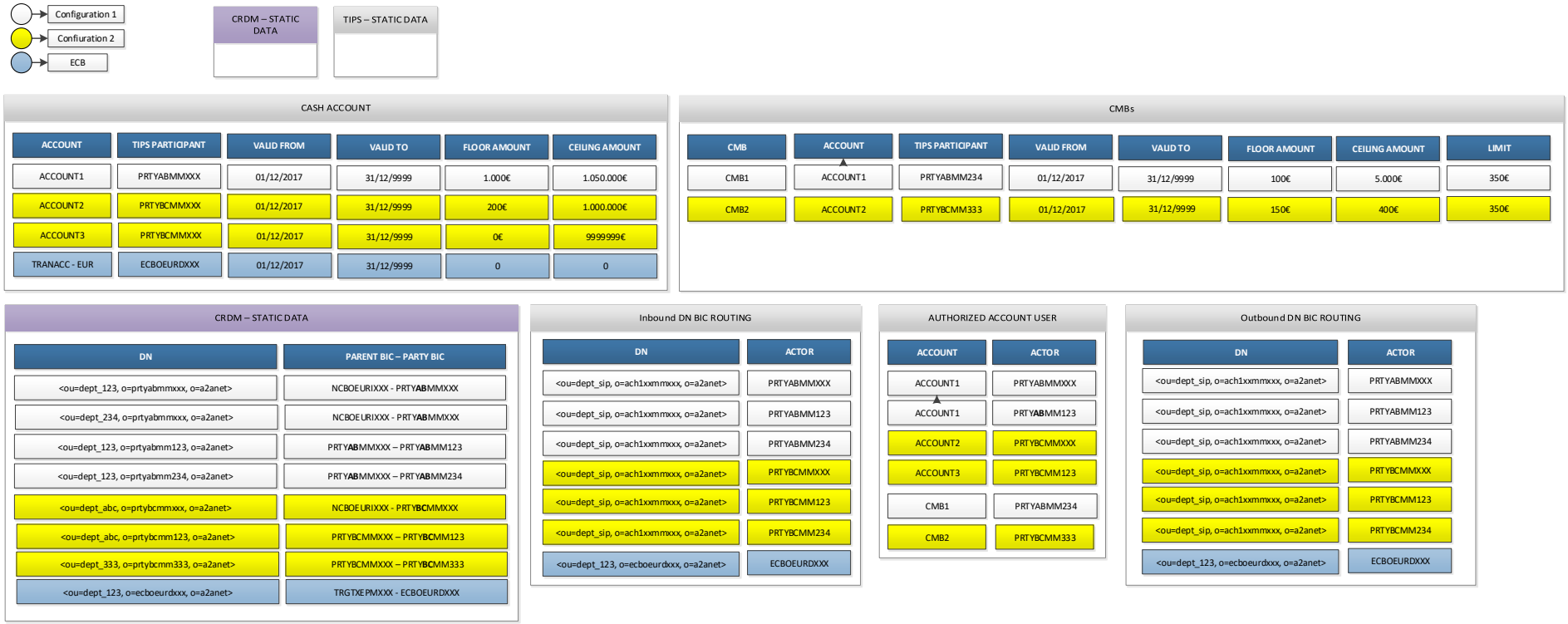
2.2.3.1. Examples

This sub-section includes a not exhaustive list of examples of TIPS transactions for the SIP settlement model - without preliminary reservation of funds - and related messages.

Each example is introduced by a description of the involved actors and involved messages and it highlights how the balances change in the accounts.

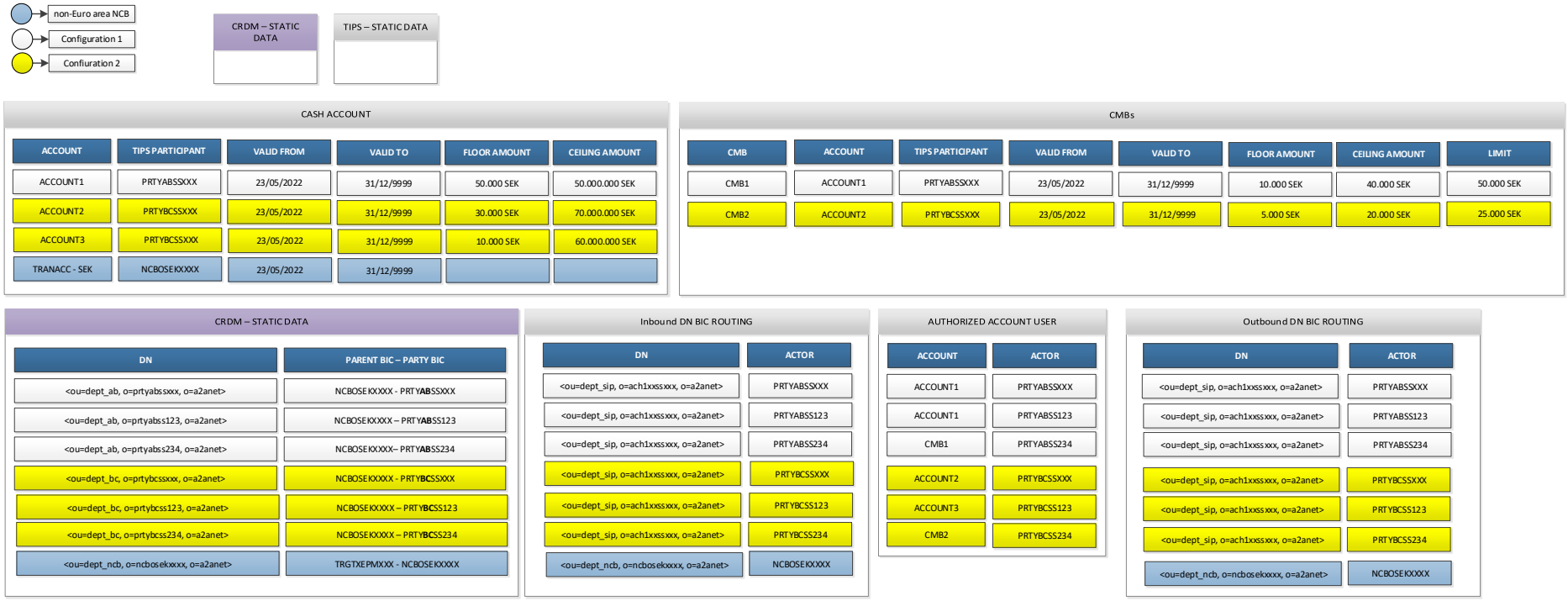
All the examples are based on the data constellation introduced below. The data constellation is depicted on the basis of the concepts introduced in 1.3.2 "Accounts structure and organisation".

Figure 101 – Instant Payment transaction in Euro - SIP model - examples data constellation



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Figure 102 – Instant Payment transaction in a non-Euro currency - SIP settlement model - examples data constellation



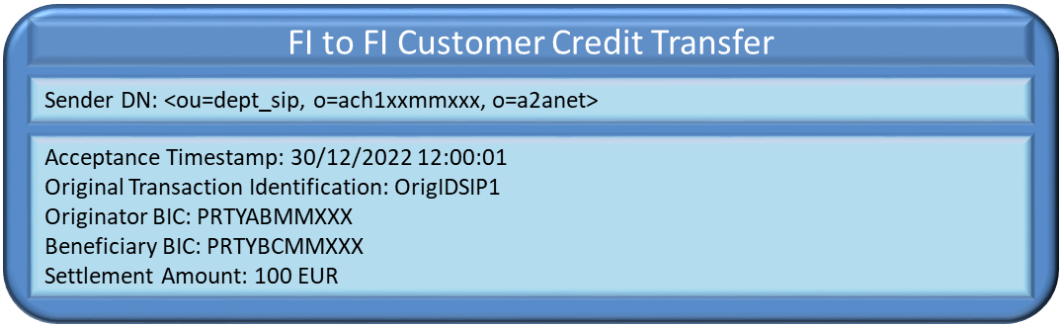
All rights reserved.

2.2.3.1.1 Successful scenario – Euro currency – only accounts involved

This positive scenario describes a successful payment transaction between two TIPS Accounts owned and held by two TIPS Participants. The same entity acts on behalf as Instructing Party for both TIPS Participants. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 101 – Instant Payment transaction in Euro - SIP model - examples data constellation) are considered.

No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2022. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 103 – Successful Instant Payment in Euro with SIP model: FItoFICustomerCreditTransfer



Received the message, TIPS proceeds as follow:

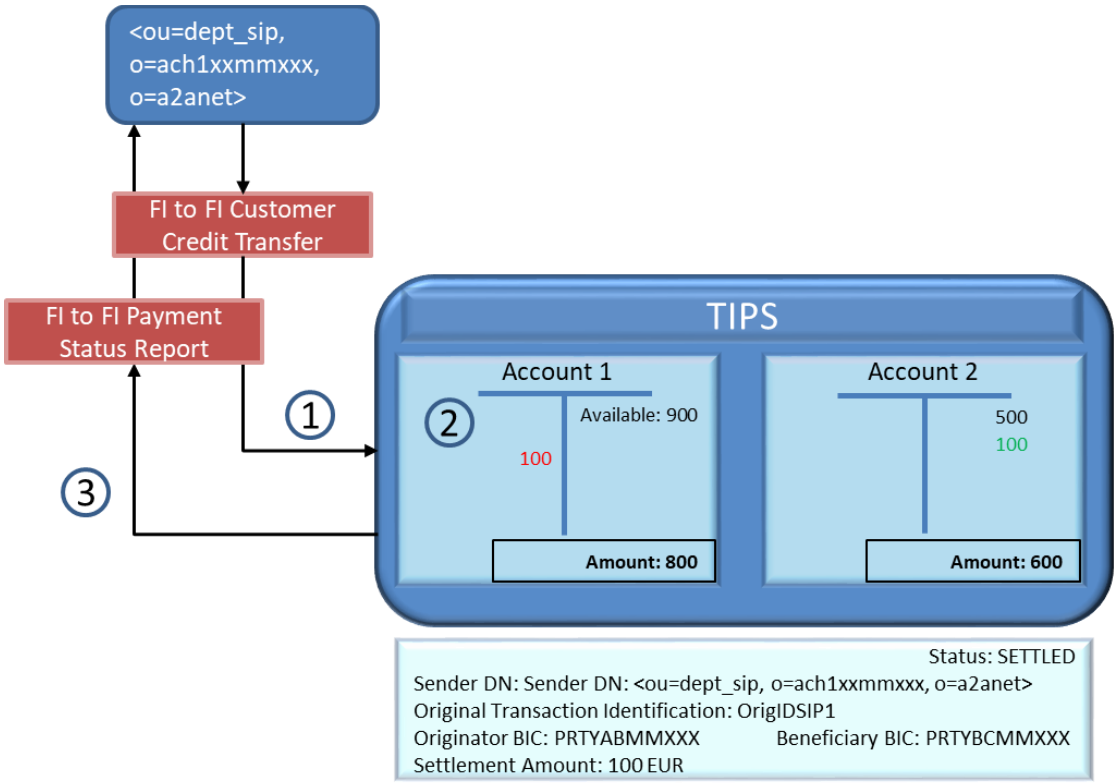
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_sip, o=ach1xxmmxxx, o=a2anet>);
- It checks that the Beneficiary DN matches the Sender DN (<ou=dept_sip, o=ach1xxmmxxx, o=a2anet>).

The system, after performing the expected checks successfully, executes the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It definitively settles the amount moving the Settlement Amount from ACCOUNT1 to ACCOUNT2;
- The transaction status is turned into *Settled*.

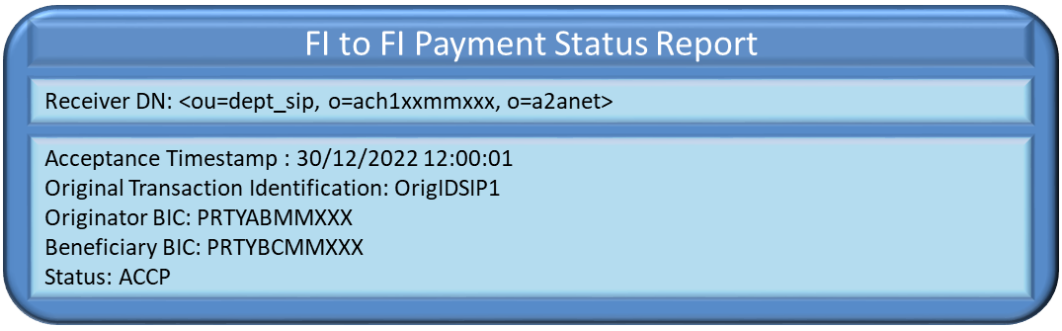
All rights reserved.

Figure 104 – Successful Instant Payment in Euro with SIP model: settlement phase



TIPS then sends the FIToFIPaymentStatusReport message to confirm the successful settlement to the Originator DN.

Figure 105 – Successful Instant Payment in Euro with SIP model: FItoFIPaymentStatusReport



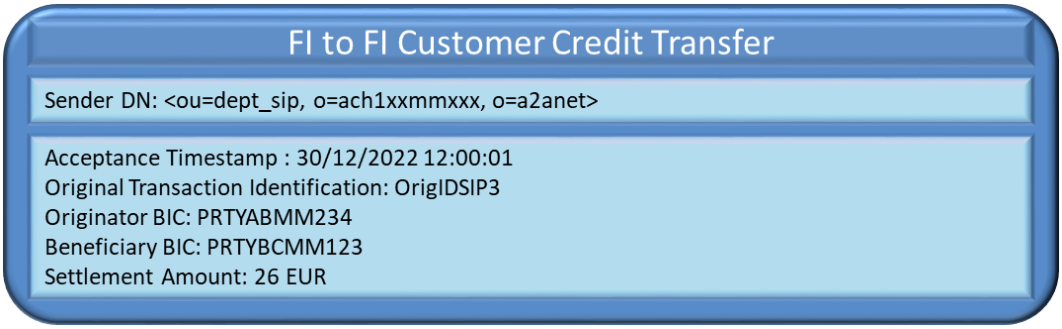
2.2.3.1.2 Successful scenario – Euro currency – Creditor account and debtor CMB

This positive scenario describes a successful payment transaction between a CMB held by a branch of a TIPS Participant B and a TIPS Account owned and held by a TIPS Participant A. The same entity acts on behalf as Instructing Party for both the branch of TIPS Participant B and the TIPS Participant A. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 101 – Instant Payment transaction in Euro - SIP model - examples data constellation) are considered.

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No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2022. The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 106 – Successful Instant Payment in non-Euro currency with SIP: FItoFICustomerCreditTransfer



Received the message, TIPS proceeds as follow:

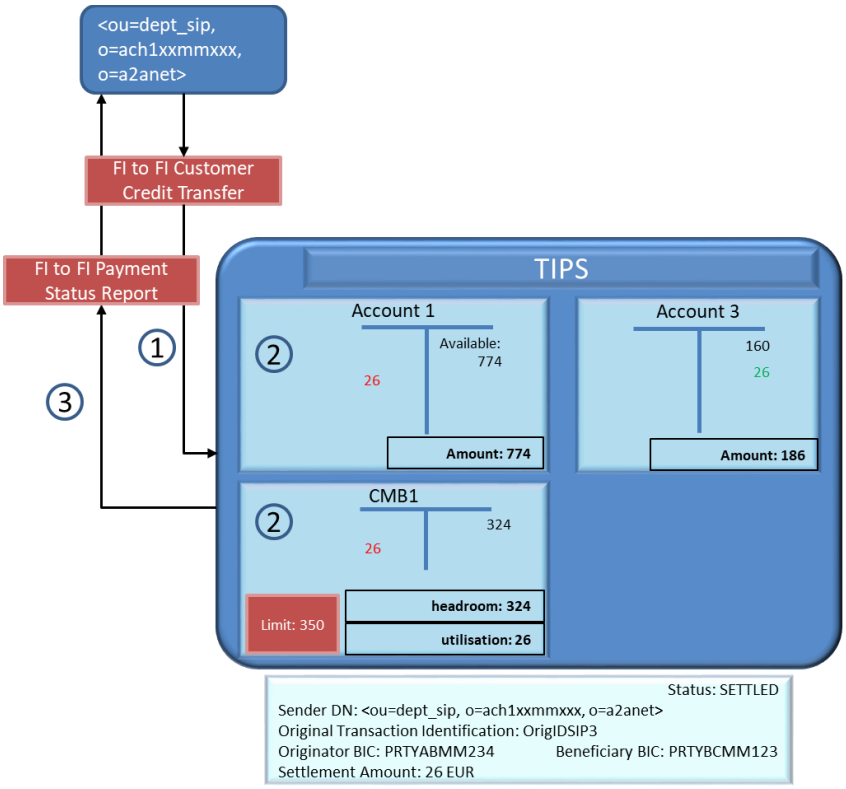
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>);
- It checks that the Beneficiary DN matches the Sender DN (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>).

The system, after performing the expected checks successfully, executes the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Crediting CMB (CMB2) from the Beneficiary BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the CMB2 in table CMBs;
- It definitively settles the amount moving the Settlement Amount from ACCOUNT1 to ACCOUNT2;
- It increases the headroom of the CMB2;
- The transaction status is turned into *Settled*.

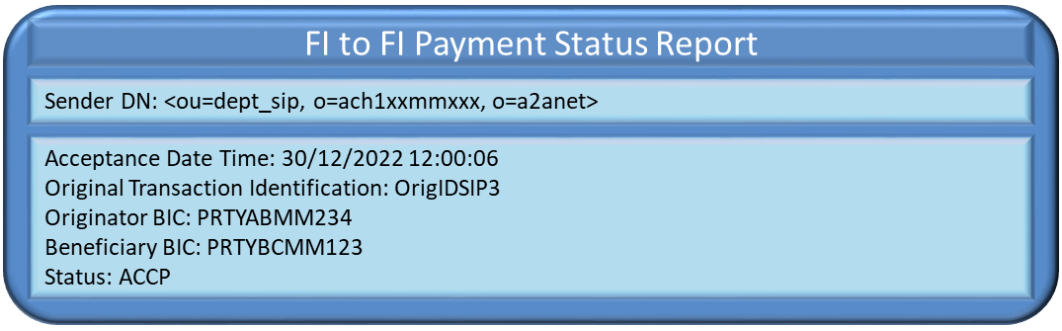
All rights reserved.

Figure 107 – Successful Instant Payment in non-Euro currency with SIP: settlement phase



TIPS then sends the FIToFIPaymentStatusReport message to confirm the successful settlement to the Originator DN.

Figure 108 – Successful Instant Payment in non-Euro currency with SIP: FItoFIPaymentStatusReport



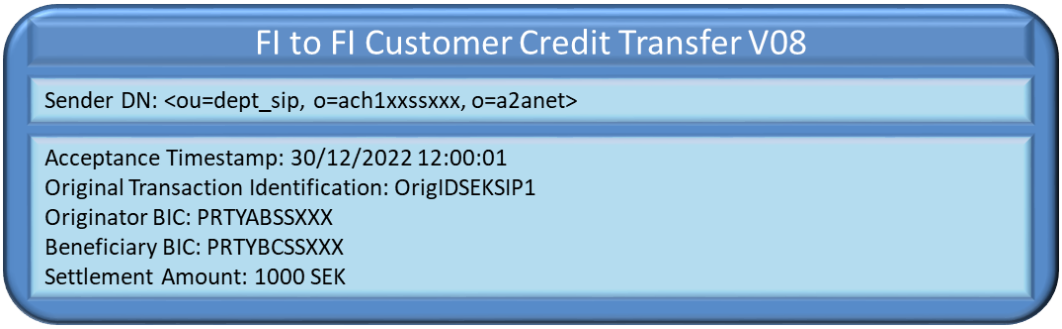
2.2.3.1.3 Successful scenario – non-Euro currency – only accounts involved

This positive scenario describes a successful payment transaction between two TIPS Accounts owned and held by two TIPS Participants. The same entity acts on behalf as Instructing Party for both TIPS Participants. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 102 – Instant Payment transaction in a non-Euro currency - SIP settlement model - examples data) are considered.

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No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2022. The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 109 – Successful Instant Payment in non-Euro currency with SIP: FItoFICustomerCreditTransfer



Received the message, TIPS proceeds as follow:

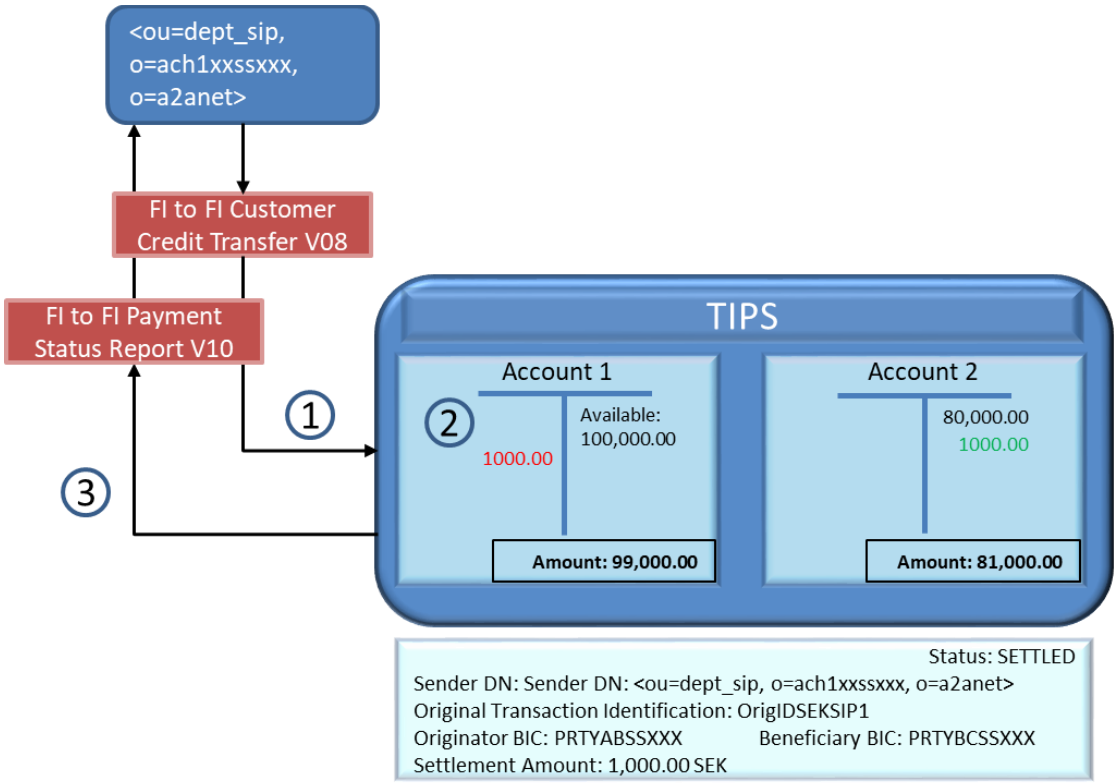
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>);
- It checks that the Beneficiary DN matches the Sender DN (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>).

The system, after performing the expected checks successfully, executes the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the Beneficiary BIC;
- It definitively settles the amount moving the Settlement Amount from ACCOUNT1 to ACCOUNT2;
- The transaction status is turned into *Settled*.

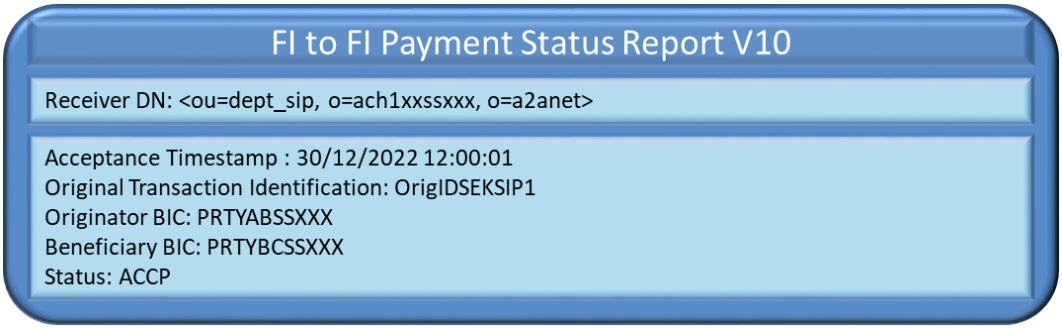
All rights reserved.

Figure 110 – Successful Instant Payment in non-Euro currency with SIP: settlement phase



TIPS then sends the FIToFIPaymentStatusReport (pacs.002.001.10) message to confirm the successful settlement to the Originator DN.

Figure 111 – Successful Instant Payment in non-Euro currency with SIP: FItoFIPaymentStatusReport



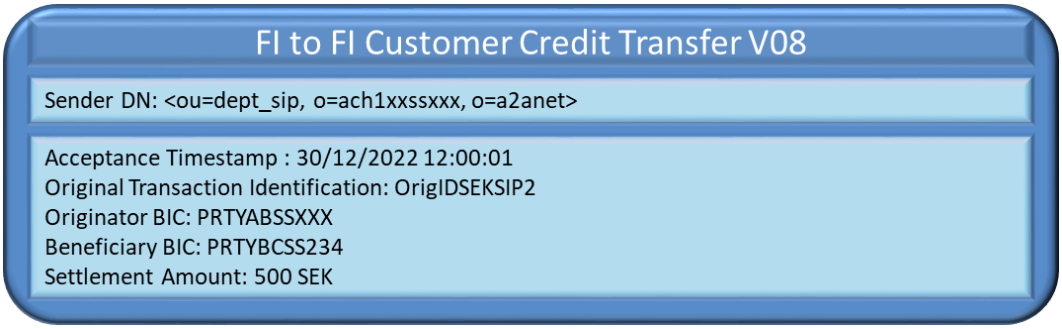
2.2.3.1.4 Successful scenario – non-Euro currency – Creditor CMB and debtor account

This positive scenario describes a successful payment transaction between a TIPS Account owned and held by a TIPS Participant A and a CMB held by a branch of a TIPS Participant B. The same entity acts on behalf as Instructing Party for both the TIPS Participant A and the branch of TIPS Participant B. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 102 – Instant Payment transaction in a non-Euro currency - SIP settlement model - examples data) are considered.

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No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2022. The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

Figure 112 – Successful Instant Payment in non-Euro currency with SIP: FItoFICustomerCreditTransfer



Received the message, TIPS proceeds as follow:

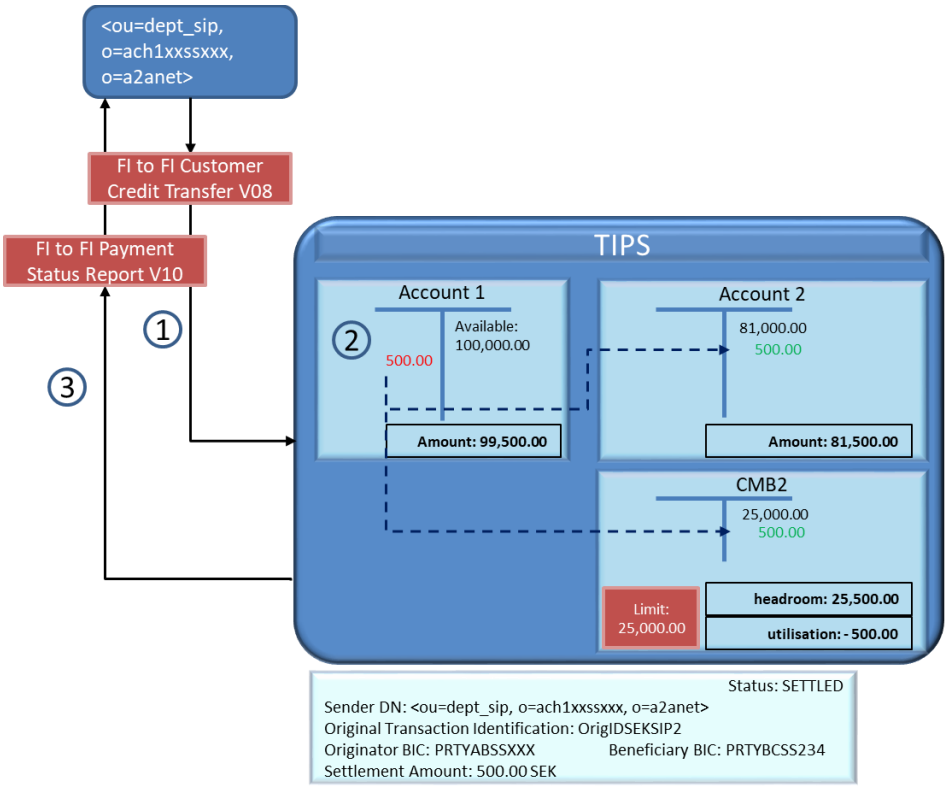
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>);
- It checks that the Beneficiary DN matches the Sender DN (<ou=dept_sip, o=ach1xxssxxx, o=a2anet>).

The system, after performing the expected checks successfully, executes the settlement on the accounts as follows:

- It identifies the Originator Account (ACCOUNT1) from the Originator BIC;
- It identifies the Crediting CMB (CMB2) from the Beneficiary BIC;
- It identifies the Beneficiary Account (ACCOUNT2) from the CMB2 in table CMBs;
- It definitively settles the amount moving the Settlement Amount from ACCOUNT1 to ACCOUNT2;
- It increases the headroom of the CMB2;
- The transaction status is turned into *Settled*.

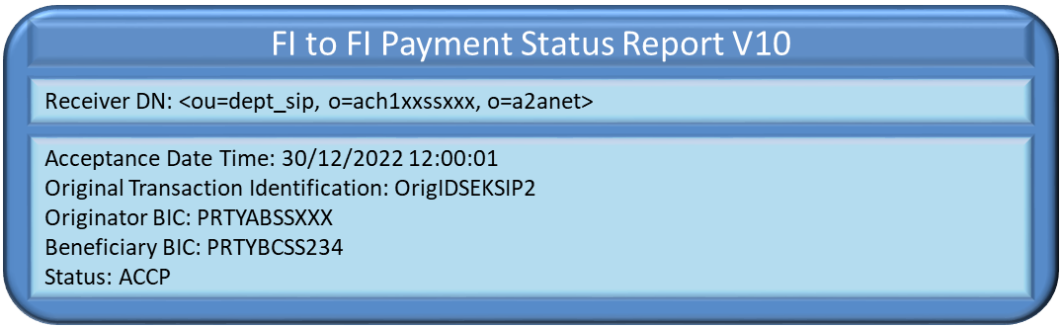
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Figure 113 – Successful Instant Payment in non-Euro currency with SIP: settlement phase



TIPS then sends the FIToFIPaymentStatusReport (pacs.002.001.10) message to confirm the successful settlement to the Originator DN.

Figure 114 – Successful Instant Payment in non-Euro currency with SIP: FItoFIPaymentStatusReport



2.2.3.1.5 Error scenarios

This section describes some possible error scenarios that can happen when dealing with Instant Payment for the SIP settlement model. This is a subset of possible error cases but the error mechanism is always the same.

For the complete list of possible error codes, see 4.2 “List of Error codes”.

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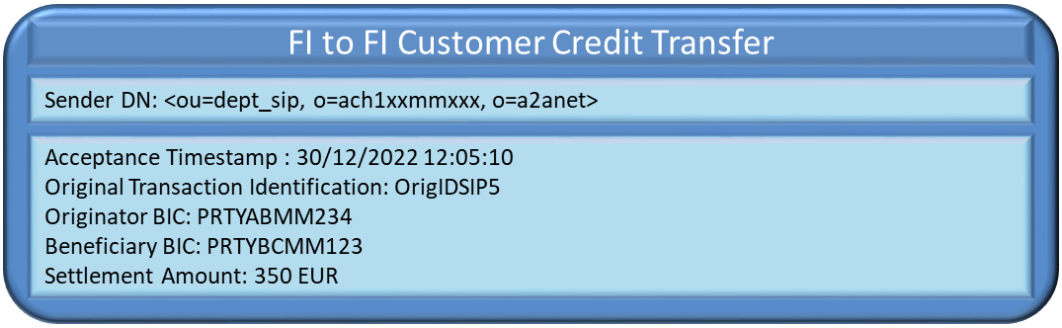
Insufficient funds within the CMB

This error scenario describes a payment transaction between a CMB held by a branch of a TIPS Participant A sending messages on its own and a TIPS Account owned by a TIPS Participant. “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 101 – Instant Payment transaction in Euro - SIP model - examples data constellation) are considered.

The transaction fails since the requested amount exceeds the headroom of the involved CMB.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one:

Figure 115 – Headroom error: FItoFICustomerCreditTransfer

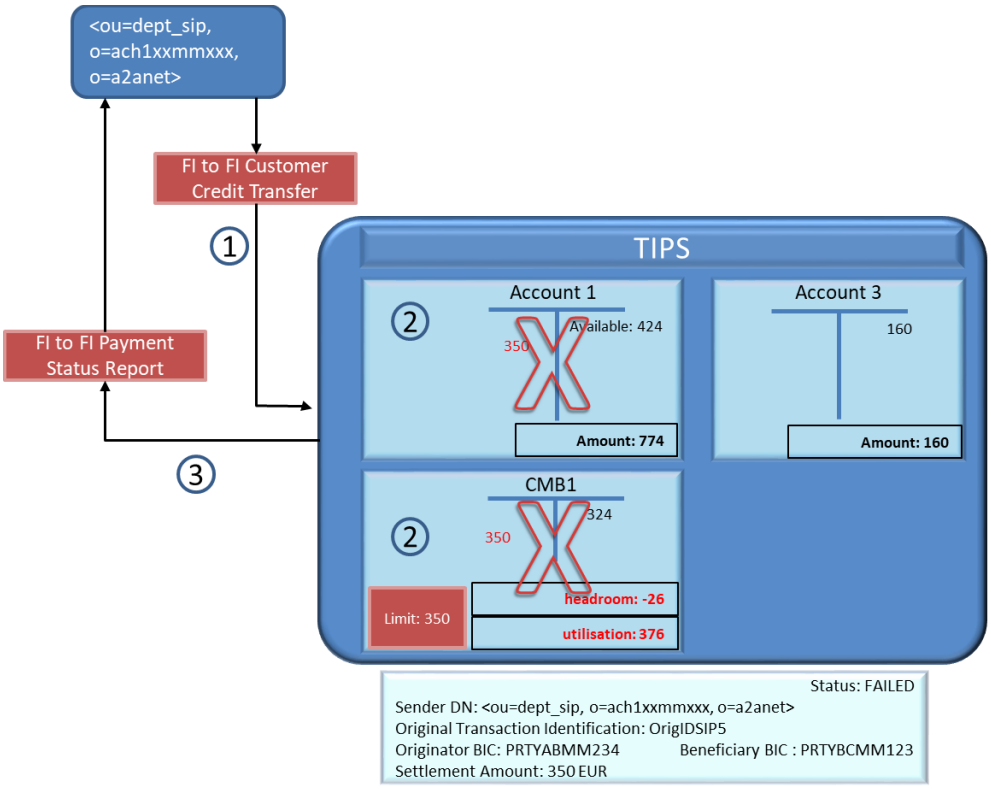


The system executes these steps:

- It identifies the Debiting CMB (CMB1) from the Originator BIC;
- It identifies that the headroom for the involved CMB1 is lower than the request amount;
- The transaction fails. The attempt is saved as failed transaction and the sender is informed of the error.

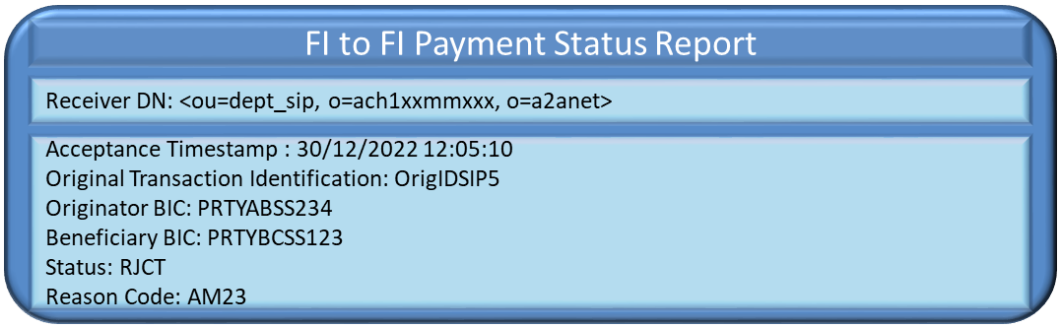
All rights reserved.

Figure 116 – Headroom error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport to the sender with the proper error code.

Figure 117 – Headroom error: FItoFIPaymentStatusReport



Blocked Account

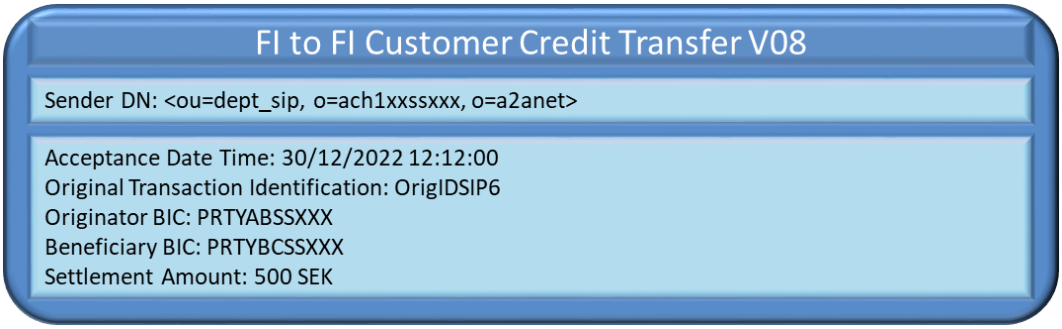
This error scenario describes a payment transaction between two TIPS Accounts owned and held by two TIPS Participants making use of a Single Instructing Party to deliver messages to TIPS.

The transaction fails since the account to be debited is blocked and not available for settlement.

The FIToFICustomerCreditTransfer message received by TIPS and triggering the scenario looks like the following one.

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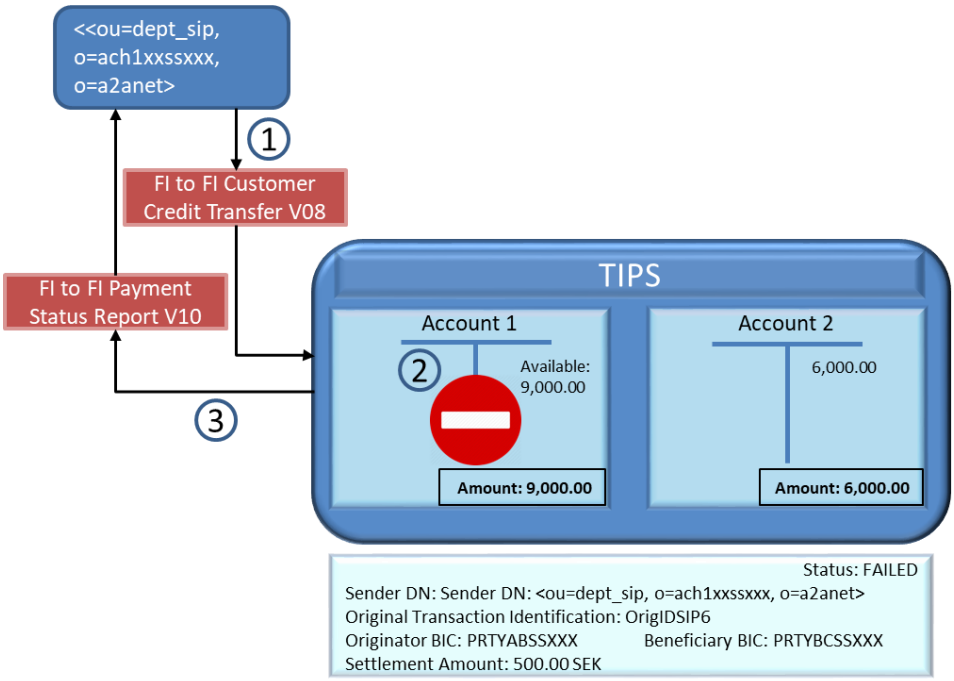
Figure 118 – Blocked account error: FItoFICustomerCreditTransfer



The system executes these steps:

- It identifies the Debiting Account (ACCOUNT1) from the Originator BIC;
- It detects that ACCOUNT1 is blocked (e.g. status is either 'blocked for debit' or 'blocked for credit and debit');
- The transaction fails. The attempt is saved as failed Instant Payment transaction and the sender is informed of the error.

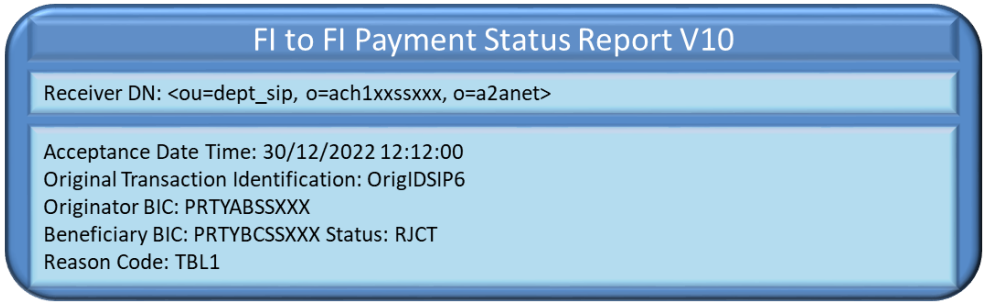
Figure 119 – Blocked account error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport (pacs.002.001.10) to the Single Instructing Party that reports a specific error code.

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Figure 120 – Blocked account error: FItoFIPaymentStatusReport



2.2.4. Instant Payment (cross-currency scheme – regular settlement model)

This section focuses on the settlement of the euro leg of cross-currency Instant Payment transactions based on the OCT^{Inst} scheme. Furthermore, the cross-currency model has been extended in order to allow cross-currency settlement of non-euro transactions (e.g., starting/ending in SEK/DKK and any potential future TIPS hosted currency). Since the entire end-to-end cross-currency Instant Payment transaction flow is composed of two separate and independent Instant Payments which take place respectively in the currencies of the source and destination leg, each scenario and the related steps performed in one leg are analogous to those envisioned in the other leg, at least, for the currencies supported in TIPS.

The orchestration of the two legs of the cross-currency transaction is under the responsibility of external actors (Exit and Entry-Leg PSPs), which should guarantee also the certainty of the delivery of the funds to the ultimate beneficiary.

The introductory part of the section presents the general flow, including all the steps. A sub-section dedicated to the timeout follows, describing the specific case of timeout occurring when a Beneficiary reply is missing.

All the remaining sub-sections comprise examples of both the successful and most meaningful failure scenarios. Each example shows the relevant messages and how the key fields are filled.

The cross-currency Instant Payment transaction process covers the scenarios in which an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party instructs TIPS in order to instantly transfer funds to the account of a Beneficiary Participant.

The involved actors are:

- The Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, starting the cross-currency payment in the source leg.
- The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party, receiving the request and either confirming or rejecting the cross-currency payment in the destination leg.

According to the direction of a payment (incoming or outgoing), the cross-currency PSP acting as intermediary in the settlement from one leg to the other may be denoted differently. In case of:

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- Outgoing transaction: the Leg Exit PSP acts as Beneficiary in the source leg and it is identified by either the 'Instructed Agent' BIC in case it is a direct CSM participant, or the 'Intermediary Agent 1' BIC.
- Incoming transaction: the Leg Entry PSP acts as Originator in the destination leg and it is identified by either the 'Instructing Agent' BIC in case it is a direct CSM participant or the last 'Previous Instructing Agent' BIC, that is the agent immediately prior to the Instructing Agent in the chain.

The involved messages are:

- The FItoFICustomerCreditTransfer message sent by the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party in order to (i) instruct the payment, (ii) to reserve the corresponding amount and (iii) to inform the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party about the transaction received;
- The FIToFIPaymentStatusReport message sent (i) by the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party to TIPS to either accept or reject the cross-currency Instant Payment, or (ii) by TIPS to inform the actors about the result of the settlement (i.e. settled, rejected, timed out);
- The ReturnAccount message that is sent, on optional basis, by TIPS to the Creditor Account Owner and/or the Debtor Account Owner. The message is sent if (i) the owner of the account (or CMB) activates the floor and ceiling notifications and (ii) the configured threshold is breached.

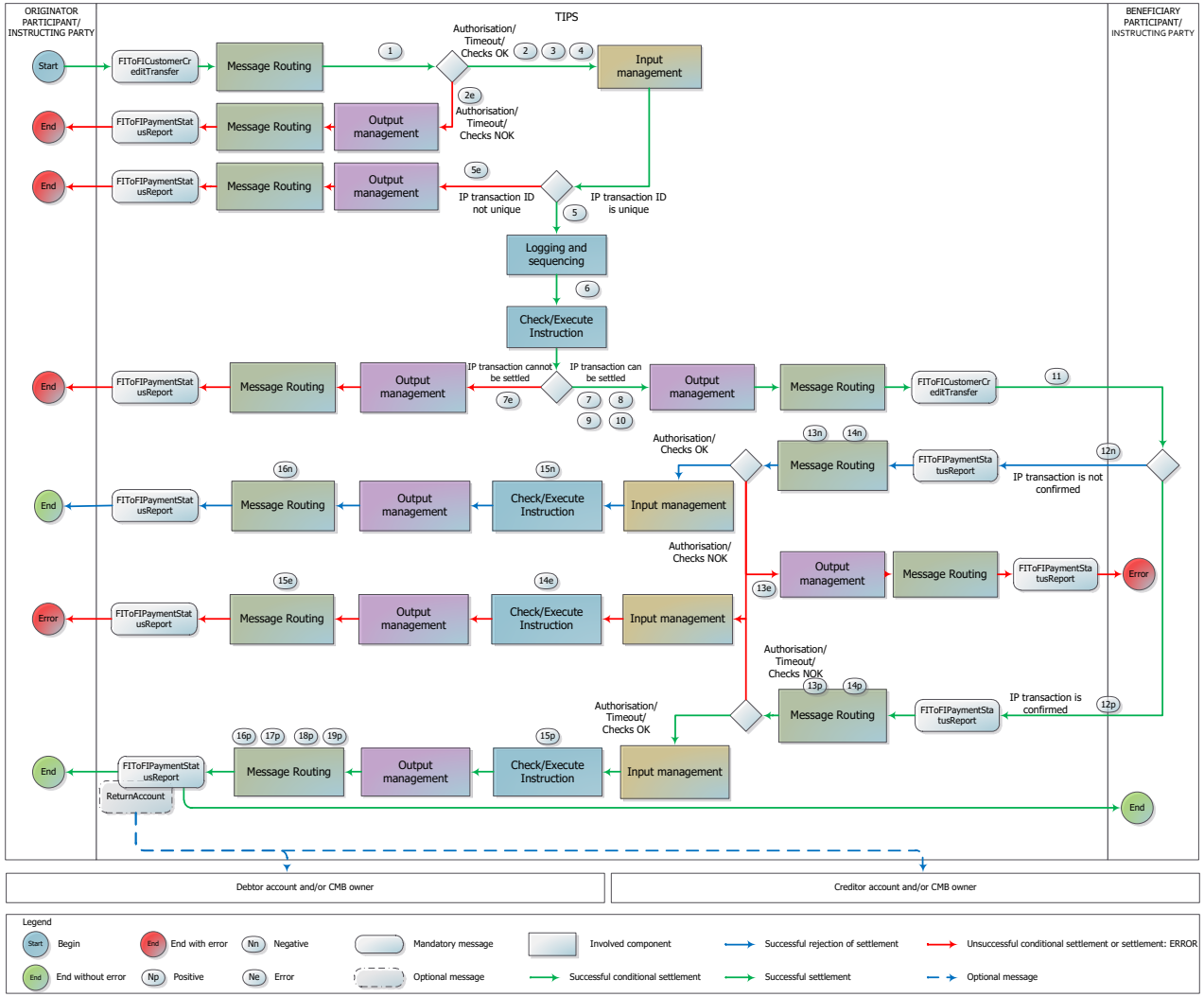
All the described scenarios are triggered under the assumption that technical validations, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

As in the SCTInst processing, it is worth noting that when the Debtor or Creditor BIC contains a BIC8 instead of a BIC11, the message is accepted and the BIC8 is translated into a BIC11 by appending "XXX" at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

Below is the diagram describing the process and the involved actors. The details of the steps are described in the following Table 27 – Instant Payment transaction steps for cross-currency (one-leg out)

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Figure 121 – Instant Payment transaction flow for cross-currency (one-leg out)



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Table 27 – Instant Payment transaction steps for cross-currency (one-leg out)

Step	Involved messages	Involved actors	Description
1	FItoFICustomerCreditTransfer	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives a cross-currency Instant Payment transaction from the Originator Participant or Instructing Party acting on behalf of the Originator Participant, Ancillary System or a Reachable Party starting the conditional settlement phase of the transaction. Technical validations, check of mandatory fields and authentication have already been successfully executed. The timeout for the Instant Payment transaction has not expired. TIPS logs the instruction as "*Received*".
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Instructing Party authorised; - Beneficiary correctly configured; - Beneficiary Account or CMB existence. - Creditor authorised for cross-currency See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks listed in **step 2**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. If the failure relates to "Timeout Check - Originator Side", the status of the transaction is set to "Expired"; in all the other cases, the status is set to "Failed".

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Step	Involved messages	Involved actors	Description
3		TIPS	TIPS infers differently the account to be debited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the 'Clearing System Code' field.[31] **Outgoing direction:** TIPS verifies that an account: (i) with either type "TIPS Account" or "TIPS AS Technical Account" exists, (ii) is linked to the Originator Participant (field "Debtor Agent") as authorised user, (iii) and is denominated in the same currency as the one defined in the Interbank Settlement Amount. - If the look up does not return any account, TIPS looks for a CMB linked to the Originator Participant (field "Debtor Agent") as authorised user; **Incoming Direction:** TIPS verifies that an account: (i) with either type "TIPS Account" or "TIPS AS Technical Account" exists, (ii) is linked to the Leg Entry PSP Participant as authorised user: a. if the Leg Entry PSP is a direct TIPS participant, then the BIC taken from the "Instructing Agent" field is used; b. otherwise the BIC is taken from the last "Previous Instructing Agent" field.

[31] In case of an outgoing payment transaction, the Clearing System Code field must be set to 'TGT' while in case of an incoming transaction, it may assume any value other than the one aforementioned

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Step	Involved messages	Involved actors	Description
			(iii) and is denominated in the same currency as the one defined in the Interbank Settlement Amount.[32] - If the look up does not return any account, TIPS looks for a CMB linked to the Leg Entry PSP Participant (the field taken into account is based on the abovementioned assumption ii) as authorised user; - For both directions, TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. From now on, the selected account is referred to as "Originator Account" and the possible CMB as "Debiting CMB".

[32] The 'Interbank Settlement Amount' field refers to the amount exchanged in the currency of the current leg and the 'Instructed Amount' field refers to the amount exchanged in the currency of the other leg. For this reason, the Leg Entry PSP while instructing the inbound cross-currency instant payment in the destination leg, in case the payment transaction in the source leg has been managed in TIPS, has to (i) generate a new Transaction Identification for the destination leg transaction, (ii) blank the value of the 'Clearing System Code' field to instruct an incoming payment transaction, (iii) swap the values of the two aforementioned amount fields as well as their respective currency attributes

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS infers differently the account to be credited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the 'Clearing System Code' field.[31] **Outgoing direction:** In details TIPS verifies that: (i) an account, with either type "TIPS Account" or "TIPS AS Technical Account" exists, (ii) it is linked to the Leg Exit PSP as authorised user; a. if the Leg Exit PSP is a direct TIPS participant, the BIC taken from the "Instructed Agent" field is used; b. otherwise the BIC is taken from the "Intermediary Agent 1" field. (iii) and is denominated in the same currency as the one defined in the Interbank Settlement Amount. - If the look up does not return any account, TIPS looks for a CMB linked to the Leg Exit PSP as authorised user; **Incoming Direction:** In details TIPS verifies that an account: (i) with either type "TIPS Account" or "TIPS AS Technical Account" exists, (ii) is linked to the BIC taken from the "Creditor Agent" field as authorised user; (iii) and is denominated in the same currency as the one defined in the Interbank Settlement Amount.[32] (iv) - If the look up does not return any account, TIPS looks for a CMB linked to the Beneficiary Participant (field "Creditor Agent") as authorised user;

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Step	Involved messages	Involved actors	Description
			- For both directions, TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. In addition, TIPS checks whether the Beneficiary Participant linked to the selected Account or CMB is authorised to accept cross-currency payments. From now on, the selected account is referred to as "Beneficiary Account" and the possible CMB as "Crediting CMB".
5		TIPS	TIPS successfully executes the check: - Duplicate check; See 4.1 - Business Rules for details.
5e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check listed in **step 5**. The processing stops and TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
6		TIPS	TIPS sends it to the Check and Execute Instruction process. TIPS sets the transaction status to "*Validated*".

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Step	Involved messages	Involved actors	Description
7		TIPS	TIPS successfully executes the checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded; See 4.1 - Business Rules for details.
7e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 7**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code. The transaction is set to "*Failed*" status. See 4.1 - Business Rules for details.
8		TIPS	The DN of the Sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Originator DN".
9		TIPS	TIPS reserves the full amount in the Originator account and sets the transaction status to "Reserved". If a Debiting CMB is involved, the system also decreases its headroom by the same amount. The conditional settlement phase is completed the settlement attempt is agreed and can either be confirmed or rejected by the counterpart or fail for a missing answer. The reserved amount is not available for any concurrent payments.
10		TIPS	The DN of the Beneficiary Participant is identified in the "Outbound DN-BIC Routing" mapping table. The field to look up is based on the criteria specified for both payment directions and described in step 4. From now on, this DN is referred to as "Beneficiary DN".
11	FItoFICustomerCreditTransfer	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received cross-currency Instant Payment transaction to the Beneficiary DN.

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Step	Involved messages	Involved actors	Description
12p	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party triggers the settlement phase of the transaction by sending a positive payment status report that is successfully delivered to TIPS. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
13p		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing; - Timeout Check - Beneficiary Side. See 4.1- Business Rules for details.
13e	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks listed in **step 13p.** At the first negative check the processing stops and TIPS sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The corresponding reserved amount is released in the involved Originator Account. If a debiting CMB is involved, its headroom is increased by the same amount. It is worth noting that TIPS releases the reserved transactions even if either the involved account or CMB have been blocked after the conditional settlement phase of the given transaction. The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.

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Step	Involved messages	Involved actors	Description
		System or Instructing Party as receiver	
14p		TIPS	TIPS identifies the transaction using the Transaction ID. The transaction shall exist in TIPS and it shall be still in "*Reserved*" status.
15p		TIPS	TIPS retrieves and settles the reserved transaction. The transaction is set to "*Settled*" status. The reserved amount of the Originator Account is decreased by the amount of the corresponding settled transaction. The same amount is credited to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount. Upon Beneficiary confirmation, TIPS settles the reserved transactions even though the involved accounts (or CMBs) have been blocked immediately after the conditional phase of the given transaction.
16p	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.
17p	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS generates a positive Payment status report and sends it to the Beneficiary DN. The FIToFIPaymentStatusReport contains the Transaction ID and Originator BIC of the transaction.
18p	ReturnAccount	TIPS as sender Debited Account and/or CMB Owner	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Originator account number or the Debiting CMB number

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Step	Involved messages	Involved actors	Description
19p	ReturnAccount	TIPS as sender Credited Account and/or CMB Owner	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Beneficiary account number or the Crediting CMB number
12n	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party triggers the settlement phase of the transaction sending a negative payment status report that is successfully delivered to TIPS. In this scenario the settlement phase will end up with a rejection of the Instant Payment transaction and the un-reservation of corresponding funds. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
13n		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing. See 4.1- Business Rules for details.
13e		TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks at **step 13n**. At the first negative check the processing stops and sends a message to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message) containing the proper error code. See 4.1- Business Rules for details.
14e		TIPS	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The reserved amount is released in the involved Originator account and the possibly involved Debiting CMB is increased by the same amount. TIPS always releases the reserved transactions even if the involved account or CMB have been blocked immediately after the conditional phase of the given transaction.

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Step	Involved messages	Involved actors	Description
			The transaction is set to "*Failed*" status.
15e	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1** – containing the proper error code.
14n		TIPS	TIPS identifies the transaction using the Transaction ID. The Transaction ID is related to a transaction existing in TIPS and still in "*Reserved*" status.
15n		TIPS	TIPS retrieves the cross-currency Instant Payment transaction to be rejected. The reserved amount is released in the involved Originator Account and the possibly involved Debiting CMB is increased of the same amount. TIPS releases the reserved transaction even if the involved account or CMB have been blocked after the conditional settlement phase. The transaction is set to "*Rejected*" status.
16n	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.

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2.2.4.1. Timeout scenario: missing/delayed Beneficiary-side answer (cross-currency model)

This sub-section describes the specific scenario of TIPS not receiving a Beneficiary-side answer or receiving it after the timeout condition is hit.

This scenario assumes that TIPS has successfully executed the conditional settlement phase of cross-currency Instant Payment.

A specific software component (Sweeping service) is always acting in background taking care of all the orphan payments – an orphan payment being a reserved Instant Payment transaction still waiting for a confirmation/rejection. Every X seconds (X being the "Sweeping Timeout" parameter configured in the system, see 1.7.1 "Service configuration") a process looks for any pending Instant Payment transactions and rejects only those that have exceeded the Timestamp Timeout plus the Beneficiary side offset.

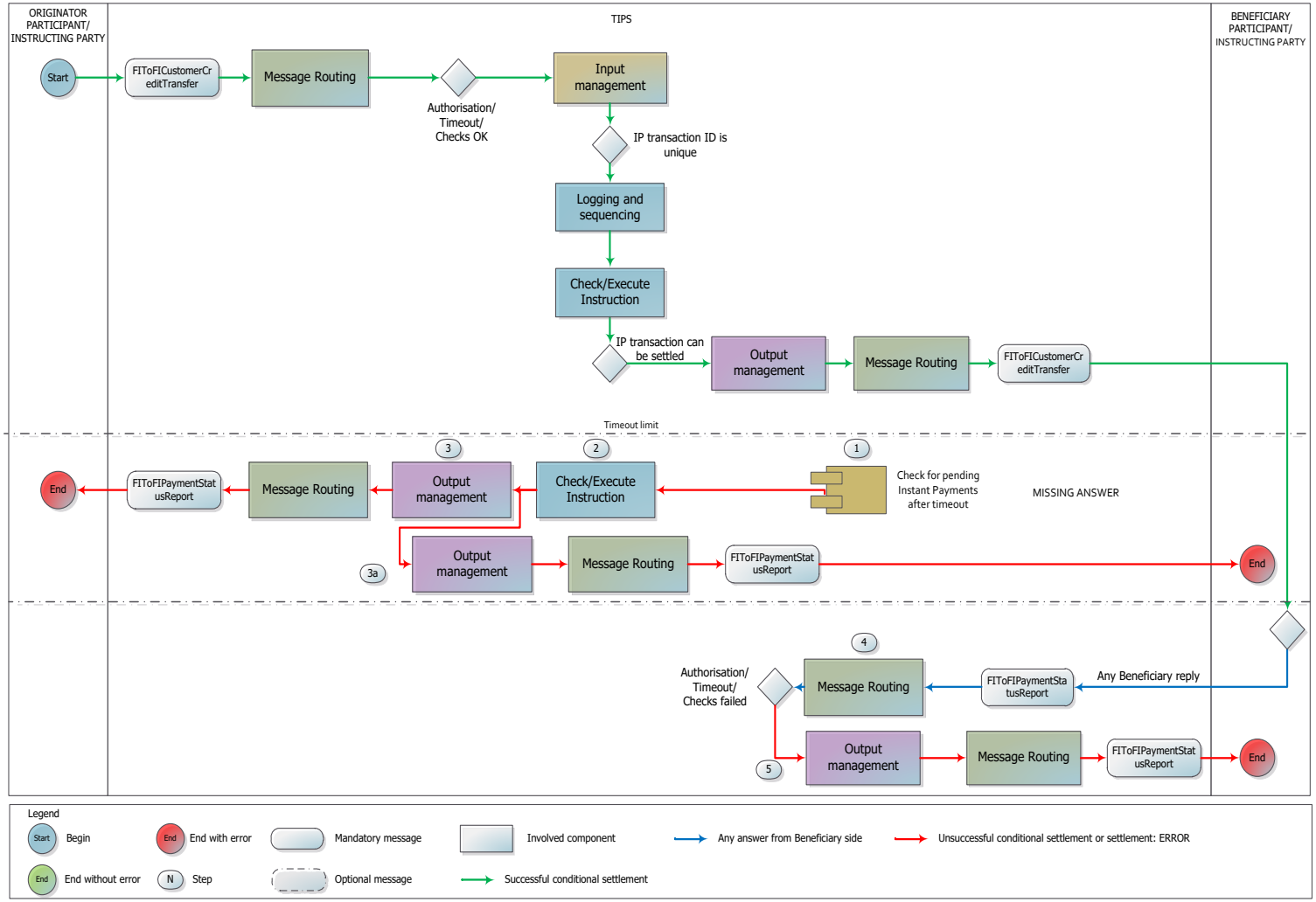
The time-out can also be triggered by an Investigation message from Originator Side that reaches TIPS requesting information for an existing Instant Payment transaction whose status is Reserved for which no Beneficiary-side answer is arrived yet and that has not been treated by the Sweeping Service (see 2.4 "Investigation"). In this case, TIPS does not answer to the Investigation directly, but sets to Expired the Instant Payment transaction, informing both Originator and Beneficiary participants about the occurred time-out condition.

Any confirmation from the Beneficiary Participant relating to an orphan payment already treated by the Sweeping service generates an error since the corresponding reserved transaction is no longer found.

The diagram below describes the specific process and the involved actors for the outgoing cross-currency scenario. The same logic applies to the incoming scenario where the Originator Participant is replaced by the Leg Entry PSP and the Leg Exit PSP is replaced by the Beneficiary Participant. The details of the steps are described in the following Table 84 – Instant Payment transaction missing/delayed Beneficiary-side answer steps.

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Figure 122 – Instant Payment transaction missing/delayed Beneficiary-side answer flow



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Table 28 – Instant Payment transaction missing/delayed Beneficiary-side answer steps

Step	Involved messages	Involved actors	Description
1		TIPS	Every X seconds, with "X" being defined in the "Sweeping timeout" parameter, the Sweeping service scans all the payment in status "*Reserved*". If the "Acceptance timestamp" of the payment has exceeded the “Timestamp Timeout" value, the payment is eligible for sweeping.
1	FIToFIPaymentStatusRequest	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an incoming Investigation request from the Originator Participant, Ancillary System or Instructing Party. There is no existing generated payment transaction status advice for the transaction and no answer from Leg Exit PSP side has reached TIPS.
2		TIPS	TIPS executes these operations for each orphan payment: - TIPS retrieves the transaction to be rejected and its ID executing the check “Timeout Check - Missing answer” (see 4.1- Business Rules for details); - The transaction is set to "*Expired*" status; - The reserved amount is released in the involved Originator account. If a Debiting CMB is involved, its headroom is increased by the same amount TIPS releases the reserved transactions even if either the involved account or CMB have been blocked in the meantime.
3	FIToFIPaymentStatusReport	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message to the Originator Participant, Ancillary System or Instructing Party – same DN of the Sender taken from the transaction under analysis. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.
3a	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS sends a message on the transaction under analysis to the Leg Exit PSP specified in: - the Instructed Agent BIC, if it is a direct TIPS participant. - the ‘Intermediary Agent 1’ BIC, otherwise. The FItoFIPaymentStatusReport contains the Transaction ID of the transaction and the proper error code.
4		TIPS	TIPS unsuccessfully executes the check: - Pending transaction existing. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
5	FIToFIPaymentStatusReport	TIPS as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS sends a FIToFIPaymentStatusReport message to the Leg Exit PSP containing the proper error code.

2.2.4.2. Examples (cross-currency scheme)

This sub-section includes a non-exhaustive list of examples of TIPS cross-currency transactions and related messages.

Each example is introduced by a description of both involved actors and messages.

All the examples are based on the data constellation introduced below. The data constellation is depicted on the basis of the concepts introduced in 1.3.2 Accounts structure and organisation.

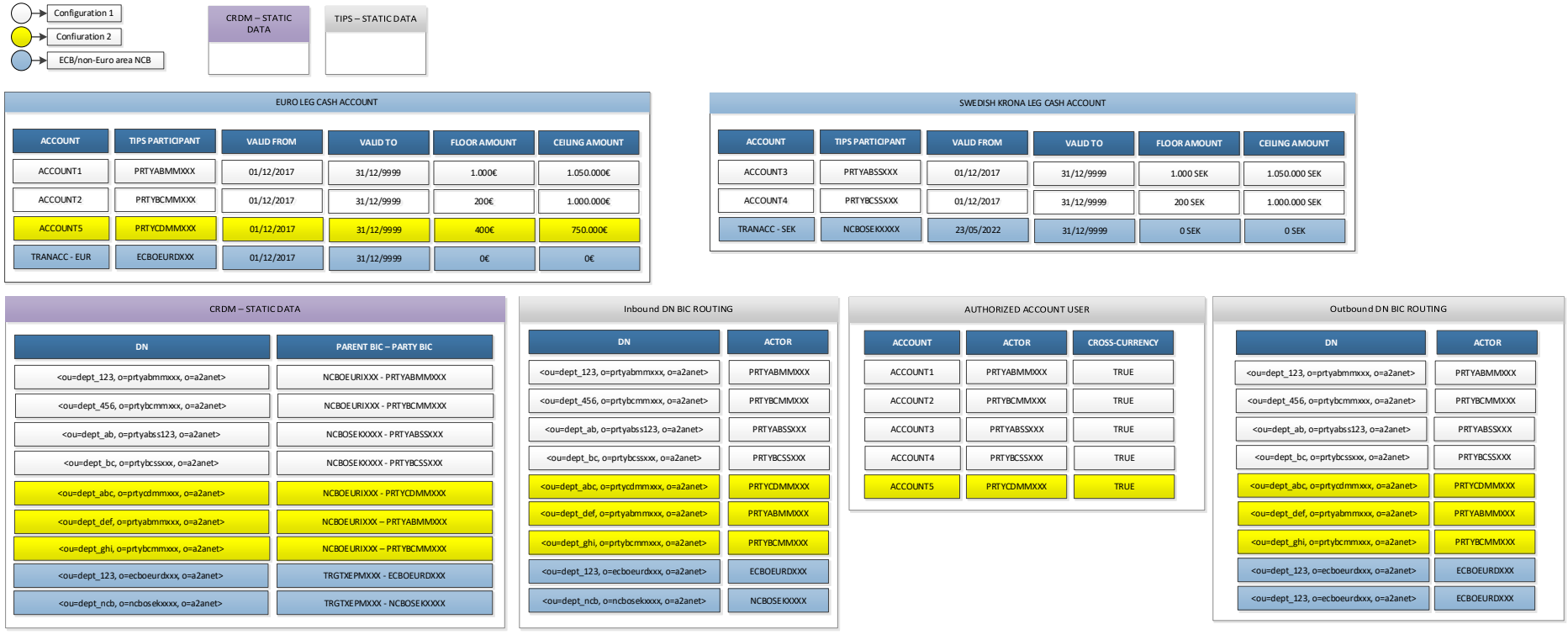
It is worth noting that the first example describes a whole cross-currency transaction including the steps of both the Incoming and Outgoing Legs while the error scenarios refer to one leg of the whole cross-currency transaction flow. According to the direction of the payment (incoming or outgoing), the parameters included in each message may differ.

In the following examples, Leg Exit/Entry PSPs are direct TIPS participants. Thus:

- In the outgoing scenario, the Leg Exit PSP acts as Beneficiary in the source leg and unlike Instant Payments in euro and non-euro currencies described in the previous sections, the Instructed Agent BIC is taken into consideration in order to credit the correct account instead of the Beneficiary BIC which identifies the final beneficiary in the other leg according to the cross-currency model.
- In the incoming scenario, the Leg Entry PSP acts as Originator in the destination leg and the Instructing Agent BIC is taken into consideration in order to debit the correct account instead of the Originator BIC which identifies the actual debtor in the source leg according to the cross-currency model.

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Figure 123 – Instant Payment transaction examples data constellation for cross-currency



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2.2.4.1 Successful cross-currency scenario with confirmed order – only accounts involved

This positive scenario describes a successful cross-currency payment transaction originating in the Euro leg (Outgoing Euro leg scenario) and ending in the Swedish Krona Leg (Incoming Swedish Krona leg scenario) involving the following actors:

- Originator Participant: payment initiator of the whole cross-currency transaction and owner of a TIPS Account in the Euro leg. It is identified by the message field 'Debtor Agent'.
- Beneficiary Participant: final beneficiary of the whole cross-currency transaction and owner of a TIPS Account in the Swedish Krona Leg. It is identified by the message field 'Creditor Agent'.
- Euro Leg Exit PSP: intermediary that receives the amount in the Euro leg from the Originator Participant and advising the intermediary counterpart in the Swedish Krona leg (i.e. that Swedish Krona Leg Entry PSP) to instruct the corresponding Swedish Krona Instant Payment to credit the Beneficiary Participant. It is owner of a TIPS Account in the Euro leg and it is identified by the message field 'Instructed Agent', under the assumption it is a direct TIPS participant.
- Swedish Krona Leg Entry PSP: intermediary that instructs the corresponding Swedish Krona Instant Payment (based on the 'Exchange Rate' and assuming no additional fees) in the Swedish Krona leg in order to credit the Beneficiary Participant. It is owner of a TIPS Account in Swedish Krona and it is identified by the message field 'Instructing Agent', under the assumption it is a direct TIPS participant.

"Configuration 1" and "Configuration 2" (highlighted in white and yellow in the Figure 121 – Instant Payment transaction examples data constellation) are considered.

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Figure 123 – Instant Payment transaction examples data constellation for No errors or timeouts occur. No floor or ceiling notification expected. The current business date, in the given example, is 30/12/2024.

OUTGOING EURO LEG SCENARIO

The FItoFICustomerCreditTransfer message sent by the Originator Participant and received by TIPS, triggering the scenario, looks like the following one.

Figure 124 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



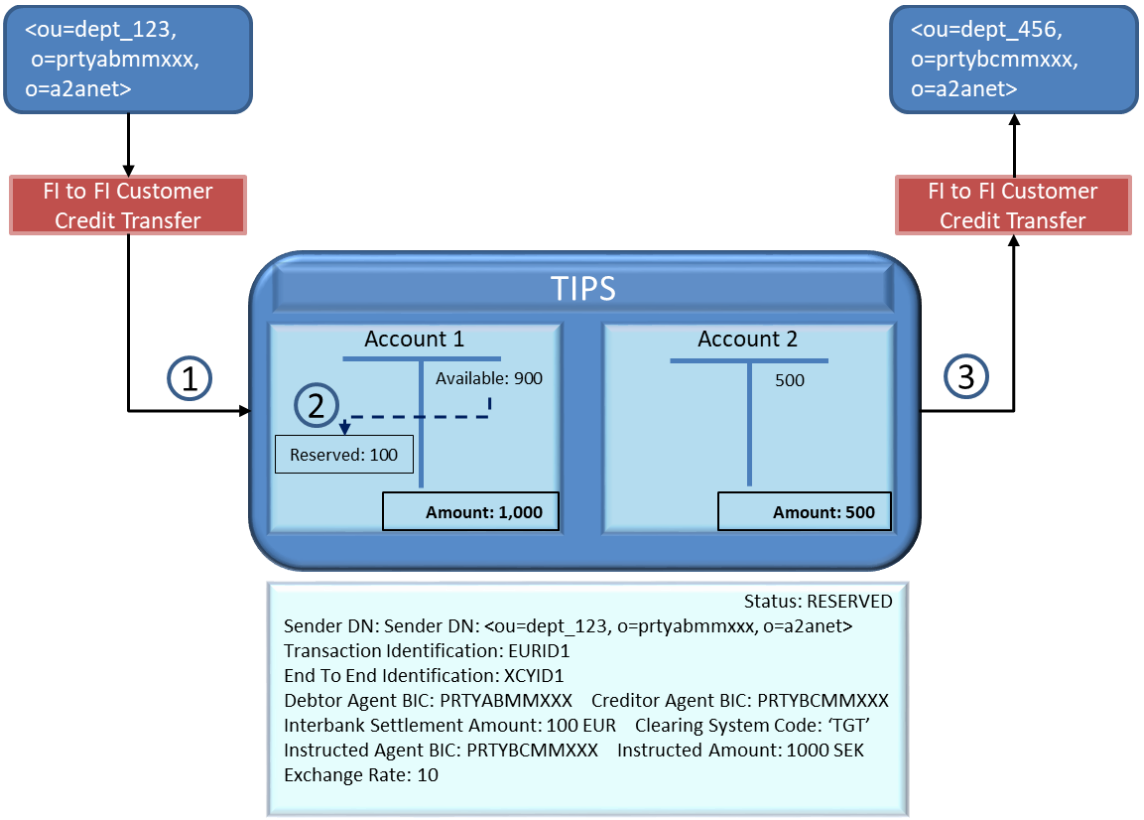
The system, after performing the expected checks successfully, settles the transaction as follows:

- It identifies the cross-currency transaction as outgoing from the Clearing System Code.
- It identifies the Originator Account (ACCOUNT1) from the Debtor Agent BIC;
- It identifies the Beneficiary Account (ACCOUNT2) of the Euro transaction leg from the Instructed Agent BIC;
- It identifies the Instructed Agent DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1, so the available balance for ACCOUNT1 decreases from 1,000.00 EUR to 900.00 EUR;
- The transaction is stored with status *Reserved*.

The FItoFICustomerCreditTransfer message is delivered to the Instructed Agent DN completing the Conditional Settlement phase.

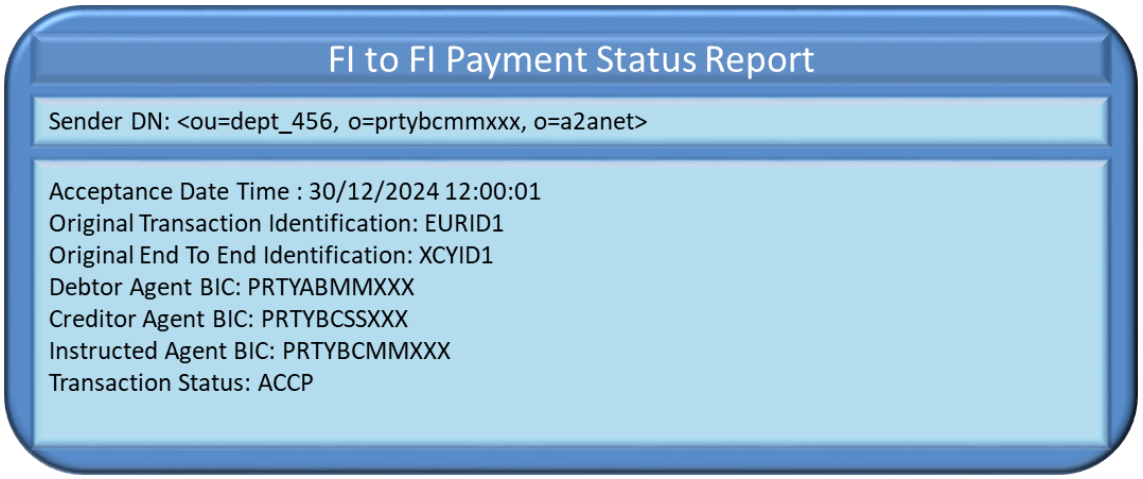
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Figure 125 – Successful Instant Payment transaction: reservation of funds



The confirmation message from the Instructed Agent triggers the settlement phase. In this scenario, the Euro Leg Exit PSP confirms the payment by sending a FIToFIPaymentStatusReport message with a positive answer. TIPS settles the transaction, moving the amount from ACCOUNT1 to ACCOUNT2.

Figure 126 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



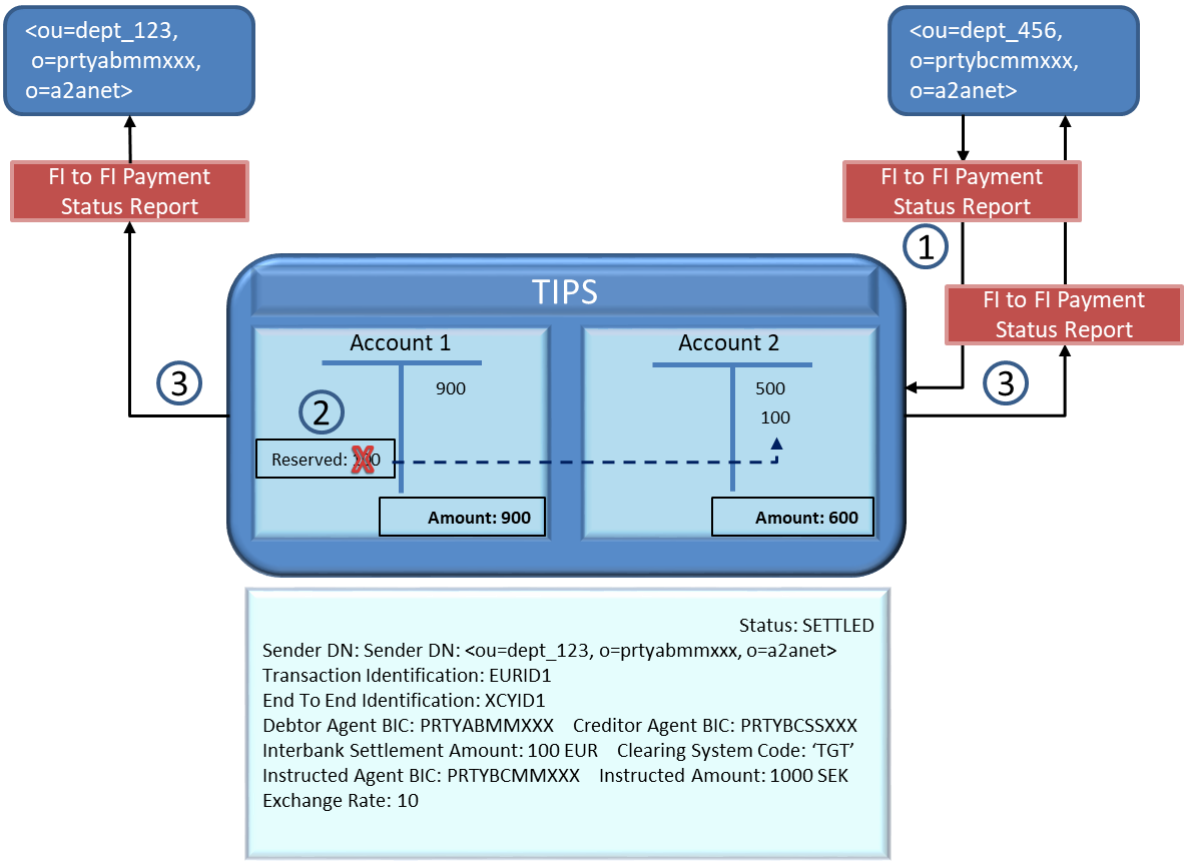
The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

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- It identifies the transaction based on the Transaction Identification field. The underlying transaction shall be in status *Reserved*.
- it identifies the Originator Account (ACCOUNT1) and the Instructed Agent Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It settles the amount transferring the reserved liquidity in the ACCOUNT1 to the ACCOUNT2;
- The transaction status is changed to *Settled*.

TIPS then forwards the FIToFIPaymentStatusReportFIToFIPaymentStatusReport message to the Originator DN and sends a confirmation message for successful settlement to the Instructed Agent.

Figure 127 – Successful Instant Payment transaction: settlement phase



INCOMING SWEDISH KRONA LEG SCENARIO

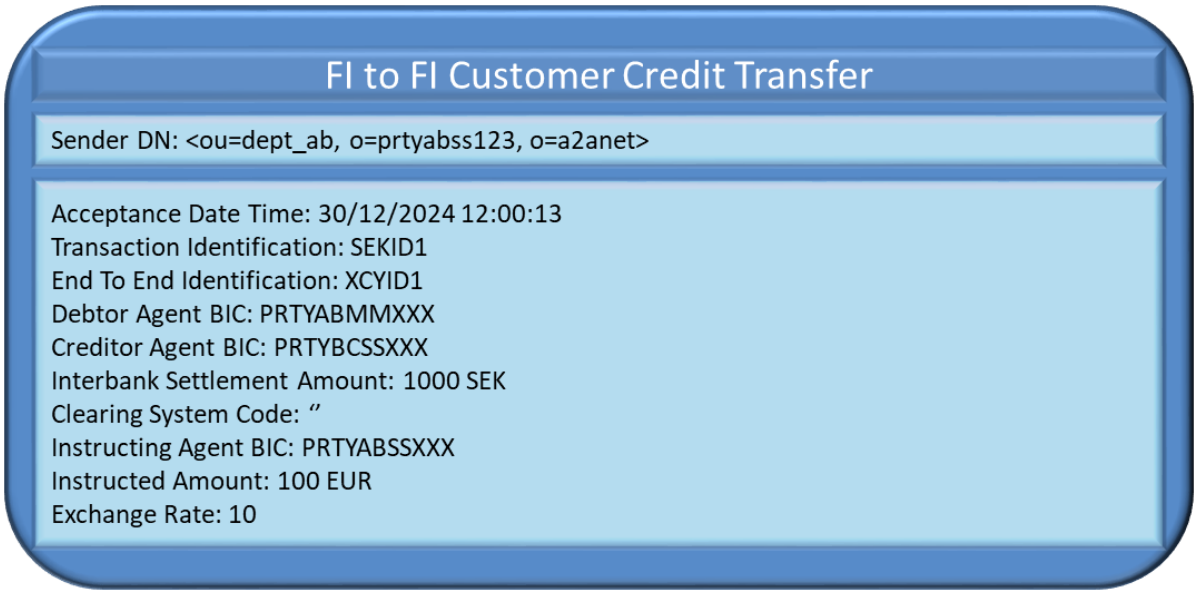
Upon the successful settlement on the Euro leg side, the Euro Leg Exit PSP notifies the Swedish Krona Leg Entry PSP accordingly. The Swedish Krona Leg Entry PSP is provided with ll the required information contained in the original FItoFICustomerCreditTransfer message in order to instruct the corresponding instant payment transaction in SEK and credit the Beneficiary Participant. In this example, for the sake of clarity, the Euro Leg Exit PSP and Swedish Krona Leg Entry PSP belong to the same cross-currency PSP. Therefore, taking into account the original Euro Instant Payment instruction,

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the Swedish Krona Leg Entry PSP sends the FItoFICustomerCreditTransfer message to TIPS as follows:

- It specifies a new Transaction Identification for the destination leg transaction.[33]
- It specifies the cross-currency transaction as incoming by blanking the value of the Clearing System Code message field.
- It swaps the values of the 'Interbank Settlement Amount' and 'Instructed Amount' as well as their respective currency attributes (from EUR to SEK and viceversa).

Figure 128 - Successful Instant Payment transaction: FItoFICustomerCreditTransfe



The system, after performing the expected checks successfully, settles the transaction as follows:

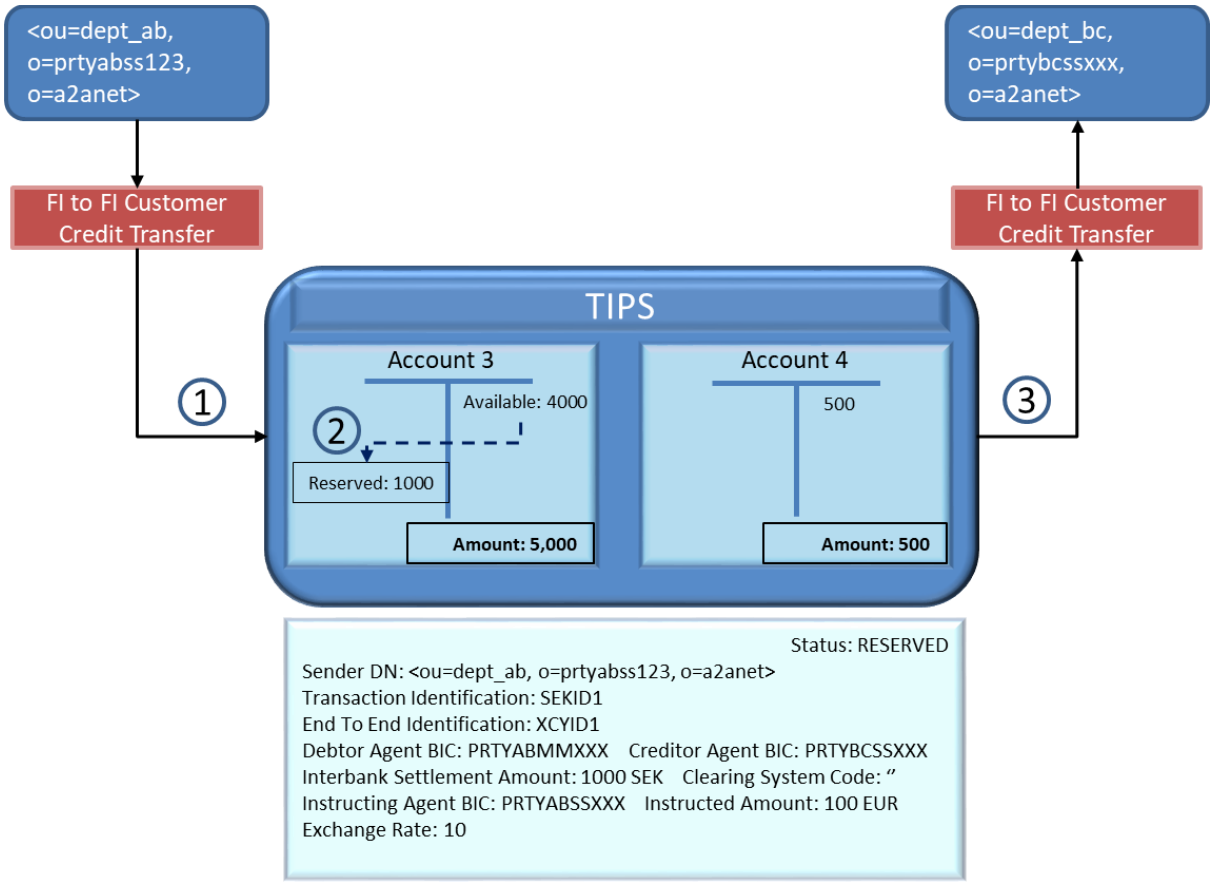
- It identifies the cross-currency transaction as incoming from the Clearing System Code;
- It identifies the Originator Account (ACCOUNT3) from the Instructing Agent BIC;
- It identifies the Beneficiary Account (ACCOUNT4) of the SEK transaction leg from the Creditor Agent BIC;
- It identifies the Beneficiary DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT3, so the available balance for ACCOUNT3 decreases from 5,000.00 SEK to 4,000.00 SEK;
- The transaction is stored with status *Reserved*.

The FItoFICustomerCreditTransfer message is delivered to the Beneficiary DN completing the Conditional Settlement phase.

[33] The reference to the whole cross-currency transaction is reported in the End To End Identification message field

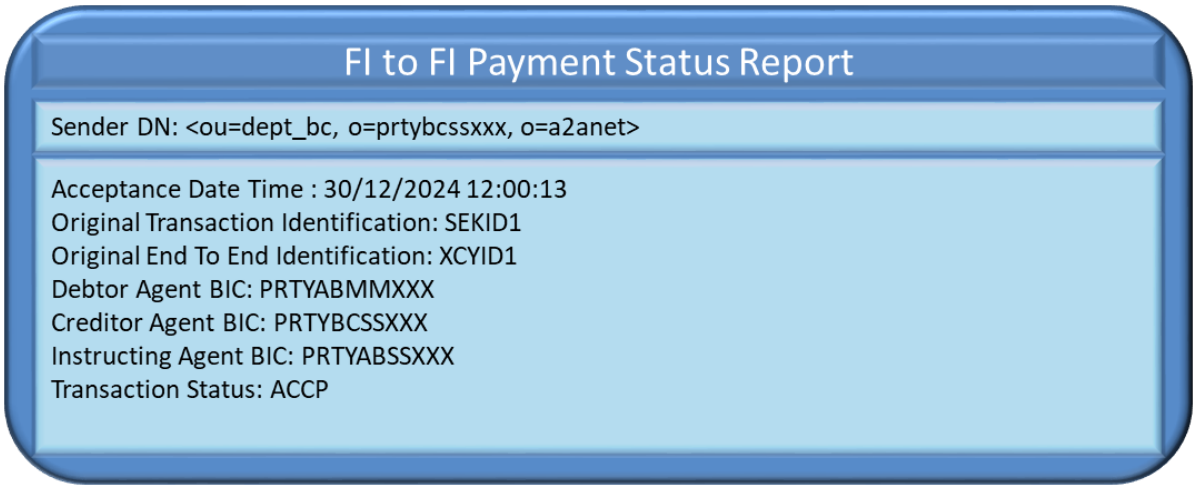
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Figure 129 – Successful Instant Payment transaction: reservation of funds



The confirmation message from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary PSP confirms the payment by sending a FIToFIPaymentStatusReport message with a positive answer. TIPS settles the transaction, moving the amount from ACCOUNT3 to ACCOUNT4.

Figure 130 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



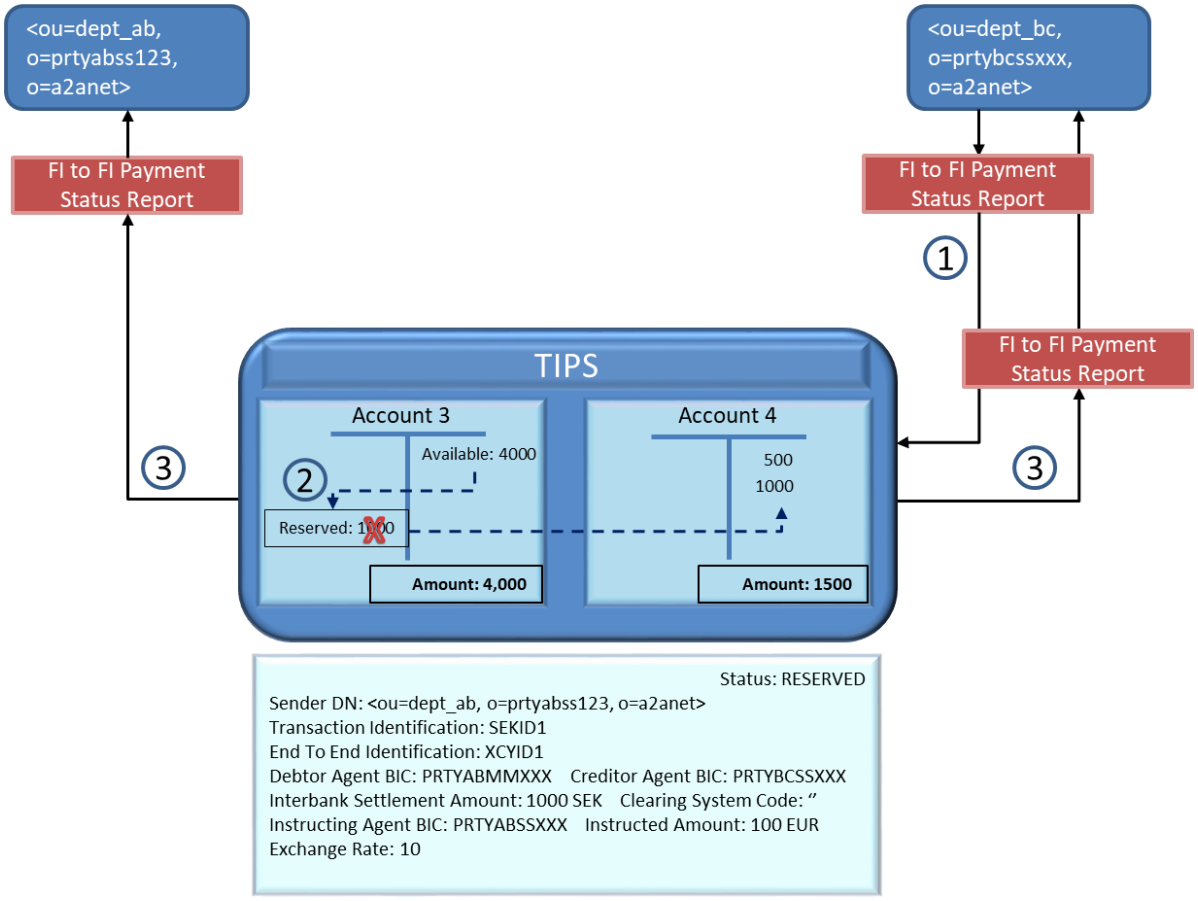
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The system, after performing the expected checks successfully, finds the reserved transaction and executes the settlement on the accounts as follows:

- It identifies the transaction based on the Transaction Identification field. The underlying transaction shall be in status *Reserved*.
- it identifies the Instructing Agent Account (ACCOUNT3) and the Beneficiary Participant Account (ACCOUNT4) from the retrieved transaction;
- It identifies the Instructing Agent DN from the transaction;
- It settles the amount transferring the reserved liquidity in the ACCOUNT3 to the ACCOUNT4;
- The transaction status is changed to *Settled*.

TIPS then forwards the FIToFIPaymentStatusReport message to the Instructing Agent DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

Figure 131 – Successful Instant Payment transaction: settlement phase



1) § 2.2.3.3.3 Error scenarios

This section describes some possible error scenarios that can happen when dealing with cross-currency Instant Payments. This is a subset of possible error cases but the error mechanism is always the same.

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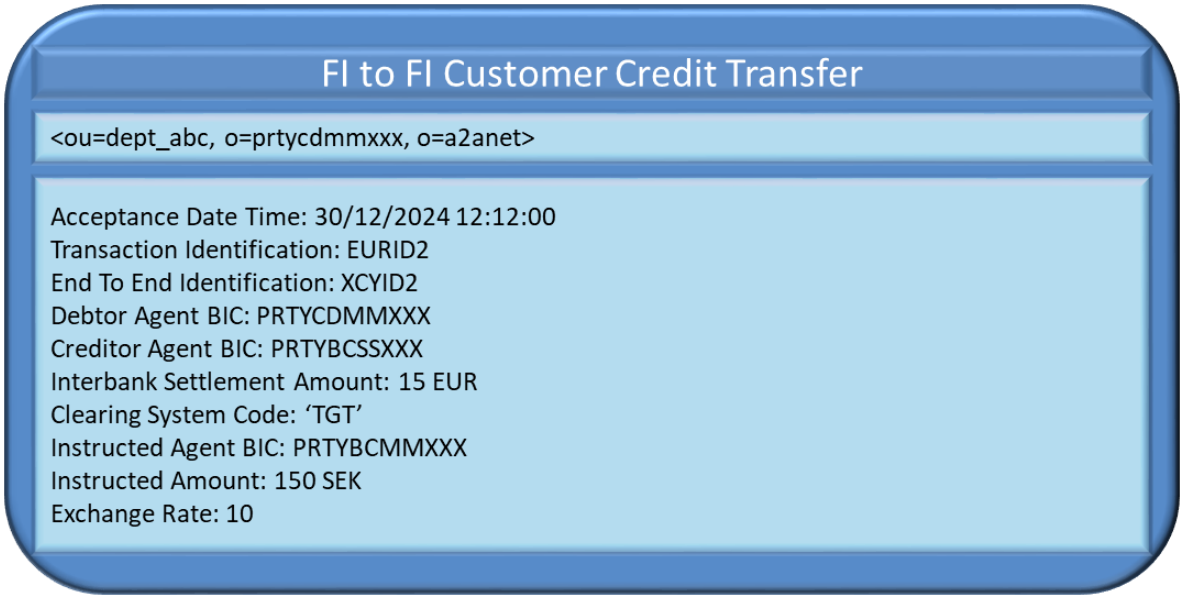
Blocked Account in the Outgoing Euro-Leg scenario

This error scenario describes a payment transaction between two TIPS Accounts respectively owned by the Originator Participant of an outgoing cross-currency transaction and the cross-currency PSP (acting as Euro Leg Exit PSP and beneficiary in the Euro leg) both sending the messages on their own (i.e., no Instructing Party is involved). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the account to be debited is blocked and not available for settlement.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario is described in the following figure.

Figure 132 – Blocked account error: FItoFICustomerCreditTransfer

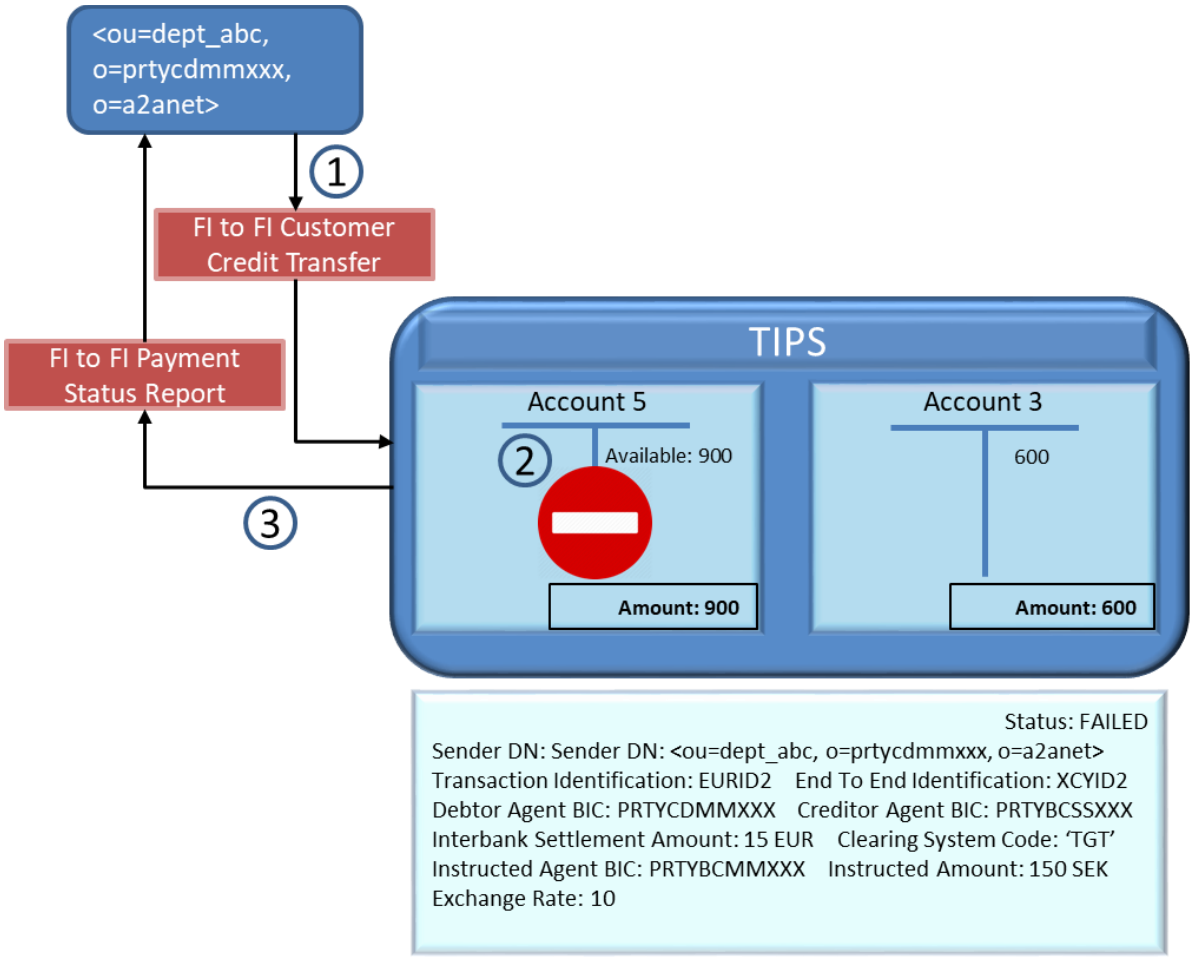


The system executes these steps:

- It identifies the cross-currency transaction as outgoing from the Clearing System Code;
- It identifies the Debiting Account (ACCOUNT1) from the Debtor Agent BIC;
- It detects that ACCOUNT1 is blocked (e.g. status is either ‘blocked for debit’ or ‘blocked for credit and debit’);
- The transaction fails. The attempt is saved as failed Instant Payment transaction and the sender is informed of the error.

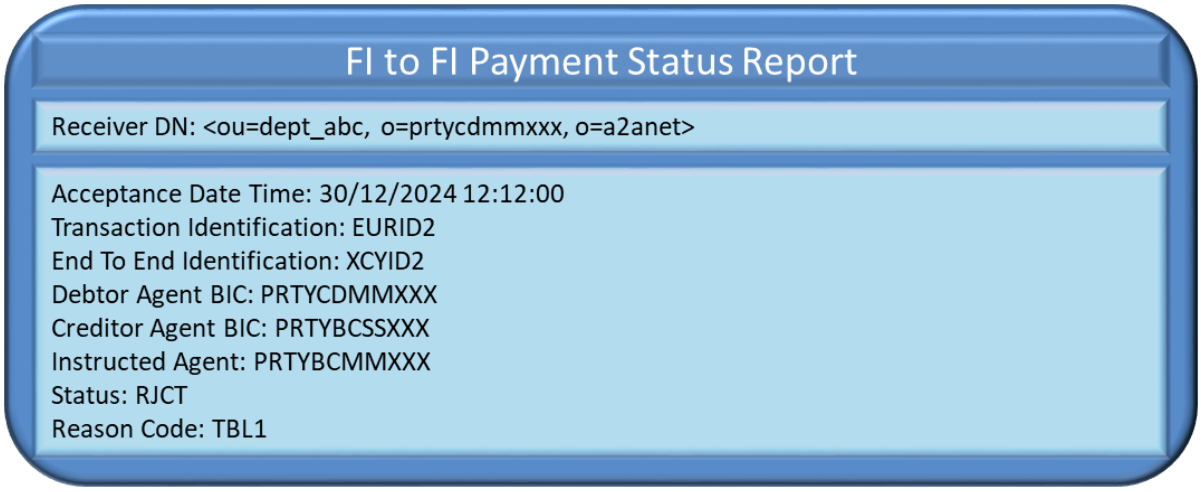
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Figure 133 – Blocked account error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport to the sender with the proper error code.

Figure 134 – Blocked account error: FItoFIPaymentStatusReport



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Beneficiary side timeout in the Incoming Euro leg scenario

This error scenario describes a payment transaction between two TIPS Accounts respectively owned by the cross-currency PSP (acting as Euro Leg Entry PSP and Originator in the Euro leg) and the Beneficiary of the cross-currency transaction both sending the messages on their own (i.e. no Instructing Party is involved). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the confirmation message from the Beneficiary Participant reaches TIPS after the allocated timeout period.

The FItoFICustomerCreditTransfer message received by TIPS for this scenario is shown in the following diagram.

Figure 135 – Beneficiary side timeout error: FItoFICustomerCreditTransfer



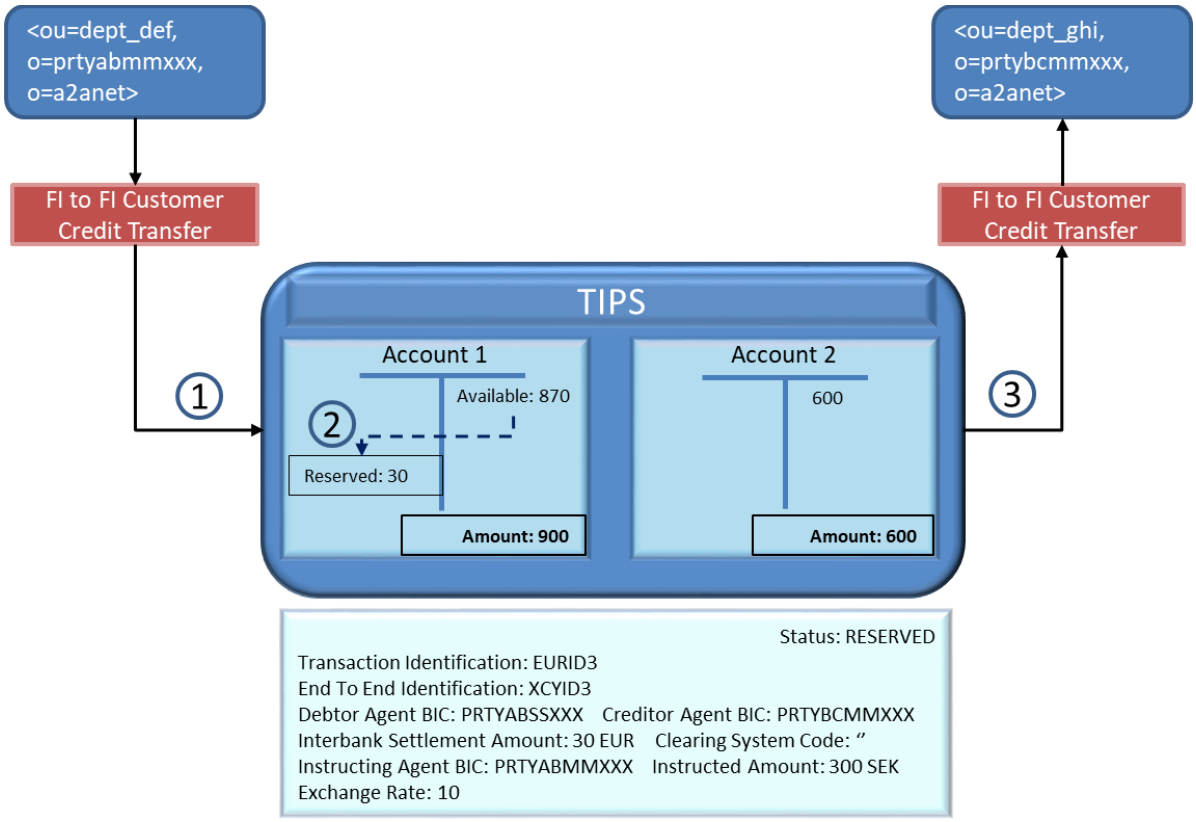
The system, after performing the expected checks successfully, sets up the settlement on the accounts as follows:

- It identifies the cross-currency transaction as incoming from the Clearing System Code;
- It identifies the Originator Account from the Instructing Agent BIC (ACCOUNT1);
- It identifies the Beneficiary Participant Account (ACCOUNT2) from the Creditor Agent BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- It reserves the amount in ACCOUNT1, so the available balance for ACCOUNT1 decreases from 774.00 EUR to 744.00 EUR;
- The transaction is stored with status *Reserved*.

The FItoFICustomerCreditTransfer message is delivered to the Beneficiary DN completing the Conditional Settlement phase.

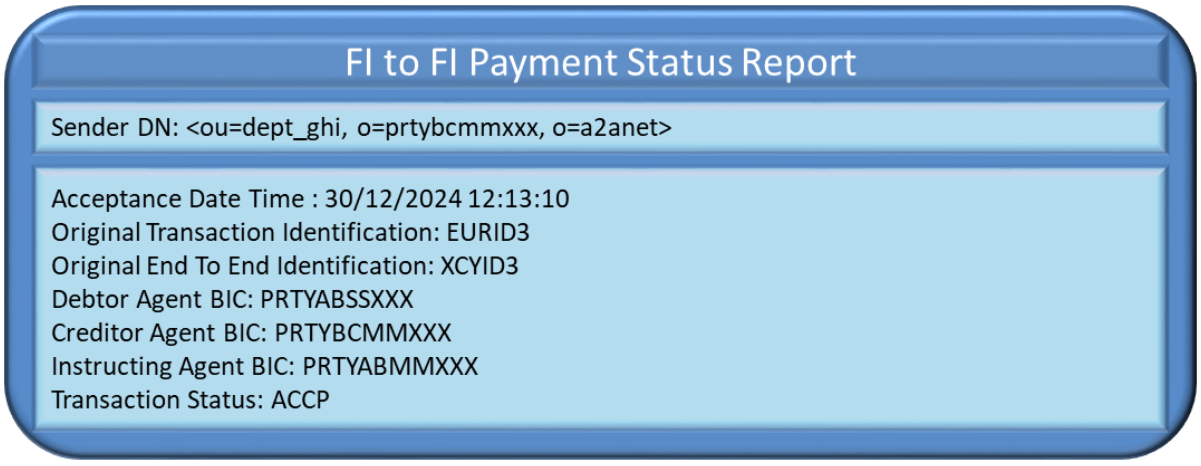
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Figure 136 – Beneficiary side timeout error: reservation of funds



The confirmation message from the Beneficiary Participant arrives in TIPS when the timeout period is elapsed.

Figure 137 – Beneficiary side timeout error: FItoFIPaymentStatusReport

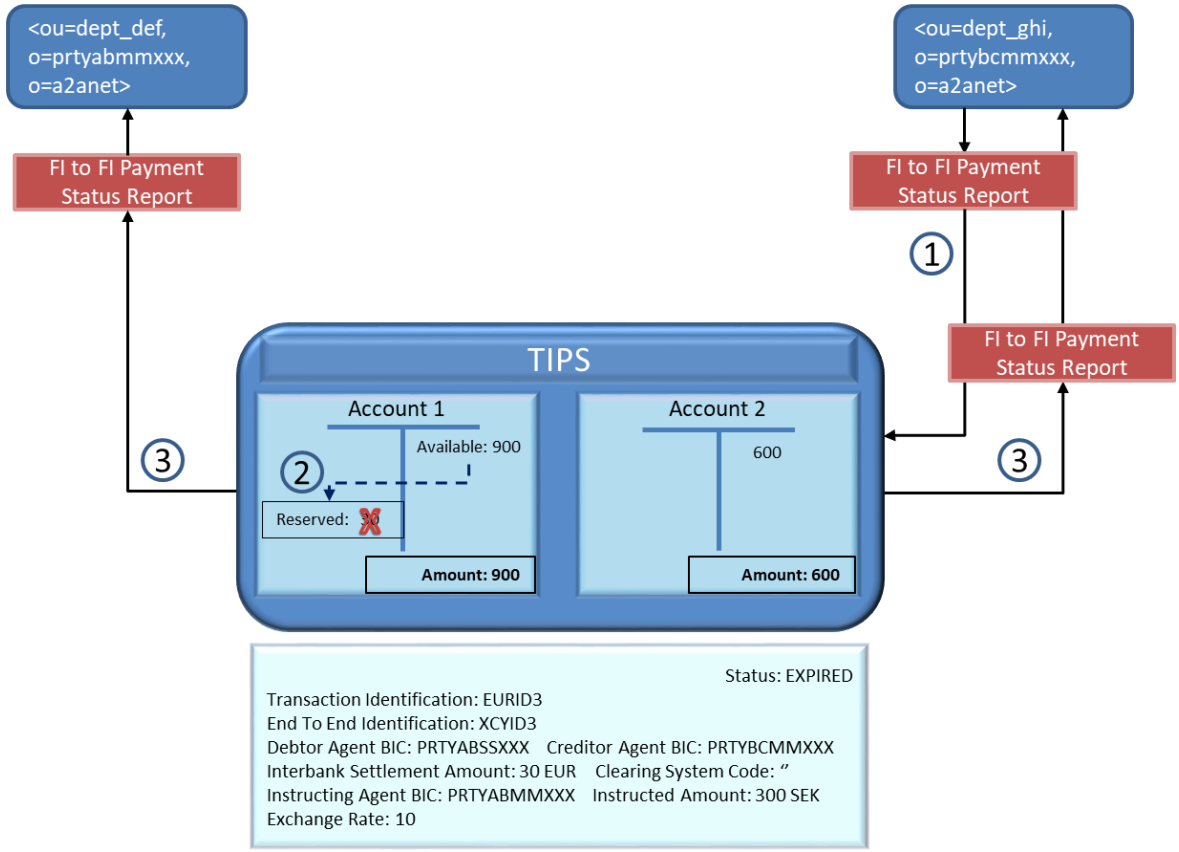


The timeout check on Beneficiary Participant side fails. TIPS finds the reserved transaction and releases the funds on the accounts as follows:

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- It identifies the transaction based onthe Transaction Identification fields. The underlying transaction must be in status *Reserved*;
- It identifies the Instructing Agent Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1;
- The transaction status is changed to *Expired*;
- It identifies the Instructing Agent DN from the transaction.

Figure 138 – Beneficiary side timeout error: release of funds

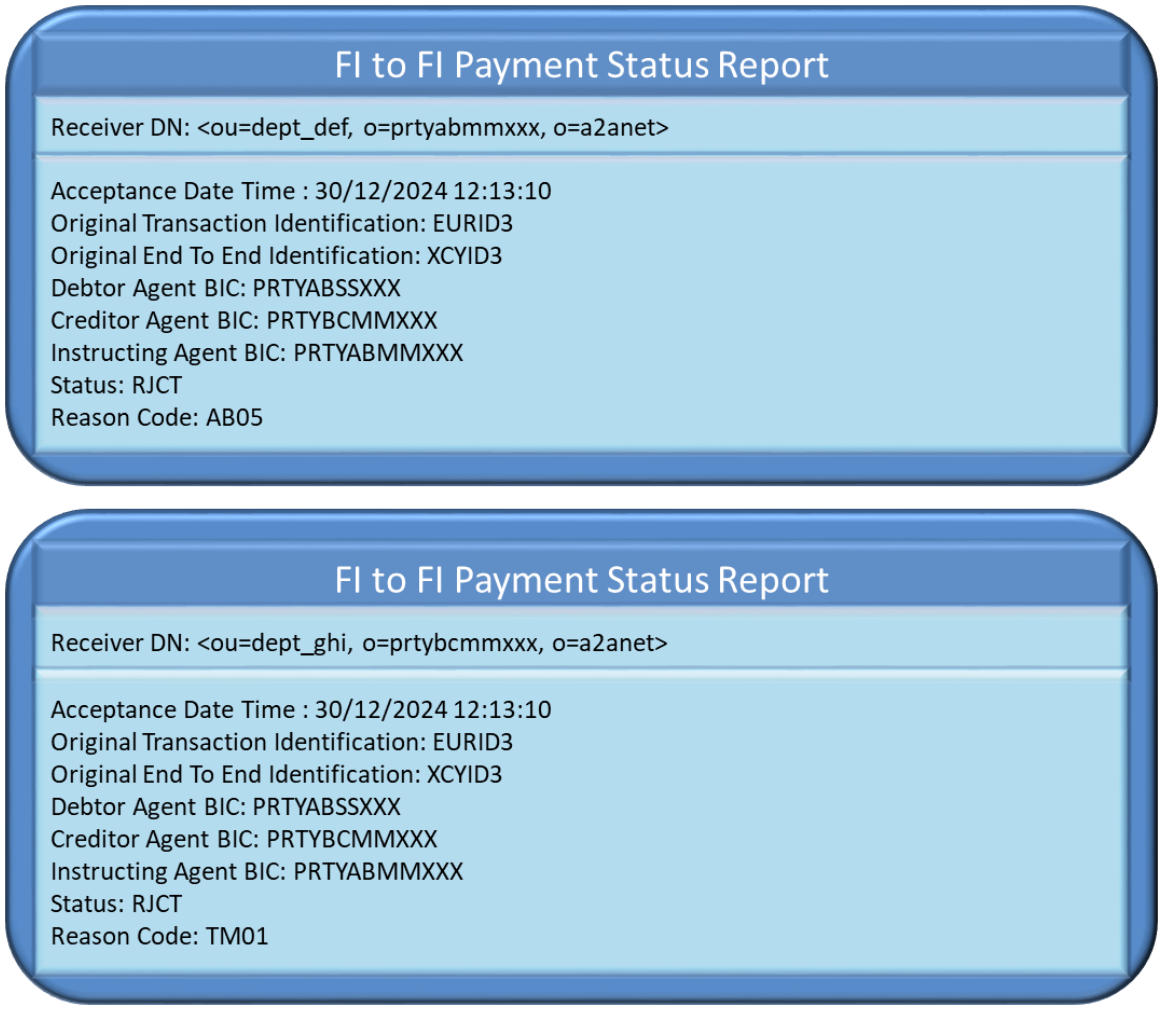


TIPS informs both counterparties of the transaction about the expiration. TIPS sends the message to:

- The DN of the sender of the Instant Payment transaction;
- The Beneficiary DN as configured in the "Outbound DN-BIC Routing (<ou=dept_abc, o=prtybcmm123, o=a2anet>);
- The messages, respectively for the Euro Leg Entry PSP (reason code equal to AB05) and the Beneficiary PSP (reason code equal to TM01), are generated and sent as shown in the following diagram.

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Figure 139 – Beneficiary side timeout error: FItoFIStatusReport



2.2.5. Instant Payment (cross-currency scheme – LKT settlement model)

This section focuses on the settlement of a cross-currency Instant Payment transaction based on the OCT^{Inst} scheme, extended in order to allow cross-currency settlement of non-euro transactions (e.g. for SEK to DKK transactions). A dedicated message flow composed of two legs, automatically orchestrated by the Originator and Beneficiary CSMs, guarantees the atomicity of the entire end-to-end cross-currency transaction.

The introductory part of the section presents the general flow, including all the steps.

All the remaining sub-sections include examples of both the successful and most meaningful failure scenarios. Each example shows the relevant messages and how the key fields are populated.

The LKT cross-currency Instant Payment transaction processing focuses on the scenario where an Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party issues instructions to TIPS in order to instantly transfer funds to the account of a Beneficiary Participant.

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The actors involved are the following:

- The Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party, initiating the LKT cross-currency instant payment in the source leg.
- The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party, receiving the request and either confirming or rejecting the LKT cross-currency instant payment in the destination leg.

According to the direction of a payment (i.e. incoming or outgoing), the cross-currency PSPs acting as settlement intermediaries are classified in the same way as the regular cross-currency settlement model, namely:

- For an outgoing transaction, the Exit-Leg PSP acts as Beneficiary in the source leg and it is identified by either the 'Instructed Agent' BIC, in case it is a direct CSM participant, or the 'Intermediary Agent 1' BIC.
- For an incoming transaction, the Entry-Leg PSP acts as Originator in the destination leg and it is identified by either the 'Instructing Agent' BIC in case it is a direct CSM participant or the last 'Previous Instructing Agent' BIC, that is the agent immediately prior to the Instructing Agent in the chain.

The messages involved are:

- The FItoFICustomerCreditTransfer message is sent by the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party for the purpose of (i) issuing the payment, (ii) reserving the corresponding amount, (iii) informing both the Exit and Entry Leg PSPs, (iv) contacting the destination CSM and (v) informing the Ultimate Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party about the transaction received;
- The FIToFIPaymentStatusReport message is sent (i) by the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Participant/Reachable Party to TIPS to either accept or reject the cross-currency Instant Payment, or (ii) by TIPS to inform the actors about the result of the settlement (i.e. settled, rejected, timed out);
- The ReturnAccount message is sent, on optional basis, by TIPS to the Creditor Account Owner and/or the Debtor Account Owner, including the Exit and Entry Leg PSPs. The message is sent if (i) the owner of the account (or CMB) activates the floor and ceiling notifications and (ii) the configured threshold is breached.

All the described scenarios are triggered under the assumption that technical validations, checking of mandatory fields and user authentication have already been successfully performed by ESMIG.

It is worth noting that when either the Debtor or Creditor BIC contains a BIC8, the message is accepted and the BIC8 is converted into a BIC11 by appending "XXX". Therefore, all the steps are described considering BIC11 only.

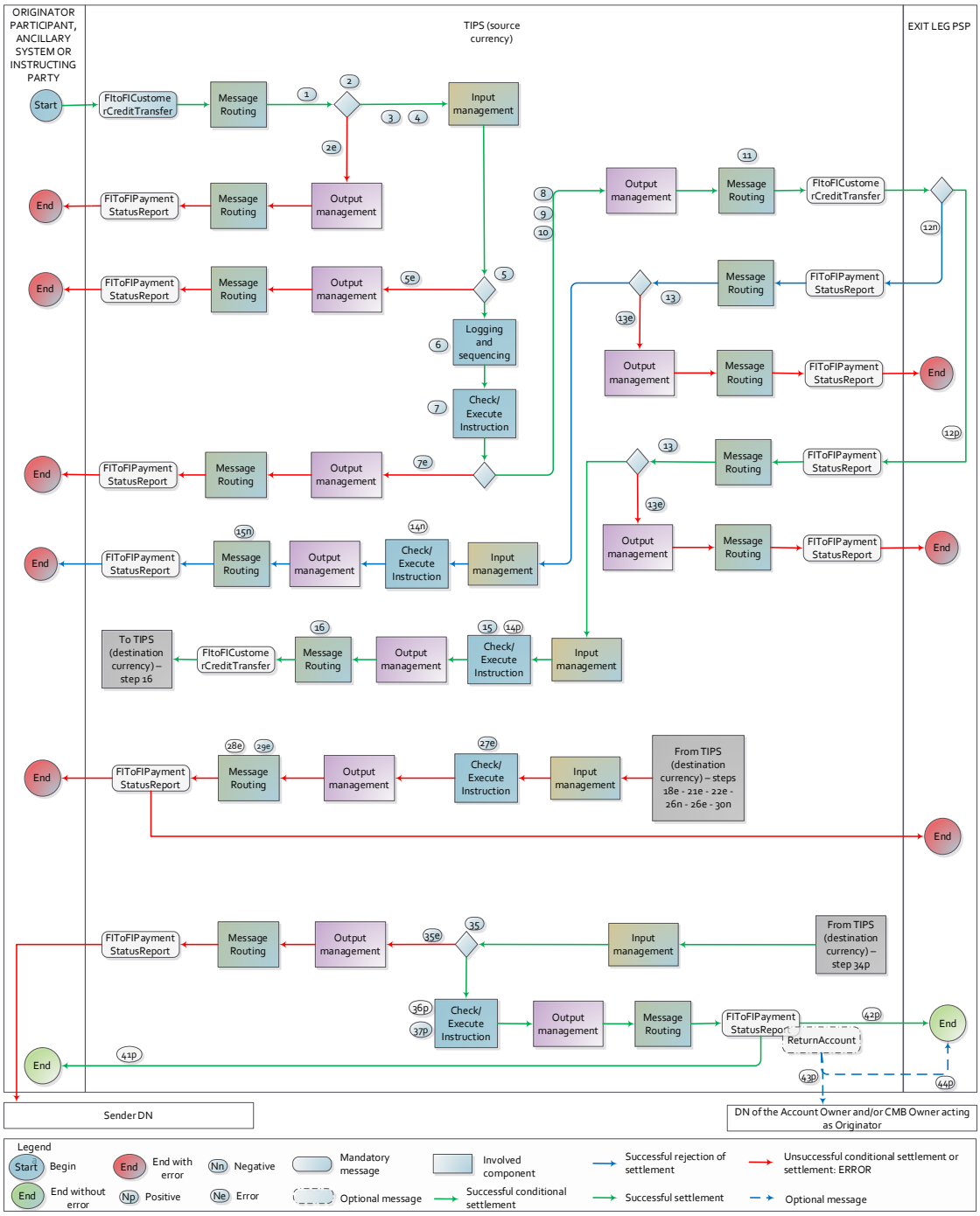
Below is the diagram describing the process and the actors involved. The detail of the steps is described

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in the following Figure 140 – Instant Payment transaction flow for cross-currency LKT settlement model (part I) and Figure 141 – Instant Payment transaction flow for cross-currency LKT settlement model (part II).

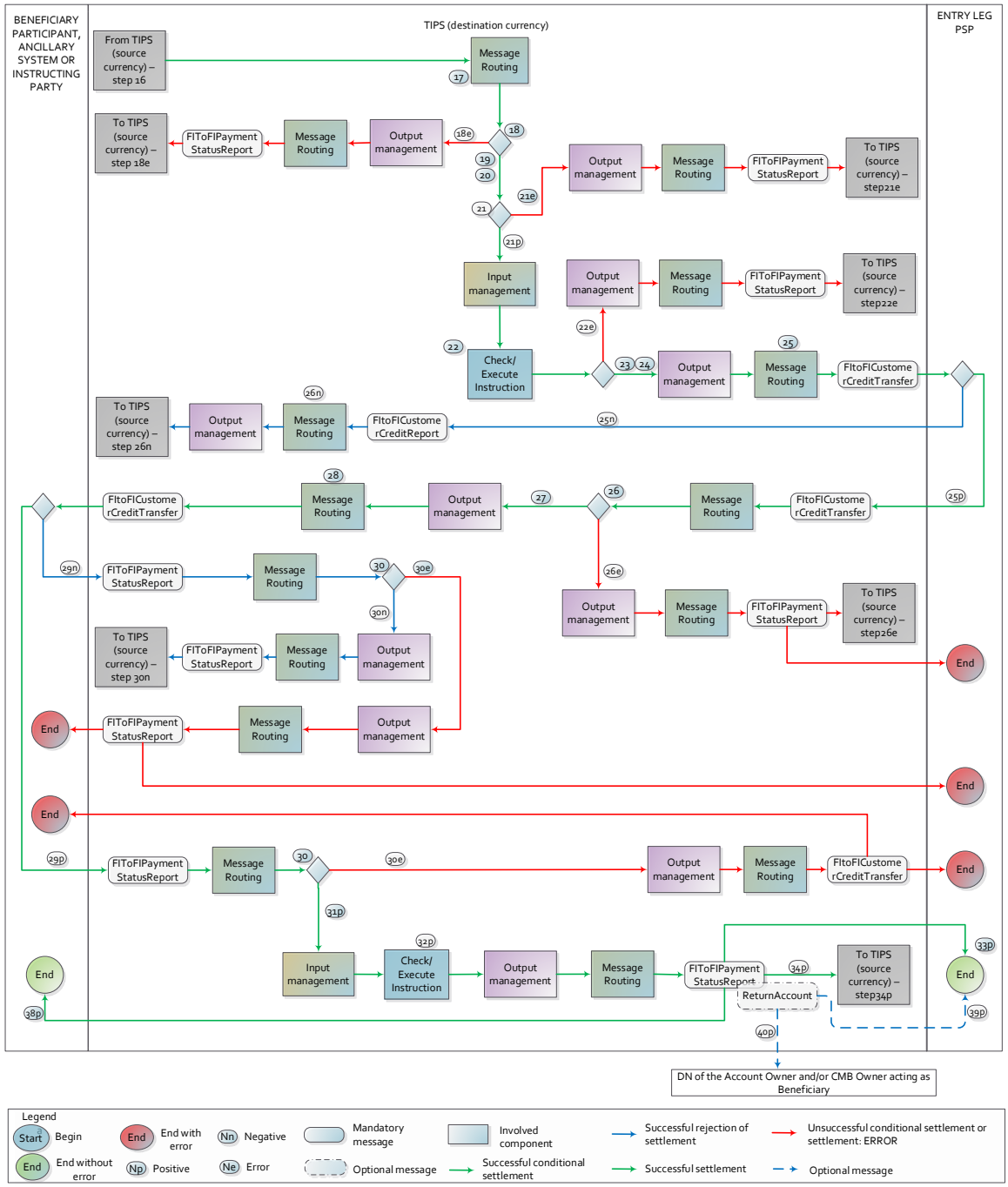
The figure includes the Instant Payment transaction flow for cross-currency LKT settlement model. The assumption taken in both the following diagram and the table is that the described end-to-end flow happens between two different TIPS components (i.e. source and destination), each one in charge of managing one specific TIPS-hosted currency.

Figure 140 – Instant Payment transaction flow for cross-currency LKT settlement model (part I)



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Figure 141 – Instant Payment transaction flow for cross-currency LKT settlement model (part II)



The same approach described in the table below can be generalised to the scenario where one of the two components is an externally connected Instant Payment System (IPS).

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Table 29 – Instant Payment transaction steps for cross-currency – LKT settlement model

Step	Involved messages	Involved actors	Description
1	FItoFICustomerCreditTransfer	Originator Participant, Ancillary System or Instructing Party as sender TIPS (source currency) as receiver	TIPS receives a cross-currency LKT Instant Payment transaction from the Originator Participant or Instructing Party acting on behalf of the Originator Participant, Ancillary System or a Reachable Party. Technical validations, checking of mandatory fields and authentication have already been successfully executed. The Instant Payment transaction timeout has not expired. TIPS logs the source leg as "*Received*".
2		TIPS (source currency)	TIPS successfully executes the following checks: - Access Rights check; - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Instructing Party authorised; - Beneficiary correctly configured; - Beneficiary Account or CMB existence; - Creditor authorised for Cross-currency. See 4.1 - Business Rules for details.
2e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS returns an error when executing the checks listed in **step 2**. If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1**. If the failure relates to "Timeout Check - Originator Side", the status of the transaction is set to "Expired"; in all the other cases, the status is set to "Failed".

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Step	Involved messages	Involved actors	Description
3		TIPS (source currency)	TIPS infers differently the account to be debited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the 'Clearing System Code' field.[34] **Outgoing direction:** TIPS verifies that an account: (iv) with either type "TIPS Account" or "TIPS AS Technical Account" exists, (v) is linked to the Originator Participant (field "Debtor Agent") as authorised user, (vi) and is denominated in the same currency as the one defined in the Interbank Settlement Amount. - If the search returns no accounts, TIPS searches for a CMB linked to the Originator Participant (field "Debtor Agent") as authorised user. - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. From now on, the selected account is referred to as "Originator Account" and any CMB as "Debiting CMB".

[34] In case of an outgoing payment transaction, the Clearing System Code field must be set to 'TGT' while in case of an incoming transaction, it may assume any value other than the one mentioned above

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Step	Involved messages	Involved actors	Description
4		TIPS (source currency)	TIPS infers differently the account to be credited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the 'Clearing System Code' field.[41] **Outgoing direction:** In details TIPS verifies that: (iv) an account, with either type "TIPS Account" or "TIPS AS Technical Account" exists, (v) it is linked to the Exit Leg PSP as authorised user; a. if the Exit Leg PSP is a direct TIPS participant, the BIC taken from the "Instructed Agent" field is used; b. otherwise the BIC is taken from the "Intermediary Agent 1" field. (vi) and is denominated in the same currency as the one defined in the Interbank Settlement Amount. - If the search returns no accounts, TIPS searches for a CMB linked to the Exit Leg PSP as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. In addition, TIPS checks whether the Beneficiary Participant linked to the selected Account or CMB is authorised to accept cross-currency payments. From now on, the selected account is referred to as "Beneficiary Account" and any CMB as "Crediting CMB".
5		TIPS (source currency)	TIPS successfully executes the following check: - Duplicate check See 4.1 - Business Rules for details..
5e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	The execution of the check listed in **step 5** fails. The LKT transaction processing stops and a message, containing the proper error code, is sent to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender. The transaction is set to "*Failed*" status.

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Step	Involved messages	Involved actors	Description
6		TIPS (source currency)	TIPS sends it to the *Check and Execute Instruction* process. TIPS sets the transaction status to "*Validated*".
7		TIPS (source currency)	TIPS successfully executes the following checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded. See 4.1 - Business Rules for details.
7e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	The execution of one of the checks listed in **step 7** fails If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1**. The transaction is set to "*Failed*" status.
8		TIPS (source currency)	The DN of the Sender in **step 1** is saved as information related to the source leg of the LKT transaction. From now on, this DN is referred to as "*Originator DN*".
9		TIPS (source currency)	TIPS reserves the full amount in the Originator PSP account and sets the transaction status to "*Reserved*". If a Debiting CMB is involved, the system also decreases its headroom by the same amount. The reserved amount is not available for any other concurrent payment.
10		TIPS (source currency)	The DN of the Exit Leg PSP is identified in the "*Outbound DN-BIC Routing*" mapping table. The field to look up is based on the criteria specified in **step 4**. From now on, this DN is referred to as *Exit Leg PSP DN*.

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Step	Involved messages	Involved actors	Description
11	FItoFICustomerCreditTransfer	TIPS (source currency) as sender Exit Leg PSP as receiver	TIPS forwards the received cross-currency LKT Instant Payment transaction to the Exit Leg PSP DN.
12p	FIToFIPaymentStatusReport	Exit Leg PSP as sender TIPS (source currency) as receiver	The Exit Leg PSP confirms the validity of the cross-currency LKT transaction by sending a positive payment status report that is successfully delivered to TIPS. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
12n	FIToFIPaymentStatusReport	Exit Leg PSP as sender TIPS (source currency) as receiver	The Exit Leg PSP rejects the cross-currency LKT transaction by sending a negative payment status report that is successfully delivered to TIPS. In this scenario the LKT transaction processing terminates with a rejection. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
13		TIPS (source currency)	TIPS successfully executes the following checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing; - Timeout Check - Beneficiary Side. See 4.1 - Business Rules for details.
13e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Exit Leg PSP as receiver	The execution of one of the checks listed in **step 13** fails**.** If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the Exit Leg PSP.
14n		TIPS (source currency)	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The corresponding reserved amount in the involved Originator PSP account is released. If a debiting CMB is involved, its headroom is increased by the same amount. It is worth noting that TIPS releases the reserved transactions even if either the involved account or CMB have been blocked after the conditional settlement phase of the given transaction.

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Step	Involved messages	Involved actors	Description
			The transaction is set to "*Failed*" status.
15n	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the message, containing the rejection reason received at **step 12n**, to the Originator Participant, Ancillary System or Instructing Party acting on behalf of the Originator Participant or a Reachable Party – same DN of the Sender in **step 1**.
14p		TIPS (source currency)	TIPS identifies the LKT transaction leg using the Transaction ID. The LKT transaction leg shall exist in TIPS and it shall be still in "*Reserved*" status.
15		TIPS (source currency)	TIPS retrieves from the *CSM Mapping Table*[35] defined in the Local Reference Data the technical address of the DN of the CSM serving the target currency. Additionally, TIPS retrieves from the configuration the following pieces of information: • a set of mapping rules to convert the message from the source leg to the destination leg; • the BIC of either the "predefined" or "ad-hoc" Entry Leg PSP to be used as an intermediary in the destination leg.
16	FItoFICustomerCreditTransfer	TIPS (source currency) as sender TIPS (destination currency) as receiver	TIPS (source currency) component converts the FItoFICustomerCreditTransfer according to the predefined rules for that specific corridor, by applying at least the following changes: • deriving and applying a new transaction identifier; • swapping the values of 'Interbank Settlement Amount' and 'Instructed Amount'; • removing the value 'TGT' from the 'Clearing System Code' field; • if not present in the original message, filling the information of the Entry Leg PSP in the destination currency. The message is forwarded to the TIPS (destination currency) component. After this step, the timeout condition is checked only by the TIPS (destination currency) component.

[35] The CSM Mapping Table is a static configuration captured in the Local Reference Data that allows TIPS to route the payment to the correct counterparty on the basis of the pair of currencies involved in the cross-currency transaction. Additionally, the CSM Mapping table should also maintain the list of predefined/ad-hoc Entry-Leg PSP for each currency, in case the information on the intermediary on the target currency is not prefilled by the originator PSP. If no entry is found, the message shall be processed according to the One-leg out model.

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Step	Involved messages	Involved actors	Description
17		TIPS (destination currency)	TIPS receives the FItoFICustomerCreditTransfer in the expected destination format after the conversion operated at **step 16**. Technical validations, checking of mandatory fields and authentication have already been successfully executed. The timeout for the Instant Payment transaction has not expired. TIPS logs the destination leg as "*Received*".
18		TIPS (destination currency)	The following checks are executed successfully: - Timeout Check - Originator Side; - Maximum Amount not Exceeded; - Originator Account or CMB existence; - Beneficiary correctly configured; - Beneficiary Account or CMB existence; - Creditor authorised for Cross-currency; - Cross-currency CSM Access Rights check; - Entry Leg PSP correctly configured. See 4.1 - Business Rules for details.
18e	FIToFIPaymentStatusReport	TIPS (destination currency) as sender TIPS (source currency) as receiver	Should any of the checks at step 18 be failing, the LKT transaction processing stops and a message, containing the proper error code, is sent to the TIPS (source currency) component. This failure will trigger the roll-back of the source transaction leg (see following **step 27e**)
19		TIPS (destination currency)	TIPS infers the account to be debited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the 'Clearing System Code' field.[31] **Incoming Direction:** TIPS verifies that an account: (ii) with either type "TIPS Account" or "TIPS AS Technical Account" exists, (iv) is linked to the Entry Leg PSP Participant as authorised user:

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Step	Involved messages	Involved actors	Description
			a. if the Entry Leg PSP is a direct TIPS participant, then the BIC taken from the "Instructing Agent" field is used; b. otherwise the BIC is taken from the last “Previous Instructing Agent” field. (v) and is denominated in the same currency as the one defined in the Interbank Settlement Amount.[36] - If the search returns no accounts, TIPS searches for a CMB linked to the Entry Leg PSP Participant (the field taken into account is based on the abovementioned assumption ii) as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. From now on, the selected account is referred to as "Originator Account" and any CMB as "Debiting CMB".
20		TIPS (destination currency)	TIPS infers the account to be credited from the configured accounts information of the actors involved in the transaction, which depends on the direction of the cross-currency Instant Payment transaction (i.e. incoming or outgoing) through the consultation of the ‘Clearing System Code’ field.[40] **Incoming Direction:** In details TIPS verifies that an account: (v) with either type "TIPS Account" or “TIPS AS Technical Account” exists, (vi) is linked to the BIC taken from the "Creditor Agent" field as authorised user; (vii) and is denominated in the same currency as the one defined in the Interbank Settlement Amount.[41] - If the search returns no accounts, TIPS searches for a CMB linked to the Beneficiary Participant (field "Creditor Agent") as authorised user; - TIPS selects the account linked to the CMB; the account related to the CMB must be denominated in the same currency as the one defined in the Interbank Settlement Amount. In addition, TIPS checks whether the Beneficiary Participant linked to the selected Account or CMB is authorised to accept cross-currency payments. From now on, the selected account is referred to as "Beneficiary Account" and any CMB as "Crediting CMB".

[36] The ‘Interbank Settlement Amount’ field refers to the amount exchanged in the currency of the current Leg and the ‘Instructed Amount’ field refers to the amount exchanged in the currency of the other Leg.

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Step	Involved messages	Involved actors	Description
21		TIPS (destination currency)	TIPS successfully executes the following check: - Duplicate check See 4.1 - Business Rules for details.
21e	FIToFIPaymentStatusReport	TIPS (destination currency) as sender TIPS (source currency) as receiver	TIPS returns an error when executing the check listed in **step 21**. The LKT transaction processing stops and a message, containing the proper error code, is sent to the TIPS (source currency) component. This failure will trigger the roll-back of the source transaction leg (see **step 27e**). The transaction is set to "*Failed*" status in the destination leg.
21p		TIPS (destination currency)	TIPS sends the LKT transaction to the *Check and Execute Instruction* process. TIPS sets the transaction status to "*Validated*" in the destination leg.
22		TIPS (destination currency)	TIPS successfully executes the following checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded. See 4.1 - Business Rules for details.
22e		TIPS (destination currency) TIPS (source currency) as receiver	TIPS returns an error when executing the checks listed in **step 22**. If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the TIPS (source currency) component . This failure will trigger the roll-back of the source transaction leg (see **step 27e**). The transaction is set to "*Failed*" status in the destination leg.

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Step	Involved messages	Involved actors	Description
23		TIPS (destination currency)	TIPS reserves funds in the Entry Leg PSP account. The full amount is reserved as Reserved Balance in the Cash Balance. TIPS sets the transaction status to "*Reserved*". If a Debiting CMB is involved, the system decreases its headroom by the same amount. After this moment, the settlement attempt is agreed and can either be confirmed/rejected by the counterpart or fail for a missing answer. The reserved amount in the destination currency cannot be used for other payments.
24		TIPS (destination currency)	The DN of the Entry Leg PSP is identified in the "Outbound DN-BIC Routing", this DN is referred to as *Entry Leg PSP DN*.
25	FItoFICustomerCreditTransfer	TIPS (destination currency) as sender Entry Leg PSP (destination currency) as receiver	TIPS forwards the received LKT transaction to the Entry Leg PSP DN to seek authorisation to proceed with the processing of the destination leg.
25p	FItoFICustomerCreditTransfer	Entry Leg PSP (destination currency) as sender TIPS (destination currency) as receiver	The Entry Leg PSP authorises the transaction by sending back a positive FItoFICustomerCreditTransferFIToFICustomerCreditTransferV02. The message is successfully delivered to TIPS. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
25n	FIToFIPaymentStatusReport	Entry Leg PSP (destination currency) as sender TIPS (destination currency) as receiver	The Entry Leg PSP rejects the transaction by sending a negative FIToFIPaymentStatusReport. The message is successfully delivered to TIPS. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
26n	FIToFIPaymentStatusReport	TIPS (destination currency) TIPS (source currency) as receiver	If the corresponding transaction ID exists, the FIToFIPaymentStatusReport is forwarded to the TIPS (source currency) component. This failure will trigger the roll-back of the source transaction leg (see following **step 27e**).

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Step	Involved messages	Involved actors	Description
26	FItoFICustomerCreditTransfer	TIPS (destination currency)	The following checks are executed successfully: - Access Rights check; - Timeout Check - Originator Side; - Instructing Party authorised. See 4.1 - Business Rules for details.
26e	FIToFIPaymentStatusReport	TIPS (destination currency) as sender Entry Leg PSP (destination currency) as receiver TIPS (source currency) as receiver	If a check listed in **step 26** fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to both (i) the TIPS (source currency) component and (ii) the Entry Leg PSP. If the failure relates to “Timeout Check - Originator Side”, the status of the destination leg of the LKT transaction is set to “Expired”; in all the other cases, the status is set to “Failed”.
27e		TIPS (source currency)	If the pending transaction exists, TIPS retrieves it using the Transaction ID. The corresponding reserved amount of the source leg is released in the involved Originator Account. If a debiting CMB is involved, its headroom is increased by the same amount. It is worth noting that TIPS releases the reserved transactions even if either the involved account or CMB have been blocked after the conditional settlement phase of the given transaction. The transaction is set to "*Failed*" status.
28e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.
29e	FIToFIPaymentStatusReport	TIPS (source currency) as sender Exit Leg PSP as receiver	TIPS generates a Payment status report for the Exit Leg PSP.

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Step	Involved messages	Involved actors	Description
27		TIPS (destination currency)	The DN of the beneficiary PSP is identified in the "*Outbound DN-BIC Routing*" mapping table from the field Creditor Agent. From now on, this DN is referred to as *Beneficiary DN*.
28	FItoFICustomerCreditTransfer	TIPS (destination currency) as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received cross-currency LKT Instant Payment transaction to the Beneficiary DN.
29p	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS (destination currency) as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party triggers the settlement phase of the transaction by sending a positive payment status report that is successfully delivered to TIPS. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
29n	FIToFIPaymentStatusReport	Beneficiary Participant, Ancillary System or Instructing Party as sender TIPS (destination currency) as receiver	The Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party rejects the transaction by means of a negative payment status report that is successfully delivered to TIPS. Technical validation, checking of mandatory fields and authentication checks have already been successfully executed.
30		TIPS (destination currency)	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Pending transaction existing; - Timeout Check - Beneficiary Side See 4.1 - Business Rules for details.
30e	FIToFIPaymentStatusReport	TIPS (destination currency) as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS returns an error when executing the checks listed in **step 30.** If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the Beneficiary Participant, Ancillary System or Instructing Party acting on behalf of the Beneficiary Participant or a Reachable Party (DN of the sender of the message). The message provided either at **step 29p** or **29n** is therefore discarded.

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Step	Involved messages	Involved actors	Description
30n	FIToFIPaymentStatusReport	TIPS (destination currency) as sender TIPS (source currency) as receiver	If the corresponding transaction ID exists, the FIToFIPaymentStatusReport is forwarded to the TIPS (source currency) component. This failure will trigger the roll-back of the source transaction leg (see **step 27e**).
31p		TIPS (destination currency)	TIPS identifies the transaction using the Transaction ID. The transaction shall exist in TIPS and it shall be still in "*Reserved*" status.
32p		TIPS (destination currency)	TIPS retrieves and settles the reserved transaction. The destination leg of the transaction is set to "*Settled*" status. The reserved amount of the Originator Account is decreased by the amount of the corresponding settled transaction. The same amount is credited to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount. Upon Beneficiary confirmation, TIPS settles the reserved transactions even though the involved accounts (or CMBs) have been blocked immediately after the conditional phase of the given transaction.
33p	FIToFIPaymentStatusReport	TIPS (destination currency) as sender Entry Leg PSP (destination currency) as receiver	TIPS forwards the received Payment status report to the Entry Leg PSP.
34p	FIToFIPaymentStatusReport	TIPS (destination currency) as sender TIPS (source currency) as receiver	TIPS converts the received Payment status report into the format supported by the TIPS (source currency) component. Afterwards the converted message is forwarded to the TIPS component in charge of managing the source leg.
35		TIPS (source currency)	TIPS successfully executes the following check: - Cross-currency CSM Access Rights check; See 4.1 - Business Rules for details.

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Step	Involved messages	Involved actors	Description
35e	FIToFIPaymentStatusReport	TIPS (source currency) TIPS (destination currency) as receiver	TIPS returns an error when executing the check listed in **step 35.** If a check fails, the LKT transaction processing stops and a message, containing the proper error code, is sent to the sender DN of the message. The message provided at **step 34p** is therefore discarded but the transaction leg is still kept pending until a new correct message is received from the TIPS (destination currency) component.
36p		TIPS (source currency)	TIPS (source currency) identifies the source leg of the LKT transaction using the Transaction ID. The transaction shall exist in TIPS and it shall be still in "*Reserved*" status.
37p		TIPS (source currency)	TIPS retrieves and settles the reserved transaction. The transaction is set to "*Settled*" status. The reserved amount of the Originator Account is decreased by the amount of the corresponding settled transaction. The same amount is credited to the Beneficiary Account. If a Crediting CMB is involved, TIPS increases its headroom by the same amount. Upon Beneficiary confirmation, TIPS settles the reserved transactions even though the involved accounts (or CMBs) have been blocked immediately after the conditional phase of the given transaction.
38p	FIToFIPaymentStatusReport	TIPS (destination currency) as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS generates a positive Payment status report and sends it to the Beneficiary DN.
39p	ReturnAccount	TIPS (destination currency) as sender Entry Leg PSP as receiver	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the DN of the Entry Leg PSP.

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Step	Involved messages	Involved actors	Description
40p	ReturnAccount	TIPS (destination currency) as sender Beneficiary Participant, Ancillary System or Instructing Party as receiver	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the DN acting as Beneficiary.
41p	FIToFIPaymentStatusReport	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS forwards the received Payment status report to the Originator DN.
42p	FIToFIPaymentStatusReport	TIPS (source currency) as sender Exit Leg PSP as receiver	TIPS generates a positive Payment status report and sends it to the Exit Leg PSP.
43p	ReturnAccount	TIPS (source currency) as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS checks the "Floor notification amount" configured for the involved Originator account or Debiting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "floor notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the DN of the Account Owner and/or CMB Owner acting as Originator.
44p	ReturnAccount	TIPS (source currency) as sender Exit Leg PSP as receiver	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary account or Crediting CMB. After settlement confirmation, if the account balance and/or the CMB headroom crosses the threshold configured as "ceiling notification amount", TIPS sends a ReturnAccount to the account and/or CMB owners involved in the transaction. The message is sent to the DN of the Exit Leg PSP.

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2.2.5.1. Examples (cross-currency LKT settlement model)

2.2.5.2. Examples (cross-currency scheme – LKT settlement model)

This sub-section includes a non-exhaustive list of examples of TIPS cross-currency transactions using the LKT settlement model and related messages.

Each example is introduced by a description of both involved actors and messages.

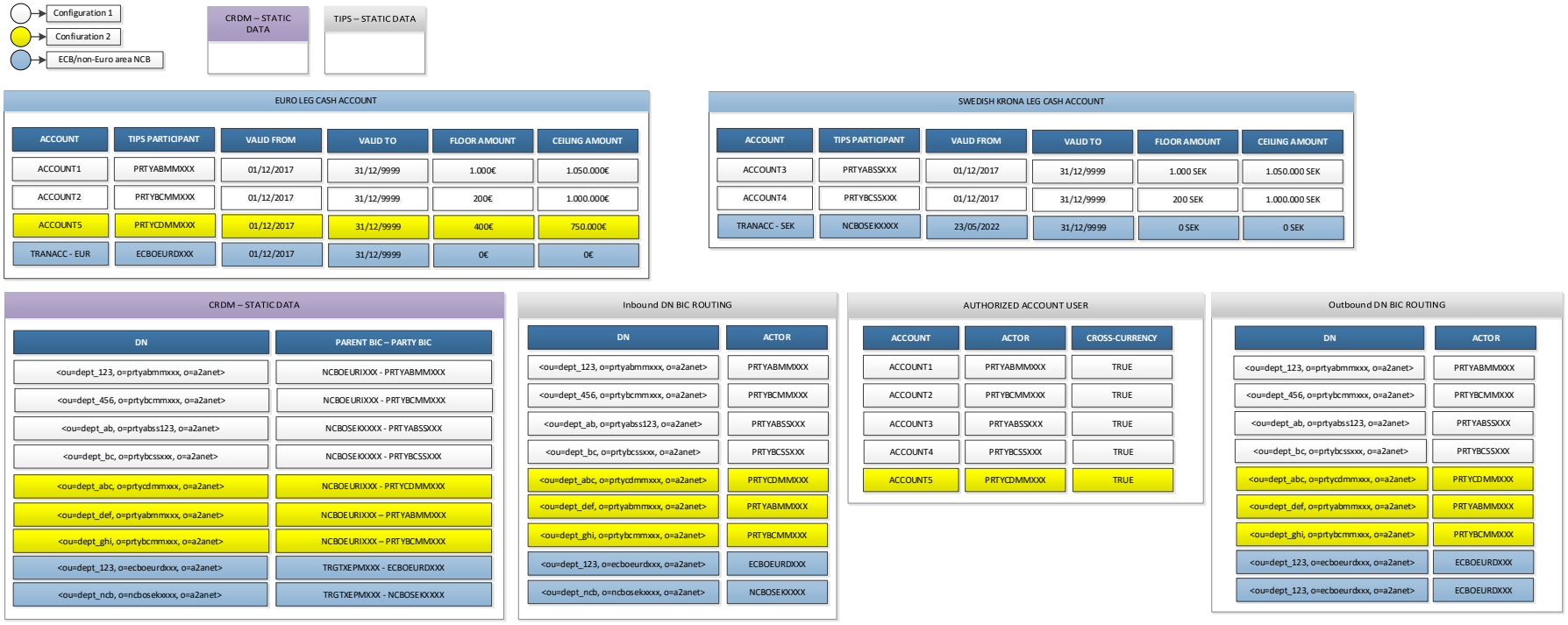
All the examples are based on the data constellation introduced below. The data constellation is depicted on the basis of the concepts introduced in 1.3.2 Accounts structure and organisation.

In the following examples, all parties are direct TIPS participants:

- In the outgoing leg, the Leg Exit PSP acts as Beneficiary in the source leg and it is identified by either the 'Instructed Agent' BIC, in case it is a direct CSM participant, or the 'Intermediary Agent 1' BIC.
- In the incoming leg, the Leg Entry PSP acts as Originator in the destination leg and it is identified by either the 'Instructing Agent' BIC in case it is a direct CSM participant or the last 'Previous Instructing Agent' BIC, that is the agent immediately prior to the Instructing Agent in the chain.

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Figure 142 – LKT examples data constellation



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2.2.5.2.1Successful cross-currency scenario

This scenario describes a successful cross-currency payment transaction originating in the Euro leg (Outgoing EUR leg scenario) and ending in the Swedish Krona Leg (Incoming SEK leg scenario) involving the following actors:

- Originator Participant: payment initiator of the whole cross-currency transaction and owner of a TIPS Account in the Euro leg. It is identified by the message field 'Debtor Agent'.
- Beneficiary Participant: final beneficiary of the whole cross-currency transaction and owner of a TIPS Account in the Swedish Krona Leg. It is identified by the message field 'Creditor Agent'.
- Euro Leg Exit PSP: intermediary that receives the amount in the Euro leg from the Originator Participant. It confirms the validity of the cross-currency LKT transaction (outgoing leg) by sending a positive payment status report to TIPS.
- Swedish Krona Leg Entry PSP: intermediary that instructs the corresponding Swedish Krona Instant Payment (based on the 'Exchange Rate' and assuming no additional fees) in the Swedish Krona leg in order to credit the Beneficiary Participant once the validity of the outgoing leg is confirmed.

No errors or timeouts occur. No floor or ceiling notification expected.

The FItoFICustomerCreditTransfer message sent by the Originator Participant and received by TIPS, triggering the scenario, looks like the following one.

Figure 143 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



The system, after performing the expected checks successfully, settles the transaction as follows:

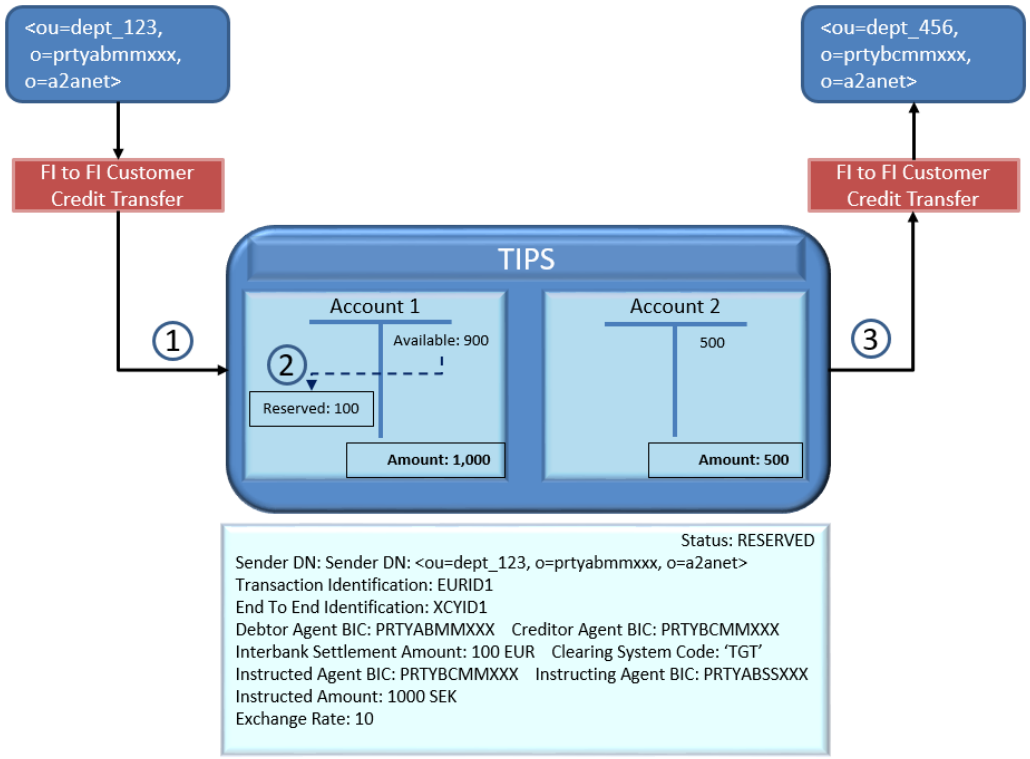
- It identifies the cross-currency transaction as outgoing from the Clearing System Code.
- It identifies the Originator Account (ACCOUNT1) from the Debtor Agent BIC;
- It identifies the Beneficiary Account (ACCOUNT2) of the Euro transaction leg from the Instructed Agent BIC;
- It identifies the Instructed Agent DN from the "Outbound DN-BIC Routing" (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- It reserves the amount in ACCOUNT1, so the available balance for ACCOUNT1 decreases from 1,000.00 EUR to 900.00 EUR;

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- The transaction is stored with status *Reserved*.

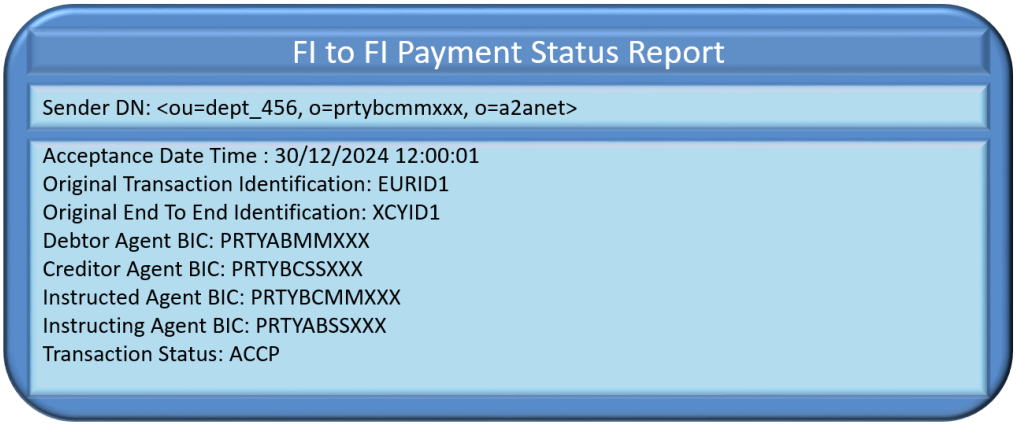
The FItoFICustomerCreditTransfer message is delivered to the Instructed Agent DN.

Figure 144 – Successful Instant Payment transaction: Reservation of EUR amount



In the positive scenario, the Euro Leg Exit PSP confirms the validity of the transaction by sending a FIToFIPaymentStatusReport message with a positive answer.

Figure 145 – Successful Instant Payment transaction: FItoFIPaymentStatusReport

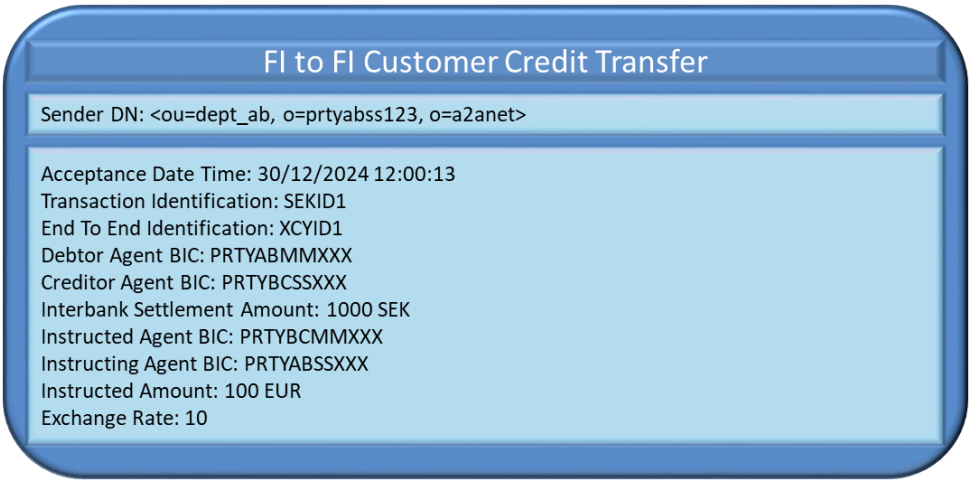


This message is delivered to TIPS. TIPS (source currency) component converts the FItoFICustomerCreditTransfer according to the predefined rules for that specific corridor. The FItoFICustomerCreditTransfer in the expected

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destination format is routed to the entry leg PSP. After the positive checks, the entry leg PSP sends a FItoFICustomerCreditTransfer to TIPS as follows:

Figure 146 – Successful Instant Payment transaction: FItoFICustomerCreditTransfer



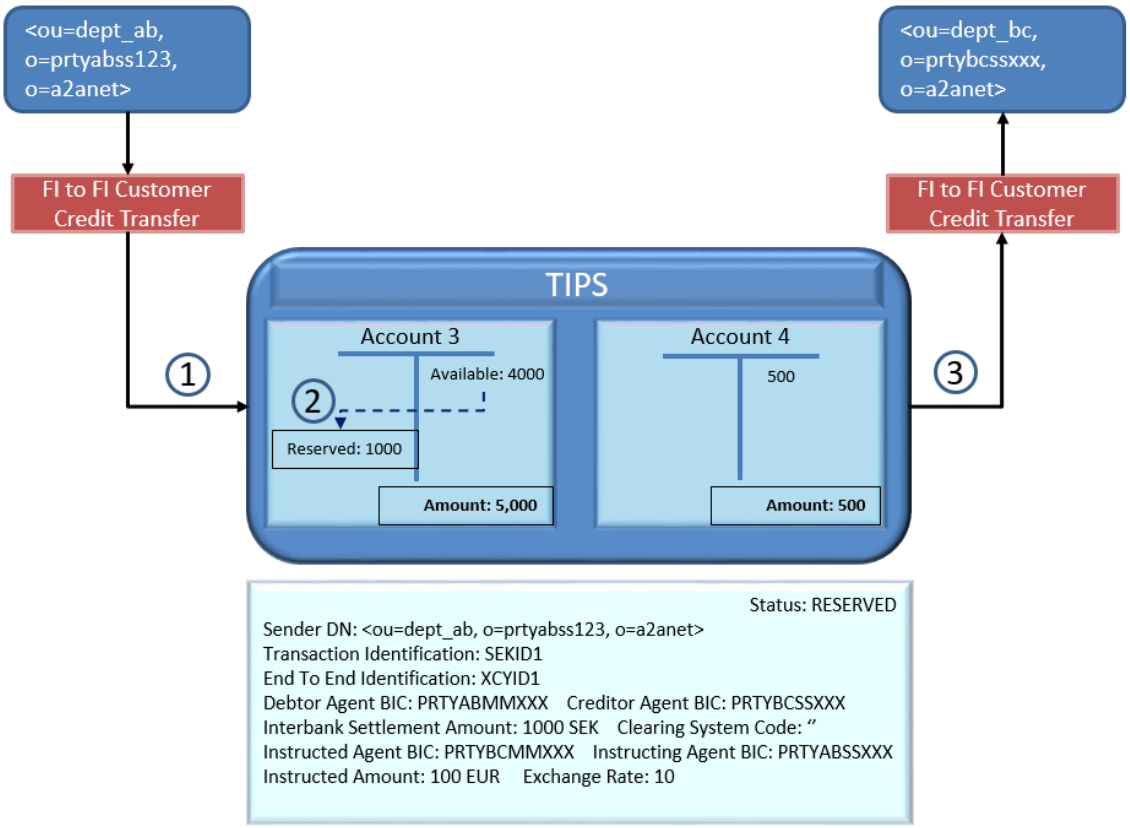
The system, after performing the expected checks successfully, settles the transaction as follows:

- It identifies the cross-currency transaction as incoming from the Clearing System Code different from TGT;
- It identifies the Originator Account (ACCOUNT3) from the Instructing Agent BIC;
- It identifies the Beneficiary Account (ACCOUNT4) of the SEK transaction leg from the Creditor Agent BIC;
- It identifies the Beneficiary DN from the “Outbound DN-BIC Routing” (<ou=dept_abc, o=prtybcssxxx, o=a2anet>);
- It reserves the amount in ACCOUNT3, so the available balance for ACCOUNT3 decreases from 5,000.00 SEK to 4,000.00 SEK;
- The transaction is stored with status *Reserved*.

The FItoFICustomerCreditTransfer message is delivered to the Beneficiary DN.

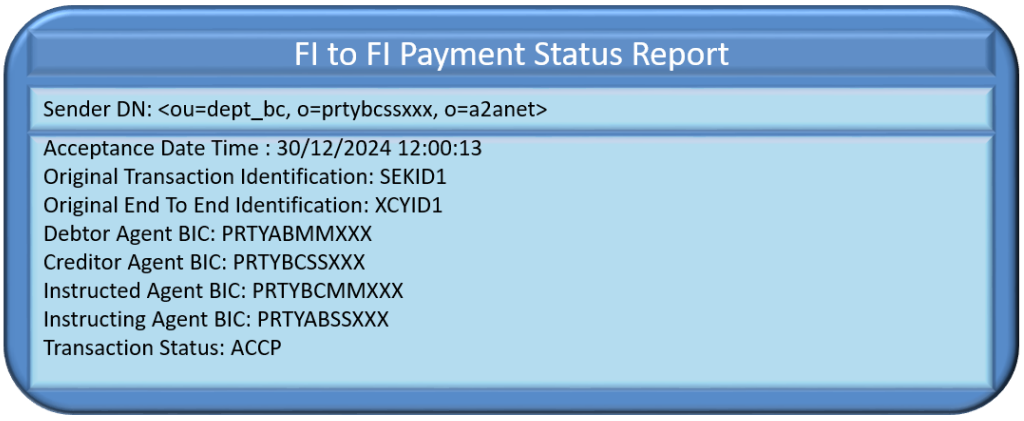
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Figure 147 – Successful Instant Payment transaction: reservation of SEK amount



The confirmation message from the Beneficiary Participant triggers the settlement phase. In this scenario, the Beneficiary Participant confirms the payment by sending a FIToFIPaymentStatusReport message with a positive answer. TIPS settles the transaction, moving the amount from ACCOUNT3 to ACCOUNT4.

Figure 148 – Successful Instant Payment transaction: FItoFIPaymentStatusReport



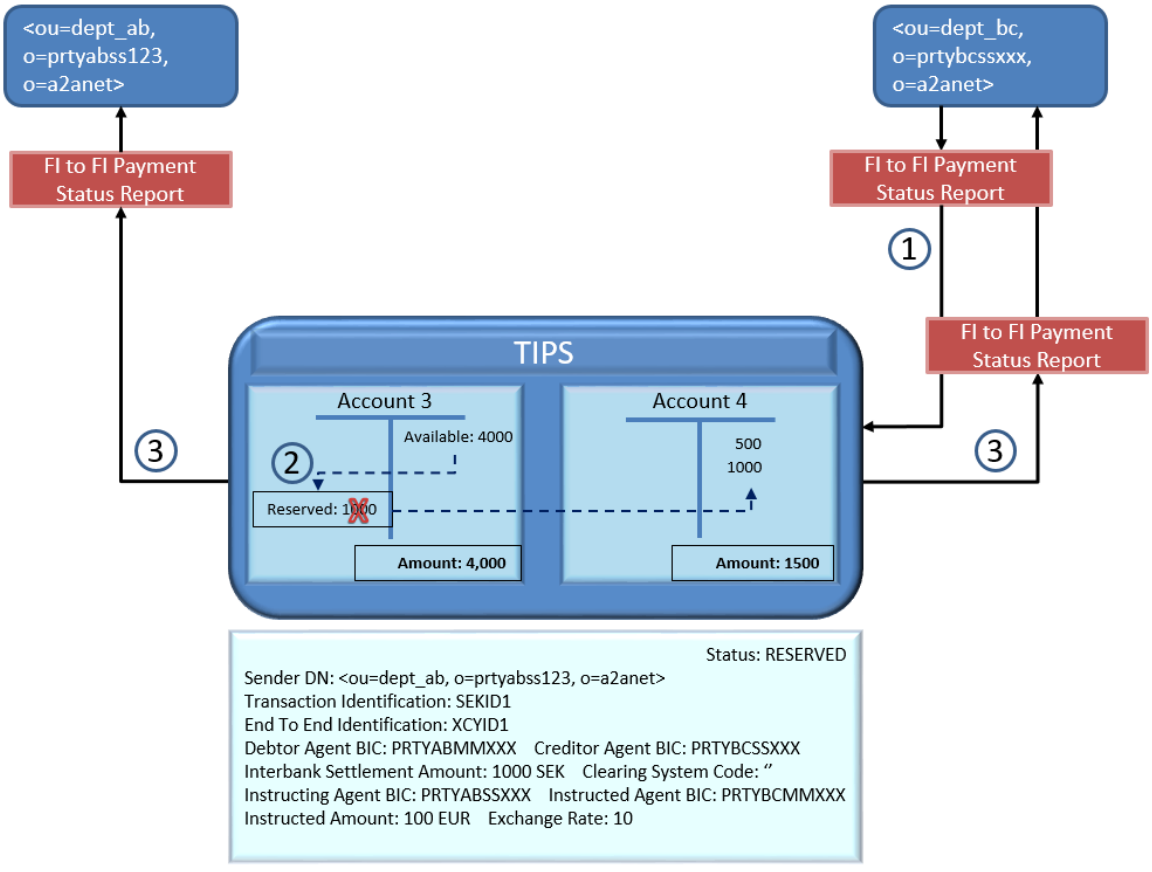
The system, after performing the expected checks successfully, finds the reserved transaction (incoming leg) and executes the settlement on the accounts as follows:

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- It identifies the transaction based on the Transaction Identification field. The underlying transaction shall be in status *Reserved*.
- it identifies the Instructing Agent Account (ACCOUNT3) and the Beneficiary Participant Account (ACCOUNT4) from the retrieved transaction;
- It identifies the Instructing Agent DN from the transaction;
- It settles the amount transferring the reserved liquidity in the ACCOUNT3 to the ACCOUNT4;
- The transaction status is changed to *Settled*.

TIPS then forwards the FIToFIPaymentStatusReport message to the Instructing Agent DN and sends a confirmation message for successful settlement to the Beneficiary Participant.

Figure 149 – Successful Instant Payment transaction: settlement phase in the destination currency



TIPS converts the positive Payment status report into the format supported by the TIPS (source currency) component.

Afterwards the converted message is forwarded to the TIPS component in charge of managing the source leg.

The system finds the reserved transaction (outgoing leg) and executes the settlement on the accounts as follows:

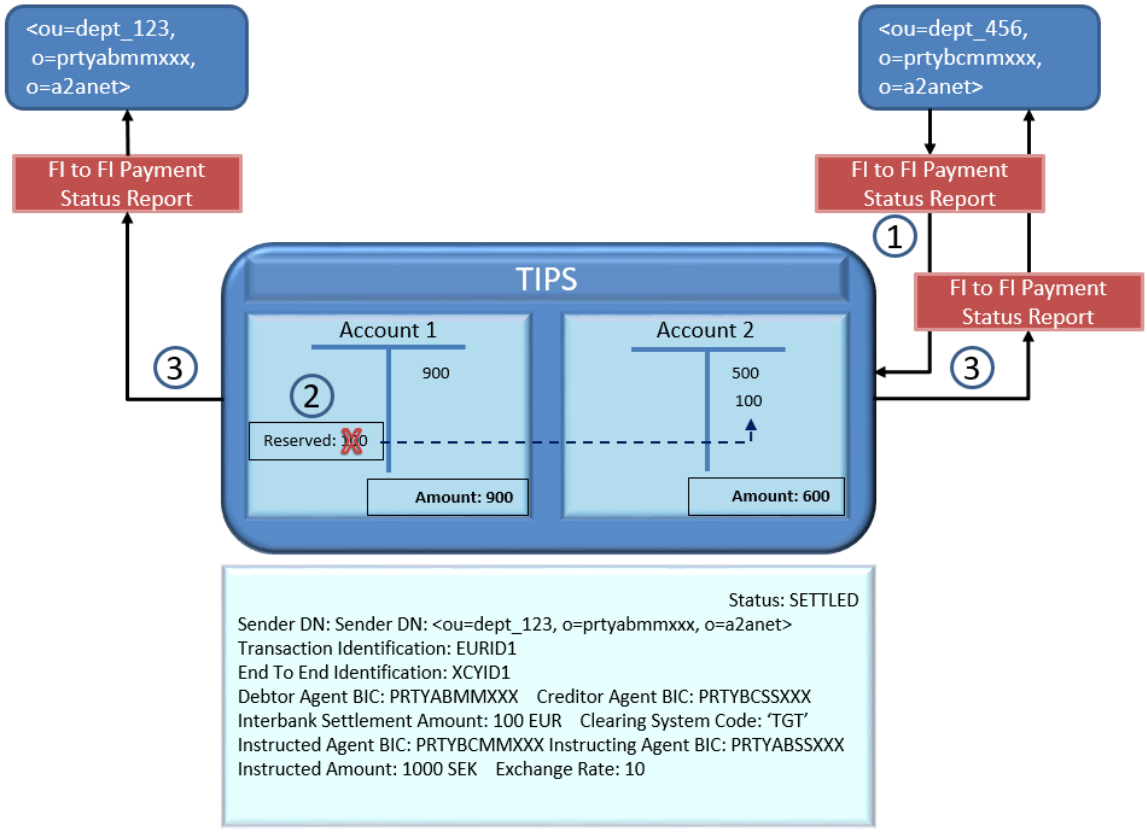
- It identifies the transaction based on the Transaction Identification field. The underlying transaction shall be in status *Reserved*.

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- it identifies the Originator Account (ACCOUNT1) and the Instructed Agent Account (ACCOUNT2) from the retrieved transaction;
- It identifies the Originator DN from the transaction;
- It settles the amount transferring the reserved liquidity in the ACCOUNT1 to the ACCOUNT2;
- The transaction status is changed to *Settled*.

TIPS then forwards the FIToFIPaymentStatusReport message to the Originator DN and sends a confirmation message for successful settlement to the Instructed Agent.

Figure 150 – Successful Instant Payment transaction: settlement phase in the source currency



2.2.5.2.2 Error scenarios

This section describes some possible error scenarios that can happen when dealing with cross-currency Instant Payments. This is a subset of possible error cases but the error mechanism is always the same.

Blocked Account in the source currency

This error scenario describes a cross-currency payment transaction with a blocked account in the first leg of the transaction. The two TIPS Accounts in the source currency (outgoing euro leg) are owned by the Originator Participant and by the euro leg exit PSP. Both parties send the messages on their own (i.e., no Instructing Party is

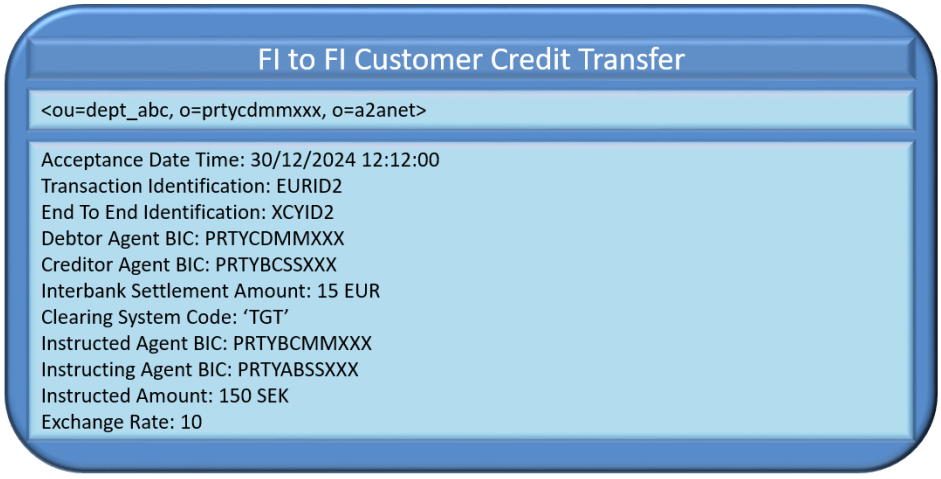
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involved). “Configuration 1” and “Configuration 2” (highlighted in white and yellow in Figure 24 – Instant Payment transaction examples data constellation) are considered.

The transaction fails since the account to be debited is blocked and not available for settlement.

The FItoFICustomerCreditTransfer message received by TIPS and triggering the scenario is described in the following figure.

Figure 151 – Blocked account error: FItoFICustomerCreditTransfer

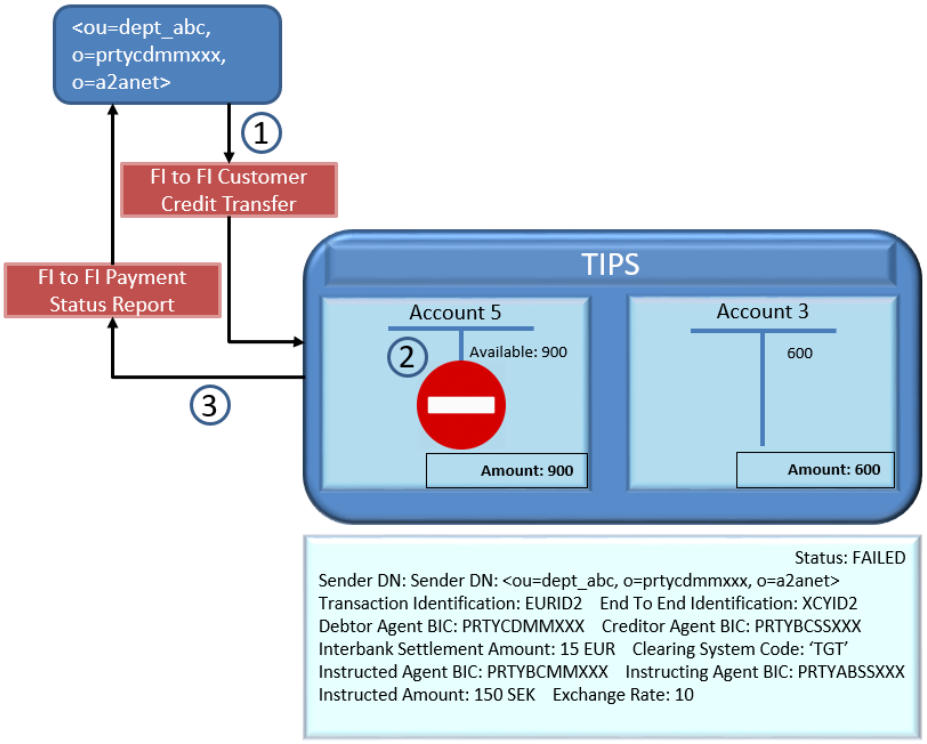


The system executes these steps:

- It identifies the cross-currency transaction as outgoing from the Clearing System Code;
- It identifies the Debiting Account (ACCOUNT1) from the Debtor Agent BIC;
- It detects that ACCOUNT1 is blocked (e.g. status is either ‘blocked for debit’ or ‘blocked for credit and debit’);
- The transaction fails. The attempt is saved as failed Instant Payment transaction and the sender is informed of the error.

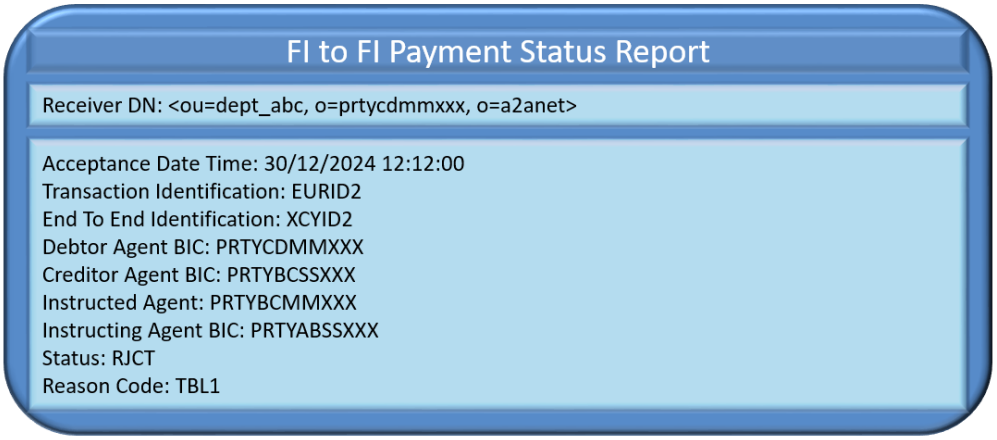
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Figure 152 – Blocked account error: transaction failed



TIPS then sends a FIToFIPaymentStatusReport to the sender with the proper error code.

Figure 153 – Blocked account error: FItoFIPaymentStatusReport



Beneficiary side timeout in the destination currency

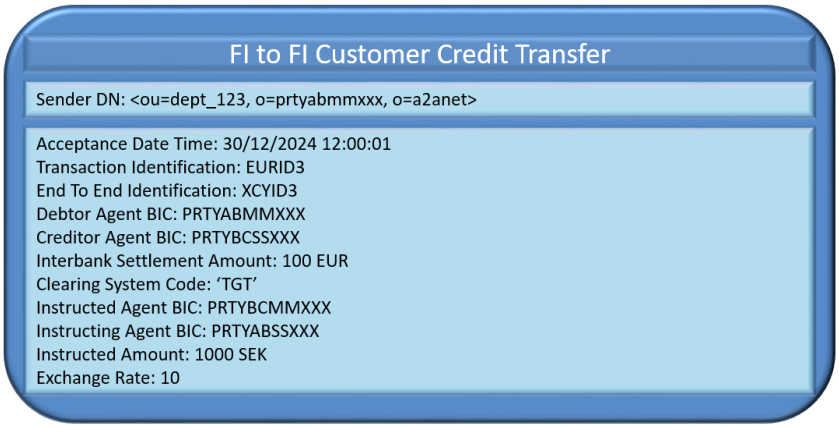
This error scenario describes a cross-currency payment transaction using the LKT settlement model from currency EUR to currency SEK. In this case the first steps of the transaction are positively elaborated in the source currency but a beneficiary side timeout in the destination currency prevents the settlement of the whole transaction. The configuration is the following:

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- Debtor agent BIC: PRTYABMMXXX (Originator of the cross-currency transaction)
- Creditor agent BIC: PRTYBCSSXXX (Beneficiary of the cross-currency transaction)
- Instructing agent BIC: PRTYABSSXXX (SEK Leg Entry PSP)
- Instructed agent BIC: PRTYBCMMXXX (EUR Leg Exit PSP)

All parties send messages on their own (i.e. no Instructing Party is involved). The originator sends a FItoFICustomerCreditTransfer for a cross-currency payment transaction using the LKT settlement model as follows.

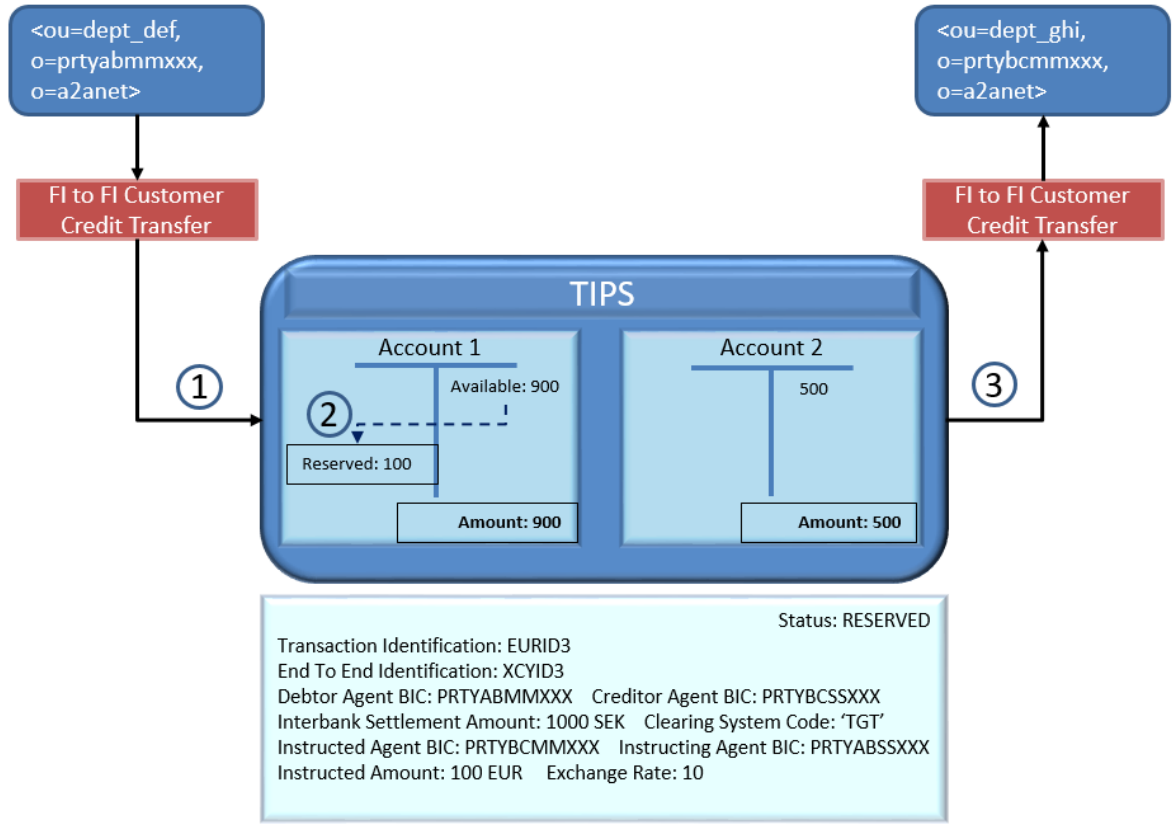
Figure 154 – Beneficiary side timeout: FItoFICustomerCreditTransfer



The transaction follows the successful scenario in the source currency (SEK) as described in the previous section. The 100 EUR amount is in Reserved status in Account 1.

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Figure 155 – Beneficiary side timeout: reservation of funds in the source currency



In the destination currency, the instructing agent sends a FItoFICustomerCreditTransfer as follows.

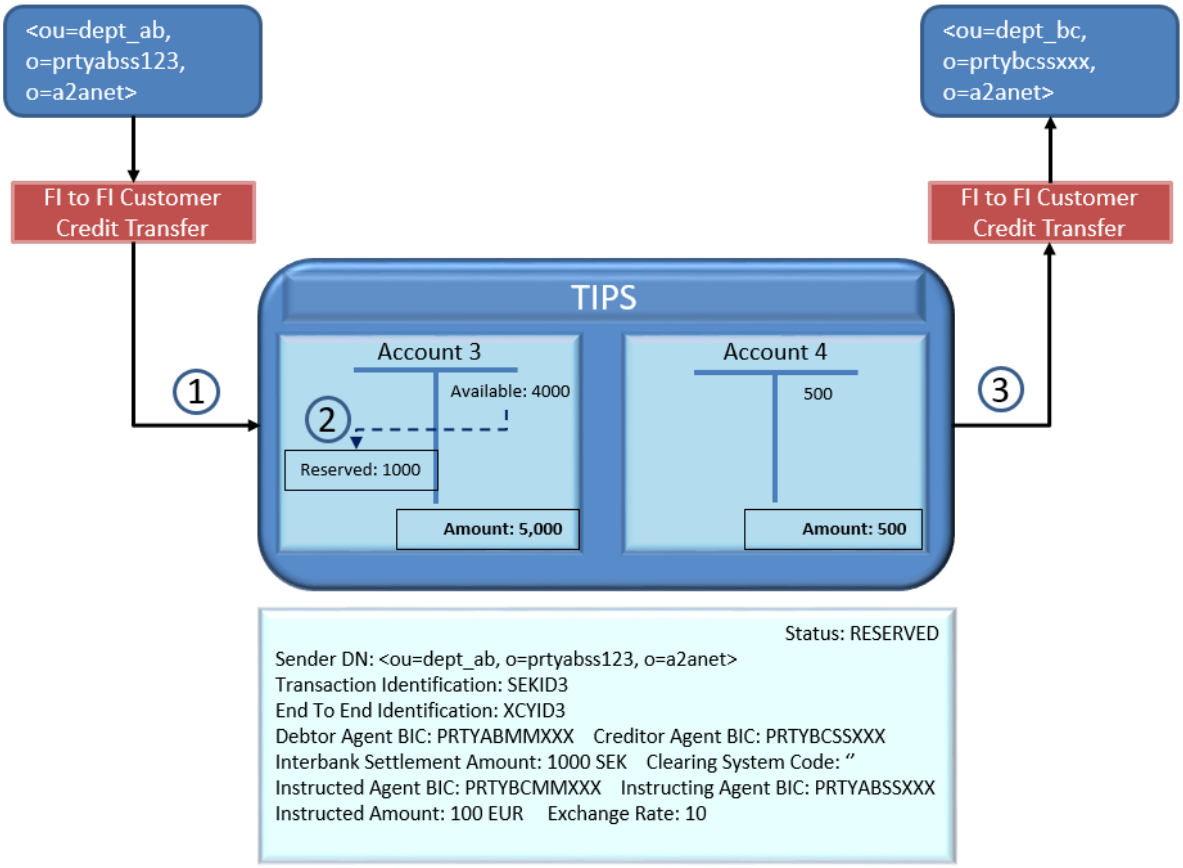
Figure 156 – Beneficiary side timeout: FItoFICustomerCreditTransfer



The transaction is stored with status *Reserved* (account 3 has 1000 SEK in reserved status).

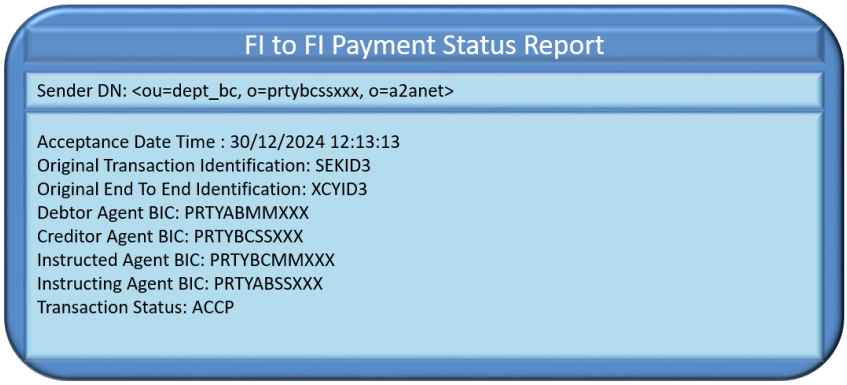
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Figure 157 – Beneficiary side timeout: reservation of funds in the destination currency



The FItoFICustomerCreditTransfer message is delivered to the Beneficiary DN. The confirmation message from the Beneficiary Participant arrives in TIPS when the timeout period is elapsed. The transaction fails since the confirmation message from the Beneficiary Participant reaches TIPS after the allocated timeout period.

Figure 158 – Beneficiary side timeout: FItoFIPaymentStatusReport

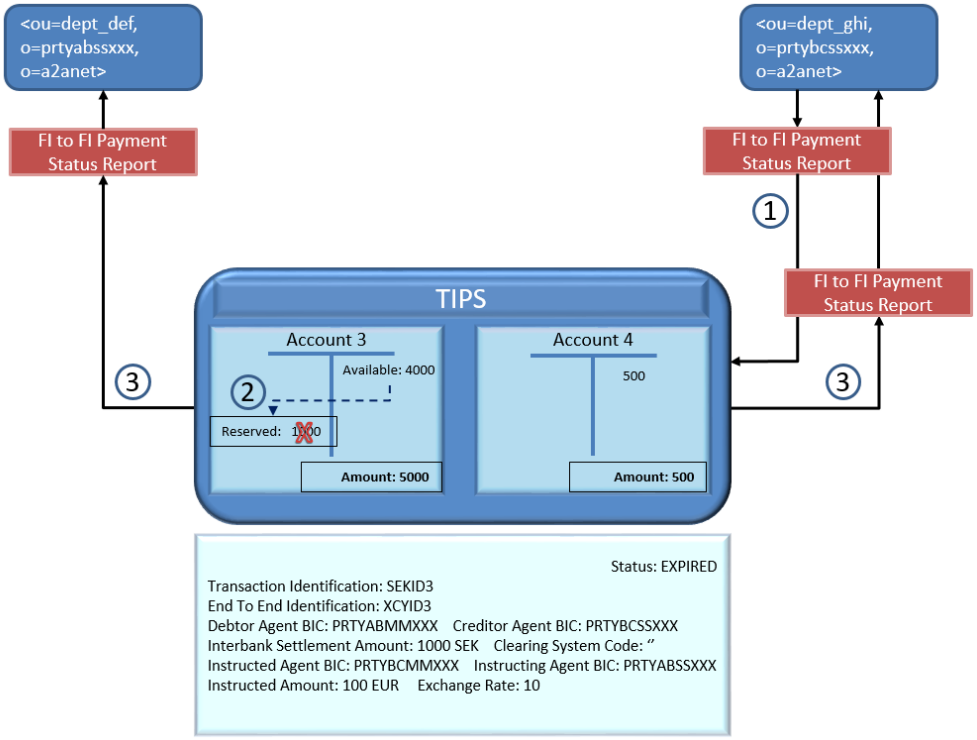


The timeout check on Beneficiary Participant side fails. TIPS finds the reserved transaction and releases the funds on the accounts as follows:

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- It identifies the transaction based on the Transaction Identification fields. The underlying transaction must be in status *Reserved*;
- It identifies the Instructing Agent Account (ACCOUNT3) from the retrieved transaction;
- It releases the amount on the ACCOUNT3;
- The transaction status is changed to *Expired*;
- It identifies the Instructing Agent DN from the transaction.

Figure 159 – Beneficiary side timeout error: release of funds in the destination currency

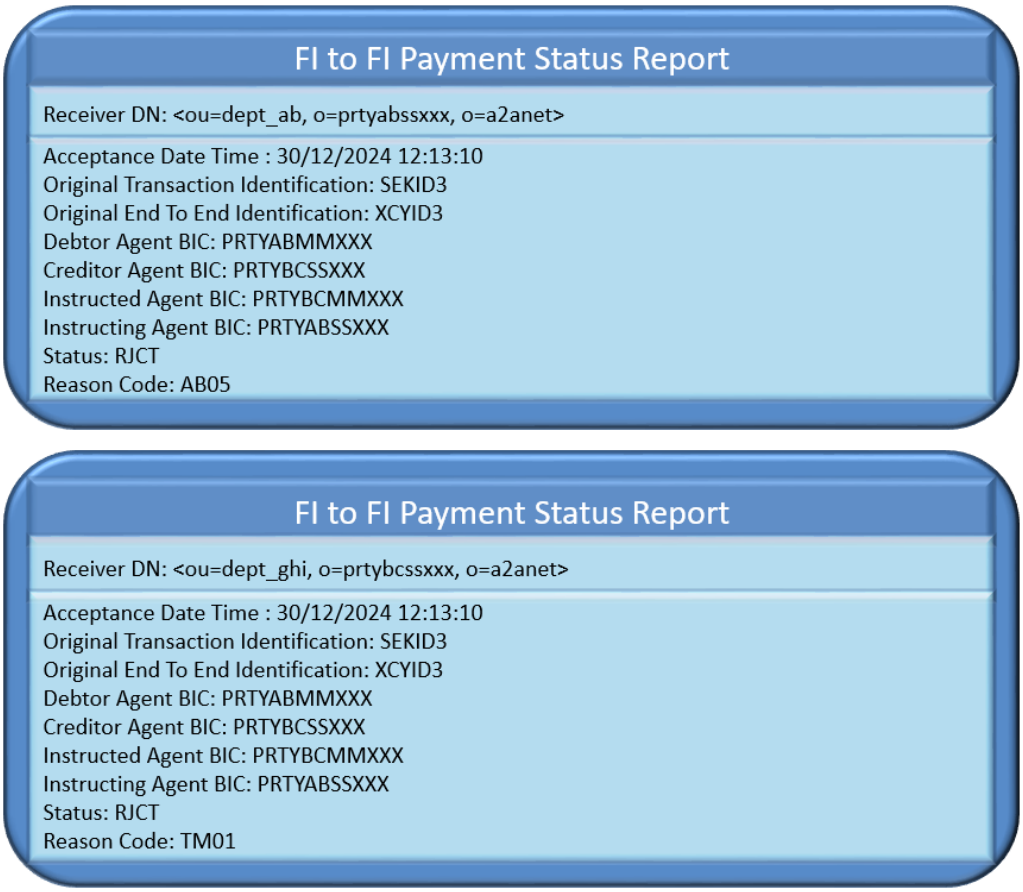


TIPS informs both counterparties of the transaction in the SEK leg about the expiration. TIPS sends the message to:

- The DN of the sender of the Instant Payment transaction;
- The Beneficiary DN as configured in the "Outbound DN-BIC Routing";
- The messages, respectively for the SEK Leg Entry PSP (reason code equal to AB05) and the Beneficiary PSP (reason code equal to TM01), are generated and sent as shown in the following diagram.

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Figure 160 – Beneficiary side timeout: FItoFIStatusReport



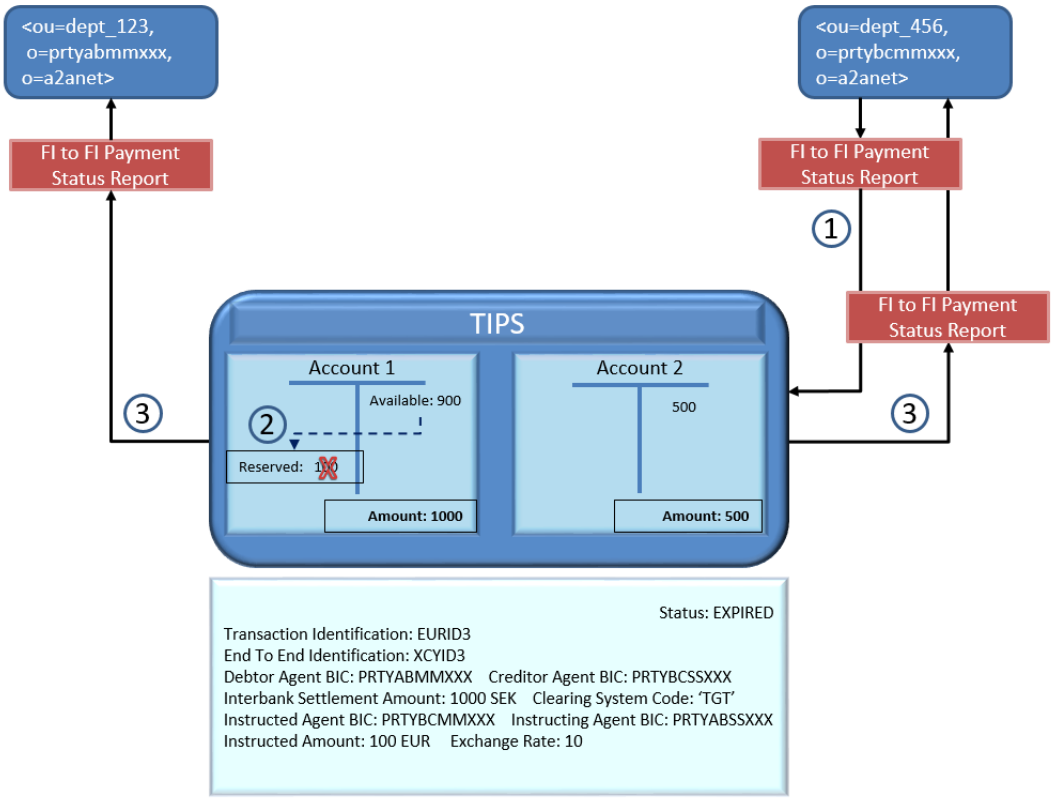
TIPS finds the reserved transaction in the source leg and releases the funds on the accounts as follows:

- It identifies the Debtor Agent Account (ACCOUNT1) from the retrieved transaction;
- It releases the amount on the ACCOUNT1.

TIPS sends the messages FItoFIStatusReport also to the DN of the originator and the DN of the instructed agent BIC to inform both counterparties of the transaction in the EUR leg (source currency) about the expiration.

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Figure 161 – Beneficiary side timeout: release of funds in the source currency



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2.3. Recall

This section focuses on the processing of Recall requests and provides the description of the full scenario and the related steps. The same processing also applies in respect of Recall Requests for transactions denominated in a non-Euro currency[37].

A Recall request is forwarded by the Assigner which is an Originator Participant, Ancillary System or Instructing Party of a previously settled Instant Payment transaction to request that the given transaction is refunded and the amount – equal or possibly lower than the original one – is credited back to the original account. The request is forwarded by the Assigner to TIPS and passed directly by TIPS to the Assignee which is the relevant Beneficiary or a party acting on behalf of the Beneficiary Participant. The request could be either answered negatively or positively via a Recall Response message. If the Assignee rejects the recall, the negative response is immediately forwarded back to the Assigner of the Recall. If the Assignee sends a positive Recall Response, TIPS attempts to settle the returned amount.

From a TIPS viewpoint, a Recall process is independent from the transaction it is attempting to recall; the involved actors are responsible for the agreement about the refund that is sent and processed in TIPS.

The involved actors are:

- The Recall Assigner: the Originator Participant, Ancillary System or Instructing Party of a previously settled instruction that sends the Recall request;
- The Recall Assignee: the Beneficiary Participant, Ancillary System or Instructing Party that receives the Recall request.

The involved messages for SCT^{Inst} scheme are:

- The FIToFIPaymentCancellationRequest message, used to request the cancellation of an original Instant Payment transaction and the return of funds previously settled.
- The PaymentReturn message, used to respond positively to the Recall request.
- The ResolutionOfInvestigation message, used to respond negatively to the Recall request.
- The FIToFIPaymentStatusReport message sent by TIPS in the following cases within the SCT^{Inst} scheme:
    - To reject a Recall request or a Recall Response as they cannot be validated;
    - To notify to the Assignee the successful settlement of the Recall request as a result of the positive Recall answer.
- The ReturnAccount message can be possibly sent to Creditor Account Owner and/or Debtor Account Owner – if TIPS Actors have configured the floor and ceiling notification and if the related configured thresholds are reached.

[37] For details regarding the messages involved in the process of a Recall Request related to a transaction denominated in a non-Euro currency, please refer to Table 103 – List of messages for non-Euro schemes

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- Additionally, a LiquidityCreditTransfer message can be sent in push or pull, on optional basis, by TIPS to T2-CLM in case of floor/ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.

If no response to a previously sent FIToFIPaymentCancellationRequest is received, the Recall Assigner can send a FIToFIPaymentStatusRequest message to TIPS to request a status update on a single Recall or on a set of Recall referred to the same Recall Assignee. The message, after successful validation, is forwarded by TIPS to the Beneficiary Participant (i.e. the Recall Assignee) for further processing. The answer to such message generated by the Recall Assignee is either a PaymentReturn (positive response) or a ResolutionOfInvestigation (negative response) for each Recall referenced in the FIToFIPaymentStatusRequest message.

The involved messages for non-euro currency scheme are:

- The FIToFIPaymentCancellationRequest (camt.056.001.08) message, used to request the cancellation of an original Instant Payment transaction and the return of funds previously settled.
- The PaymentReturn (pacs.004.001.09) message, used to respond positively to the Recall request.
- The ResolutionOfInvestigation (camt.029.001.09) message, used to respond negatively to the Recall request.
- The FIToFIPaymentStatusReport (pacs.002.001.10) message sent by TIPS in the following cases within non-Euro currencies scheme:
    - To reject a Recall request or a Recall Answer[38] as they cannot be validated;
    - To notify to the Assignee the successful settlement of the Recall request as a result of the positive Recall Answer.
- The ReturnAccount message can be possibly sent to Creditor Account Owner and/or Debtor Account Owner – if TIPS Actors have configured the floor and ceiling notification and if the related configured thresholds are reached.

The process described below is triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

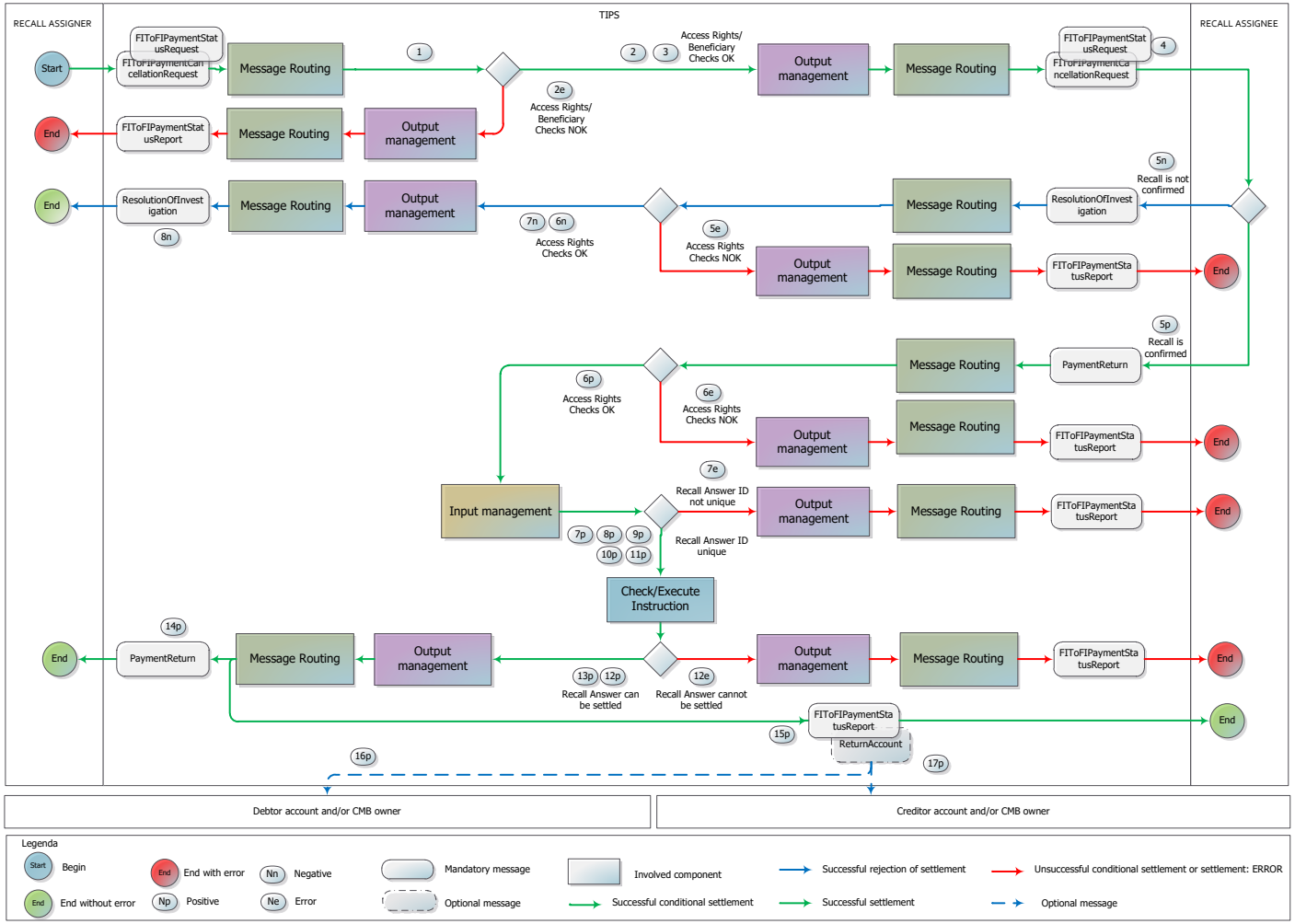
Besides it's important to keep in mind that when the Assigner or Assignee BIC contain a BIC8 instead of a BIC11, the message is accepted and the string is completed by appending "XXX" at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

Figure 162 – Recall flow shows the general flow for Recalls processing and contains message events and involved actors. The details of each step are provided in the following Table 30 – Recall steps.

[38] It is worth noting that the 'Recall Answer' terminology is kept for the non-Euro currency schemes (and in the corresponding message descriptions in chapter 3). This term is fully equivalent to the 'Recall Response' term adopted in the context of EPC SCT-Inst scheme

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Figure 162 – Recall flow



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Table 30 – Recall steps

Step	Involved messages	Involved actors	Description
1	FIToFIPaymentCancellationRequest FIToFIPaymentStatusRequest (Euro currency) or FIToFIPaymentCancellationRequest (camt.056.001.08) FIToFIPaymentStatusRequest (pacs.028.001.03) (non-Euro currency)	Recall Assigner as sender TIPS as receiver	TIPS receives an incoming Recall request (or a Request for Status Update on a Recall) from the Recall Assigner. Technical validation, check of mandatory fields and authentication checks have already been successfully executed by ESMIG.
2		TIPS	TIPS successfully executes the following checks: - Access Rights check; - Instructing Party authorised; - Originator Account or CMB existence; - Beneficiary correctly configured. See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport[39] (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10)[40] (non-Euro currency)	TIPS as sender Recall Assigner as receiver	TIPS unsuccessfully executes one of the checks listed in **step 2.** At the first negative check the system stops and sends a message to the Recall Assigner – same DN of the Sender in **step 1** – containing the proper error code.
3		TIPS	The DN of the Recall Assignee is identified in the "Outbound DN-BIC Routing" mapping table from the field Assignee (FIToFIPaymentCancellationRequest).

[39] For SCT Inst scheme

[40] For non-Euro currencies scheme

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Step	Involved messages	Involved actors	Description
4	FIToFIPaymentCancellationRequest FIToFIPaymentStatusRequest (Euro currency) or FIToFIPaymentCancellationRequest (camt.056.001.08) FIToFIPaymentStatusRequest (pacs.028.001.03) (non-Euro currency	TIPS as sender Recall Assignee as receiver	TIPS forwards the received Recall request (or a Request for Status Update on a Recall) to the Recall Assignee DN.
5n	ResolutionOfInvestigation (Euro currency) or ResolutionOfInvestigation (camt.029.001.09)(non-Euro currency)	Recall Assignee as sender TIPS as receiver	The Recall Assignee sends a negative response and it is successfully delivered to TIPS. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
6n		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side. See 4.1- Business Rules for details.
5e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency)	TIPS as sender Recall Assignee as receiver	TIPS unsuccessfully executes the checks listed in **step 6n**. At the first negative check the system stops and sends a message to the Recall Assignee - same DN of the Sender – containing the proper error code. See 4.1- Business Rules for details.
7n		TIPS	The DN of the Recall Assigner is identified in the "Outbound DN-BIC Routing" mapping table from the field Assignee (ResolutionOfInvestigation).

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Step	Involved messages	Involved actors	Description
8n	ResolutionOfInvestigation (Euro currency) or ResolutionOfInvestigation (camt.029.001.09)(non-Euro currency)	TIPS as sender Recall Assigner as receiver	TIPS forwards the negative response received to the Recall Assigner DN.
5p	PaymentReturn (Euro currency) or PaymentReturn (pacs.004.001.09)(non-Euro currency)	Recall Assignee as sender TIPS as receiver	The Recall Assignee sends a positive response and it is successfully delivered to TIPS. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
6p		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised – creditor side; - Originator Account or CMB existence; - Beneficiary Account or CMB existence; - Maximum Amount not exceeded for Returned Amount. See 4.1- Business Rules for details.
6e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency)	TIPS as sender Recall Assignee as receiver	TIPS unsuccessfully executes the checks listed in **step 6p**. At the first negative check the system stops and sends a message to the Recall Assignee - same DN of the Sender – containing the proper error code. The status of the positive Recall Response is set to "*Failed*". In this case the Recall Assignee can submit a new Recall Response in order to close the Recall business case. The message validation will restart from the **step 5p**. See 4.1- Business Rules for details.
7p		TIPS	TIPS successfully executes the check: - Duplicate check for positive Recall . See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
7e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency)	TIPS as sender Recall Assignee as receiver	TIPS unsuccessfully executes the check in **step 7p**. The system stops and sends a message to the Recall Assignee – same DN of the sender – containing the proper error code. The status of the positive Recall Response is set to "*Failed*". In this case the Recall Assignee can submit a new positive Recall Response in order to close the Recall business case. The message validation will restart from the **step 5p**. See 4.1- Business Rules for details.
8p		TIPS	TIPS combines the information embedded in the PaymentReturn message to determine a payment transaction dataset to send to the Check and Execute Instruction process. The status of the positive Recall Response is set to "*Validated*".
9p		TIPS	The Amount to be settled (AT046 – DS-06) is retrieved and saved as information related to the transaction dataset. From now on, this amount is referred to as "Settlement Amount". The Settlement date for the positive Recall Response (R7 – DS-06) is retrieved and saved as information related to the transaction dataset. From now on, this date is referred to as "Settlement Date". The Recall Reference of the PSP initiating the Recall (R6 – DS-06) is retrieved and saved as information related to the transaction dataset. From now on, this reference is referred to as "Transaction Identification"

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Step	Involved messages	Involved actors	Description
10p		TIPS	Given the fact that the original Beneficiary Participant (field AT-C002 in DS-02, subset of DS-06) has to be interpreted as the new Originator Participant for the reversed cash flow, TIPS determines the account or CMB to be debited from the configured accounts information, the Beneficiary BIC and the currency within the PaymentReturn message. In details: - The system verifies that an account, of either type "TIPS Account" or “TIPS AS Technical Account”, exists and is linked to the Beneficiary Participant (field "Beneficiary BIC") as authorised user and has a currency equal to the one defined in the Returned Amount. - If no Account is linked to the Beneficiary Participant, the system looks for a CMB linked to the Beneficiary (field "Beneficiary BIC") as user; - The system selects the account linked to the CMB; the account related to the CMB must have a currency equal to the one defined in the Returned Amount. From now on, the account is referred to as "Originator Account" and the possible CMB as "Debiting CMB".
11p		TIPS	Given the fact that the original Originator Participant (field AT-D002 in DS-02, which is part of DS-06) has to be interpreted as the new Beneficiary Participant for the reversed cash, TIPS determines the account or CMB to be credited from the configured accounts information, the Originator BIC and the currency within the PaymentReturn message. In details: - The system verifies that an account, of either type "TIPS Account" or “TIPS AS Technical Account”, exists and is linked to the Originator Participant (field "Originator BIC") as authorised user and has a currency equal to the one defined in the Returned Amount. - If no Account is linked to the Originator Participant, the system looks for a CMB linked to the Originator (field "Originator BIC") as user; - The system selects the account linked to the CMB; the account related to the CMB must have a currency equal to the one defined in the Returned Amount. From now on, the account is referred to as "Beneficiary Account" and the possible CMB as "Crediting CMB".

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Step	Involved messages	Involved actors	Description
12p		TIPS	TIPS successfully executes the checks: - Originator Account/CMB not blocked; - Beneficiary Account/CMB not blocked; - Available amount not exceeded. See 4.1- Business Rules for details.
12e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency)	TIPS as sender Recall Assignee as receiver	TIPS unsuccessfully executes the checks listed in **step 12p**. At the first negative check the system stops and sends a message to the Recall Assignee (the new Originator DN) containing the proper error code. The status of the positive Recall Response is set to "*Failed*". In this case the Recall Assignee can submit a new positive Recall Response in order to close the Recall business case. The message validation will restart from the **step 5p**. See 4.1- Business Rules for details.
13p		TIPS	TIPS settles the full amount of the payment transaction, debiting the Originator Account and adding the same positive amount to the Beneficiary Account. If a Debiting/Crediting CMB is involved, the system decreases/increases its Headroom by the same amount. TIPS sets the positive Recall Response status to "*Settled*".
14p	PaymentReturn (Euro currency) or PaymentReturn (pacs.004.001.09) (non-Euro currency)	TIPS as sender Recall Assigner as receiver	TIPS forwards the positive response received from the Recall Assignee to the Recall Assigner (the new Beneficiary DN).
15p	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency)	TIPS as sender Recall Assignee as receiver	TIPS generates a positive Payment status report and send it to the Recall Assignee (the new Originator DN).

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Step	Involved messages	Involved actors	Description
16p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender Debited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and floor breach)	TIPS checks the "Floor notification amount" configured for the involved Originator Account or Debiting CMB. If the account balance or the CMB headroom after settlement is confirmed is lower than the "floor notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains theOriginator Account Number or the Debiting CMB Number. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new pull rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

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Step	Involved messages	Involved actors	Description
17p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender Credited Account and/or CMB Owner T2-CLM as receiver (only in case of automated LT and ceiling breach)	TIPS checks the "Ceiling notification amount" configured for the involved Beneficiary Account or Crediting CMB. If the account balance or the CMB headroom after the confirmed settlement is greater than the "ceiling notification amount", TIPS sends a ReturnAccount to the Account and/or CMB owners involved in the transaction. The message is sent to the default DN of the Account Owner and/or CMB Owner. The message contains the Beneficiary Account Number or the crediting CMB Number. Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if eligible, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

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2.3.1. Examples

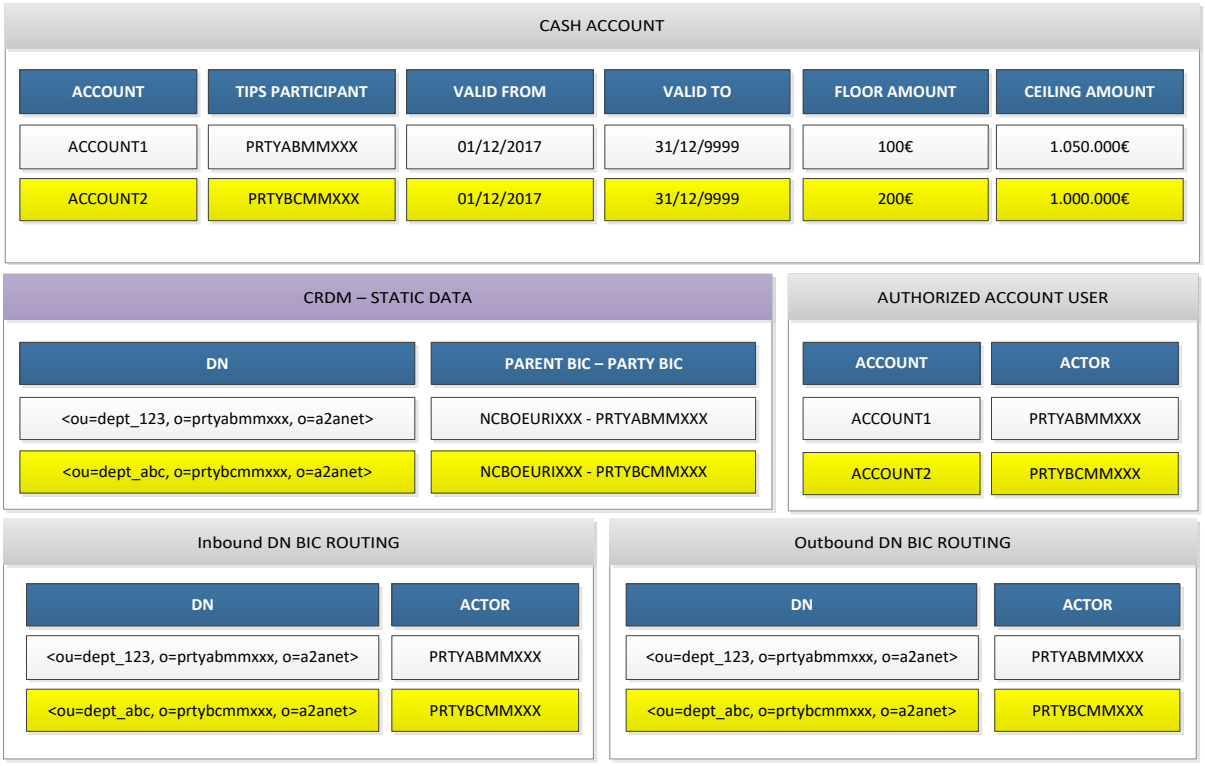
This sub-section presents examples of different scenarios related to the Recall process.

Scenarios and examples are not exhaustive and limited to Recall requests related to transactions denominated in Euro currency[41].

The first and the second ones describe successful scenarios where a positive and a negative Recall Response are provided by the Recall Assignee respectively; the third one outlines the rejection of a positive Recall Response[42] which failed the Duplicate check. The last one describes the request for status update on a Recall.

The below table summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 163 – Recall examples: data constellation



2.3.1.1. Successful scenario – Positive Recall Response

In this scenario:

- The current business date is 28/12/2017;

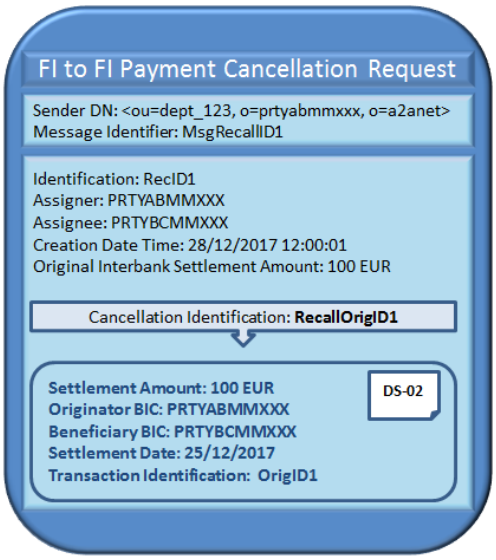
[41] Except for the involved messages, the processing described by means of the above examples is the same also for Recall requests related to transactions in a non-Euro currency

[42] It is worth noting that the 'Recall Answer' terminology is kept for the non-Euro currency schemes (and in the corresponding message descriptions in chapter 3). This term is fully equivalent to the 'Recall Response' term adopted in SCT-Inst scheme.

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- A TIPS Participant (PRTYABMMXXX) sends a FIToFIPaymentCancellationRequest message to TIPS in order to request the cancellation of an Instant Payment transaction (OrigID1) previously settled on 25/12/2017;

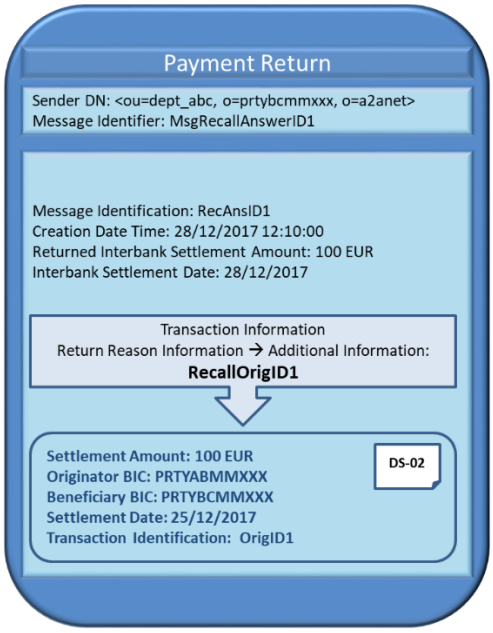
Figure 164 – Recall successful scenario: positive response – FItoFIPaymentCancellationRequest



- TIPS, after performing the expected checks successfully:
  - It identifies the DN of the Assignee (<ou=dept_123, o=prtybcmmxxx, o=a2anet>);
  - It forwards the FIToFIPaymentCancellationRequest message to the Recall Assignee DN.
- The Recall Assignee (PRTYBCMMXXX) accepts the request by sending to TIPS the following PaymentReturn message.

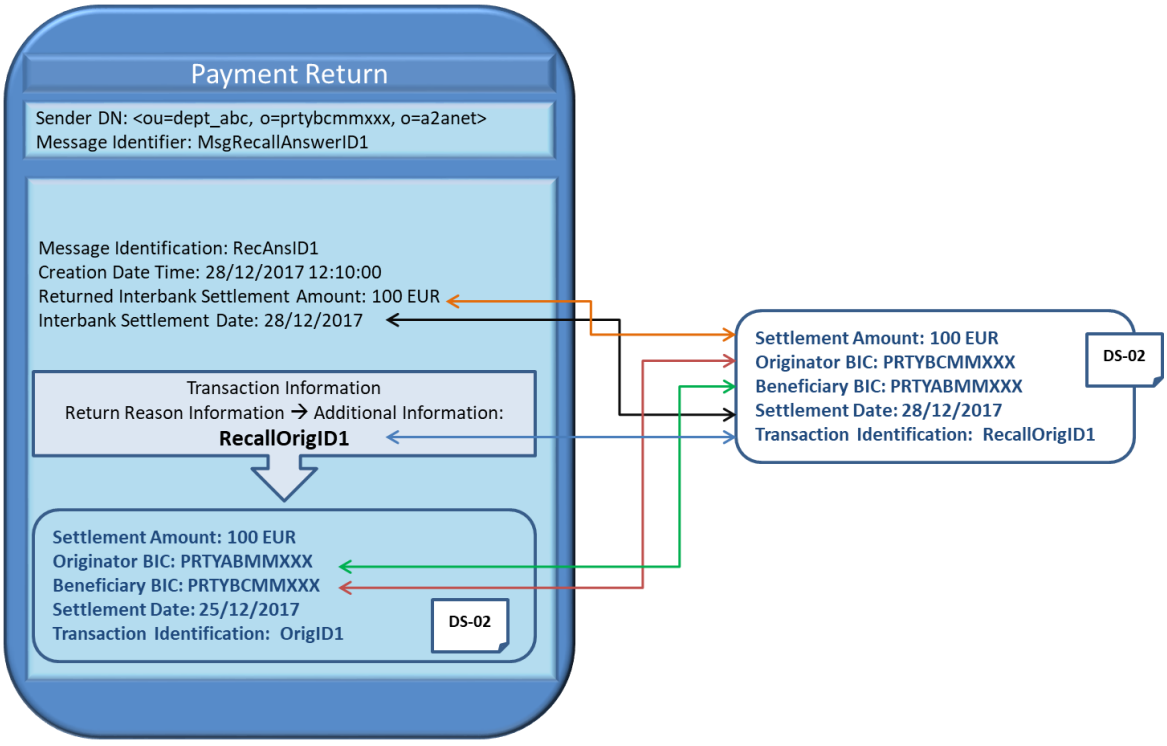
All rights reserved.

Figure 165 – Recall successful scenario: positive response – PaymentReturn



- TIPS successfully proceeds with the required validation in the context of access rights and duplicate check;
- TIPS determines the payment transaction dataset which reverses the direction of the cash flow from the original payment transaction that is recalled.

Figure 166 – Recall successful scenario: positive response – Recall Dataset

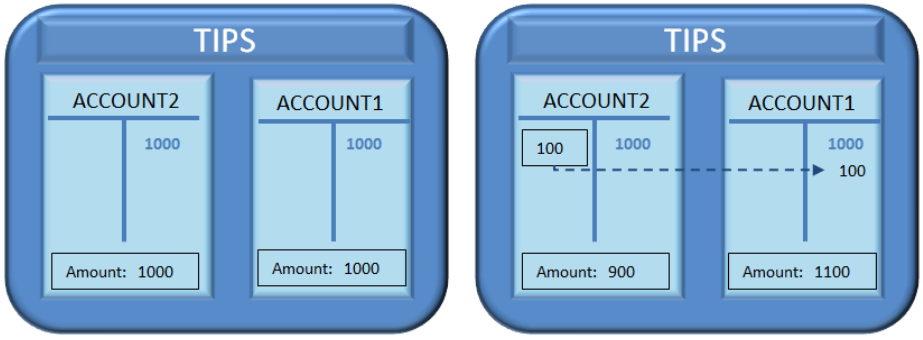


- The system:

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- It identifies the Originator Account (ACCOUNT2) from the Originator BIC;
- It identifies the Beneficiary Account (ACCOUNT1) from the Beneficiary BIC;
- It settles the full amount of the payment transaction debiting the Originator Account of 100.00 EUR and adding the same positive amount to the Beneficiary Account.

Figure 167 – Recall successful scenario: positive response – Settlement Process



- TIPS identifies the Beneficiary DN and Originator DN from the "Outbound DN-BIC Routing" (<ou=dept_123, o=prtyabmmxxx, o=a2anet> / <ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
- The system forwards the PaymentReturn message to the Beneficiary Participant (the Recall Assigner) and sends a FIToFIPaymentStatusReport message to the Originator DN (the Recall Assignee) after settlement of the recall took place.

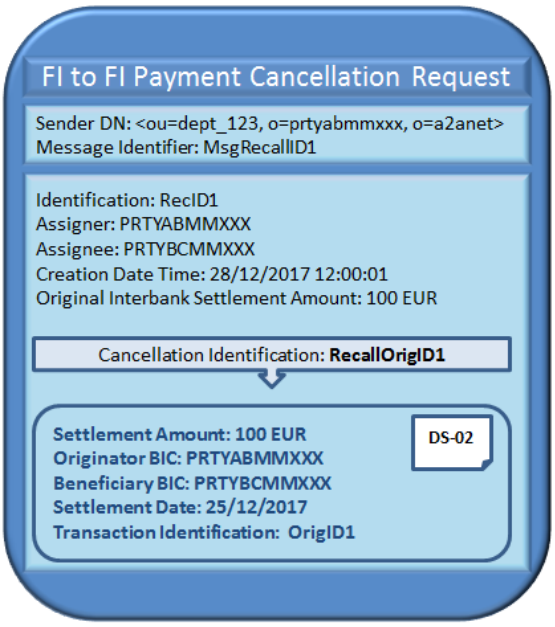
2.3.1.2. Successful scenario – Negative Recall Response

In this scenario:

- The current business date is 28/12/2017;
- A TIPS Participant (PRTYABMMXXX) sends a FIToFIPaymentCancellationRequest message to TIPS in order to request the cancellation of a Payment transaction (OrigID1) previously settled on 25/12/2017.

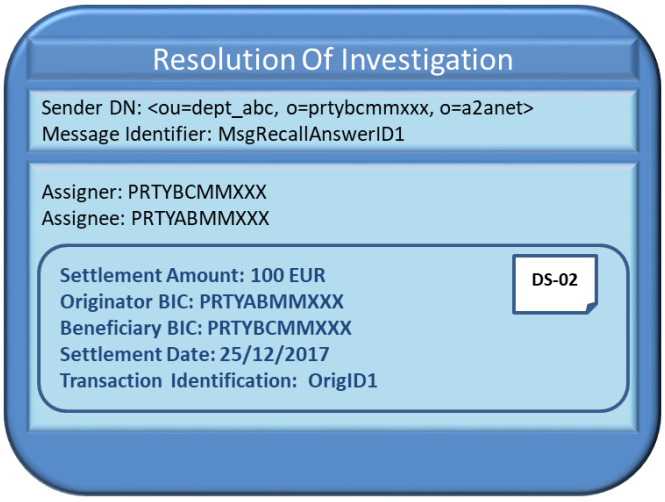
All rights reserved.

Figure 168 – Recall successful scenario: negative response – FItoFIPaymentCancellationRequest



- TIPS, after performing the expected checks successfully:
  - It identifies the DN of the Assignee (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
  - It forwards the FIToFIPaymentCancellationRequest message to the Recall Assignee DN.
- The Recall Assignee (PRTYBCMMXXX) rejects the request by sending to TIPS the following ResolutionOfInvestigation message:

Figure 169 – Recall successful scenario: negative response – ResolutionOfInvestigation



- TIPS successfully proceeds with the required checks;

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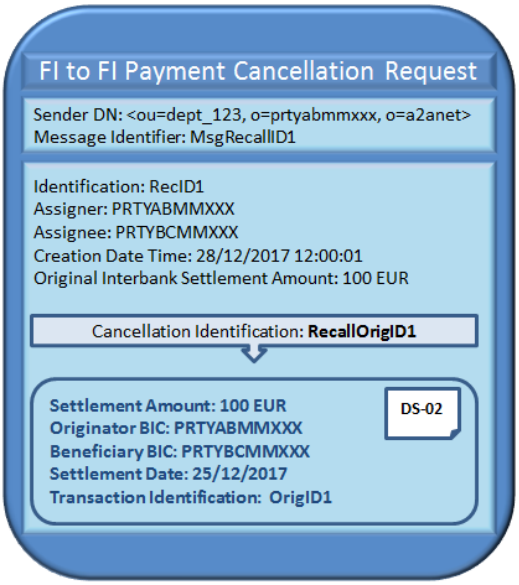
- TIPS identifies the DN of the Assignee (<ou=dept_123, o=prtyabmmxxx, o=a2anet>) and forwards the ResolutionOfInvestigation message to the Assignee DN.

2.3.1.3. Unsuccessful scenario – Recall Response Duplicate check failed

In this scenario:

- The current business date is 28/12/2017;
- A TIPS Participant (PRTYABMMXXX) sends a FIToFIPaymentCancellationRequest message to TIPS in order to request the cancellation of a Payment transaction (OrigID1) previously settled on 25/12/2017.

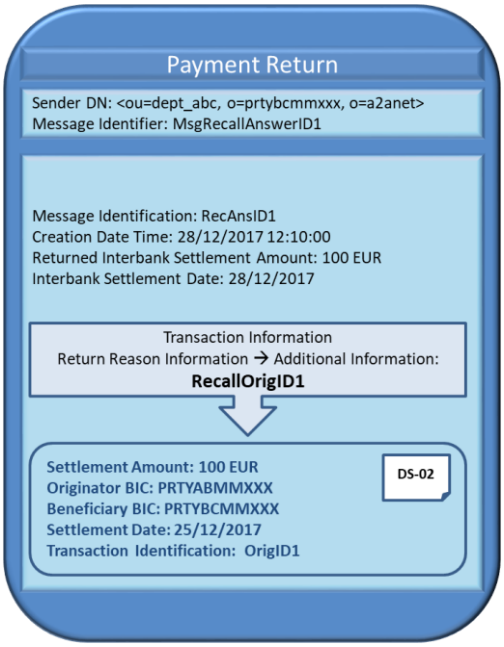
Figure 170 – Recall unsuccessful scenario: Duplicate check failed – FItoFIPaymentCancellationRequest



- TIPS, after performing the expected checks successfully:
  - It identifies the DN of the Assignee (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
  - It forwards the FIToFIPaymentCancellationRequest message to the Recall Assignee DN.
- The Recall Assignee (PRTYBCMMXXX) accepts the request by sending to TIPS the following PaymentReturn message.

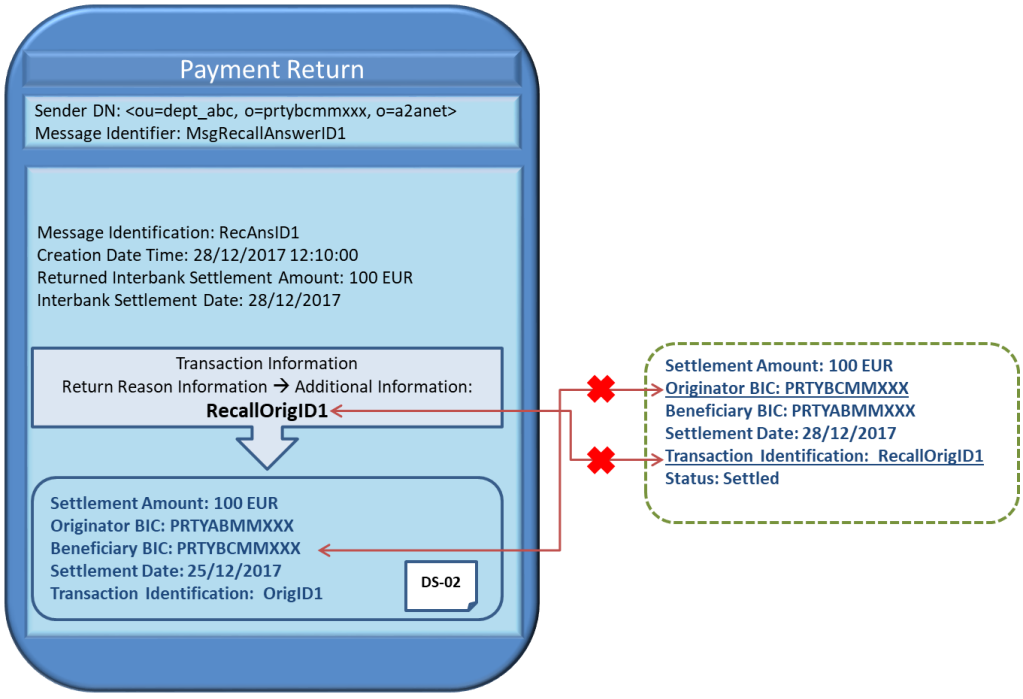
All rights reserved.

Figure 171 – Recall unsuccessful scenario: Duplicate check failed – PaymentReturn



- TIPS proceeds with the required validation in the context of access rights and duplicate check and detects a duplicate submission: the couple Return Identification and Beneficiary BIC (AT-C002 DS-02 subset of DS-06) embedded within the PaymentReturn message already exists as a couple Transaction Identification/Originator BIC in the list of transactions of the last X days, where X is equal to the system parameter "Retention Period".

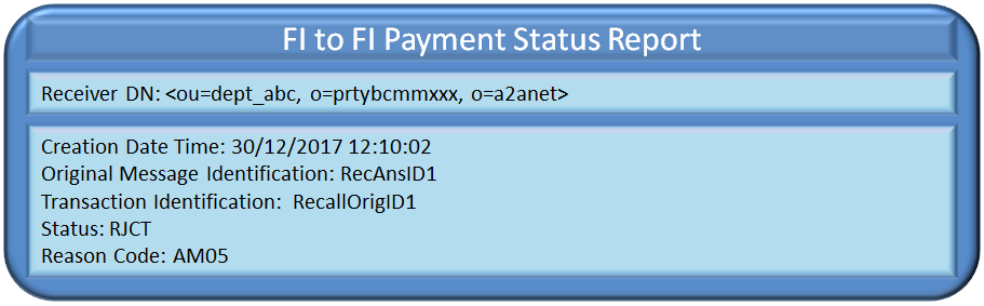
Figure 172 – Recall unsuccessful scenario: Duplicate check failed – Duplicate submission



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- The following FIToFIPaymentStatusReport message is sent by TIPS to the Recall Assignee – same DN of the sender – to reject the positive Recall Response.

Figure 173 – Recall unsuccessful scenario: Duplicate check failed – FItoFIPaymentStatusReport



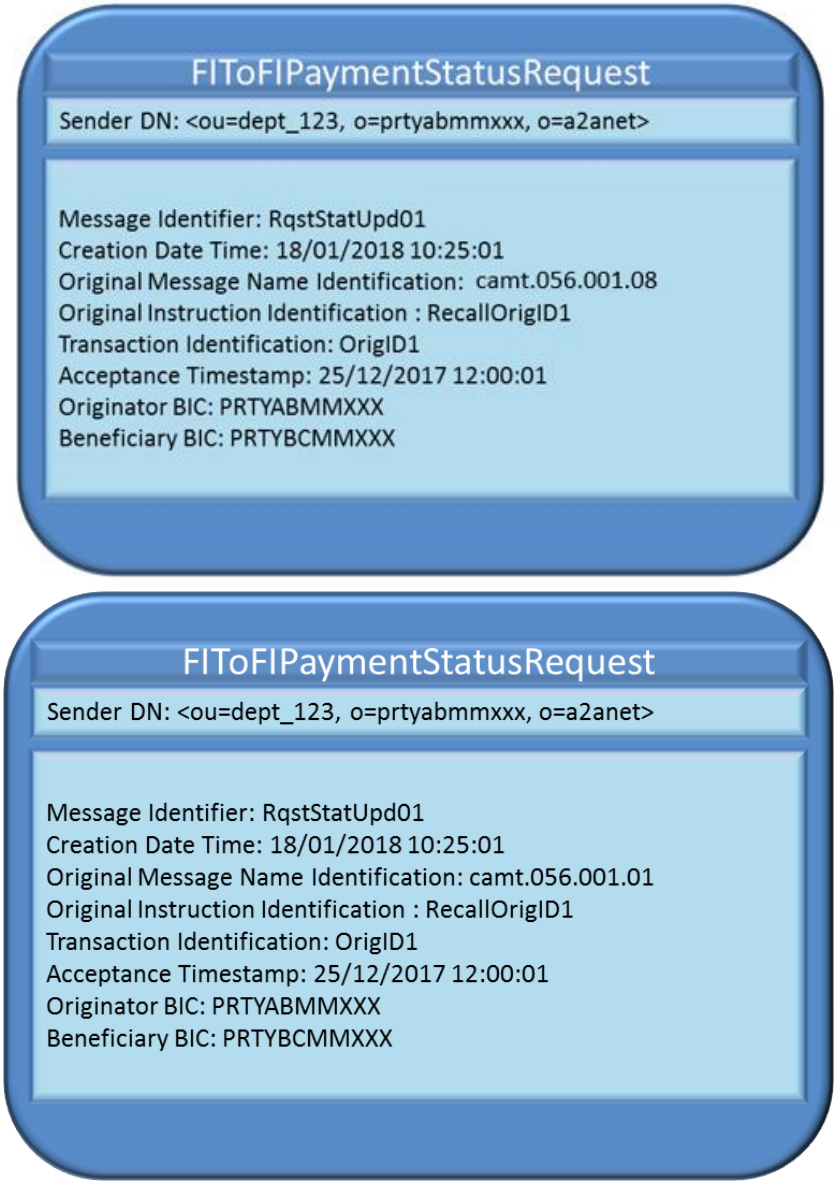
2.3.1.4. Successful scenario – Request for Status Update on a Recall

In this scenario:

- The current business date is 18/01/2018;
- A TIPS Participant (PRTYABMMXXX) sends a FIToFIPaymentStatusRequest message to TIPS in order to request a status update on a Recall. The Recall has been previously sent on 28/12/2017 (RecallOrigID1) and it is linked to the Payment transaction (OrigID1) previously settled on 25/12/2017. For the Recall transaction (RecallOrigID1), the TIPS Participant did not receive neither a Positive nor a Negative Response from the Beneficiary Participant.

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Figure 174 – Successful request for Status Update on a Recall



- TIPS, after performing the expected checks successfully:
  - It identifies the DN of the Assignee (<ou=dept_abc, o=prtybcmmxxx, o=a2anet>);
  - It forwards the FIToFIPaymentStatusRequest message to the Recall Assignee DN.

2.3.1.5. Successful scenario – Positive Recall Response with Ancillary System processing

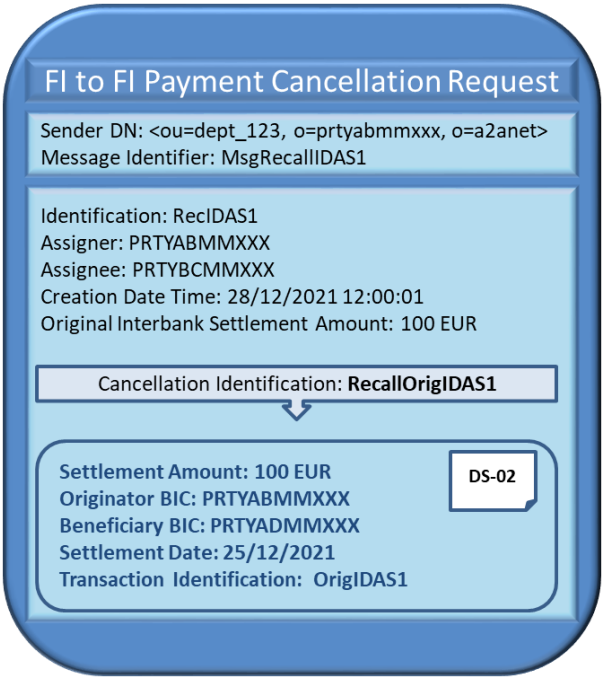
In this scenario:

- The current business date is 28/12/2021;
- A TIPS Participant (PRTYABMMXXX) sends a FIToFIPaymentCancellationRequest message to TIPS in order to request the cancellation of an Instant Payment transaction (OrigID1) previously settled on 25/12/2021, whose credited account was the TIPS AS Technical Account (TIPSASTACC1) owned by an Ancillary System (ANSYPRMMXXX);

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- The credited Beneficiary PSP was the Reachable Party (PRTYADMMXXX) served by the Ancillary System;

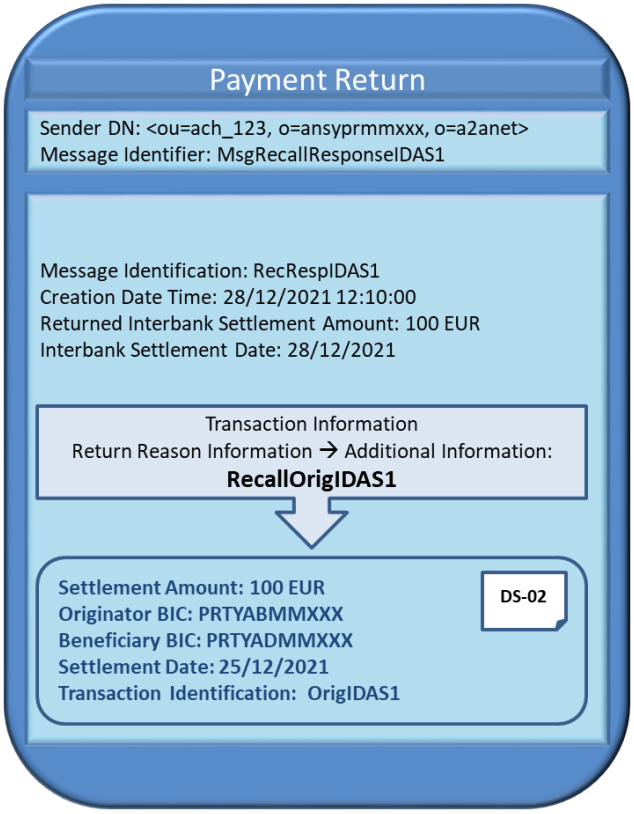
Figure 175 – Recall successful scenario: positive response – FItoFIPaymentCancellationRequest



- TIPS, after performing the expected checks successfully:
  - It identifies the DN of the Assignee (<ou=ach_123, o=ansyprmmxxx, o=a2anet>);
  - It forwards the FIToFIPaymentCancellationRequest message to the Recall Assignee DN.
- The Recall Assignee (PRTYADMMXXX) accepts the request via its Ancillary System that sends to TIPS the following PaymentReturn message.

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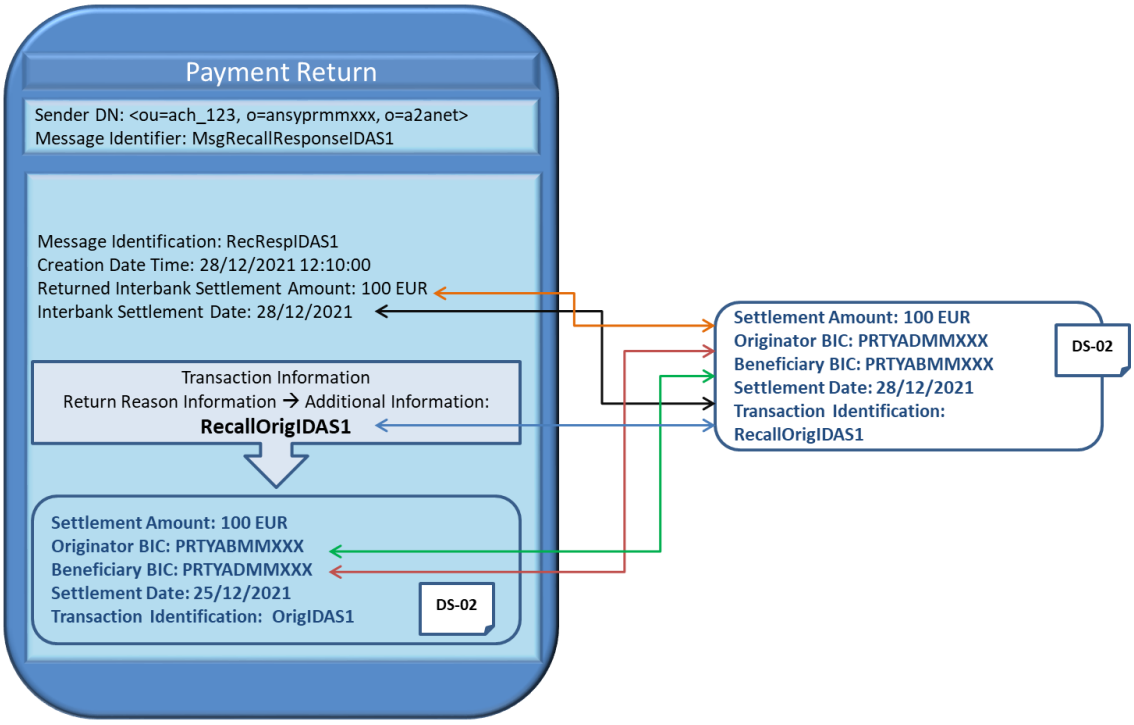
Figure 176 – Recall successful scenario: positive response – PaymentReturn



- TIPS successfully proceeds with the required validation in the context of access rights and duplicate check;
- TIPS determines the payment transaction dataset which reverses the direction of the cash flow from the original payment transaction that is recalled.

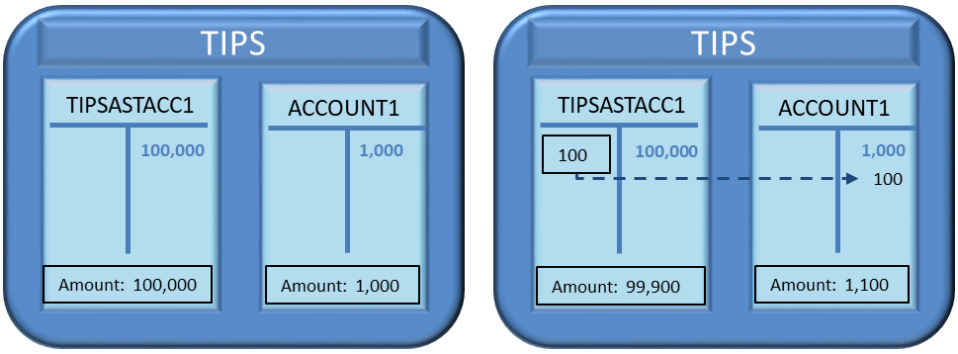
All rights reserved.

Figure 177 – Recall successful scenario: positive response – Recall Dataset



- The system:
  - It identifies the Originator Account (TIPSASTACC1) from the Originator BIC;
  - It identifies the Beneficiary Account (ACCOUNT1) from the Beneficiary BIC;
  - It settles the full amount of the payment transaction by debiting TIPSASTACC1 of 100.00 EUR and crediting the same amount to the ACCOUNT1.

Figure 178 – Recall successful scenario: positive response – Settlement Process



- TIPS identifies the Beneficiary DN and Originator DN from the “Outbound DN-BIC Routing” (<ou=dept_123, o=prtyabmmxxx, o=a2anet> / <ou=ach_123, o=ansyprmmxxx, o=a2anet>);
- The system forwards the PaymentReturn message to the Beneficiary Participant (the Recall Assigner) and sends a FIToFIPaymentStatusReport message to the Originator DN (the Recall Assignee) after settlement of the recall took place.

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2.4. Investigation

This section focuses on the processing of an Investigation Request, with the description of the full scenario and its steps. The same processing also applies in respect of Investigation Request for transactions denominated in a non-Euro currency[43] as well as for cross-currency transactions.

The transaction status investigation process can be initiated by Participants, Ancillary Systems or Instructing Parties acting on behalf of Participants or Reachable Parties on the originator side using the transaction status inquiry message, allowing the TIPS Actors to retrieve the last generated payment transaction status advice for each transaction referenced in the investigation request.

TIPS answers to an investigation request only if it is received when the time-out period for Instant Payment transaction is expired for more than 5 seconds (Investigation Offset + SCT^{Inst} Timestamp Timeout), as indicated in the SCT^{Inst} scheme rulebook. The same logic applies to Instant Payment transactions related to cross-currency payments (including those not involving a Euro leg) where TIPS responds to an investigation request when the time-out period for a cross-currency Instant Payment transaction is elapsed by more than 5 seconds.

In the non-Euro currency scheme the Investigation can be triggered after a reduced time calculated on the basis of Instant Payment Timeout and the Investigation Offset (non-Euro currency) parameters.

If the Investigation message is correctly received, for each of the transaction referenced in the investigation request, if the transaction is existing and still *Reserved* (meaning that no Beneficiary side confirmation/rejection has been received and no sweeping has been performed), then TIPS assumes that the Instant Payment is timed-out. In this case, TIPS does not answer to the Investigation directly, but set to *Expired* the Instant Payment transaction, informing both Originator and Beneficiary side accordingly (see 2.2.1.1 "Timeout scenario: missing/delayed Beneficiary-side answer"[44]).

Involved actors and messages are:

- The Participant, Ancillary System or Instructing Party sending the Investigation Request;
- FIToFIPaymentStatusRequest message in order to instruct Investigation;
- FIToFIPaymentStatusReport message in order to receive last generated payment transaction status advice.

For the non-Euro currency scheme the involved messages are:

- FIToFIPaymentStatusRequest (pacs.028.001.03) message in order to instruct Investigation;
- FIToFIPaymentStatusReport (pacs.002.001.10) message in order to receive last generated payment transaction status advice.

For the cross-currency model the involved messages are:

- FIToFIPaymentStatusRequest (pacs.028.001.03) message in order to instruct Investigation;

[43] For details regarding the messages involved in the process of an Investigation Request related to transactions denominated in a non-Euro currency, please refer to Table 103 – List of messages for non-Euro schemes

[44] For Instant Payment transaction denominated in a non-Euro currency and cross-currency transactions, please see 2.2.2.1 "Timeout scenario: missing/delayed Beneficiary-side answer (non-Euro currencies scheme)" and 2.2.4.1 Timeout scenario: missing/delayed Beneficiary-side answer (cross-currency scheme)

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- FIToFIPaymentStatusReport (pacs.002.001.10) message in order to receive last generated payment transaction status advice.

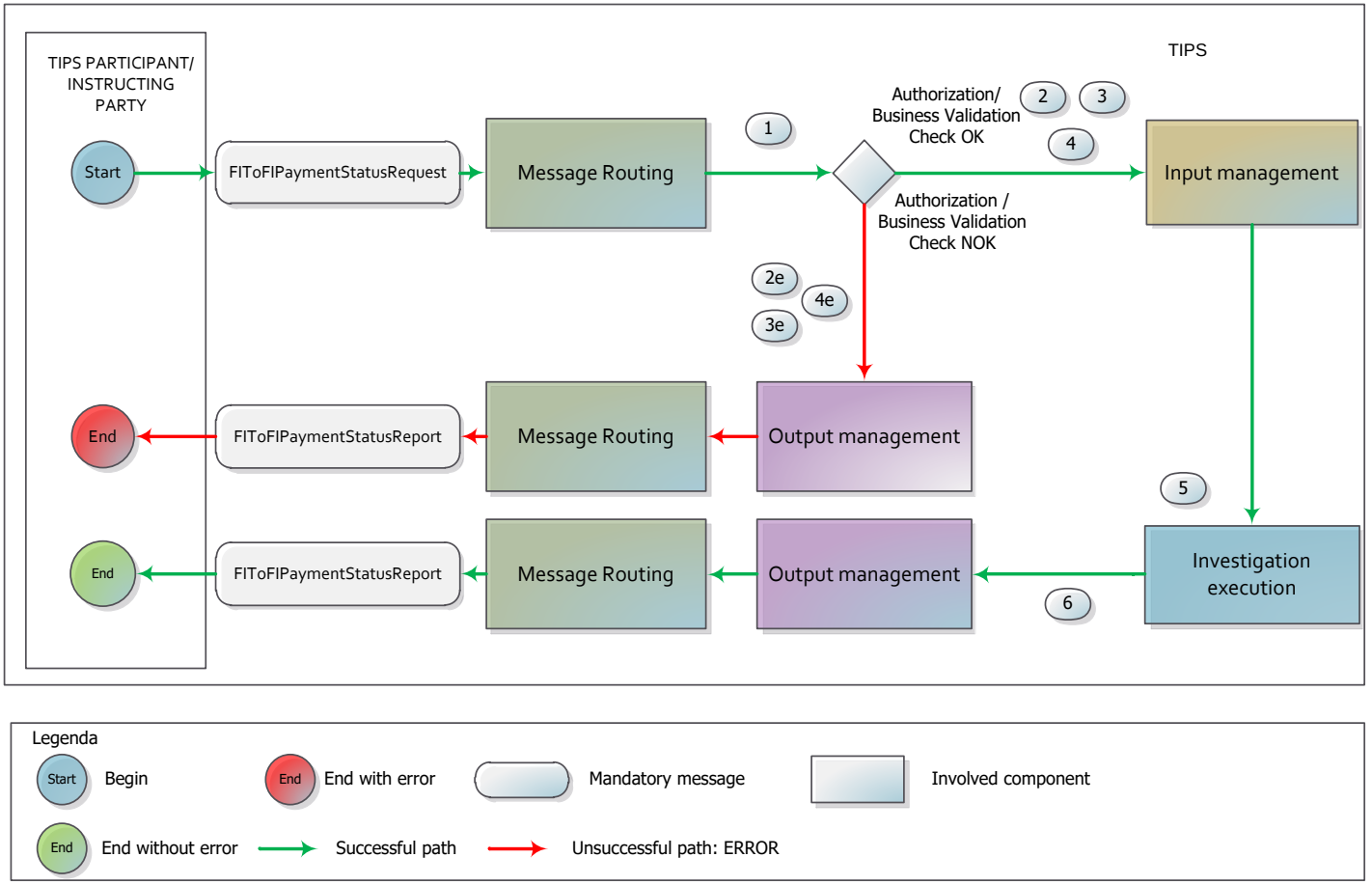
All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

It is important to keep in mind that when the FIToFIPaymentStatusRequest message contains a BIC8 instead of a BIC11, the message is accepted and the string is completed appending “XXX” at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

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This is the diagram describing the process and the involved actors. The details of the steps are described in the following table.

Figure 179 – Investigation Flow



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Table 31 – Investigation steps

Step	Involved messages	Involved actors	Description
1	FIToFIPaymentStatusRequest (Euro currency) or FIToFIPaymentStatusRequest (pacs.028.001.03) (non-Euro currency) or FIToFIPaymentStatusRequest (pacs.028.001.03) (cross-currency)	Originator Participant, Ancillary System or Instructing Party as Sender TIPS as receiver	TIPS receives an incoming Investigation request from the Originator Participant, Ancillary System or Instructing Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
2		TIPS	TIPS successfully executes the checks: - Access Rights check. See 4.1- Business Rules for details.
2e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (cross-currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the checks of **step 2**. At the first negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party - same DN of the Sender – containing the error.
3		TIPS	For each transaction referenced in the Investigation request, TIPS successfully executes the check: - Instructing Party authorised for queries; - Payment Transaction existence; - Payment Transaction existence in final status. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
3e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (cross-currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check of **step 3**. In the case of a negative check the system stops and sends a message to the Originator Participant, Ancillary System or Instructing Party – same DN of the Sender – containing the error.
4		TIPS	TIPS successfully executes the check: - Investigation allowed. TIPS checks if the Investigation request has been received after the SCT^{Inst} Timestamp Timeout + Investigation Offset. The same logic applies to cross-currency payments. See 4.1- Business Rules for details.
4e	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (cross-currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check of **step 4** for each transaction referenced in the Investigation request. In the case of a negative check the system stops the processing for the transaction and sends a message to the Originator Participant, Ancillary System or Instructing Party – same DN of the Sender – containing the error.
5		TIPS	For each transaction referenced in the Investigation request, TIPS retrieves the last FIToFIPaymentStatusReport sent to the Participant initiating the investigation

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Step	Involved messages	Involved actors	Description
6	FIToFIPaymentStatusReport (Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (non-Euro currency) or FIToFIPaymentStatusReport (pacs.002.001.10) (cross-currency)	TIPS as sender Originator Participant, Ancillary System or Instructing Party as receiver	For each transaction referenced in the Investigation request, the system sends the last FIToFIPaymentStatusReport to the Originator Participant, Ancillary System or Instructing Party – same DN of the query Sender.

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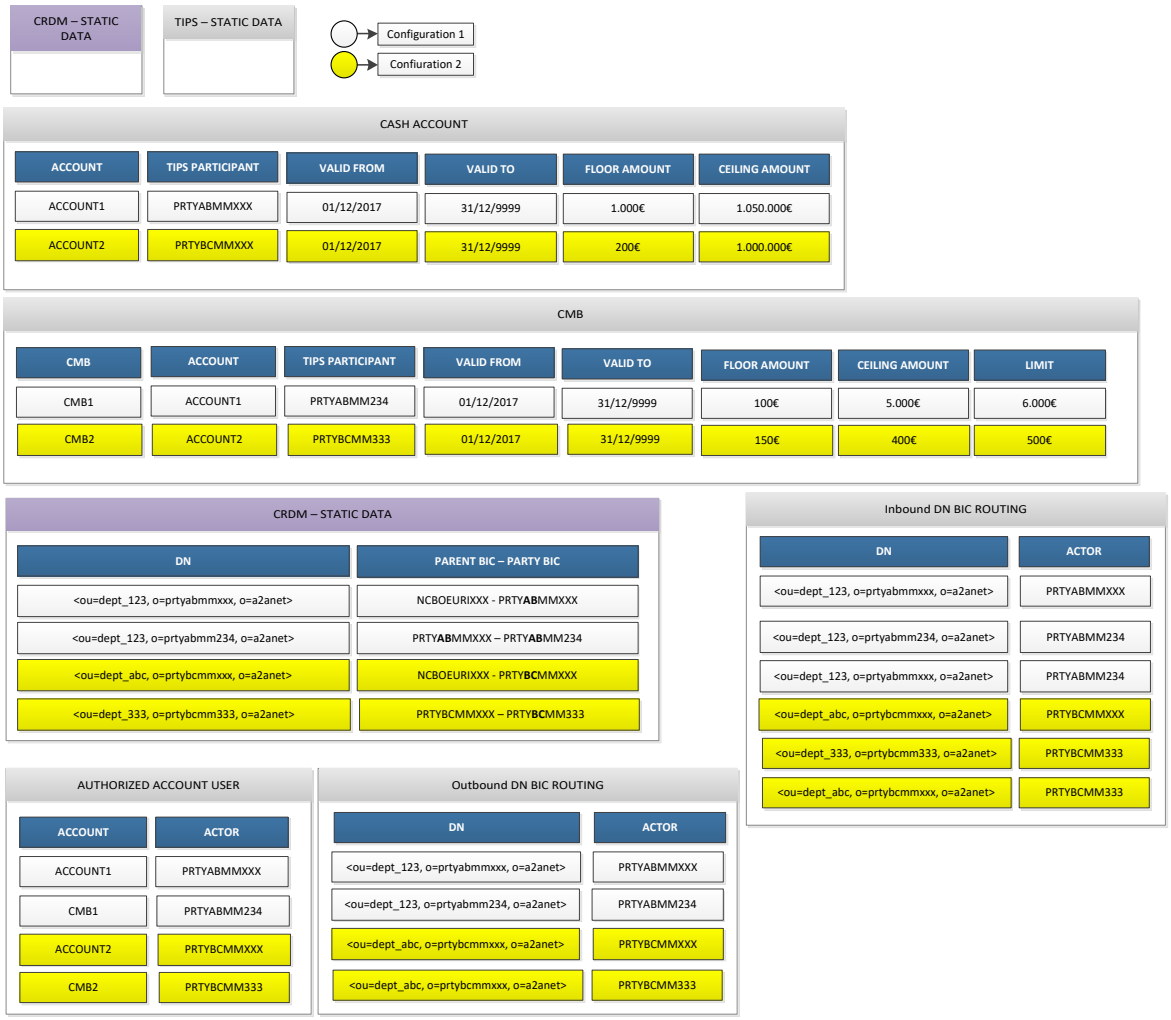
2.4.1. Examples

This sub-section presents two examples of the possible scenarios related to the transaction status investigation. Scenarios and examples are not exhaustive and limited to investigation requests related to transactions denominated in Euro[45].

The first one provides the example of a non-empty answer to a transaction status investigation request. The second one describes an example of a TIPS rejection for a transaction status investigation request.

The below table summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 180 – Transaction status investigation examples: data constellation



[45] Except for the involved messages and the customised time after whch an investigation can be triggered, calculated on the basis of Instant Payment Timeout and the Investigation Offset for non-Euro currency parameters, the processing described by means of the above examples is the same also for Investigation Requests related to transactions in any non-Euro currency

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2.4.1.1. Successful scenario – Transaction status investigation

In this scenario:

- A TIPS Participant (PRTYABMMXXX) sent a FIToFIPaymentStatusRequest message to TIPS to investigate about an Instant Payment transaction (OrigID2). The timestamp of the FIToFIPaymentStatusRequest is 30/12/2017 12:01:12.
- Payment transaction OrigID2 is present in TIPS for the Originator BIC PRTYABMMXXX, and it has been successfully settled. The instruction OrigID2 has 30/12/2017 12:00:01 as acceptance timestamp.

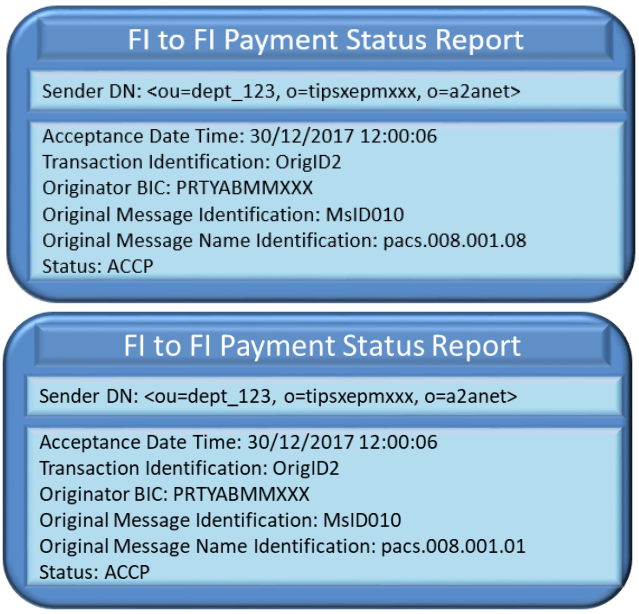
Figure 181 – Successful FIToFIPaymentStatusRequest



- TIPS identifies:
  - The DN of sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The Instant Payment transaction (OrigID2 for the Originator Participant (PRTYABMMXXX) with acceptance timestamp 30/12/2017 12:00:01);
  - The TIPS actor instructing the FIToFIPaymentStatusRequest (PRTYABMMXXX).
- The Investigation request has been received after the Instant Payment transaction SCT^{Inst} Timestamp Timeout + Investigation Offset;
- TIPS retrieves the last generated FIToFIPaymentStatusReport for the Originator;
- TIPS sends the FIToFIPaymentStatusReport to the same DN of the query Sender.

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Figure 182 – Successful FIToFIPaymentStatusReport

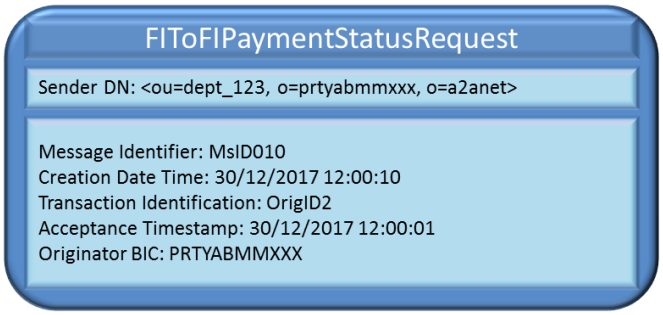


2.4.1.2. Unsuccessful scenario – Transaction status investigation

In this scenario:

- A TIPS Participant (PRTYABMMXXX) sent a FIToFIPaymentStatusRequest message to TIPS to receive information about an Instant Payment transaction (OrigID2); the timestamp of the FIToFIPaymentStatusRequest is 30/12/2017 12:00:10.
- Instant Payment transaction OrigID2 is present in TIPS for the Originator BIC PRTYABMMXXX, with acceptance timestamp 30/12/2017 12:00:01.

Figure 183 – Unsuccessful FIToFIPaymentStatusRequest



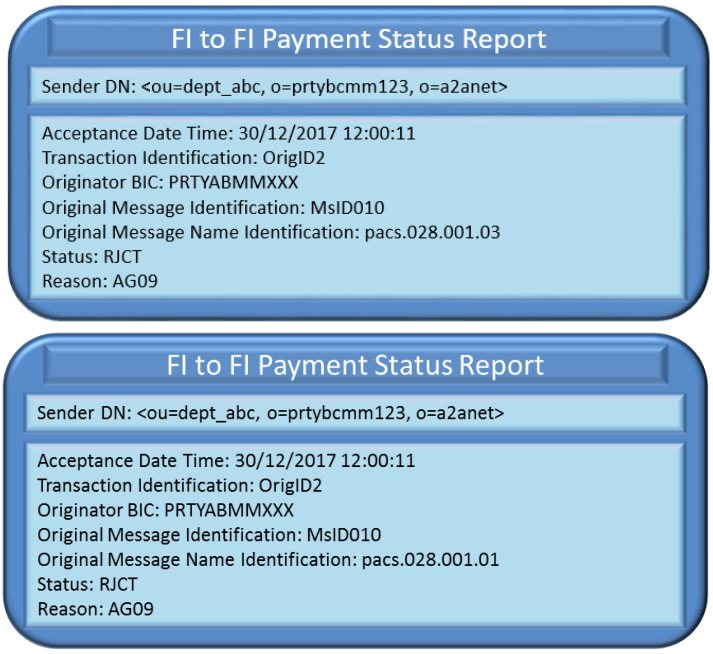
- TIPS identifies:
  - The DN of sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The TIPS actor instructing the FIToFIPaymentStatusRequest (PRTYABMMXXX).
  - The Instant Payment transaction (OrigID2) for the Originator Participant Party (PRTYABMMXXX), with acceptance timestamp 30/12/2017 12:00:01.

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Since the SCT^Inst Timestamp Timeout is not expired for the Instant Payment transaction when the investigation request arrived, it cannot be satisfied.

- A FIToFIPaymentStatusReport message is sent by TIPS to the same DN of the query sender, containing the error.

Figure 184 – Unsuccessful FIToFIPaymentStatusReport



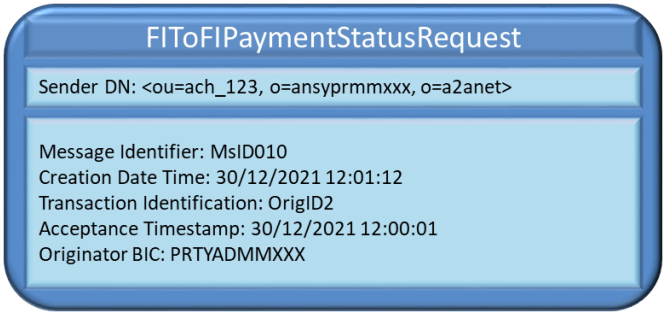
2.4.1.3. Successful scenario – Transaction status investigation generated by an Ancillary System

In this scenario:

- An Ancillary System (ANSYPRMMXXX) sends a FIToFIPaymentStatusRequest message to TIPS to investigate about a previously submitted Instant Payment transaction (OrigID2). The timestamp of the FIToFIPaymentStatusRequest is 30/12/2021 12:01:12.
- Payment transaction OrigID2 is present in TIPS for the Originator BIC PRTYADMMXXX, and it has been successfully settled. The instruction OrigID2 has 30/12/2021 12:00:01 as acceptance timestamp.

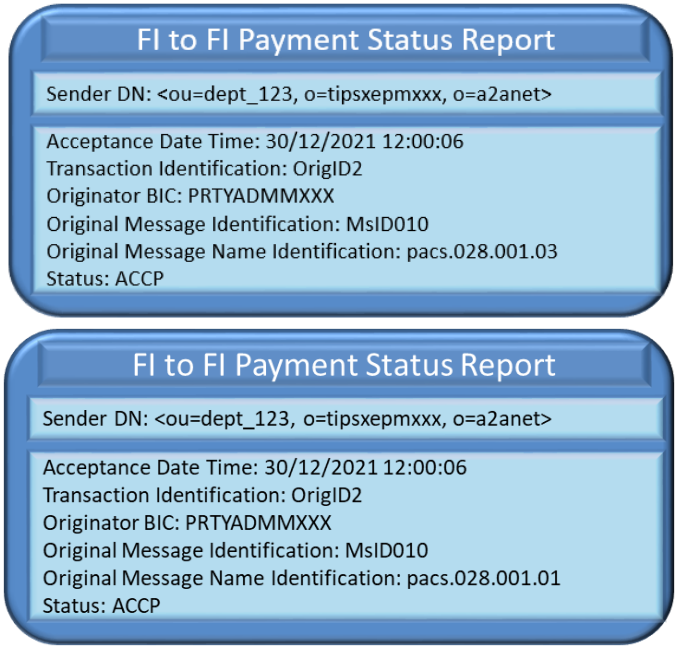
All rights reserved.

Figure 185 – Successful FIToFIPaymentStatusRequest originated by an AS



- TIPS identifies:
  - The DN of sender – i.e. the Ancillary System (<ou=ach_123, o=ansyprmmxxx, o=a2anet>);
  - The Instant Payment transaction (OrigID2 for the Originator Participant (PRTYADMMXXX) with acceptance timestamp 30/12/2021 12:00:01);
  - The TIPS actor instructing the FIToFIPaymentStatusRequest (ANSYPRMMXXX).
- The Investigation request has been received after the Instant Payment transaction SCT^{Inst} Timestamp Timeout + Investigation Offset;
- TIPS retrieves the last generated FIToFIPaymentStatusReport for the Originator Participant;
- TIPS sends the FIToFIPaymentStatusReport to the same DN of the query Sender.

Figure 186 – Successful FIToFIPaymentStatusReport forwarded to an AS



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2.5. Inbound/Outbound, rule-based and intra-service Liquidity Transfers

TIPS supports Central Bank Money transfers between accounts denominated in the same currency from TIPS to an RTGS System or vice versa from an RTGS System to TIPS.

Liquidity Transfer from a TIPS Account to an RTGS System account starts with the request sent by the TIPS Participant owner of the TIPS Account or by an Instructing Party on behalf of the TIPS Participant.

The Liquidity Transfer shall be initiated in TIPS in Application-to-Application mode (A2A) using the Liquidity Credit Transfer message or in User-to-Application mode (U2A) through a Graphic User Interface (GUI) and it is executed immediately.

For Liquidity Transfers from RTGS System accounts to TIPS Accounts, transfers must be initiated in the RTGS System by the debited RTGS System account holder; the Liquidity Transfer is then forwarded by the RTGS System to TIPS through the A2A interface.

Provided that both the RTGS System account and the TIPS Account are denominated in the same currency and that the RTGS System is connected to TIPS (and known to TIPS), it is possible to transfer liquidity from any RTGS System account to any TIPS Account.

Additionally, rule-based Liquidity Transfers can be settled in TIPS. Rule-based liquidity transfers are optionally captured in the CRDM configuration and are initiated by TIPS in the event of a floor/ceiling breach detected by TIPS and forwarded to T2-CLM in the form of a Push/Pull rule-base Liquidity Transfer message.Additionally, intra-service Liquidity Transfers between a TIPS Account and a TIPS AS Technical Account (or vice versa) are supported.

2.5.1. Inbound Liquidity Transfer

This section describes the processing of an Inbound Liquidity Transfer received in TIPS via Liquidity Credit Transfer message. Inbound Liquidity Transfer has to be initiated by the RTGS System account holder (or any authorised third party) in the relevant RTGS System (i.e. Inbound Liquidity Transfers cannot be triggered in TIPS). Indeed, the following section does not cover the starting part of the scenario where the RTGS system Participant requests to transfer the liquidity from the RTGS System account to a TIPS Account as it is out of the scope of TIPS. Examples of possible scenarios are described in the following sub-section.

The following Actors are involved in the processing of an Inbound Liquidity Transfer:

- The RTGS System that sends to TIPS the liquidity transfer order;
- TIPS that receives and confirms the request to the RTGS System;
- TIPS Account owner (or the default DN configured as receiver) which is duly informed if the account is credited or if its balance exceeds the configured threshold.

The following messages are involved in the Inbound Liquidity Transfer process:

- LiquidityCreditTransfer: the message with which the RTGS System instructs the transfer of a cash amount from an RTGS System account to a TIPS Account denominated in the same currency.

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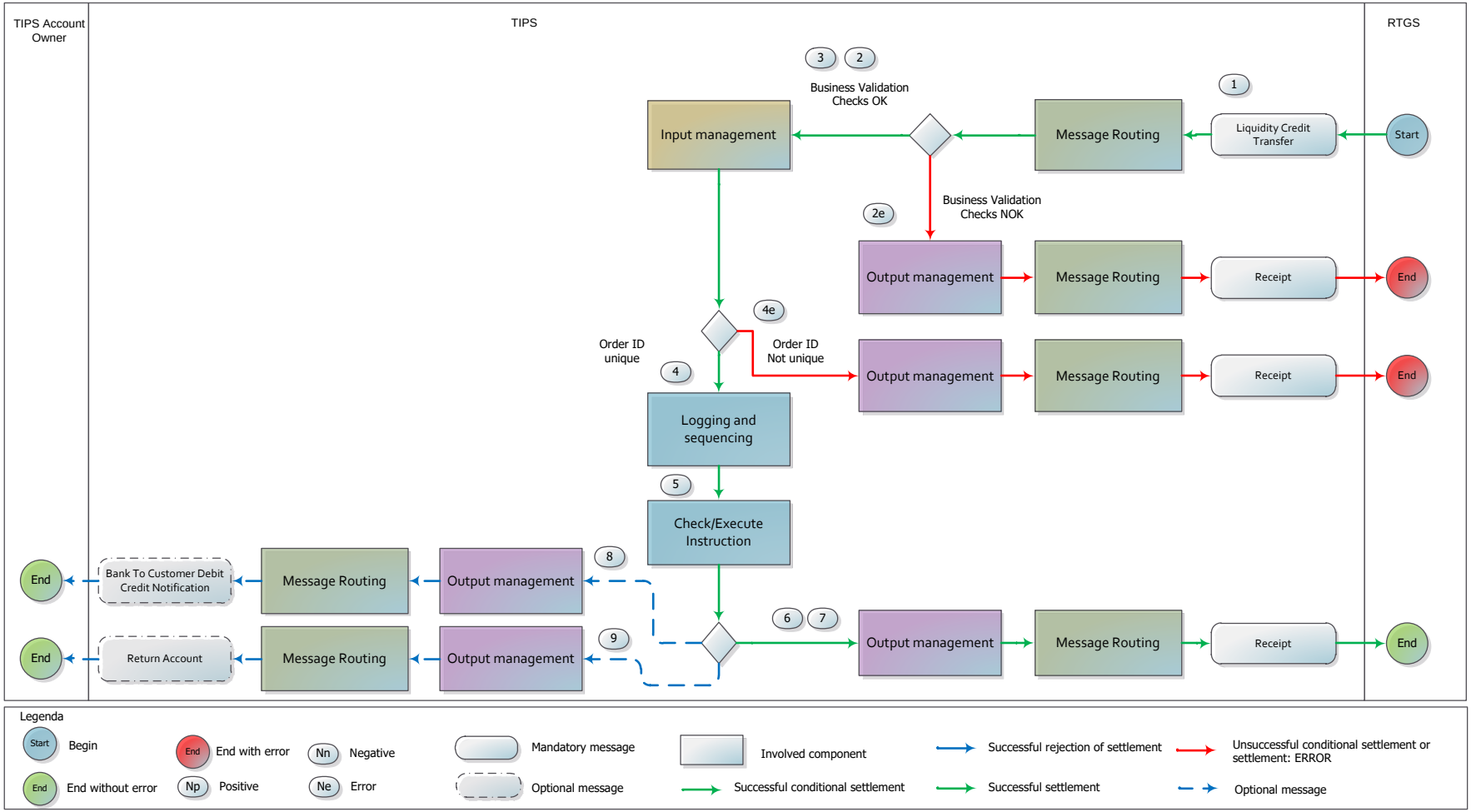
Additionally, it can also be sent by TIPS to the T2-CLM in push, on optional basis in case of ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.

- Receipt (camt.025.001.07): the message sent by TIPS to the RTGS System to confirm/reject the execution of a Liquidity Transfer;
- BankToCustomerDebitCreditNotification: the message sent by TIPS to report the settlement of a liquidity transfer to the TIPS Account owner (or the default DN configured as receiver). The notification is sent out only if previously configured by the Account owner.
- ReturnAccount: the message sent by TIPS to notify the owner of the credited TIPS Account (or the default DN configured as receiver) that the ceiling threshold is exceeded. The notification is generated for the Account owner only if the ceiling threshold is configured.

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The process is graphically described in the following flow.

Figure 187 – Inbound Liquidity Transfer Order flow



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The details on the single steps are described in the following table.

Table 32 – Inbound Liquidity Transfer Order steps

Step	Involved messages	Involved actors	Description
1	LiquidityCreditTransfer	RTGS System as Sender TIPS as receiver	TIPS receives an incoming Liquidity transfer request from the RTGS System. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
2		TIPS	TIPS successfully executes the following checks: - RTGS Access Rights Check; - Creditor Account existence; - Currency Check; - LT Amount Check. From now on, the Creditor account indicated in the Liquidity Transfer Order is referred to as "Account to be credited". See 4.1- Business Rules for details.
2e	Receipt (camt.025.001.07)	TIPS as Sender RTGS System as receiver	TIPS unsuccessfully executes one of the checks of **step 2**. At the first negative check the system stops and sends a message to the RTGS System – same DN of the Sender – containing the proper error code. The status of the Inbound Liquidity Transfer Order is set to "*Failed*".
3		TIPS	The system selects the Transit Account to be debited from the Transferred Amount as follows: - It retrieves from the table "Accounts" the row related to unique Account with type "Transit Account", that in table "Accounts" has the currency equal to the one defined in the Transferred Amount and is open for the current Business Date. From now on, the identified Account is referred to as "Account to be debited".

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS successfully completes the execution of the following checks: - LT Duplicate Check; - Creditor and Creditor Account not blocked. See 4.1- Business Rules for details.
4e	Receipt (camt.025.001.07)	TIPS as sender RTGS System as receiver	TIPS unsuccessfully executes the check of **step 4**. The system stops and sends a message to the RTGS System – same DN of the Sender – containing the proper error code. The status of the Inbound Liquidity Transfer Order is set to "*Failed*". See 4.1- Business Rules for details.
5		TIPS	The instruction is logged and sent to the Check and Execute Instruction process. The status of the Inbound Liquidity Transfer Order is set to "*Validated*".
6		TIPS	TIPS settles the full amount of the Liquidity Transfer Order, debiting the Account to be debited and crediting the Account to be credited. The status of the Inbound Liquidity Transfer is set to "*Settled*".
7	Receipt (camt.025.001.07)	TIPS as Sender RTGS System as receiver	The RTGS System is notified by the Output Dispatcher component of the status of the operation.
8	BankToCustomerDebitCreditNotification	TIPS as sender TIPS Account Owner as receiver	TIPS sends a notification to the TIPS Account owner in order to report the settlement of the liquidity transfer. The message is sent to the default DN of the Account Owner.
9	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender TIPS Account owner as receiver	TIPS checks the "Ceiling notification amount" configured for the credited account. Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner;

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Step	Involved messages	Involved actors	Description
		T2-CLM as receiver (only in case of automated LT and ceiling breach)	• If automated LT only is selected, a Push LiquidityCreditTransfer is sent to is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner whereas, if needed, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

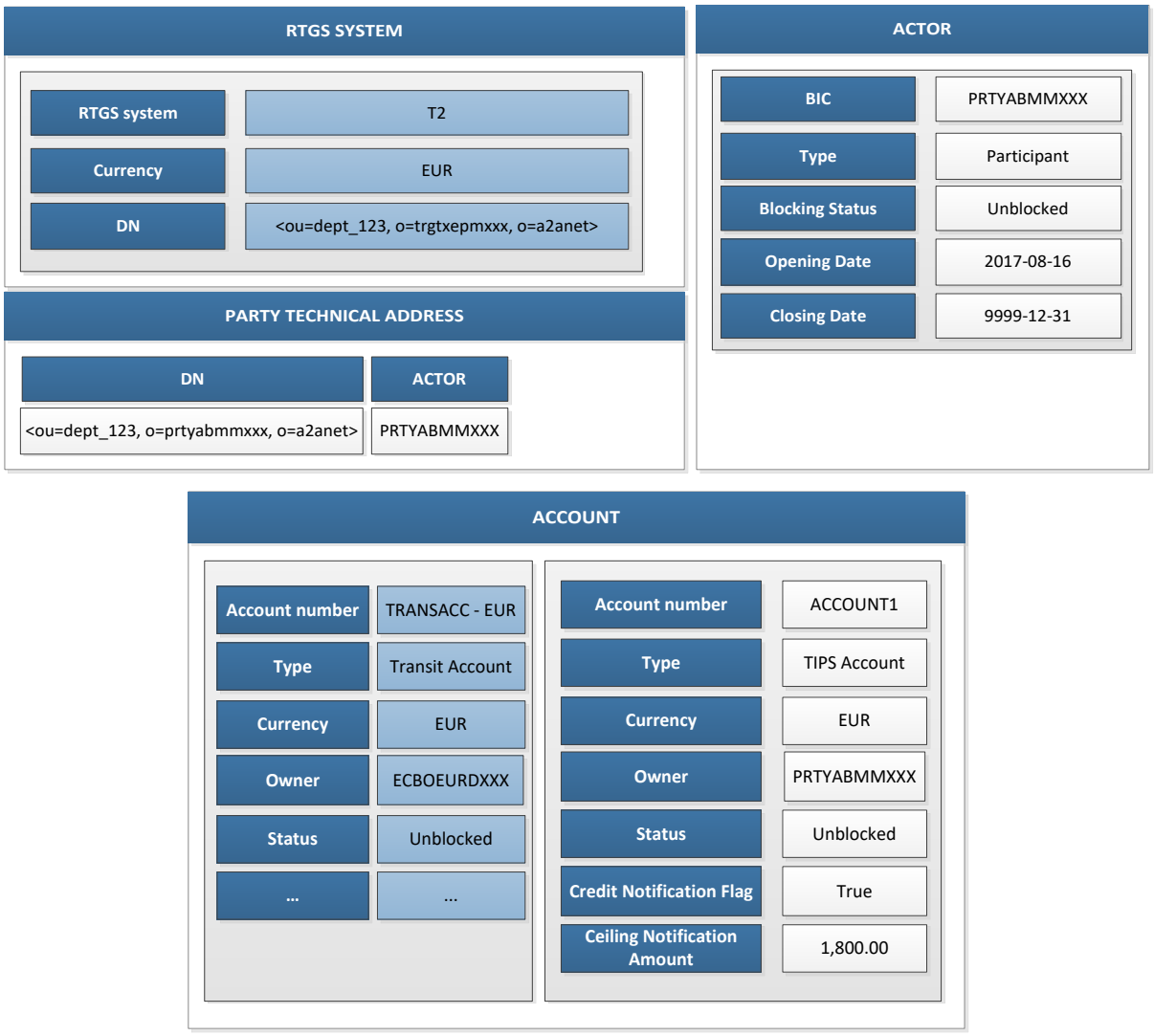
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2.5.1.1. Examples

This sub-section provides an overview of the Inbound Liquidity Transfers process by describing different examples of the possible scenarios: the first one provides the case where the Liquidity Transfer order is processed smoothly with no rejection by the system and Bank To Customer Debit Credit Notification message is properly configured by the TIPS Account owner; the second one deals with the rejection of the Liquidity Transfer order due to the failure of the LT Duplicate Check.

The below table summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 188 – Inbound Liquidity Transfer Order examples: data constellation



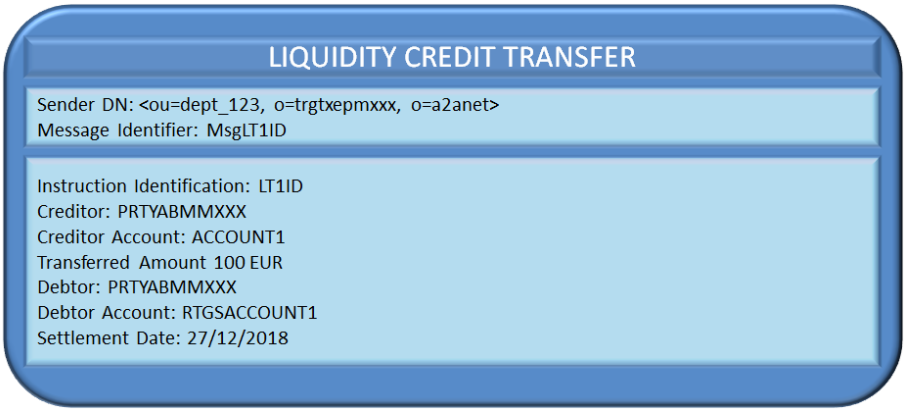
All rights reserved.

2.5.1.1.1 Successful scenario – Inbound Liquidity Transfer order is settled in TIPS

In this scenario:

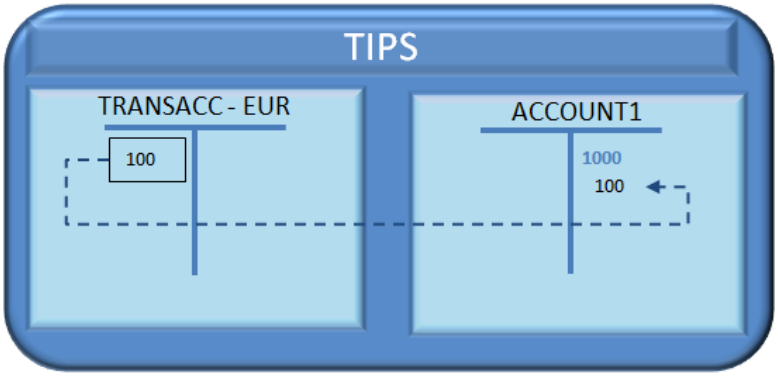
- The current business date is 27/12/2018 ;
- The RTGS System account owner and the TIPS Account owner are the same entity (PRTYABMMXXX);
- The TIPS Account balance is 1,000.00 EUR;
- The RTGS System sends a Liquidity Credit Transfer message in order to move liquidity from an RTGS System account (RTGSACCOUNT1) to a TIPS Account (ACCOUNT1);

Figure 189 – Successful Inbound Liquidity Transfer order: liquidity credit transfer



- TIPS receives the request and identifies:
  - The Account to be credited (ACCOUNT1) from the Creditor Account;
  - The Transit Account to be debited (TRANSACC – EUR) from the Transferred Amount/Currency;
- TIPS settles the full amount of the Liquidity Transfer Instruction. The Inbound Liquidity Transfer Order is set to *Settled*.

Figure 190 – Successful Inbound Liquidity Transfer order settlement



- The Receipt message is sent by TIPS to the RTGS System – same DN of the sender of the Liquidity Credit Transfer message – to confirm the execution of the order.

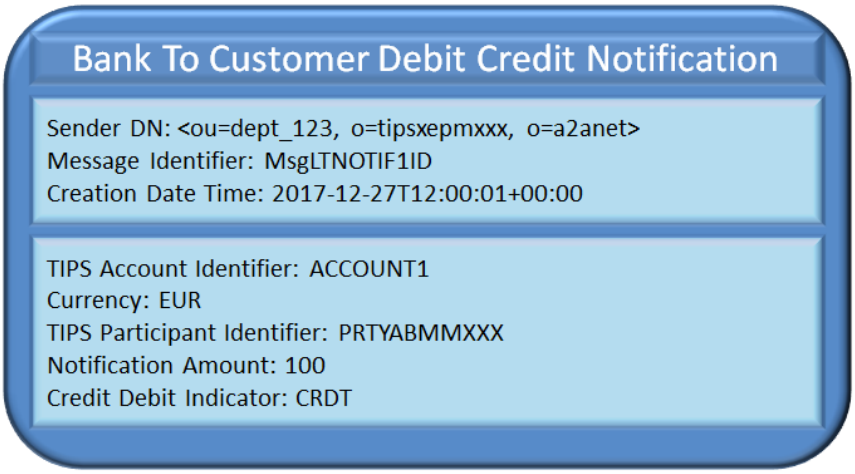
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Figure 191 – Successful Inbound Liquidity Transfer order Receipt



- The system verifies if in table “Accounts”, the Credit Notification Flag related to the Account to be credited is set to “True”; if so, it retrieves the Account Owner DN from the “Routing Configuration” in combination with the “Party Technical Address” (<ou=dept_123, o=prtyabmmxxx, o=a2anet>) to be notified with a positive message (Bank To Customer Debit Credit Notification) by the Output Dispatcher component.

Figure 192 – Successful Inbound Liquidity Transfer order credit notification



2.5.1.1.2 Unsuccessful scenario: Inbound LT order is rejected because LT duplicate check failed

In this scenario:

- The current business date is 27/12/2018;
- The RTGS System account owner and the TIPS Account owner are the same entity (PRTYABMMXXX);
- The RTGS System sends a Liquidity Credit Transfer message in order to move liquidity from an RTGS System account (RTGSACCOUNT1) to a TIPS Account (ACCOUNT1);

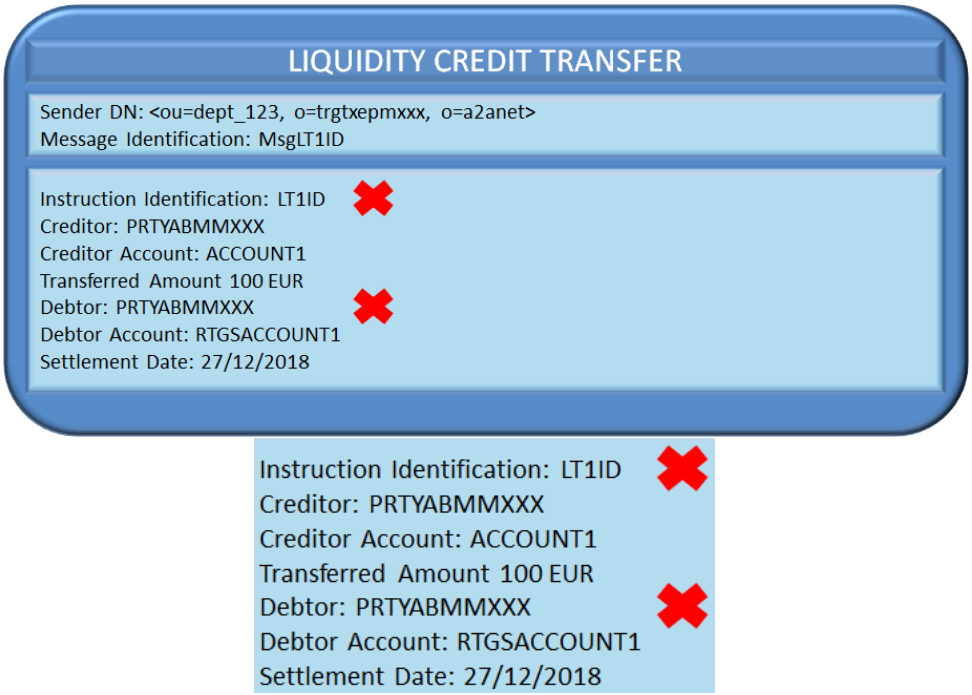
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Figure 193 – Unsuccessful Inbound Liquidity Transfer order: Liquidity credit transfer



- TIPS receives the message and identifies:
  - The Account to be credited (ACCOUNT1) from the Creditor Account;
  - The Transit Account to be debited (TRANSACC – EUR) from the Transferred Amount/Currency;
- TIPS detects a duplicate submission: the Liquidity Credit Transfer message has the same Instruction Identification (LT1ID) and Debtor (PRTYABMMXXX) as another Liquidity Credit Transfer message received from the same RTGS System in the last X days (where X is equal to the system parameter "Retention Period").

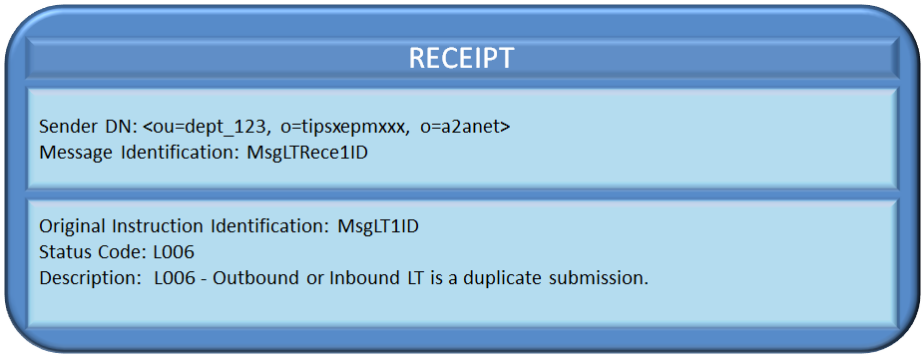
Figure 194 – Unsuccessful Inbound Liquidity Transfer order: duplicate submission



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- The following Receipt message is sent by TIPS to the RTGS System to reject the Liquidity Transfer order.

Figure 195 – Unsuccessful Inbound Liquidity Transfer order Receipt



2.5.2. Outbound Liquidity Transfer

This section describes the processing of a Liquidity Transfer order sent by a Participant or Instructing Party acting on behalf of the Participant in order to transfer liquidity from a TIPS Account to an RTGS System account.

Dedicated sub-sections are included with the aim to provide some examples and to illustrate the scenario in which the system notifies to the TIPS Operator about a missing answer from the RTGS System.

The following Actors are involved in the outbound liquidity transfer business process:

- The Central Bank, the TIPS Participant or Instructing Party as instructor of the Liquidity Transfer;
- TIPS that receives and confirms the request from the instructor;
- The RTGS System that receives and confirms the request from TIPS.
- TIPS Account owner (or the default DN configured as receiver) which is duly informed if the account balance goes below the configured threshold. Additionally, if they subscribed to the debit notification, they will receive a debit notification after successful settlement confirmation from the RTGS System.

The following messages are involved in the Outbound Liquidity Transfer business process:

- Liquidity Credit Transfer: the message which enables the sender to instruct the transfer liquidity from the TIPS Account to an RTGS System account. Additionally, it can also be sent by TIPS to the T2-CLM in pull, on optional basis, in case of floor breaches and upon the definition of a rule-based LT configuration in CRDM.
- Receipt (camt.025.001.07): the message sent by TIPS to the TIPS Participant or Instructing Party to confirm/reject the execution of a Liquidity Transfer;

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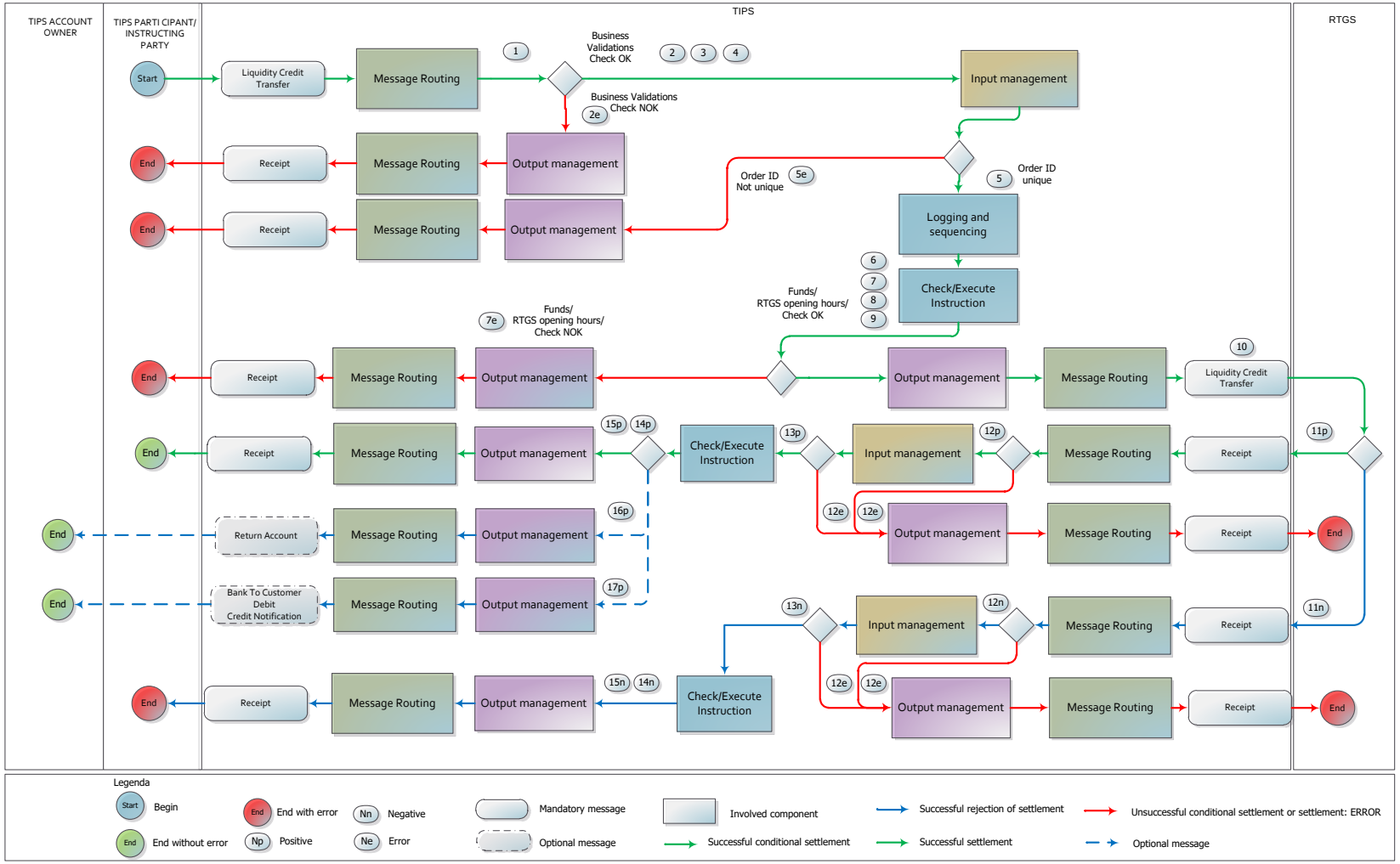
- Receipt (camt.025.001.07): the message sent by the RTGS System to confirm/reject the execution of a Liquidity Transfer;
- BankToCustomerDebitCreditNotification: the message sent by TIPS to report the settlement of a Liquidity Transfer to the TIPS Account owner (or the default DN configured as receiver). The notification is sent out only if previously configured by the account owner.
- ReturnAccount: the message sent by TIPS to notify the owner of the debited TIPS Account that the floor threshold is exceeded. The notification is generated for the account owner only if the floor threshold is configured.

Central Banks shall be able to initiate an Outbound Liquidity Transfer even if the closing date of the TIPS Account is exceeded and regardless of the TIPS Account's blocking status.

The process described below is triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user has been already successfully performed by ESMIG. The following diagram describes the Outbound Liquidity business process.

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Figure 196 – Outbound Liquidity Transfer Order flow



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The table below describes each single step of the Outbound Liquidity Transfer process.

Table 33 – Outbound Liquidity Transfer Order steps

Step	Involved messages	Involved actors	Description
1	LiquidityCreditTransfer	TIPS Participant or Instructing Party as sender TIPS as receiver	TIPS receives an Outbound Liquidity transfer request from the TIPS Participant or Instructing Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed by ESMIG.
2		TIPS	TIPS successfully executes the following checks: - Access Rights check; - Debtor Account existence; - Currency Check; - Instructing Party authorised; - LT Amount Check. See 4.1- Business Rules for details.
2e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks of **step 2**. At the first negative check the system stops and sends a message to the TIPS Participant or Instructing Party – same DN of the sender – containing the proper error code. The status of the Outbound Liquidity Transfer Order is set to "*Failed*".
3		TIPS	From now on, the debit account indicated in the Liquidity Transfer Order, is referred to as "Account to be debited".

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS identifies the RTGS System and the RTGS System Transit Account to be credited based on the currency of the Liquidity Transfer Order. In details: - the system selects from table "RTGS Systems" the RTGS System which has the currency equal to the Transferred Amount currency. From now on, the identified RTGS System is referred to as “RTGS System”. - the system selects from table "Accounts" an account, type "Transit Account", that has the currency equal to the Transferred Amount currency. From now on, the identified account is referred to as "Account to be credited";
5		TIPS	TIPS successfully completes the execution of the following check: - LT Duplicate Check; - Debtor and Debtor Account not blocked. See 4.1- Business Rules for details.
5e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant or Instructing Party as receiver	TIPS unsuccessfully executes the check indicated in **step 5**. The system stops and sends a message to the TIPS Participant or Instructing Party – same DN of the sender – containing the proper error code. The status of the Outbound Liquidity Transfer Order is set to “*Failed*”. See 4.1- Business Rules for details.
6		TIPS	The order is logged and sent to the Check and Execute Instruction process. The status of the Outbound Liquidity Transfer Order is set to "*Validated*".

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Step	Involved messages	Involved actors	Description
7		TIPS	TIPS successfully completes the execution of the following checks: - RTGS opening hours Check; - RTGS partial closure Check; - Funds Check. See 4.1- Business Rules for details.
7e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks of **step 7**. At the first negative check the system stops and sends a message to the TIPS Participant or Instructing Party – same DN of the sender – containing the proper error code. The status of the Outbound Liquidity Transfer Order is set to "*Failed*".
8		TIPS	The DN of the sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Debtor DN".
9		TIPS	TIPS settles the full amount of the Liquidity Transfer Instruction, crediting the Account to be credited and debiting the Account to be debited. The status of the Outbound Liquidity Transfer Order is set to "*Transient*".
10	LiquidityCreditTransfer	TIPS as sender RTGS System as receiver	The TIPS Output dispatcher forwards, through the Message Router, the received Liquidity transfer request to the RTGS System DN. TIPS remains waiting for a RTGS System Reply. The scenario where the RTGS System's reply is not received after a configurable timeframe (RTGS Alert) is described in section 2.5.2.2 "RTGS Alert scenario – No reply from RTGS".
11p	Receipt (camt.025.001.07)	RTGS System as sender TIPS as receiver	TIPS receives a Receipt message sent from the RTGS System in order to confirm the transfer;
12p		TIPS	The TIPS Message Router successfully completes the execution of the following check: - RTGS Access Rights Check. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
13p		TIPS	The Input Collector successfully performs the following checks: - Invalid status code in RTGS Answer Check; - Pending (Transient) order existing. See 4.1- Business Rules for details.
14p		TIPS	The status of the Outbound Liquidity Transfer Order is set to "*Settled*".
15p	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant or Instructing Party as receiver	The TIPS Output Dispatcher translates and forwards to the "Debtor DN", through the Message Router, the Receipt message received from the RTGS System.
16p	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender TIPS Account owner as receiver T2-CLM as receiver (only in case of automated LT and floor breach)	Once the status of the Outbound Liquidity Transfer Order is set to "*Settled*", TIPS checks the "Floor notification amount" configured for the involved Account to be debited. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the Account owner involved in the transaction; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to the relevant RTGS System (e.g. T2-CLM for euro); • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS Account owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new pull rule-based LT towards the corresponding T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if needed, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

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Step	Involved messages	Involved actors	Description
17p	BankToCustomerDebitCreditNotification	TIPS as sender TIPS Account Owner as receiver	TIPS sends a notification to the TIPS Account owner in order to report the settlement of the liquidity transfer.
12e	Receipt (camt.025.001.07)	TIPS as sender RTGS System as receiver	TIPS unsuccessfully executes the checks included in **steps 12p/13p** or **12n/13n**. The system stops and sends a message to the RTGS System – containing the proper error code. In the first scenario, if the rejected message was a positive receipt being sent at **step 11p**, the RTGS System can send a new positive receipt triggering the restart of the processing from **step 11p**. In the second scenario, if the rejected message was a negative receipt being sent at **step 11n,** the RTGS System can send a new negative receipt triggering the restart of the processing from **step 11n**.
11n	Receipt (camt.025.001.07)	RTGS System as sender TIPS as receiver	TIPS receives a Receipt message sent from the RTGS System in order to reject the transfer;
12n		TIPS	TIPS successfully completes the execution of the following check: - RTGS Access Rights Check. See 4.1- Business Rules for details.
13n		TIPS	The Input Collector successfully performs the following checks: - Invalid status code in RTGS Answer Check; - Pending (Transient) order existing. See 4.1- Business Rules for details.
14n		TIPS	TIPS performs an automatic reverse of funds from the original Account to be credited and the original Account to be debited. The transaction is set to "*Rejected*" status.

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Step	Involved messages	Involved actors	Description
15n	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant or Instructing Party as receiver	The TIPS Output Dispatcher forwards to the “Debtor DN”, through the Message Router, the Receipt message received from the RTGS System.

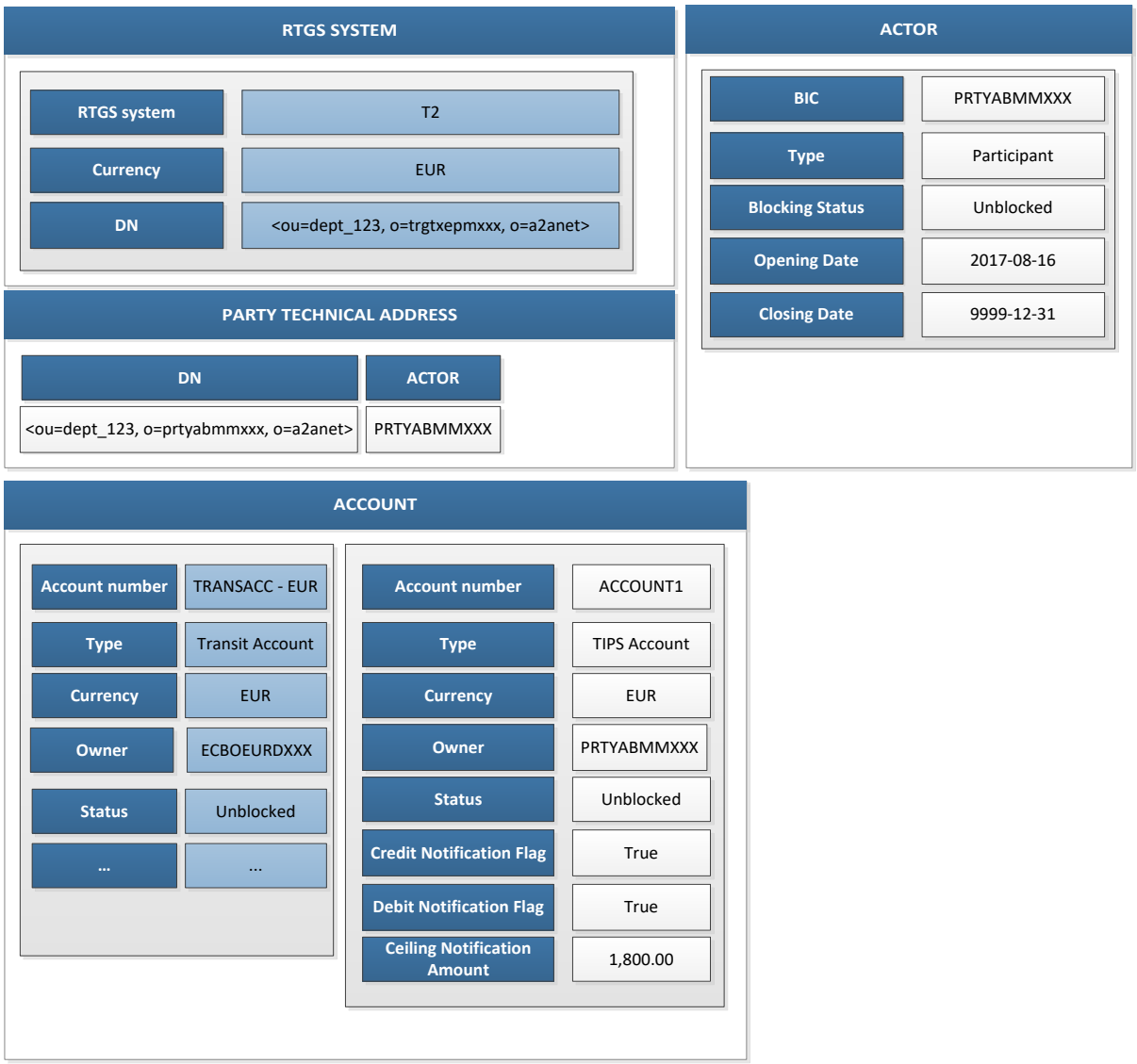
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2.5.2.1. Examples

This sub-section presents different examples related to the Outbound Liquidity Transfer process. The first one describes the successful scenario where the Liquidity Transfer order is processed smoothly; the second and third ones deal with the rejection of the Liquidity Transfer order by TIPS for insufficient funds and by the RTGS System, respectively.

The below table summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 197 – Outbound Liquidity Transfer Order examples: data constellation



2.5.2.1.1 Successful scenario – Outbound LT order settled in TIPS and RTGS System

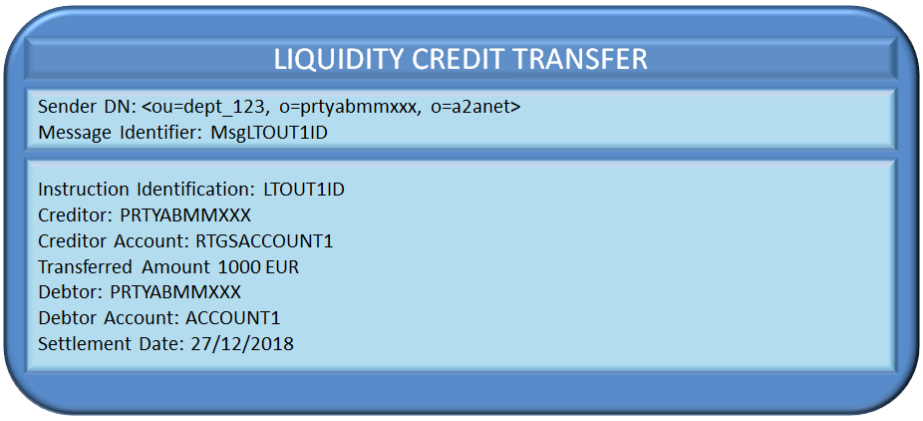
In this scenario:

- The current business date is 27/12/2018;

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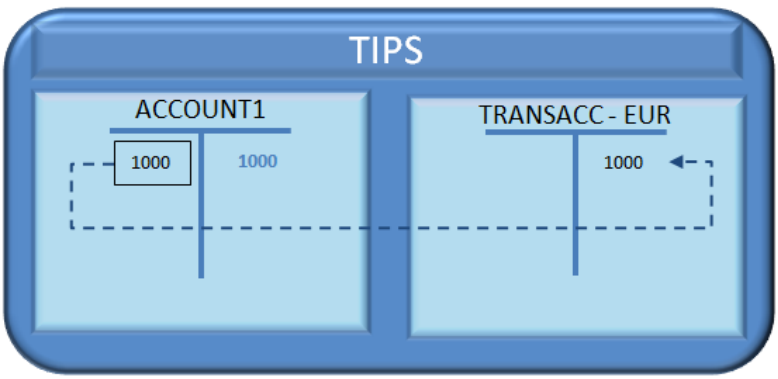
- A TIPS Participant sends a Liquidity Transfer request in order to move liquidity from the TIPS Account (ACCOUNT1) to an RTGS System account (RTGSACCOUNT1);

Figure 198 – Successful Outbound Liquidity Transfer order: Liquidity Credit Transfer



- TIPS identifies:
  - The DN of sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The RTGS System and the related DN (<ou=dept_123, o=trgtxepmxxx, o=a2anet>) from the Transferred Amount/Currency;
  - The Transit Account to be credited (TRANSACC – EUR) from the Transferred Amount/Currency;
  - The Debtor (PRTYABMMXXX)
  - The Account to be debited (ACCOUNT1) from the Debtor Account;
- The status of the Outbound Liquidity Transfer Order is set to *Validated*.
- TIPS settles the full amount of the Liquidity Transfer Instruction. The Outbound Liquidity Transfer Order is set to *Transient*.

Figure 199 – Successful Outbound Liquidity Transfer order settlement



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- The Liquidity Transfer request is forwarded to the interested RTGS System for the related settlement.

Figure 200 – Successful Outbound Liquidity Transfer order: Liquidity Credit Transfer



- The following Receipt message is sent by the RTGS System to TIPS to confirm the execution of the liquidity transfer. The status of the Outbound Liquidity Transfer Order is set to *Settled*.

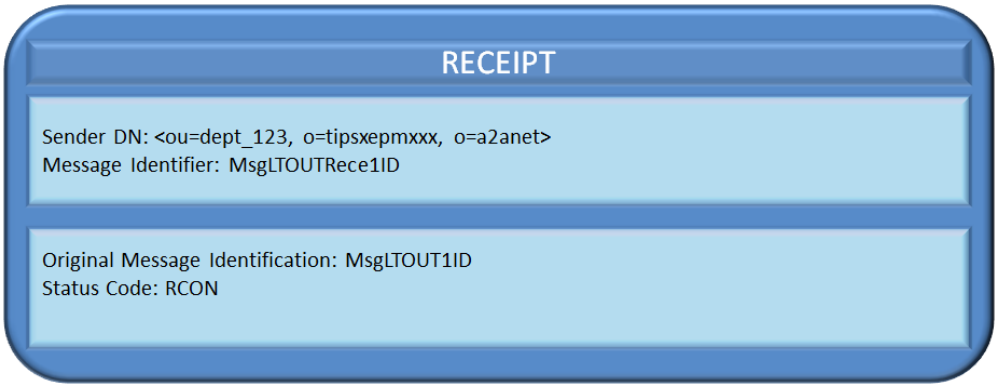
Figure 201 – Successful Outbound Liquidity Transfer order Receipt received by TIPS



- The TIPS Participant or Instructing Party is notified by the Output Dispatcher component with a positive message (Receipt).

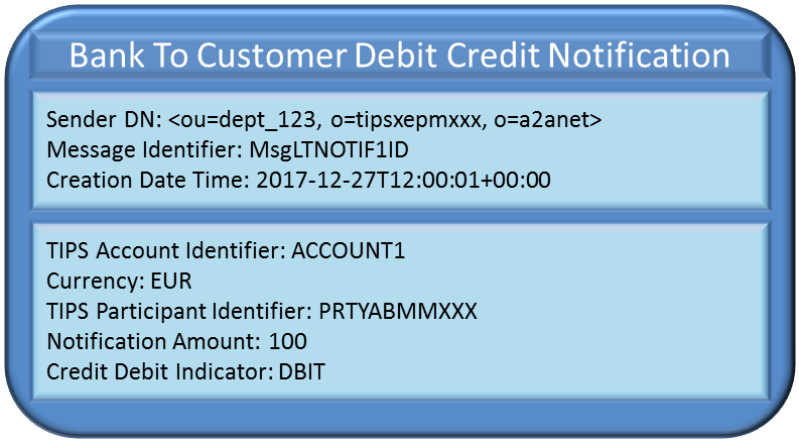
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Figure 202 – Successful Outbound Liquidity Transfer order Receipt sent by TIPS



- The system verifies if in table “Accounts”, the Debit Notification Flag related to the Account to be debited is set to “True”; if so, it retrieves the Account Owner DN from the “Routing Configuration” in combination with the “Party Technical Address” (<ou=dept_123, o=prtyabmmxxx, o=a2anet>) to be notified with a positive message (Bank To Customer Debit Credit Notification) by the Output Dispatcher component.

Figure 203 – Successful Outbound Liquidity Transfer order debit notification



-

2.5.2.1.2 Unsuccessful scenario – Outbound LT order rejected for insufficient funds in TIPS

In this scenario:

- The current business date is 27/12/2018;
- The TIPS Account balance is 150.00 EUR;
- A TIPS Participant sends a Liquidity Transfer request in order to move liquidity from the TIPS Account (ACCOUNT1) to an RTGS System account (RTGSACCOUNT1);

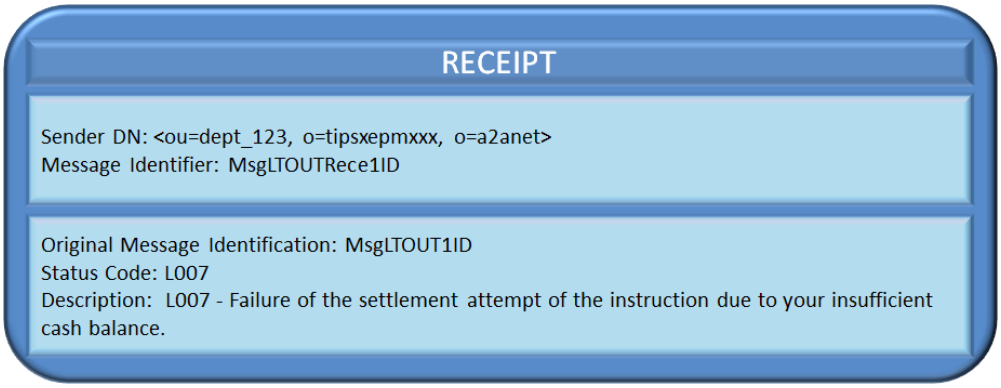
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Figure 204 – Unsuccessful Outbound Liquidity Transfer order: Liquidity Credit Transfer



- The message router component processes the incoming request and performs the relevant checks related to the authorisations of the sending party and several business validations.
- The system identifies:
  - The DN of the sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The RTGS System and the related DN (<ou=dept_123, o=trgtxepmxxx, o=a2anet>) from the Transferred Amount/Currency;
  - The Transit Account to be credited (TRANSACC – EUR) from the Transferred Amount/Currency;
  - The Debtor (PRTYABMMXXX)
  - The Account to be debited (ACCOUNT1) from the Debtor Account.
- The system detects that the resources available on the cash balance involved in the settlement under process, are insufficient.
- The status of the Outbound Liquidity Transfer Order is set to *Failed* and a Receipt message is sent by TIPS in order to inform the TIPS Participant.

Figure 205 – Unsuccessful Outbound Liquidity Transfer order Receipt sent by TIPS



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2.5.2.1.3 Unsuccessful scenario – Outbound LT order rejected by the RTGS System

In this scenario:

- The current business date is 27/12/2018;
- A TIPS Participant sends a Liquidity transfer request in order to move liquidity from the TIPS Account (ACCOUNT1) to an RTGS System account (RTGSACCOUNT1).

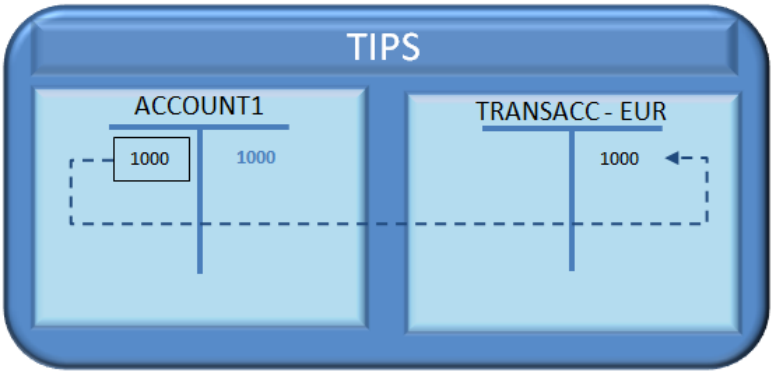
Figure 206 – Outbound Liquidity Transfer order: incoming message



- TIPS receives the message and identifies:
    - The DN of the sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
    - The RTGS System and the related DN (<ou=dept_123, o=trgtxepmxxx, o=a2anet>) from the Transferred Amount/Currency;
    - The Transit Account to be credited (TRANSACC – EUR) from the couple Transferred Amount and Currency;
    - The Debtor (PRTYABMMXXX);
    - The Account to be debited (ACCOUNT1) from the Debtor Account.
- The status of the Outbound Liquidity Transfer Order is set to *Validated*;
- TIPS settles the full amount of the Liquidity Transfer Order by debiting the Account to be debited (ACCOUNT1) and crediting the Transit Account (TRANSACC – EUR). The Outbound Liquidity Transfer Order is set to *Transient*.

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Figure 207 – Outbound Liquidity Transfer order: settlement in TIPS



- The Liquidity transfer request is forwarded to the pertinent RTGS System for the settlement in the related currency.

Figure 208 – Outbound Liquidity Transfer order: forwarding to the RTGS System



- The following Receipt message is sent by the RTGS System to TIPS to reject liquidity transfer order.

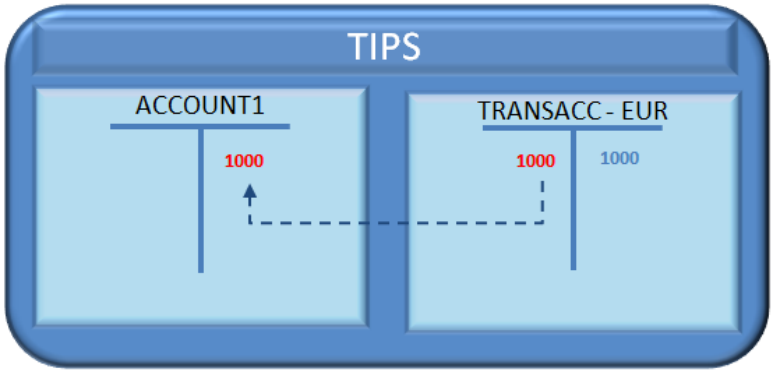
Figure 209 – Outbound Liquidity Transfer order: negative Receipt sent by the RTGS System



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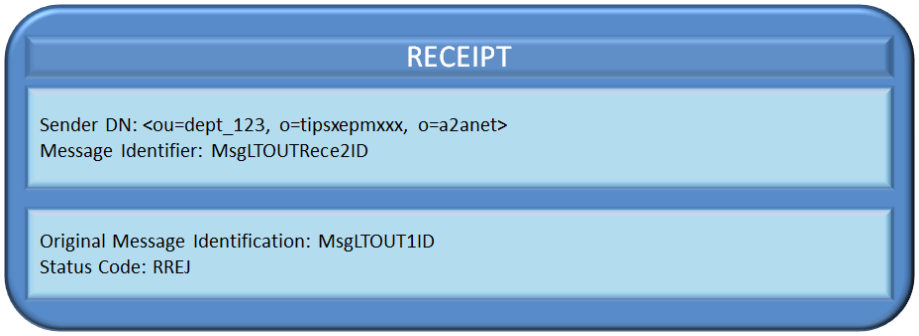
- TIPS performs an automatic reverse of funds from the RTGS System Transit Account to the TIPS Account originally debited.

Figure 210 – Outbound Liquidity Transfer order: reverse settlement



- The status of the Outbound Liquidity Transfer Order is set to *Rejected* and a Receipt message is sent by TIPS in order to inform the TIPS Participant.

Figure 211 – Outbound Liquidity Transfer order: negative Receipt sent by TIPS



2.5.2.2. RTGS Alert scenario – No reply from RTGS System

TIPS Participants can initiate outbound Liquidity transfers in TIPS using a Liquidity Transfer Order message. After having performed the necessary validations, TIPS transfers the requested amount from the TIPS Account to the Transit Account. Thereafter, TIPS forwards the liquidity transfer to the corresponding RTGS System and waits for an answer. The RTGS System is expected to reply with either a confirmation or a rejection message within a configurable timeframe.

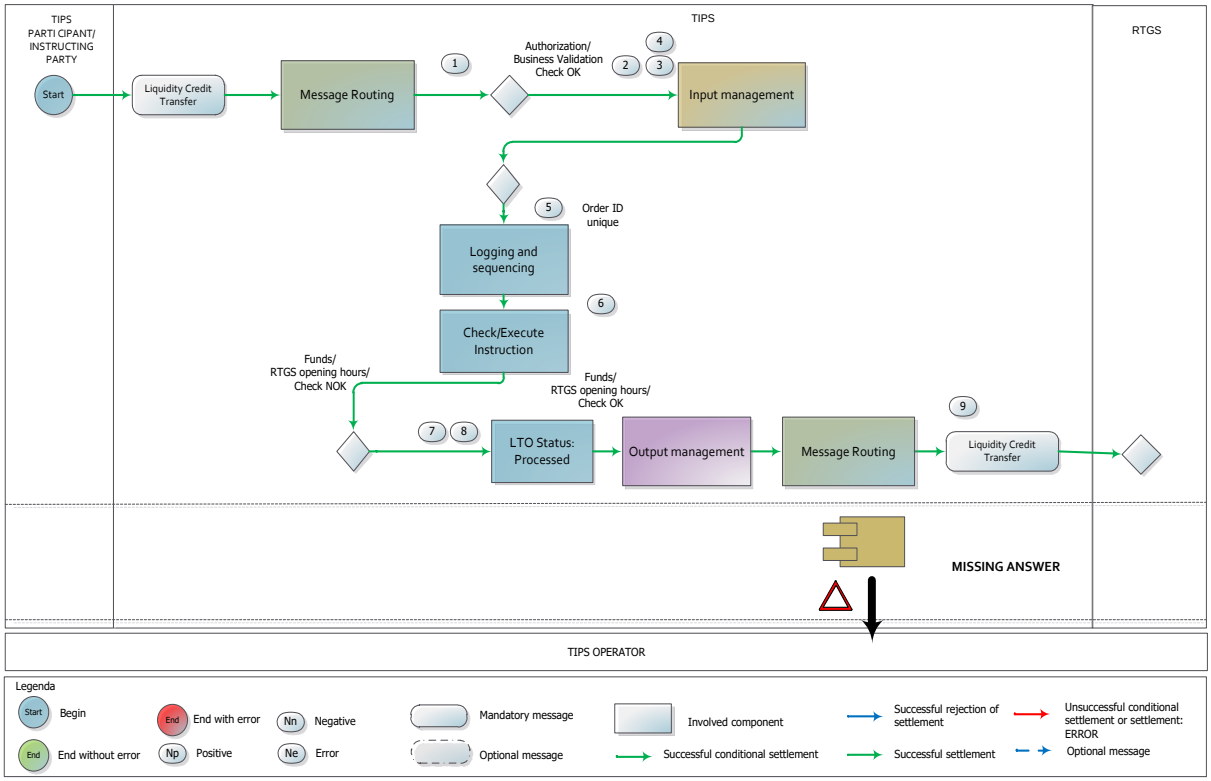
A specific software component is always acting in background detecting Liquidity Transfer Orders whose status is *Transient* and for which the lapse of time between the time the order is received in TIPS and the current timestamp is longer than X minutes (X being the "RTGS Alert" system parameter, see 1.7 "Service configuration").

In case the RTGS System does not provide any suitable answer within the aforementioned timeframe, TIPS alerts the TIPS Operator who can then initiate an appropriate operational procedure (depending on the reason for the timeout and the current status of TIPS and the RTGS System).

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The following diagram illustrates the process where the Liquidity Transfer Order is successfully processed and forwarded by TIPS to the RTGS System but no proper RTGS System answer is received within the configured time window.

Figure 212 – Outbound Liquidity Transfer: Missing RTGS System answer flow



All the single steps from 1 to 10 are described in Table 33 – Outbound Liquidity Transfer Order steps. The remaining steps are described in Table 34 – Outbound Liquidity Transfer: Missing RTGS answer steps below.

Table 34 – Outbound Liquidity Transfer: Missing RTGS answer steps

Step	Involved messages	Involved actors	Description
11		TIPS	The specified period of time configured as RTGS Alert has elapsed since the Liquidity Transfer request has been received by TIPS from the TIPS Participant (step 1) and neither a confirmation nor a rejection has been received from the RTGS System. TIPS raises an alert to the TIPS Operator.
12		TIPS Operator	Operational procedures are put in place in order to either confirm the Liquidity Transfer and inform the Instructing Party, or move back the liquidity from the RTGS Transit Account to the TIPS Participant Account.

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2.5.3. Intra-service Liquidity Transfer

This section describes the processing of an Intra-service Liquidity Transfer order sent by a TIPS Participant, Ancillary System or Instructing Party acting on behalf of the TIPS Participant or a Reachable Party in order to transfer liquidity from a TIPS Account to a TIPS AS Technical Account (or vice versa).

The following Actors are involved in the intra-service liquidity transfer business process:

- The Central Bank, TIPS Participant, Ancillary System or Instructing Party as sender of the Liquidity Transfer;
- TIPS that receives and confirms the request from the sender;
- The TIPS Account or TIPS AS Technical Account owner (or the default DN configured as receiver) which is duly informed if the account balance goes above or below the configured thresholds. Additionally, upon subscription in CRDM, they will receive a debit or credit notification after successful settlement.

The following messages are involved in the Intra-service Liquidity Transfer business process:

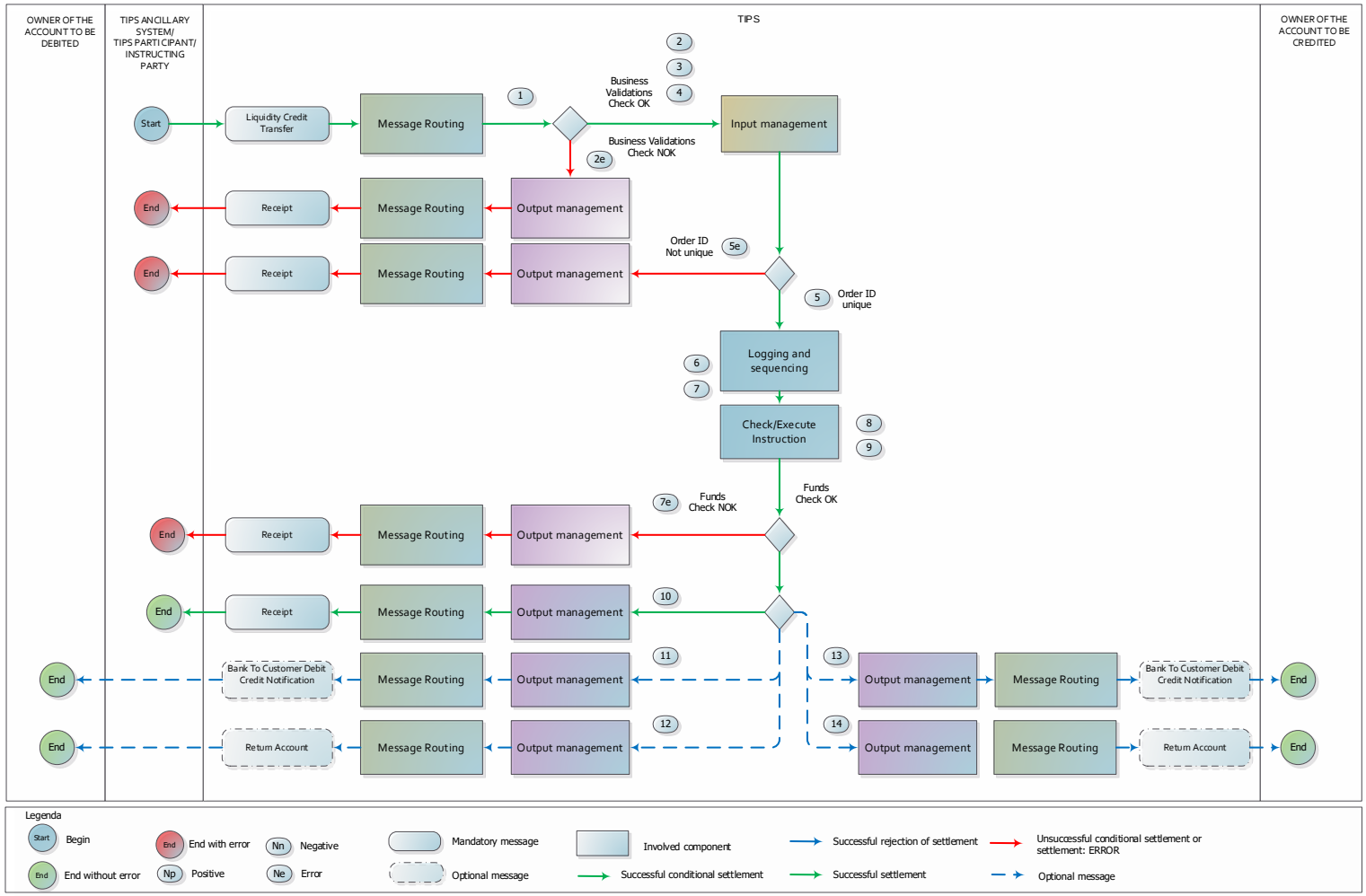
- Liquidity Credit Transfer: the message which enables the sender to transfer liquidity from the TIPS Account to a TIPS AS Technical account (or vice versa). Additionally, it can also be sent by TIPS to T2-CLM in pull/push, on optional basis, respectively in case of TIPS DCA floor/ceiling breaches and upon the definition of a rule-based LT configuration in CRDM.
- Receipt (camt.025.001.07): the message sent by TIPS to the TIPS Participant, Ancillary System or Instructing Party to confirm/reject the execution of an intra-service Liquidity Transfer;
- BankToCustomerDebitCreditNotification: the message sent by TIPS to report the settlement of a Liquidity Transfer to the account owner (or the default DN configured as receiver). The notification is sent out only if previously subscribed by the Account owner.
- ReturnAccount: the message sent by TIPS to notify the owner of the debited (or credited) account that the floor (or ceiling) threshold is breached. The notifications are generated and sent to the Account owner only if the floor/ceiling thresholds have been configured for each account involved in the liquidity transfer.

Central Banks shall be able to initiate an Intra-service Liquidity Transfer even if the closing date of the account is exceeded and regardless of the account's blocking status.

The process described below is triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user has been already successfully performed by ESMIG. The following diagram describes the Intra-service Liquidity Transfer business process.

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Figure 213 – Intra-service Liquidity Transfer diagram



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The table below describes each single step of the Intra-service Liquidity Transfer process.

Table 35 – Intra-service Liquidity Transfer steps

Step	Involved messages	Involved actors	Description
1	LiquidityCreditTransfer	TIPS Participant, Ancillary system or Instructing Party as sender TIPS as receiver	TIPS receives an Intra-service Liquidity transfer request from the TIPS Participant, Ancillary System or Instructing Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed by ESMIG.
2		TIPS	TIPS successfully executes the following checks: - Access Rights check; - Intra-service LT check; - Currency Check; - Instructing Party authorised; - LT Amount Check. See 4.1- Business Rules for details.
2e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant, Ancillary system or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks of **step 2**. At the first negative check the system stops and sends a message to the TIPS Participant, Ancillary system or Instructing Party – same DN of the sender – containing the proper error code. The status of the Intra-service Liquidity Transfer Order is set to "*Failed*".
3		TIPS	From now on, the debited account indicated in the Liquidity Transfer Order, is referred to as "Account to be debited".
4		TIPS	From now on, the credited account indicated in the Liquidity Transfer Order, is referred to as "Account to be credited".

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Step	Involved messages	Involved actors	Description
5		TIPS	TIPS successfully completes the execution of the following check: - LT Duplicate Check; - Debtor and Debtor Account not blocked. - Creditor and Creditor Account not blocked See 4.1- Business Rules for details.
5e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant, Ancillary system or Instructing Party as receiver	TIPS unsuccessfully executes the checks indicated in **step 5**. The system stops and sends a message to the TIPS Participant, Ancillary system or Instructing Party – same DN of the sender – containing the proper error code. The status of the Intra-service Liquidity Transfer Order is set to "*Failed*". See 4.1- Business Rules for details.
6		TIPS	The order is logged and sent to the Check and Execute Instruction process. The status of the Intra-service Liquidity Transfer Order is set to "*Validated*".
7		TIPS	TIPS successfully completes the execution of the following check: - Funds Check. See 4.1- Business Rules for details.
7e	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant, Ancillary system or Instructing Party as receiver	TIPS unsuccessfully executes the check of **step 7**. The system stops and sends a message to the TIPS Participant, Ancillary system or Instructing Party – same DN of the sender – containing the proper error code. The status of the Intra-service Liquidity Transfer Order is set to "*Failed*".
8		TIPS	The DN of the sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Debtor DN".

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Step	Involved messages	Involved actors	Description
9		TIPS	TIPS settles the full amount of the Liquidity Transfer Instruction, crediting the account to be credited and debiting the account to be debited. The status of the Intra-service Liquidity Transfer Order is set to "*Settled*".
10	Receipt (camt.025.001.07)	TIPS as sender TIPS Participant, Ancillary system or Instructing Party as receiver	The TIPS Output Dispatcher forwards to the “Debtor DN”, through the Message Router, the Receipt message.
11	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and floor breach)	TIPS as sender Owner of the debited account as receiver T2-CLM as receiver (only in case of automated LT and floor breach)	Once the status of the Intra-service Liquidity Transfer Order is set to “*Settled*”, TIPS checks the "Floor notification amount" configured for the involved account to be debited. If the TIPS AS Technical account balance is lower than the "Floor notification amount", TIPS sends a ReturnAccount to the account owner (or the default DN configured as receiver) involved in the transaction. Should the TIPS DCA balance be lower than the "floor notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the TIPS DCA owner; • If automated LT only is selected, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Pull LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS DCA owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new pull rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if needed, the LiquidityCreditTransfer is sent to the DN of T2-CLM.

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Step	Involved messages	Involved actors	Description
12	BankToCustomerDebitCreditNotification	TIPS as sender Owner of the debited account as receiver	TIPS sends a notification to the owner of the debited account in order to report the settlement of the liquidity transfer.
13	ReturnAccount LiquidityCreditTransfer (only in case of automated LT and ceiling breach)	TIPS as sender Owner of the credited account as receiver T2-CLM as receiver (only in case of automated LT and ceiling breach)	Once the status of the Intra-service Liquidity Transfer Order is set to "*Settled*", TIPS checks the "Ceiling notification amount" configured for the credited account. If the TIPS AS Technical account balance is higher than the "Ceiling notification amount", TIPS sends a ReturnAccount to the account owner (or the default DN configured as receiver) involved in the transaction. Should the TIPS DCA balance be greater than the "ceiling notification amount", TIPS shall check the rule-based LT configuration: • If no rule exists, a ReturnAccount is sent to the TIPS DCA owner; • If automated LT only is selected, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM; • If automated LT and notification are enabled, a Push LiquidityCreditTransfer is eligible to be sent to T2-CLM and the TIPS DCA owner is notified with a ReturnAccount. If the following condition is successfully met, TIPS generates a new push rule-based LT towards T2-CLM: - RTGS opening hours Check. The ReturnAccount message is sent to the default DN of the Account Owner, whereas, if needed, the LiquidityCreditTransfer is sent to the DN of T2-CLM.
14	BankToCustomerDebitCreditNotification	TIPS as sender Owner of the credited account as receiver	TIPS sends a notification to the owner of the credited account in order to report the settlement of the liquidity transfer.

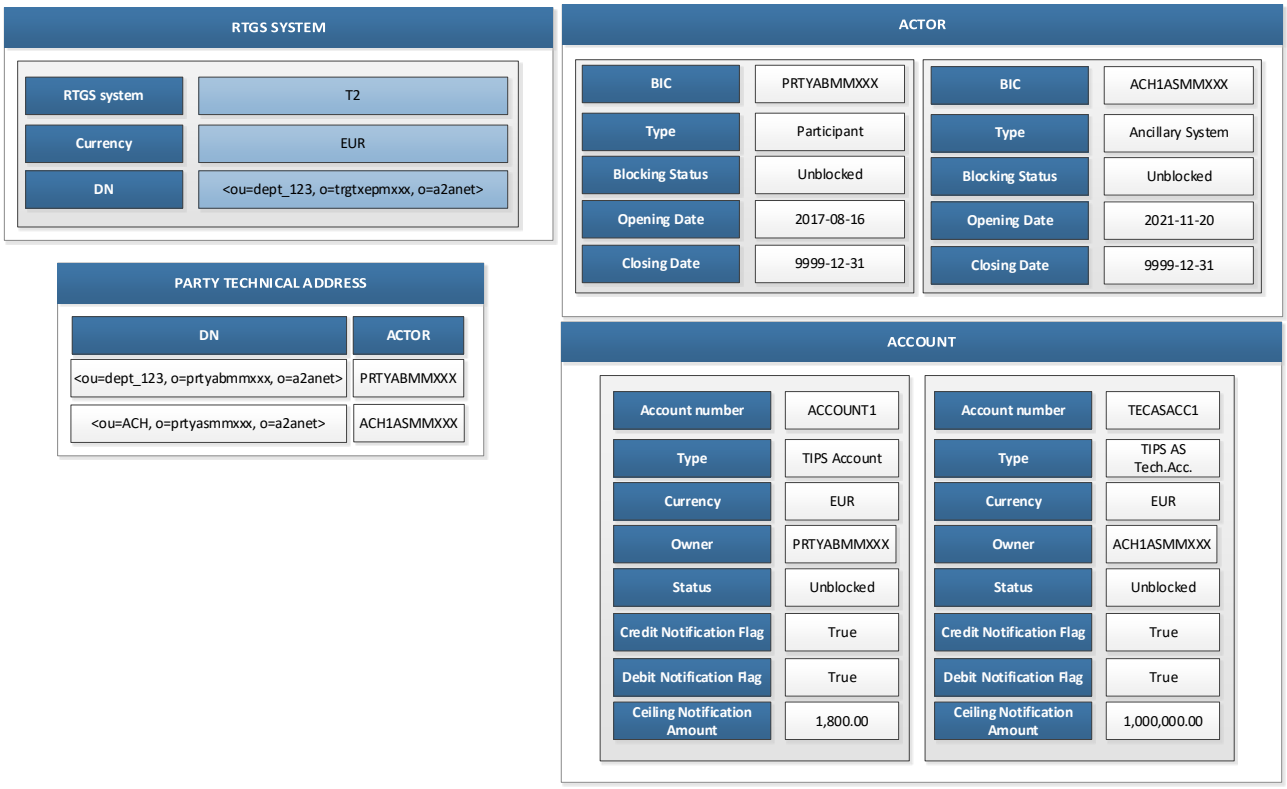
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2.5.3.1. Examples

This sub-section presents different examples related to the Intra-service Liquidity Transfer process. The first one describes the successful scenario where the Liquidity Transfer order is processed smoothly; the second deals with the rejection of the Liquidity Transfer order by TIPS for insufficient funds.

The below table summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 214 – Intra-service Liquidity Transfer examples: data constellation



2.5.3.1.1 Successful scenario – Intra-service LT successfully settled

In this scenario:

- The current business date is 22/11/2021;
- A TIPS Participant (PRTYABMMXXX) sends an intra-system Liquidity Transfer request to move liquidity from its TIPS Account (ACCOUNT1) to a TIPS AS Technical Account (TECASACC1) owned by an Ancillary System (ACH1ASMMXXX);
- The transfer of liquidity is done by the TIPS Participant on behalf of a reachable party (RECPARMMXXX) previously authorised to settle on the TIPS AS Technical Account

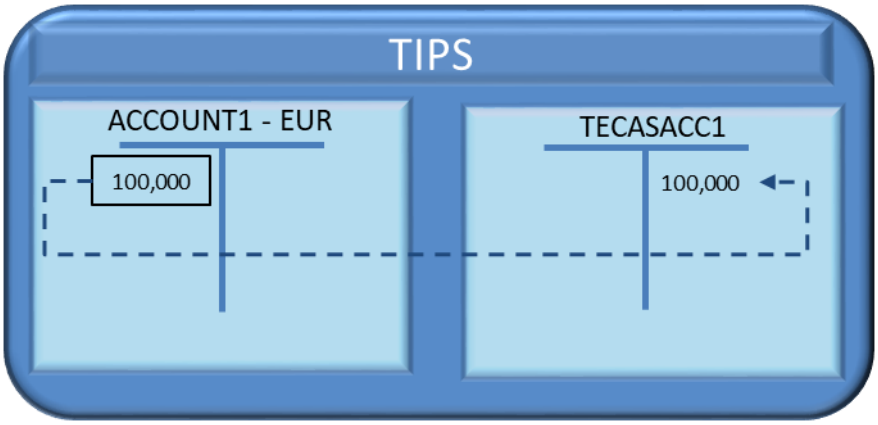
All rights reserved.

Figure 215 – Successful intra-service Liquidity Transfer: LiquidityCreditTransfer



- TIPS identifies:
  - The DN of sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The Debtor (PRTYABMMXXX);
  - The TIPS Account to be debited (ACCOUNT1) from the Debtor Account;
  - The TIPS Account balance is equal to 150,000.00 EUR
  - The TIPS AS Technical Account to be credited (TECASACC1) from the Creditor Account;
- The status of the intra-service Liquidity Transfer Order is set to *Validated*.
- TIPS settles the full amount of the Liquidity Transfer Instruction. The intra-service Liquidity Transfer Order is set to *Settled*.

Figure 216 – Successful intra-system Liquidity Transfer settlement



- The following Receipt message is sent by TIPS to the sender of the intra-service LT to confirm the settlement.

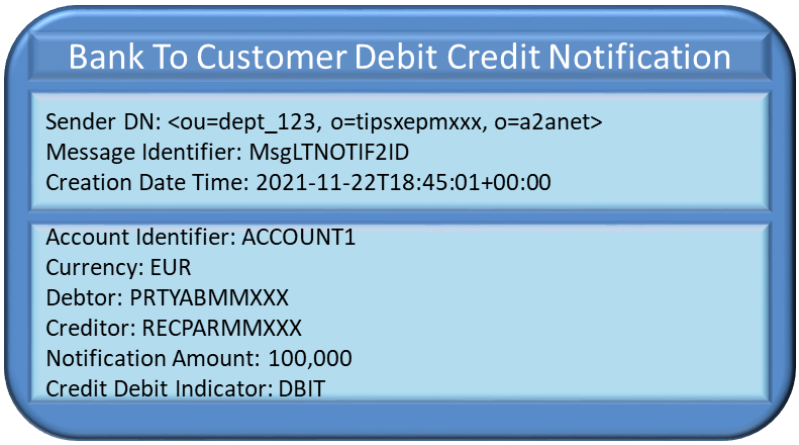
All rights reserved.

Figure 217 – Positive intra-service Liquidity Transfer: Receipt



- The TIPS Participant or Instructing Party is notified by the Output Dispatcher component with a positive Receipt (camt.025.001.07) message;
- TIPS checks whether the Debit Notification Flag related to the TIPS Account to be debited is set to "True"; if so, it retrieves the Account Owner DN from the "Routing Configuration" in combination with the "Party Technical Address" (<ou=dept_123, o=prtyabmmxxx, o=a2anet>) to be notified with a BankToCustomerDebitCreditNotification message by the Output Dispatcher component.

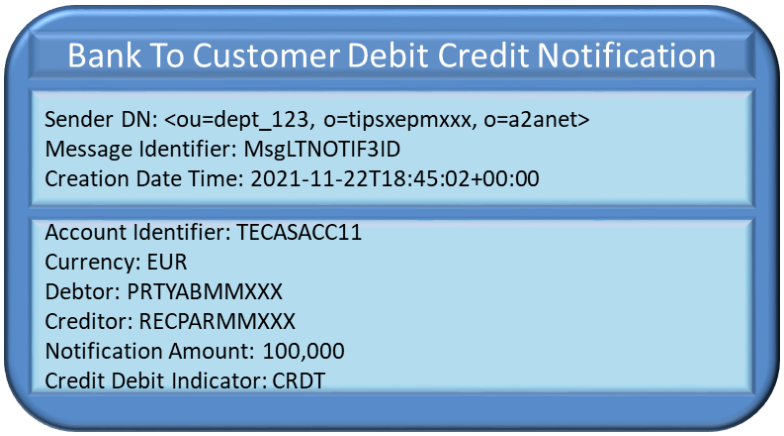
Figure 218 – Intra-service Liquidity Transfer debit notification



- TIPS checks whether the Credit Notification Flag related to the TIPS AS Technical Account to be credited is set to "True"; if so, it retrieves the Account Owner DN from the "Routing Configuration" in combination with the "Party Technical Address" (<ou=dept_123, o=ach1asmmxxx, o=a2anet>) to be notified with a BankToCustomerDebitCreditNotification message by the Output Dispatcher component.

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Figure 219 – Intra-service Liquidity Transfer credit notification



- It is worth noting that the creditor BIC reported in the notification contains the value RECPARMMXXX, i.e. the party on whose behalf the TIPS Participant transferred the liquidity to the technical account.

2.5.3.1.2 Unsuccessful scenario – intra-service LT order rejected for insufficient funds in TIPS

In this scenario:

- The current business date is 22/11/2021;
- A TIPS Participant (PRTYABMMXXX s ends an intra-system Liquidity Transfer request to move liquidity from its TIPS Account (ACCOUNT1) to a TIPS AS Technical Account (TECASACC1) owned by an Ancillary System (ACH1ASMMXXX);
- The transfer of liquidity is done by the TIPS Participant on behalf of a reachable party (RECPARMMXXX) previously authorised to settle on the TIPS AS Technical Account

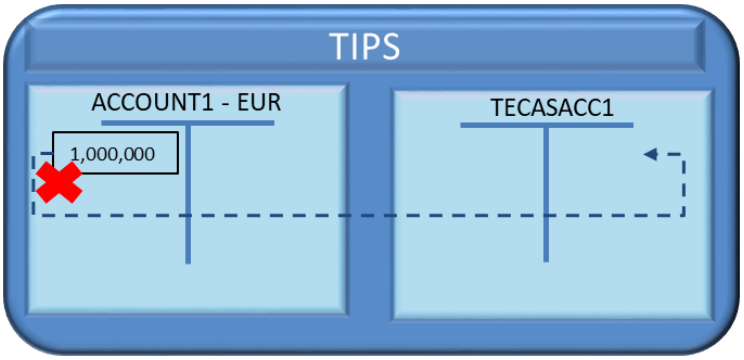
Figure 220 – Unsuccessful intra-service Liquidity Transfer: LiquidityCreditTransfer



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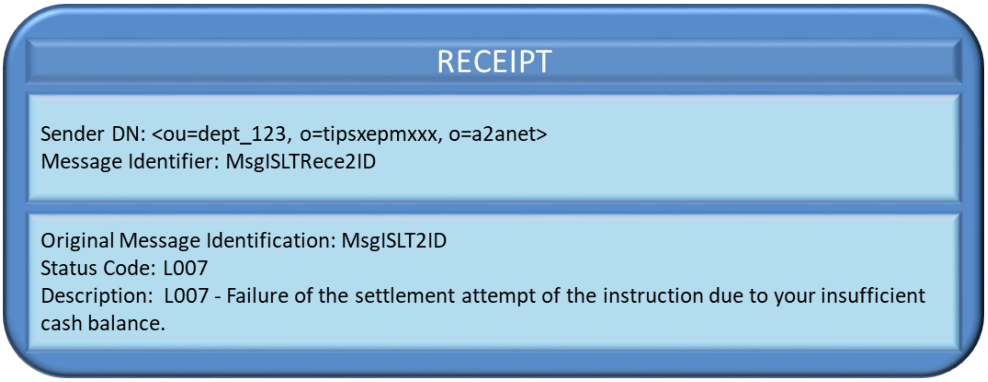
- The message router component processes the incoming request and performs the relevant checks related to the authorisations of the sending party and several business validations.
- TIPS identifies:
  - The DN of the sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The Debtor (PRTYABMMXXX)
  - The TIPS Account to be debited (ACCOUNT1) from the Debtor Account.
  - The TIPS Account balance is equal to 900,000.00 EUR
  - The TIPS AS Technical Account to be credited (TECASACC1) from the Creditor Account;
- TIPS detects that the current cash balance (900,000.00 EUR) of the debited TIPS Account involved is insufficient (the amount requested is 1,000,000.00 EUR).

Figure 221 – Insufficient balance on the debited account



- The status of the intra-service Liquidity Transfer Order is set to *Failed* and a negative Receipt (camt.025.001.07) message is sent by TIPS in order to inform the sender.

Figure 222 – Negative intra-service Liquidity Transfer: Receipt



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2.5.4. Internal Contingency Liquidity Transfer

This section describes the processing of the Internal Contingency Liquidity Transfers.

The following Actors are involved in the Internal Contingency Liquidity Transfer business process:

- Authorised Transit Account holders or Central banks;
- TIPS that receives and confirms the request from the sender;
- TIPS Account owner (or the default DN configured as receiver) which is optionally informed if the account balance breaches the configured thresholds. Additionally, if they subscribed to the credit/debit notification, they will receive a proper notification after successful settlement.

The following messages are involved in the ICLT business process:

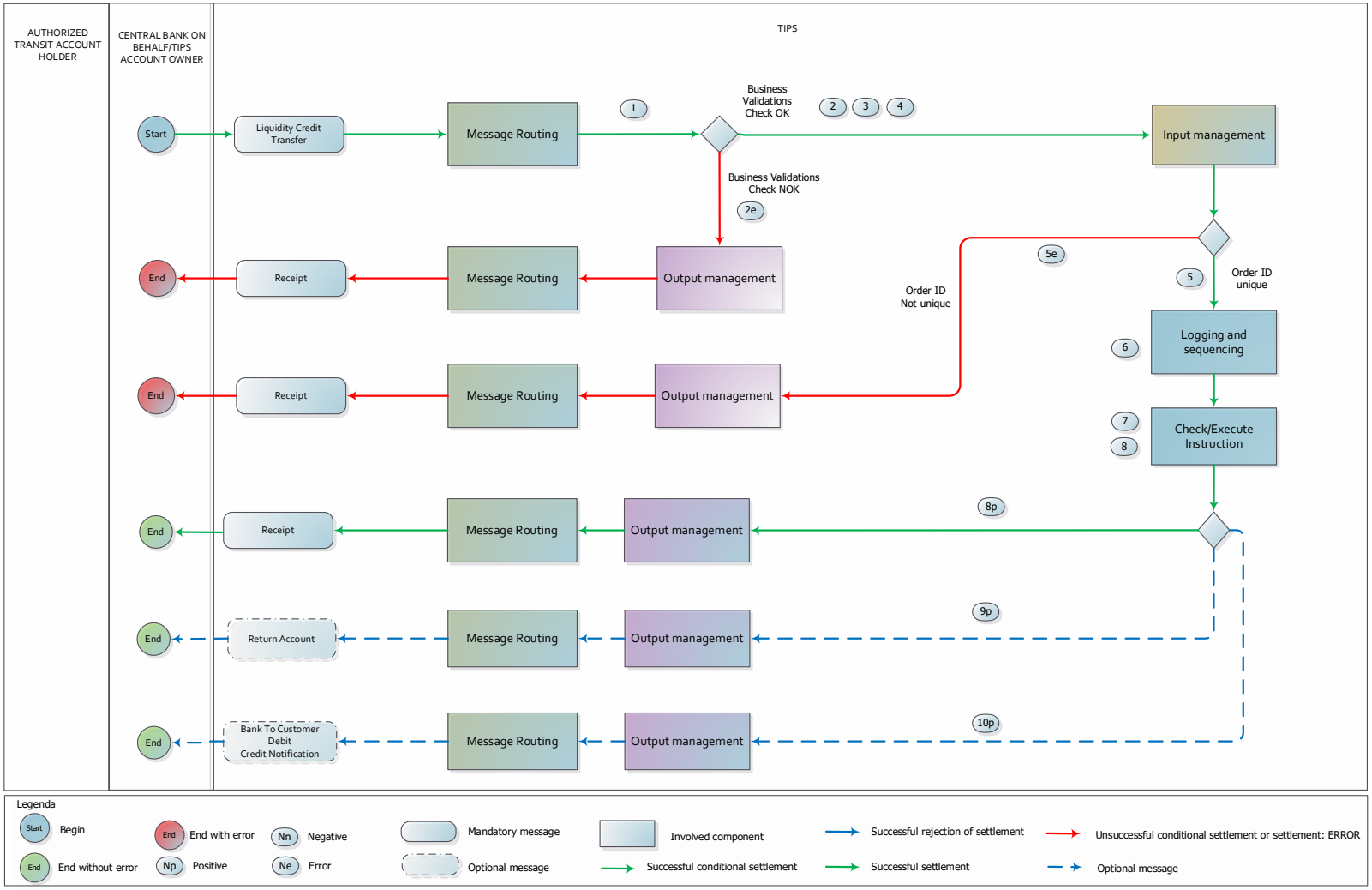
- LiquidityCreditTransfer: the message which enables the sender to instruct the transfer of liquidity from the Transit Account to a TIPS Account;
- Receipt (camt.025.001.07): the message sent by TIPS to the Authorised Transit Account holders or Central Banks to confirm/reject the execution of an ICLT;
- BankToCustomerDebitCreditNotification: the message sent by TIPS to report the settlement of a ICLT to the TIPS Account owner (or the default DN configured as receiver). The notification is sent out only if previously configured by the Account owner.
- ReturnAccount: the message sent by TIPS to notify the owner of the debited (or credited) TIPS Account that the floor (or ceiling) threshold is exceeded. The notification is generated for the TIPS Account owner only upon configuration of the relevant thresholds in CRDM.

Central Banks shall be able to initiate an ICLT even if the closing date of the TIPS Account is exceeded and regardless of the TIPS Account's blocking status.

The process described below is triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user has been already successfully performed by ESMIG. The following diagram describes the ICLT business process.

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Figure 223 – Internal Contingency Liquidity Transfer flow



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The table below describes each single step of the ICLT process.

Table 36 – Internal Outbound Contingency Liquidity Transfer steps

Step	Involved messages	Involved actors	Description
1	LiquidityCreditTransfer	TIPS Account holder or responsible Central Bank as sender TIPS as receiver	TIPS receives an Internal Outbound Contingency Liquidity Transfer request either from the responsible Central Bank on behalf of the TIPS Account holder or from the TIPS Account holder. Technical validation, check of mandatory fields and authentication checks have already been successfully executed by ESMIG.
2		TIPS	TIPS successfully executes the following checks: - LT via Transit Account allowed; - Access Rights check; - Debtor Account existence; - Currency Check; - Instructing Party authorised; - LT Amount Check. See 4.1- Business Rules for details.
2e	Receipt (camt.025.001.07)	TIPS as sender TIPS Account holder or responsible Central Bank as receiver	TIPS unsuccessfully executes one of the checks of **step 2**. At the first negative check the system stops and sends a message to the DN of the requestor containing the proper error code. The status of the ICLT is set to "*Failed*".
3		TIPS	From now on, the debited account, i.e. the TIPS Account indicated in the Liquidity Transfer Order, is referred to as "Account to be debited".
4		TIPS	From now on, the credited account, i.e. the Transit Account indicated in the Liquidity Transfer Order, is referred to as "Account to be credited";

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Step	Involved messages	Involved actors	Description
5		TIPS	TIPS successfully completes the execution of the following check: - LT Duplicate Check; - Debtor and Debtor Account not blocked. See 4.1- Business Rules for details.
5e	Receipt (camt.025.001.07)	TIPS as sender TIPS Account holder or responsible Central Bank as receiver	TIPS unsuccessfully executes the check indicated in **step 5**. The system stops and sends a message to the DN of the requestor containing the proper error code. The status of the ICLT is set to "*Failed*". See 4.1- Business Rules for details.
6		TIPS	The order is logged and sent to the Check and Execute Instruction process. The status of the ICLT is set to "*Validated*".
7		TIPS	The DN of the sender in **step 1** is saved as information related to the transaction. From now on, this DN is referred to as "Debtor DN".
8		TIPS	TIPS settles the full amount of the Liquidity Transfer Instruction, crediting the Account to be credited and debiting the Account to be debited. The status of the Internal Contingency Liquidity Transfer Order is set to "*Settled*".
8p	Receipt (camt.025.001.07)	TIPS as sender TIPS Account holder or responsible Central Bank as receiver	The TIPS Output Dispatcher forwards to the "Debtor DN", through the Message Router, the Receipt message.

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Step	Involved messages	Involved actors	Description
9p	ReturnAccount	TIPS as sender TIPS Account owner as receiver	Once the status of the ICLT is set to "*Settled*", TIPS checks the "Floor notification amount" configured for the involved TIPS Account to be debited. If the account balance is lower than the "floor notification amount", TIPS sends a ReturnAccount to the Account owner (or the default DN configured as receiver) involved in the transaction.
10p	BankToCustomerDebitCreditNotification	TIPS as sender TIPS Account owner as receiver	Upon subscription, TIPS sends a notification to the TIPS Account owner in order to report the settlement of the ICLT.

The inbound ICLT, which is only available in U2A, is based on the same business process, steps and involved messages described in this section, with the following differences:

- The initiator is the Authorised Transit Account holder.
- The credited account is the TIPS Account indicated in the Liquidity Transfer Order.
- The debited account is the Transit Account indicated in the Liquidity Transfer Order.
- The Receipt message is sent to the initiator of the ICLT.
- The receiver of the optional messages is again the TIPS Account owner and 'Floor notification amount' threshold will be considered for step 9p.

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2.6. Notifications

The floor and ceiling notification process manages the sending of the notifications whenever, after a successful settlement process, the amount (or headroom) of the TIPS Account, TIPS AS Technical Account (or the CMB) undercuts the floor amount or exceeds the ceiling amount configured by the owner in CRDM.

TIPS can generate a floor and ceiling notification related to an account after the successful settlement of either an Instant Payment transaction, a positive Recall Response or a Liquidity Transfer.

TIPS can generate a floor and ceiling notification related to a CMB only after the successful settlement of an Instant Payment transaction or a positive Recall Response.

Each TIPS DCA owner may configure in CRDM a rule-based liquidity transfer to trigger automatic injection to or drain from one of its TIPS DCAs that breached either the floor or the ceiling amount after a successful settlement attempt.

The rule-based Liquidity Transfer Order shall indicate from/to which Main Cash Account (MCA) the liquidity has to be pulled/pushed in case a floor/ceiling breach occurs on a TIPS DCA.

Besides the floor and ceiling amount thresholds, the TIPS DCA owner shall also be able to configure the Floor notification', 'Ceiling notification', 'Target Amount After Breaching Floor' and 'Target Amount After Breaching Ceiling' which are used by TIPS to request to T2-CLM the amount of liquidity needed to restore the predefined target balance after a floor/ceiling breach.

By enabling such a configuration, the TIPS DCA owner may also decide to choose between one of these three options:

a. Keep the current 'default' configuration, which implies that the TIPS DCA owner is notified by TIPS whenever[46] a floor/ceiling breach is detected;

b. Replace[47] the TIPS DCA owner notification with an automated injection/drain of liquidity driven by a rule-based LT initiated by TIPS;

c. Trigger both (i) the notification to the TIPS DCA owner whenever a floor/ceiling breach is detected and (i) the automated injection/drain of liquidity driven by a rule-based LT initiated by TIPS.

These rule-based configurations neither apply to TIPS CMBs nor to TIPS AS Technical Accounts. For those types of accounts, the owner is always notified by TIPS whenever[7] a floor/ceiling breach is detected.

The notifications related to both TIPS CMBs and TIPS AS Technical Accounts are generated every time the threshold is undercut (floor) or exceeded (ceiling) whereas for TIPS Accounts it depends on the configuration option chosen by the TIPS Account owner.

[46] Provided that floor and ceiling threshold amounts have been set in CRDM at account level

[47] By using this option, the TIPS Account owner will no longer be notified in case of floor/ceiling breaches

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In the event of a floor/ceiling breach taking place during the timeframe in which the RTGS System is closed (e.g., when the channel between T2-CLM and TIPS is closed, e.g. during the Maintenance Window) the following processing is executed in TIPS:

- If the breach is related to a TIPS CMB or a TIPS AS Technical account, the normal processing applies, i.e. the TIPS Account owner is immediately notified.
- If the TIPS DCA is not eligible for automated rule-based LT, (options (*a)* above), the normal processing applies, i.e. the TIPS DCA owner is immediately notified.
- If the TIPS DCA is eligible for automated rule-based LT, (options (*b)* and (*c)* above) no rule-based LT is generated towards the RTGS System. However, with option (*c)*, the TIPS DCA owner can still be notified immediately.

As soon as the RTGS System returns back to status 'open' for a given currency, TIPS checks the balances of all the TIPS DCAs denominated in that currency.

For any TIPS DCA whose balance is still below the floor, a Pull Rule-based Liquidity Transfer is generated and routed to the corresponding RTGS System. No action shall be undertaken by TIPS if the balance is above the floor threshold.

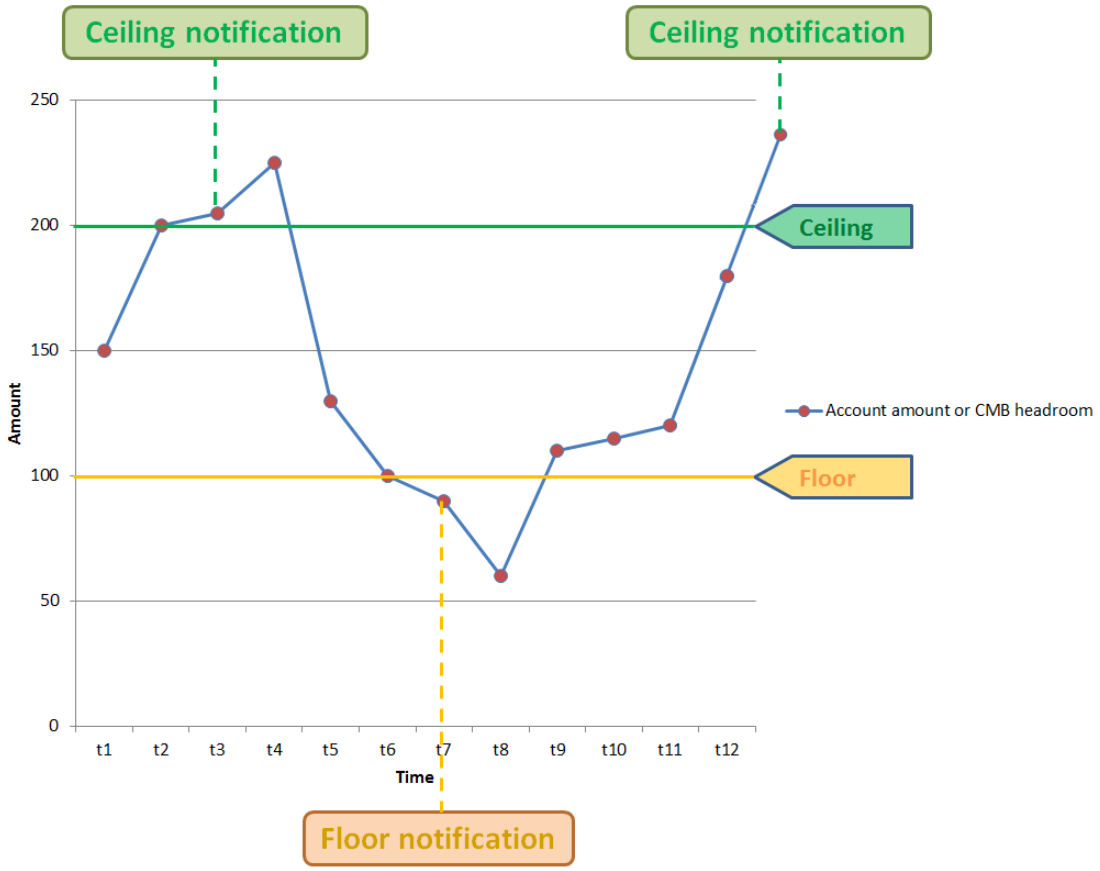
For any TIPS DCA whose balance is still above the ceiling, a Push Rule-based Liquidity Transfer is generated and routed to the corresponding RTGS System. No action shall be undertaken by TIPS if the balance is below the ceiling threshold.

Any Push/Pull Rule-based Liquidity Transfer delivery attempt is executed by TIPS only once. In case of any failure, the attempt is not repeated to avoid endless loops. A new attempt for a given TIPS DCA is only initiated by TIPS if a brand new floor or ceiling breach is detected.

TIPS does not generate new notifications if, after trespassing the threshold, the account balance or the CMB headroom remains consistently above the ceiling threshold or below the floor threshold.

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Figure 224 – Floor and ceiling notification triggers



The examples below are based on Instant Payment transaction cases.

2.6.1. Floor notification on a TIPS account

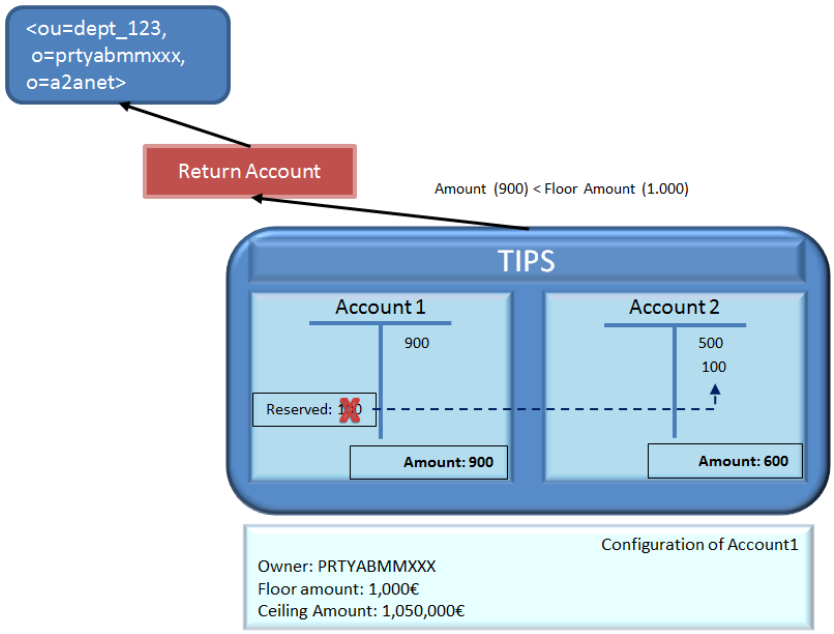
This positive scenario describes a successful Instant Payment transaction between two TIPS Accounts that generates a floor notification on the debited account. The scenario described is only an example for the floor notification and how the message is triggered, assuming the rule-based configuration is not present in CRDM for the TIPS Accounts involved in the transaction and that 'floor notification' flag is set to 'TRUE' in CRDM. The scenario is similar when the headroom of the CMB falls below the defined threshold. In this case, the message is generated and sent to the owner of the account linked to the CMB.

This example starts at the end of the 2.2.1.2.1 " Successful scenario with confirmed order – only accounts involved". The Account 1 has a Floor Amount set to 1,000.00 EUR. At the end of the settlement phase, the payment is confirmed and the Amount of the account is 900.00 EUR.

The system recognises that the account falls below the threshold defined by the customer and it starts the notification process.

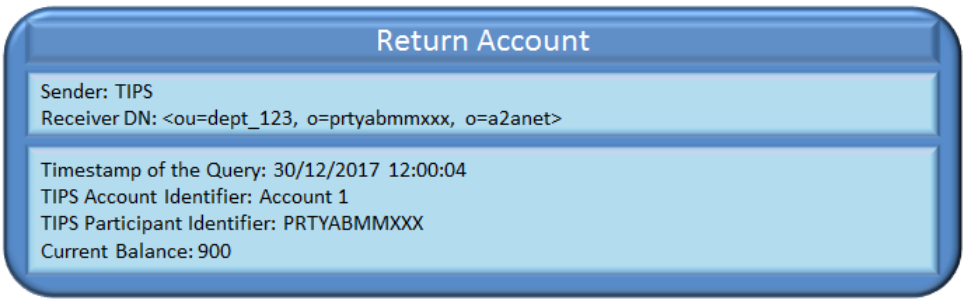
All rights reserved.

Figure 225 – Floor notification settlement



TIPS selects the Outbound DN of the owner of the account (or the default DN configured as receiver) and sends the message as follow.

Figure 226 – Floor notification ReturnAccount



The message is generated when a transaction is successfully settled and the account amount goes under the configured threshold.

Since both the CMB and the Account have their own and separate floor amount, when settling on a CMB it can happen that both CMB and Account go below their threshold. In this case, the owner of the account receives two separate messages, one notifying about the current headroom of the CMB and the other notifying the current account balance.

2.6.2. Ceiling notification on CMB

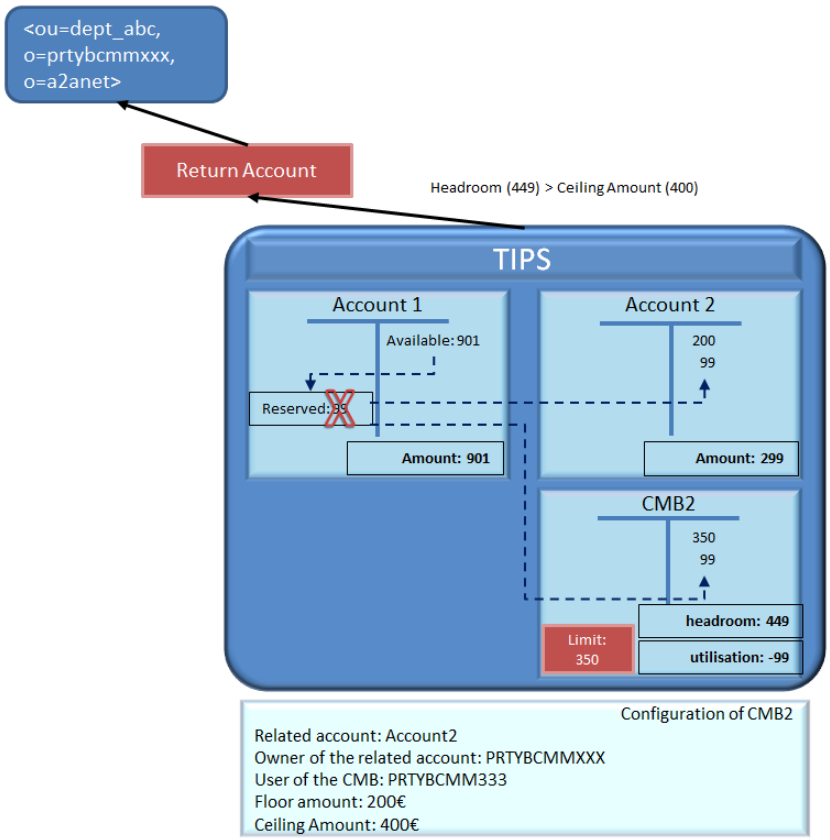
This positive scenario describes a successful Instant Payment transaction between two TIPS Actors that generates a ceiling notification on the credited CMB. The scenario described is only an example for the ceiling notification and how the message is triggered.

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This example starts at the end of the 2.2.1.2.3 " Successful scenario with confirmed order – Creditor CMB and debtor Account". The CMB2 has a Ceiling Amount set to 400.00 EUR. At the end of the settlement phase, the payment is confirmed and the headroom of CMB2 is 449.00 EUR.

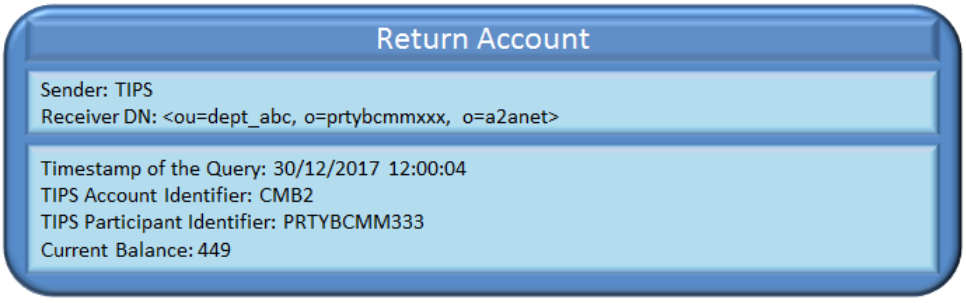
The system recognises that the CMB's headroom has exceeded the threshold configured by the TIPS Actor and it triggers the notification process.

Figure 227 – Ceiling notification settlement



TIPS selects the owner of the account related to the CMB2 and its Outbound DN. Then TIPS sends the message as follow.

Figure 228 – Ceiling notification ReturnAccount



All rights reserved.

The message is generated when a transaction is successfully settled and the account amount exceeds the configured threshold.

Since both the CMB and the account have their own and separate ceiling amount, when settling on a CMB it can happen that both CMB and account exceed their threshold. In this case, the owner of the account receives two separate messages, one notifying about the current headroom of the CMB and the other notifying the current account balance.

2.6.3. Floor notification on a TIPS account with rule-based LT and RTGS System in status 'open'

This example describes a successful Instant Payment transaction between two TIPS DCAs that triggers a floor breach on the debited account.

This example takes as precondition the execution of example 2.2.1.2.1 " Successful scenario with confirmed order – only accounts involved". The Account 1 has a Floor Amount set to 1,000.00 EUR. At the end of the settlement phase, the payment is confirmed and the Amount of the account is decreased to 900.00 EUR.

TIPS detects that the account balance breached the floor threshold defined by the customer and it checks the existence of any rule-based LT automation.

Assuming that the DCA owner configured a rule-based LT for which both (i) an automated LT to T2-CLM and a (ii) floor notification to the TIPS DCA owner have to be triggered, TIPS will generate:

- a floor notification to the TIPS DCA owner, and
- a Pull rule-based LT towards T2-CLM;

2.6.4. Floor notification on a TIPS account with rule-based LT and RTGS System in status 'closed'

This example describes a successful Instant Payment transaction between two TIPS Accounts that generates a floor notification on the debited account.

This example takes as precondition the execution of example 2.2.1.2.1 " Successful scenario with confirmed order – only accounts involved". The Account 1 has a Floor Amount set to 1,000.00 EUR. At the end of the settlement phase, the payment is confirmed and the Amount of the account is decreased to 900.00 EUR.

TIPS detects that the account balance breached the floor threshold defined by the customer and it checks the existence of any rule-based LT automation.

Assuming that the DCA owner configured a rule-based LT for which both (i) an automated LT to T2-CLM and a (ii) floor notification to the TIPS DCA owner have to be triggered, for the former TIPS shall not take any immediate action. For the latter, TIPS generates a ReturnAccount message to notify immediately the TIPS DCA owner.

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As soon as the relevant RTGS System reverts back to status 'open', TIPS checks the current balance of the TIPS DCAs. If the account balance is still below the floor, TIPS generates a pull rule-based LT towards the corresponding RTGS System.

2.7. Queries

This section focuses on the processing of a Query Request, with the description of the full scenario and its steps.

The section covers the scenarios in which a TIPS Participant, Ancillary System or Instructing Party queries the system in order to obtain information related to the balance and the status of an account, the limit and the status of a CMB or the status of a previously submitted or received Instant Payment transaction or Recall Response. This process is characterized by six different types of query:

- Account balance and status query;
- CMB limit and status query;
- Payment transaction status query;
- Advanced Payment transaction status query;
- Liquidity Transfer status query;
- Advanced Liquidity Transfer status query.

The remaining part of this chapter contains steps of the general flow and examples of possible scenarios for the *Account balance and status query*, *CMB limit and status query* and *Payment transaction status query*, with a focus on possible failing ones. Each example shows the relevant messages and how the main fields are filled.

TIPS shall take into account all access rights while processing queries and only return results if the queried data are part of the TIPS Actor data scope, as defined in the following table.

Table 37 – Query permissions

Actor	Account Balance and Status Query	CMB Limit and Status Query	Payment Transaction Status Query and Advanced Payment Transaction Status Query	Liquidity transfer status Query and Advanced Liquidity transfer status Query
Central Bank	Accounts under the CB's responsibility	CMBs under the CB's responsibility	Payment transactions which involve either as originator BIC or as beneficiary BIC one of the TIPS Actors belonging to the data scope of the given Central Bank.	All liquidity transfers affecting accounts in their books

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Actor	Account Balance and Status Query	CMB Limit and Status Query	Payment Transaction Status Query and Advanced Payment Transaction Status Query	Liquidity transfer status Query and Advanced Liquidity transfer status Query
Participant	Accounts for which the Participant is owner or authorised	CMB for which the Participant is owner or authorised	Payment transactions which involve the Participant or one of its authorised Reachable Parties either as originator BIC or as beneficiary BIC	All liquidity transfers affecting their accounts
Reachable party	No	No	No	No
Instructing Party on behalf of a Participant	Accounts for which the Participant's BIC is owner or authorised	CMBs for which their Participant's BIC is owner or authorised	Payment transactions which involve either as originator BIC or as beneficiary BIC the Participant the Instructing Party is acting on behalf for.	On liquidity transfers they submitted
Instructing Party on behalf of a Reachable Party	Accounts for which the Reachable Party's BIC is set as authorised user	CMBs for which their Reachable Party's BIC is set as responsible or authorised user	Payment transactions which involve either as originator BIC or as beneficiary BIC the Reachable Party the Instructing Party is acting on behalf for.	No
Ancillary System	The TIPS AS Technical account for which the Ancillary system's BIC is owner	CMBs for which the Ancillary system's BIC is owner	Payment transactions which involve, either as originator BIC or as beneficiary BIC, TIPS Participants or Reachable parties that are authorised to settle on the TIPS AS Technical Account or a CMB linked to it.	All liquidity transfers affecting its TIPS AS Technical account
RTGS System	Accounts denominated in their currency	CMBs denominated in their currency	Not applicable	Not applicable

If the queried data do not fall under the TIPS Actor data scope, an error is returned.

Involved actors and messages in Account Balance and Status Query and the CMB Limit and Status Query are:

- The TIPS Participant, Ancillary System or Instructing Party sending the query;
- GetAccount message in order to instruct the query;
- ReturnAccount message in order to receive the query response.

Involved actors and messages in Payment Transaction status query are:

- The TIPS Participant, Ancillary System or Instructing Party sending the query;
- GetTransaction message in order to instruct the query;
- ReturnTransaction message in order to receive the query response.

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The Account balance and status query allows the authorised actor to get the detailed information for one or multiple accounts, specifying the account identifiers.

Returned data for each account queried are:

- TIPS Participant or Ancillary System identifier;
- TIPS Account or TIPS AS Technical identifier;
- Current account balance;
- Currency linked to the account;
- Account status;
- Timestamp of the query.

If the Account balance and status query is triggered in U2A mode, the authorised actor can retrieve the following information concerning the last Payment Transaction or Liquidity Transfer settled on the relevant account:

- Transaction Identification;
- Settlement timestamp.

The CMB limit and status query allows the authorised actor to get the detailed information for one or multiple CMBs, specifying as input parameter the TIPS CMB identifiers.

Returned data for each CMB queried are:

- TIPS Participant or Ancillary System identifier;
- TIPS Account or TIPS AS Technical identifier for the account linked to the CMB;
- TIPS CMB identifier;
- CMB limit;
- CMB headroom;
- Currency of the account to which the CMB is linked;
- CMB status;
- Timestamp of the query.

The Payment transaction status query allows the authorised actor to get the detailed information for one payment transaction, specifying as input parameter (i) the Originator Participant or Reachable Party BIC and (ii) the payment transaction reference.

Returned data for each Payment Transaction queried are:

- Originator BIC of the payment transaction;
- Beneficiary BIC of the payment transaction;
- Payment transaction reference;
- Payment transaction status;
- Amount of the payment transaction;
- Settlement timestamp (if available);

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- Acceptance timestamp;
- Payment transaction reception timestamp[48];
- Payment transaction forwarding timestamp[49] (if available);
- Confirmation reception timestamp[50] (if available);
- Confirmation to the originator timestamp[51] (if available).

The Advanced Payment transaction status query allows the authorised actor to get detailed information for the payment transactions, based on the selected combination of the following search criteria:

- Originator BIC of the payment transaction;
- Beneficiary BIC of the payment transaction;
- Settlement business date;
- Lower bound of the search range for the Settlement Timestamp of the payment transaction;
- Upper bound of the search range for the Settlement Timestamp of the payment transaction;
- Lower bound of the search range for the Amount of the payment transaction;
- Upper bound of the search range for the Amount of the payment transaction;
- Cash Account;
- Transaction leg;
- Currency of the payment transaction;
- Lower bound of the search range for the Acceptance Timestamp of the payment transaction;
- Upper bound of the search range for the Acceptance Timestamp of the payment transaction;
- Status of the payment transaction;
- Error Code.

For each payment transaction, the following data shall be displayed on the list screen:

- Payment transaction reference;
- Originator BIC of the payment transaction;
- Beneficiary BIC of the payment transaction;
- Acceptance Timestamp;
- Amount of the payment transaction;
- Settlement business date (if available);
- Status of the payment transaction;
- Error code (if available);

[48] The timestamp when the payment transaction is received by TIPS from the originator participan

[49] The timestamp when the payment transaction is forwarded to the beneficiary participan

[50] The timestamp when the confirmation for a payment transaction is received by TIPS from the beneficiary participan

[51] The timestamp when the confirmation for a payment transaction is forwarded by TIPS to the counterpar

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- Settlement Timestamp (if available);
- Transaction leg;
- Cash Account.

The Liquidity transfer status query allows the authorised actor to look up through a dedicated screen and get the detailed information for one liquidity transfer, specifying as input parameter both (i) the debtor BIC and (ii) the liquidity transfer reference.

The following data shall be displayed on the screen:

- Debtor BIC of the liquidity transfer;
- Creditor BIC of the liquidity transfer;
- Debtor Account;
- Creditor Account;
- Liquidity transfer reference;
- Liquidity transfer status;
- Amount of the liquidity transfer;
- The currency of the liquidity transfer:
- Settlement timestamp (if available).

The Advanced Liquidity transfer status query allows the authorised actor to get a list of liquidity transfers, specifying individually or in combination the following parameters as input:

- Debtor BIC of the liquidity transfer;
- Creditor BIC of the liquidity transfer;
- Cash Account;
- Liquidity transfer reference;
- Liquidity transfer status;
- Lower bound of the search range for the amount of the liquidity transfer;
- Upper bound of the search range for the amount of the liquidity transfer;
- Lower bound of the search range for the Business date;
- Upper bound of the search range for the Business date;
- Direction

For each liquidity transfer, the following data shall be displayed on the list screen:

- Liquidity transfer reference;
- Debtor BIC of the liquidity transfer;
- Creditor BIC of the liquidity transfer;
- Credited Cash Account;
- Debited Cash Account;

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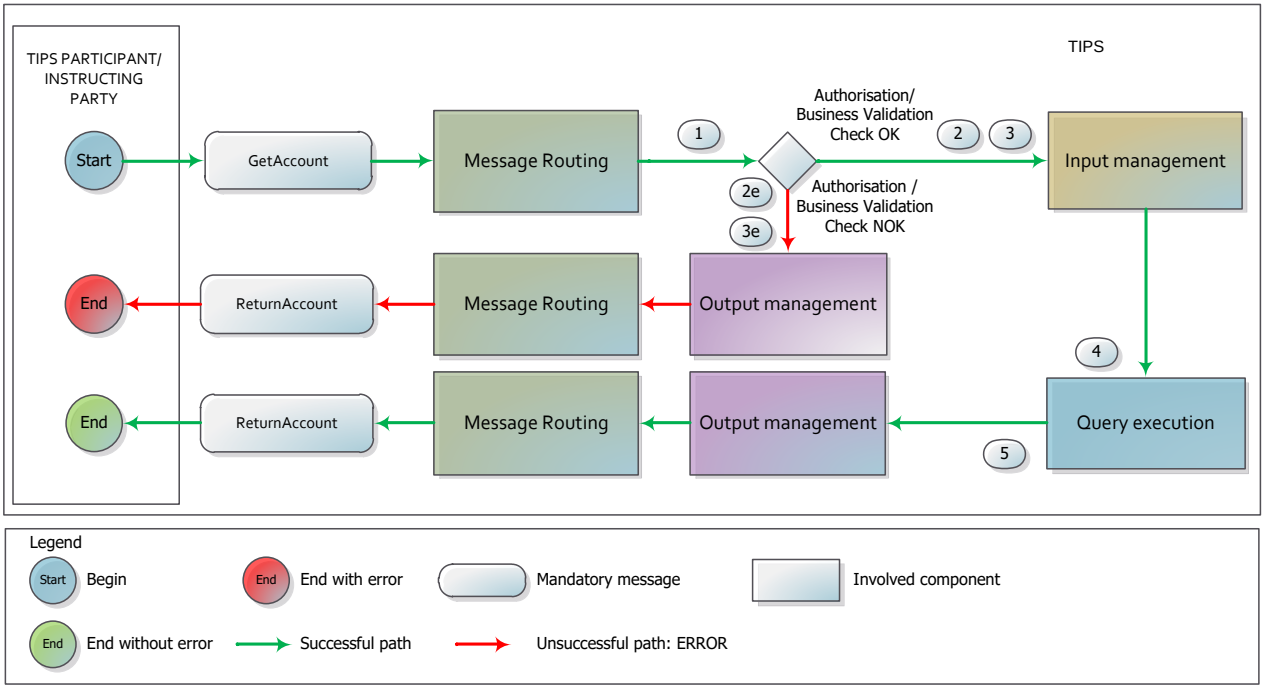
- Status of the liquidity transfer;
- Amount of the liquidity transfer;
- Settlement Date of the liquidity transfer.

All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

It is important to keep in mind that when the GetAccount message contains a BIC8 instead of a BIC11, the message is accepted and the string is completed appending “XXX” at the end of the BIC8 for further processing. All the steps are described considering BIC11 only.

The diagram below describes the process and the involved actors for Account Balance Status query.

Figure 229 – Account Balance Status query flow



The details of the steps are described in the following table.

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Table 38 – Account Balance Status query steps

Step	Involved messages	Involved actors	Description
1	GetAccount	Participant or Instructing Party as sender TIPS as receiver	TIPS receives an incoming Query from the Participant or Instructing Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Instructing Party authorised for queries; - Query uniformity check See 4.1- Business Rules for details.
2e	ReturnAccount	TIPS as sender Participant or Instructing Party as receiver	TIPS unsuccessfully executes one of the checks of **step 2**. At the first negative check the system stops and sends a message to the Participant or Instructing Party – same DN of the sender – containing the proper error code.
3		TIPS	TIPS performs the following checks for each instance of the field “Account or CMB Identifier” of the GetAccount message (Account/CMB existence) : - for Account balance and status query, TIPS verifies that the value corresponds to an account type "TIPS Account" in the table "Cash Accounts" and if the Participant or Instructing Party is authorised to query on it based on the query permission (see Query permissions table). - for CMB limit and status query, TIPS verifies that the value corresponds to a CMB in the table "CMB" and if the Participant or Instructing Party is authorised to query on it based on the query permission (see Query permissions table). The system selects also the TIPS Account linked to the CMB; See 4.1- Business Rules for details.

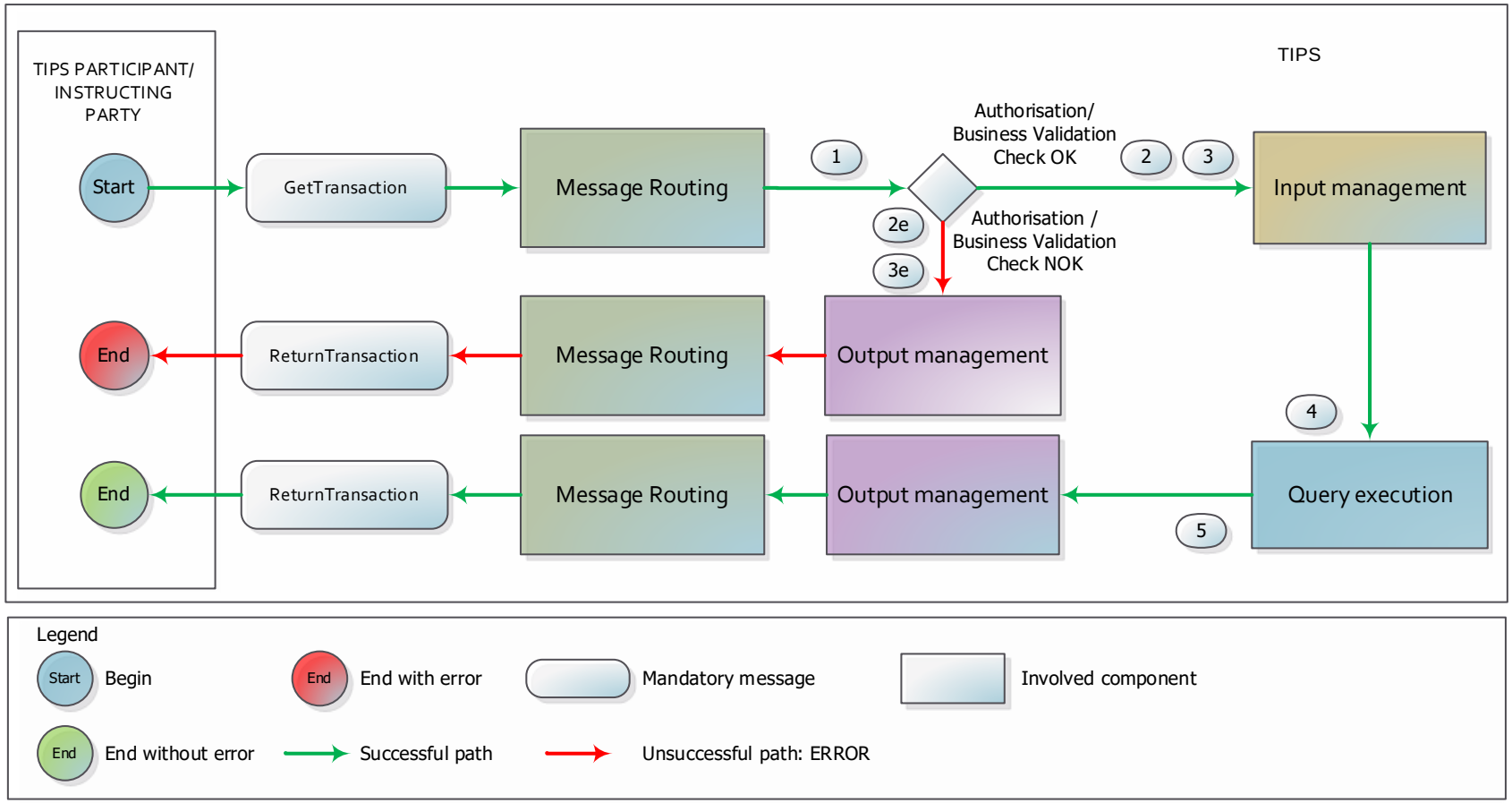
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Step	Involved messages	Involved actors	Description
3e	ReturnAccount	TIPS as sender Participant or Instructing Party as receiver	For every Account/CMB contained in the GetAccount message TIPS unsuccessfully executes one of the checks of **step 3**. The system sends a message to the Participant or Instructing Party – same DN of the sender – containing the proper error code for each Account/CMB requested.
4		TIPS	TIPS retrieves the data corresponding to the submitted query and its input parameters. For any Account/CMB whose check of step 3 has been unsuccessfully executed, the proper error code is reported.
5	ReturnAccount	TIPS as sender Participant or Instructing Party as receiver	The system sends a message to the Participant or Instructing Party – same DN of the query sender – containing the query results.

The diagram below describes the process and the involved actors for Payment Transaction status query.

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Figure 230 – Payment transaction status query flow



The details of the steps are described in the following table.

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Step	Involved messages	Involved actors	Description
1	GetTransaction	TIPS Participant, Ancillary System or Instructing Party as sender TIPS as receiver	TIPS receives an incoming Query from the TIPS Participant, Ancillary System or Instructing Party. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
2		TIPS	TIPS successfully executes the checks: - Access Rights check; See 4.1- Business Rules for details.
2e	ReturnTransaction	TIPS as sender TIPS Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check of **step 2**. At the first negative check the system stops and sends a message to the TIPS Participant, Ancillary System or Instructing Party – same DN of the sender – containing the proper error code.
3		TIPS	TIPS successfully executes the check: - Payment Transaction existence for query See 4.1- Business Rules for details.
3e	ReturnTransaction	TIPS as sender TIPS Participant, Ancillary System or Instructing Party as receiver	TIPS unsuccessfully executes the check of **step 3**. In case of error the system stops and sends a message to the TIPS Participant, Ancillary System or Instructing Party – same DN of the sender – containing the proper error code.
4		TIPS	TIPS retrieves the data corresponding to the submitted query and its input parameters.
5	ReturnTransaction	TIPS as sender TIPS Participant, Ancillary System or Instructing Party as receiver	The system sends a message to the TIPS Participant, Ancillary System or Instructing Party – same DN of the query sender – containing the query results.

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2.7.1. Examples

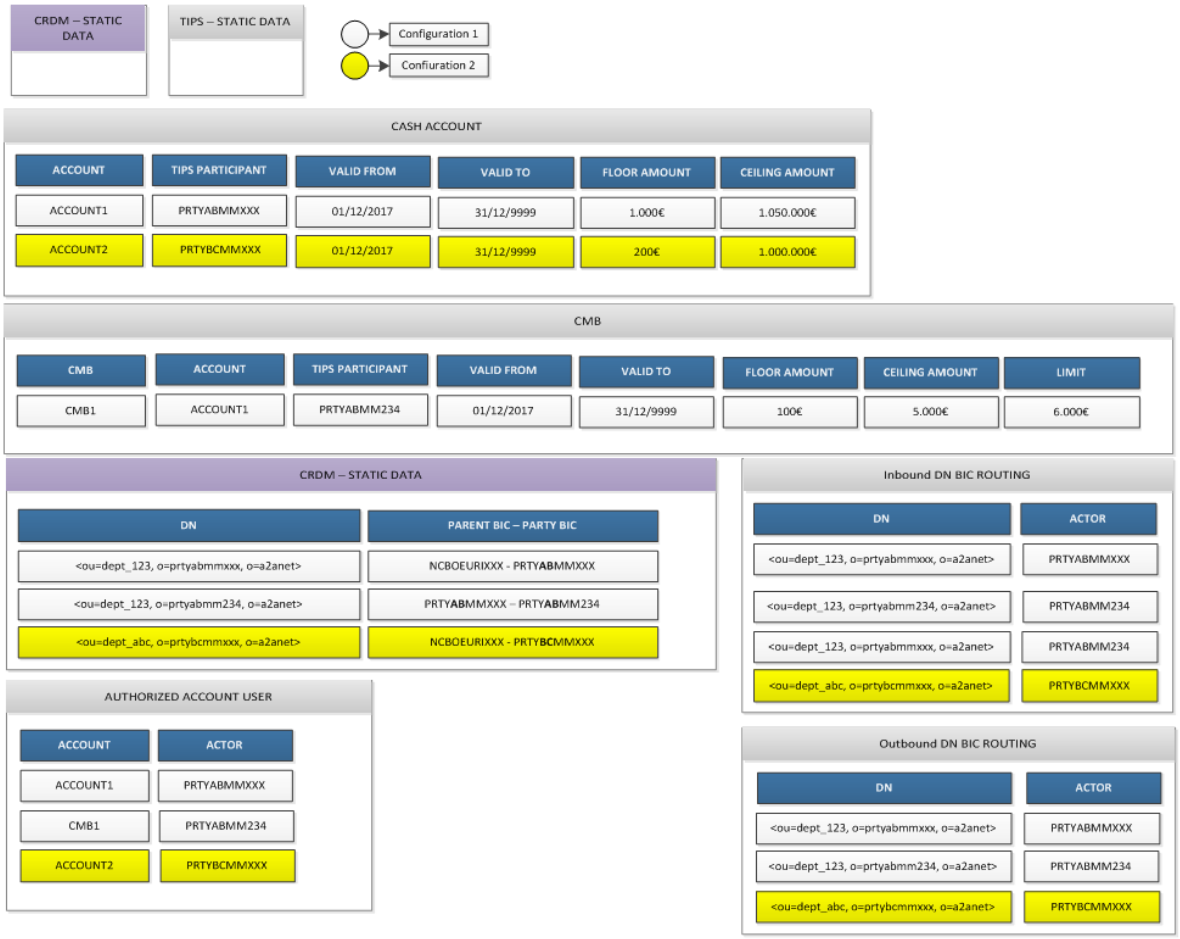
This sub-section presents different examples of the possible different scenarios related to the queries on Account/CMB and on Payment Transaction. Scenarios and examples are not exhaustive.

The first one provides the example of a non-empty answer to an Account balance and status query. The second one describes a non-empty answer to a CMB limit and status query. The third one provides an example of a TIPS rejection for the TIPS Account/CMB not found. The fourth one describes a non-empty answer to a Payment transaction status query. The last one provides an example of a TIPS rejection for a not existing Payment transaction.

For a detailed description of the (i) Payment transaction status query, (ii) Advanced Payment transaction status query, (iii) Liquidity Transfer status query and (iv) Advanced Liquidity Transfer status query_U2A screens, the reader may refer to the User Handbook (see TARGET Instant Payment Settlement User Handbook).

The figure below summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 231 – Queries examples: data constellation



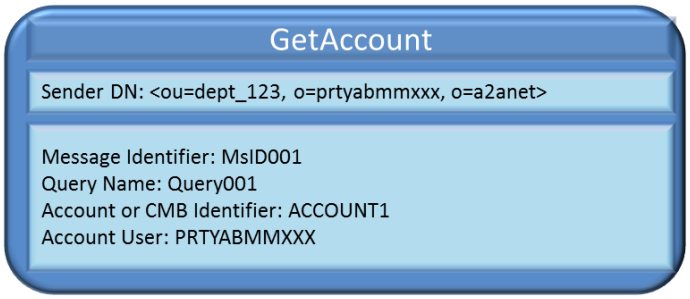
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2.7.1.1. Successful scenario – Account balance and status query

In this scenario:

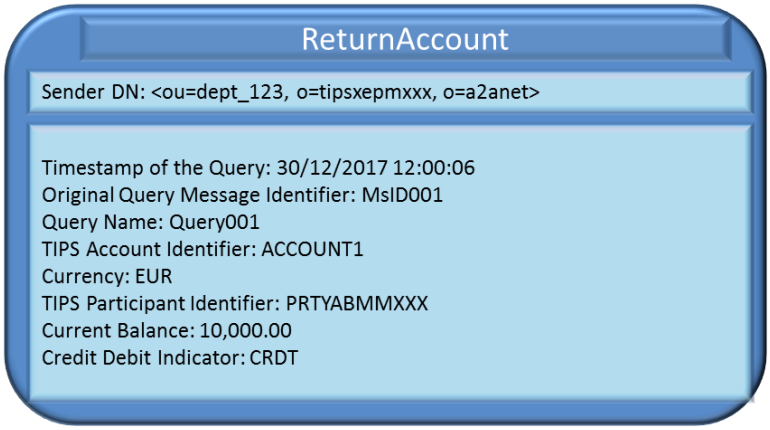
- A TIPS Participant (PRTYABMMXXX) sends a GetAccount message to TIPS to query the balance and the status an account (ACCOUNT1);
- The TIPS Account balance for ACCOUNT1 is 10,000.00 EUR;
- The TIPS Account is active, open and not blocked.

Figure 232 – Successful GetAccount



- TIPS identifies:
  - The DN of the sender – i.e. the TIPS Participant or Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The Account (ACCOUNT1);
  - The Account Owner (PRTYABMMXXX).
- TIPS selects the actual balance of the Account;
- A ReturnAccount message is sent by TIPS to the same DN of the query sender, containing the query results.

Figure 233 – Successful ReturnAccount



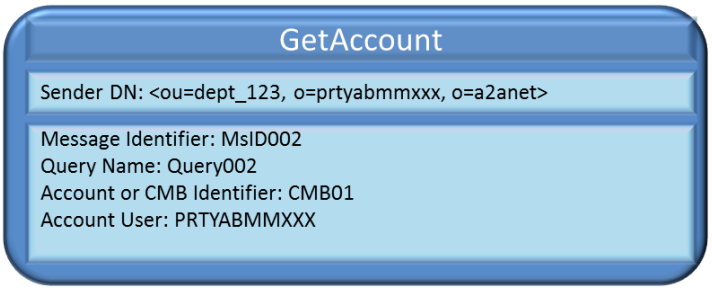
All rights reserved.

2.7.1.2. Successful scenario – CMB limit and status query

In this scenario:

- A TIPS Participant (PRTYABMMXXX) sends a GetAccount message to TIPS to query the status of a CMB (CMB01), linked to a TIPS Account (ACCOUNT1), used by the Reachable Party;
- The TIPS CMB limit for CMB1 is 6,000.00 EUR;
- The TIPS CMB utilisation for CMB1 is 5,200.00 EUR;
- The TIPS CMB Headroom for CMB1 is 800.00 EUR;
- The CMB is active, open and not blocked.

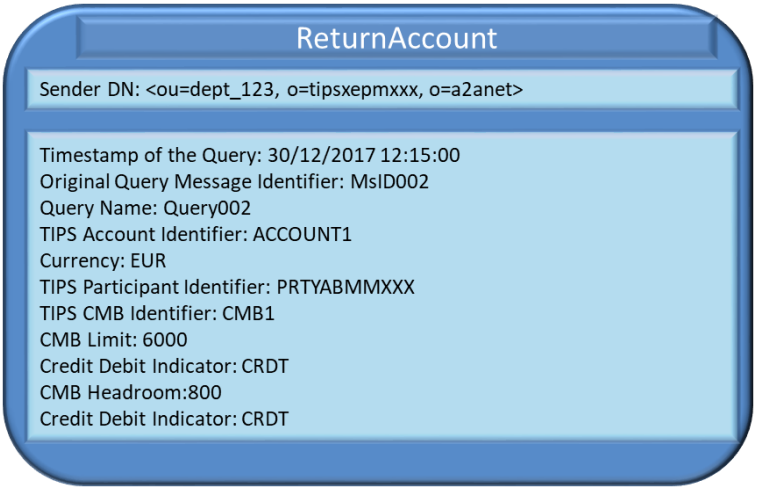
Figure 234 – Successful GetAccount



- TIPS identifies:
  - The DN of the sender – i.e. the TIPS Instructing Party (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The CMB (CMB1);
  - The Account (ACCOUNT1);
  - The Account Owner (PRTYABMMXXX).
- TIPS identifies the actual balance of the Account
- A ReturnAccount message is sent by TIPS to the same DN of the query sender, containing the query results.

All rights reserved.

Figure 235 – Successful ReturnAccount

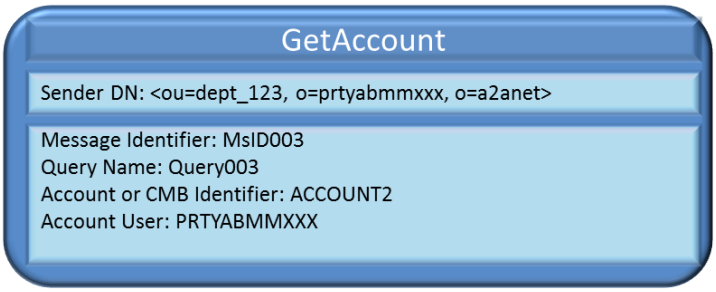


2.7.1.3. Unsuccessful scenario – TIPS Account/CMB not found

In this scenario:

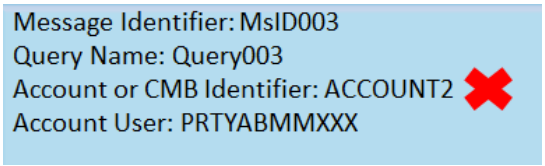
- A TIPS Participant (PRTYABMMXXX) sends a GetAccount message to TIPS to query the balance and the status of an account (ACCOUNT2);
- ACCOUNT2 is not a TIPS Account.

Figure 236 – Unsuccessful GetAccount



- TIPS does not identify ACCOUNT2 as TIPS Account/CMB.

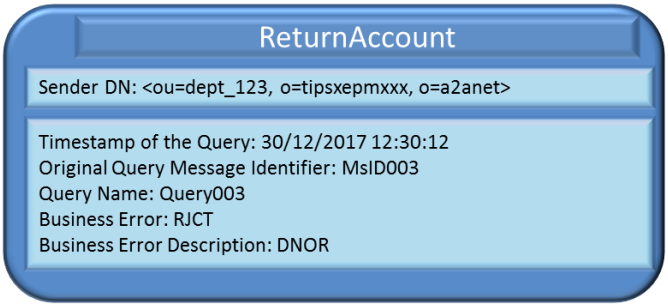
Figure 237 – Unsuccessful GetAccount: account retrieval failure



- A ReturnAccount message is sent by TIPS to the same DN of the query sender, containing the error code.

All rights reserved.

Figure 238 – Unsuccessful ReturnAccount



2.7.1.4. Successful scenario – Payment transaction status query

In this scenario:

- A TIPS Participant (PRTYABMMXXX) sends a GetTransaction message to TIPS to query the Payment Transaction with Transaction Identification MSID432388834674 and Debtor BIC PRTYABMMXXX, which has been settled.

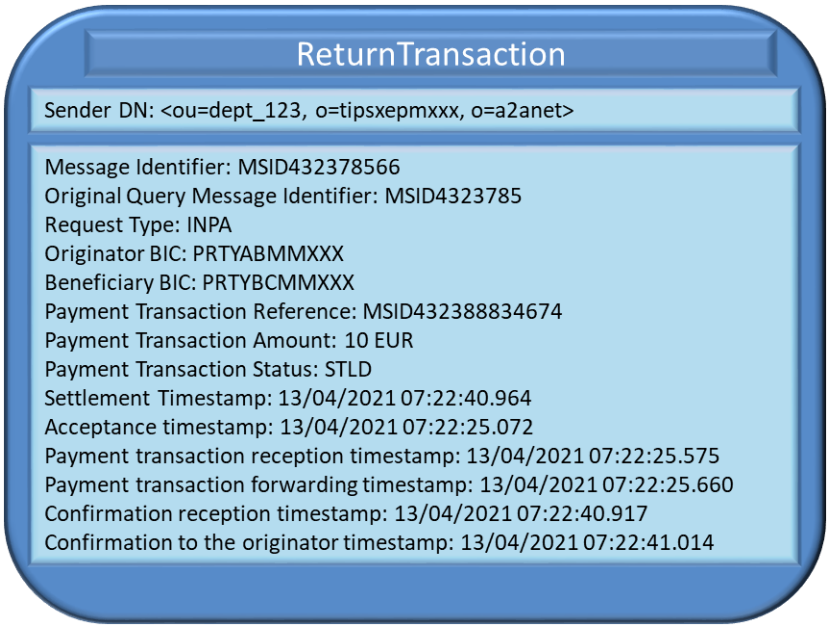
Figure 239 – Successful GetTransaction



- TIPS identifies:
  - The DN of the sender – i.e. the TIPS Instructing Party <ou=dept_123, o=prtyabmmxxx, o=a2anet>);
  - The Payment Transaction (MSID432388834674 with Debtor BIC PBBKITRRXXX);
- TIPS identifies the status of the Payment transaction and the related timestamps;
- A ReturnTransaction message is sent by TIPS to the same DN of the query sender, containing the query results.

All rights reserved.

Figure 240 – Successful ReturnTransaction



2.7.1.5. Unsuccessful scenario – Payment transaction status query

In this scenario:

- A TIPS Participant (PRTYABMMXXX) sends a GetTransaction message to TIPS to query the Payment Transaction with Transaction Identification MSID432388834675 and Debtor BIC PRTYABMMXXX, which is unknown to TIPS.

Figure 241 – Unsuccessful GetTransaction



TIPS does not identify any Payment Transaction with the couple MSID432388834675 and Debtor BIC PRTYABMMXXX.

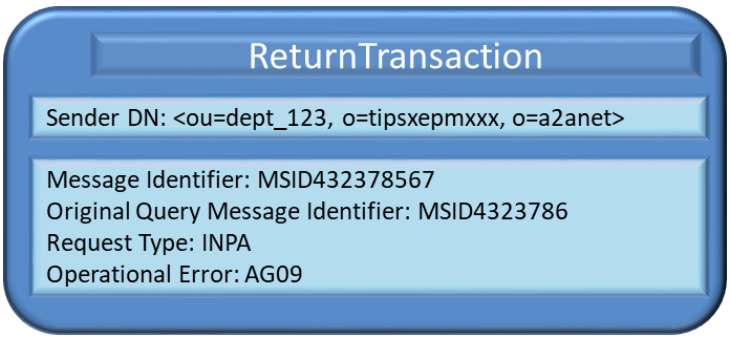
All rights reserved.

Figure 242 – Unsuccessful GetTransaction: Payment Transaction retrieval failure



- A ReturnTransaction message is sent by TIPS to the same DN of the query sender, containing the error code.

Figure 243 – Unsuccessful ReturnTransaction



2.8. Reports

This section describes the processing steps for the creation of reports available in TIPS and their sending out from TIPS to the TIPS Actors who subscribe to them.
TIPS provides the following report types:

- Statement of Account Turnover;
- Statement of Accounts.

The above reports are generated using the data available at the time scheduled in the report subscription or at the end of day of the corresponding RTGS System.

TIPS provides TIPS actors with reports on their accounts based on the permissions listed in the following table.

Table 39 – Report permissions and data scope

Actor	Statement of Account Turnover	Statement of Accounts
Central Bank	No	No

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Participant	Own accounts	Own accounts[52]
Reachable party	No	No
Instructing Party on behalf of a Participant	Accounts of the Participant on behalf of which the Instructing Party is operating	Accounts of the Participant on behalf of which the Instructing Party is operating
Instructing Party on behalf of a Reachable Party	No	No
Ancillary system	Own TIPS AS Technical account	Own TIPS AS Technical account

2.8.1. Statement of Account Turnover

The Statement of Account Turnover report provides the following information for all the accounts in the data scope of the Recipient actor:

- RTGS business date for which the information is retrieved;
- TIPS Participant or Ancillary System identifier;
- TIPS Account or TIPS AS Technical Account identifier;
- Currency of the account;
- Opening balance at start of RTGS business day;
- Closing balance at end of RTGS business day;
- Sum of debits for the account;
- Sum of credits for the account.

TIPS provides the Statement of Account Turnover in a complete version only (Full mode) and covers the time between start and end of RTGS business day[53].

Reserved amounts are included in the calculation of the Opening balance at start of RTGS business day and the Closing balance at end of RTGS business day.

The involved actors and messages are:

- The Recipient: i.e., the subscribing TIPS Participant or Ancillary System who receives the report;
- BankToCustomerAccountReport message sent from TIPS to the Recipient in order to provide the Statement of Account Turnover report.

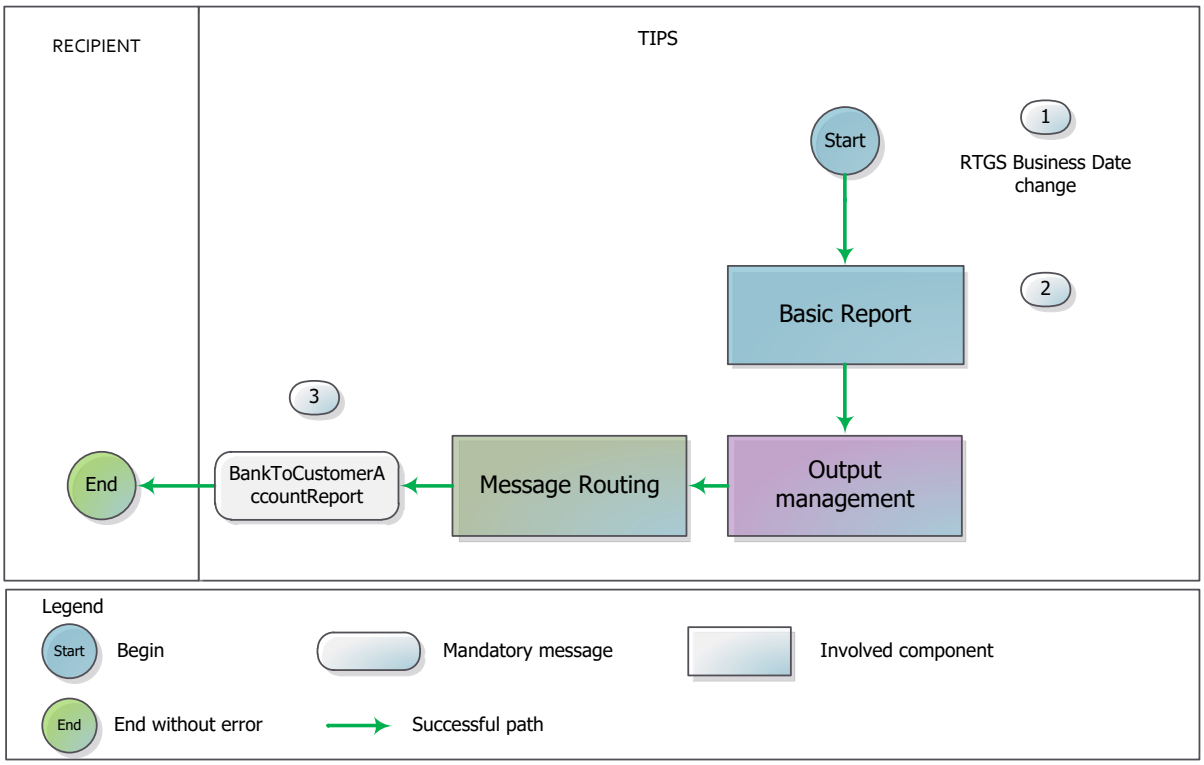
The following diagram displays the Statement of Account Turnover generation process which is triggered in TIPS.

[52] The Statement of Accounts contains settled transactions on CMBs linked to the Participant's accounts as well

[53] Due to the fact that the Scheduled Frequency is an irrelevant report subscription parameter for full reports, the trigger could be only an RTGS System business day change

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Figure 244 – Statement of Account Turnover flow



The details of the steps are described in the following table.

Table 40 – Statement of Account Turnover steps

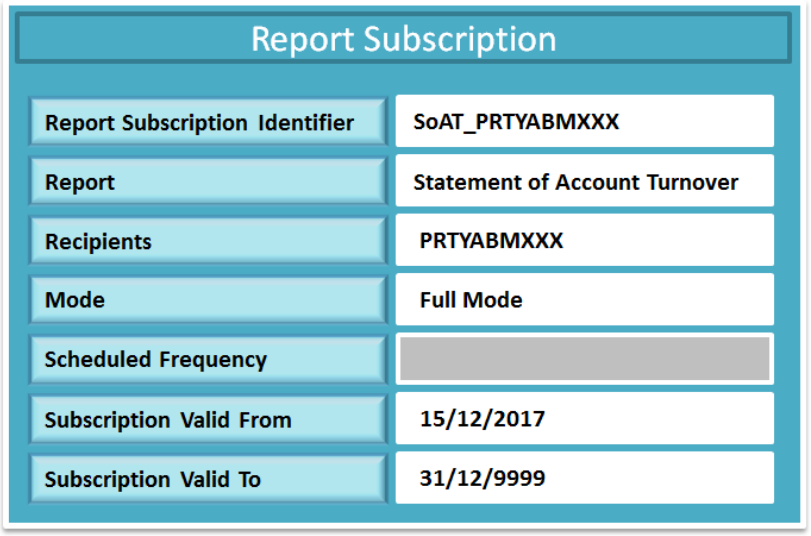
Step	Involved messages	Involved actors	Description
1		TIPS	Following the change of the business date of the relevant RTGS system, TIPS triggers the Statement of Account Turnover generation process.
2		TIPS	The whole set of balances in TIPS is saved by means of a “snapshot” operation, TIPS processes all data from the snapshot necessary for the report generation in accordance with the relevant configuration, adding transactional data and enriching it with reference data. Subsequently, the report data is grouped and formatted. The Statement of Account Turnover is created.
3	BankToCustomerAccountReport	TIPS as sender Recipient as receiver	TIPS sends the Statement of Account Turnover to the previously defined Recipient.

All rights reserved.

2.8.1.1. Examples

The following example shows how the Statement of Account Turnover creation process takes place in accordance to the following report configuration. Scenarios and examples are not exhaustive.

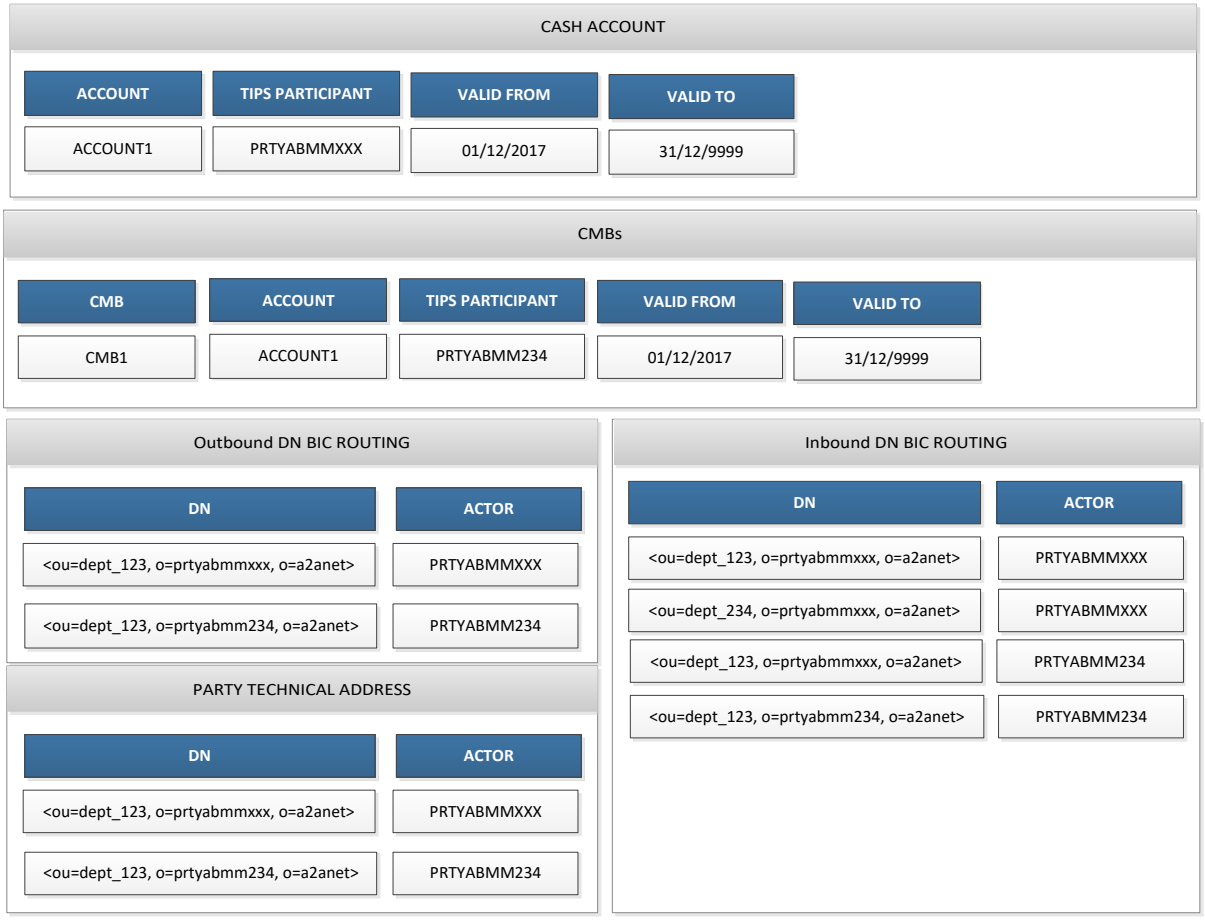
Figure 245 – Statement of Account Turnover example: report subscription



This representative case is based on the data constellation provided hereunder.

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Figure 246 – Statement of Account Turnover example: data constellation



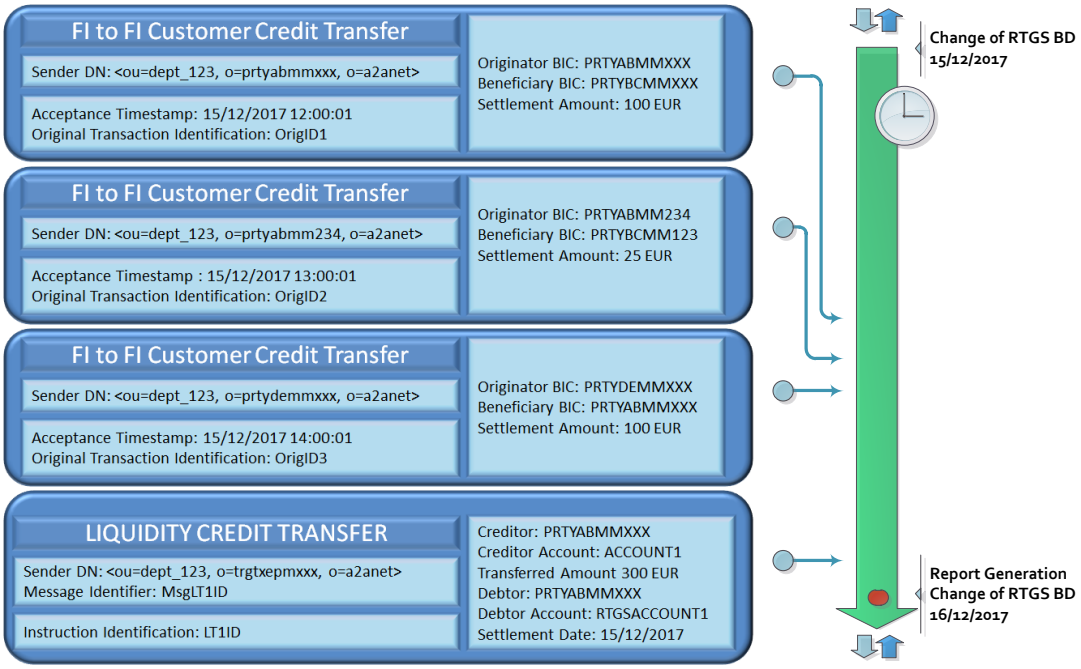
2.8.1.1.1Statement of Account Turnover

For the sake of this example, it is assumed that: i) the opening balance at the start of RTGS business day (15/12/2017) for the ACCOUNT1 is 500.00 EUR; ii) the RTGS system open at 7 a.m. and close at 6 p.m.; no interruption of the service or disruptive event would occur.

- The following payment transactions are received and settled in TIPS during the current RTGS business date (15/12/2017).

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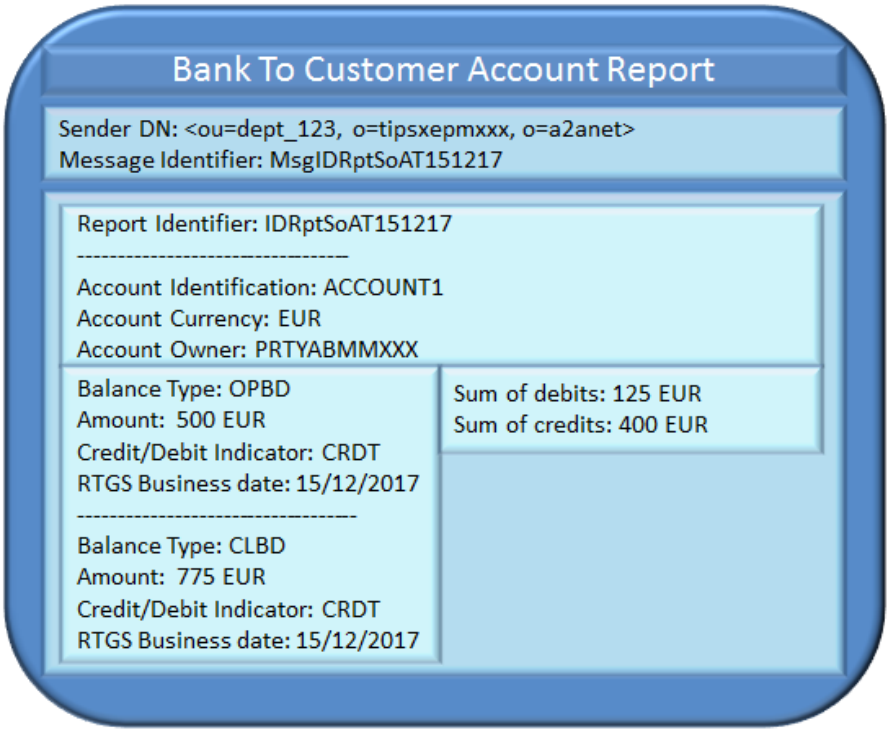
Figure 247 – Statement of Account Turnover example: list of transactions



- On receipt of the notification made by the relevant RTGS system, the RTGS business date parameter is updated accordingly in TIPS (16/12/2017);
- The snapshot of in-memory balances is taken as it is needed to produce the report;
- The Basic Report component retrieves the data to be included in the Statement of Account Turnover;
- The system identifies the Recipient DN from the “Routing Configuration” in combination with the “Party Technical Address” (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
- The Message Router component sends the following BankToCustomerAccountReport message to the Recipient.

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Figure 248 – Statement of Account Turnover example: BankToCustomerAccountReport



2.8.2. Statement of Accounts

The Statement of Accounts report provides detailed information on the activities recorded for all the TIPS Accounts and TIPS AS Technical Accounts in the data scope of the Recipient actor.

The report contains:

- RTGS business date for which the information is retrieved;
- TIPS Participant or Ancillary System identifier;
- TIPS Account or TIPS AS Technical Account identifier;
- Currency of the account;
- Opening balance at the start of the reported period (for full reports only);
- Closing balance at the end of the reported period;
- Start Timestamp for which the account statement is issued;
- End Timestamp for which the account statement is issued;

For all the transactions settled[54] on the reported accounts, TIPS provides the following details:

- Payment transaction reference;
- BIC of the Originator Participant of the transaction;
- Payment transaction Amount;
- Bank transaction code of the transaction;

[54] These transactions are payment transactions or liquidity transfers

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- Initial balance before the execution of the payment transaction;
- Final balance after the execution of the payment transaction;
- Settlement timestamp.

TIPS provides the Statement of Accounts in Full or Delta mode.

Delta report covers the time between the last report trigger and the trigger time scheduled in the report subscription. When subscribing for a report in Delta mode, the end of day of the relevant RTGS System triggers in any case a last report generation for the business day which contains all the data remaining between the trigger itself and the last report produced for the interested Actor.

As for the calculation of the initial/final balances stemming from the execution of a payment transaction, the values are calculated by neutralizing the effect of any pending concurrent transaction “in-flight”, i.e. any Instant Payment in its conditional phase or any Outbound Liquidity Transfer in status ‘transient’ that are insisting on the same TIPS Account.

Full report covers the time since the start RTGS business day and the end of RTGS business day[53].

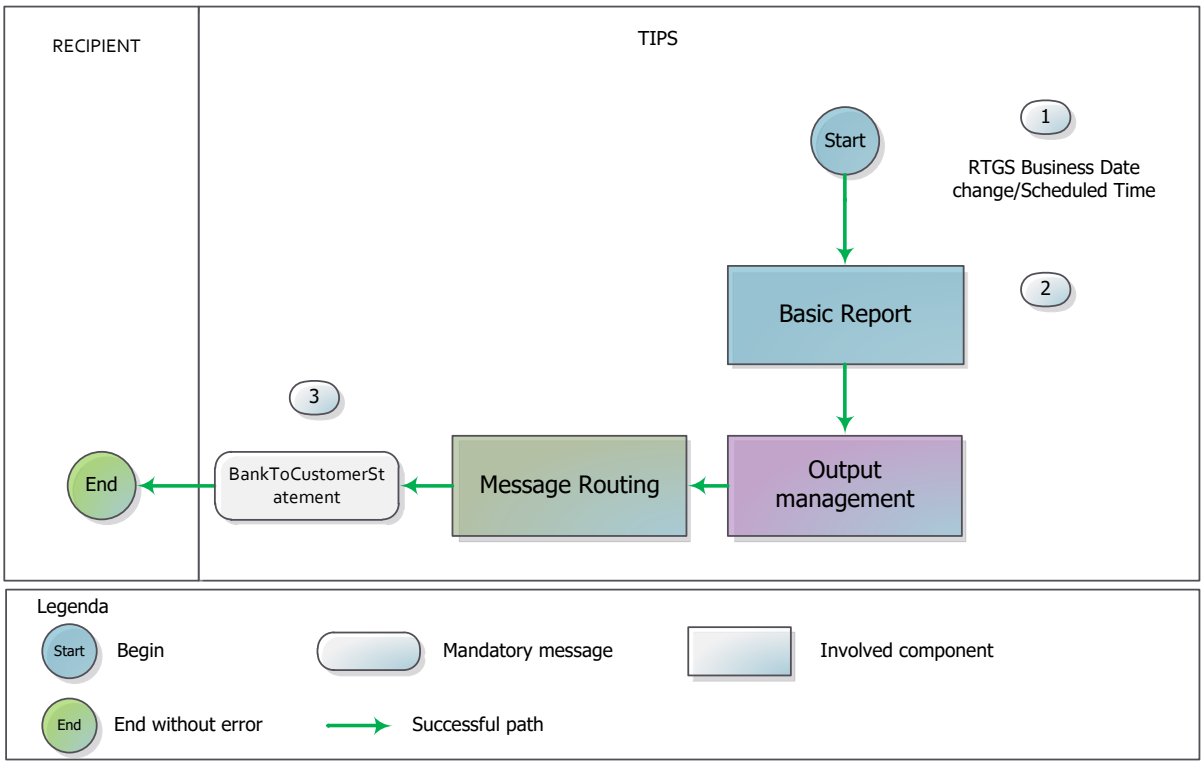
The involved actors and messages are:

- The Recipient: i.e., the subscribing TIPS Participant or Ancillary System who receives the report;
- BankToCustomerStatement message sent from TIPS to the Recipient in order to provide the Statement of Accounts report.

The following diagram displays the Statement of Accounts generation process which is triggered in TIPS.

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Figure 249 – Statement of Accounts flow



The details of the steps are described in the following table.

Table 41 – Statement of Accounts steps

Step	Involved messages	Involved actors	Description
1		TIPS	Following the change of the business date of the relevant RTGS system or when the scheduled time is reached, TIPS triggers the Statement of Accounts generation process.
2		TIPS	The whole set of balances in TIPS is saved by means of a “snapshot” operation, TIPS processes all data from the snapshot necessary for the report generation in accordance with the relevant configuration, adding transactional data and enriching it with reference data. Subsequently, the report data is grouped and formatted. The Statement of Accounts is created.
3	BankToCustomerStatement	TIPS as sender Recipient as receiver	TIPS sends the Statement of Accounts to the previously defined Recipient.

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2.8.2.1. Examples

The following examples show how the Statement of Accounts creation process takes place in accordance to the following report configurations. Scenarios and examples are not exhaustive.

Figure 250 and Figure 251 show the report subscription underlying the first and second example respectively.

Figure 250 – Statement of Accounts example: report subscription (full mode)

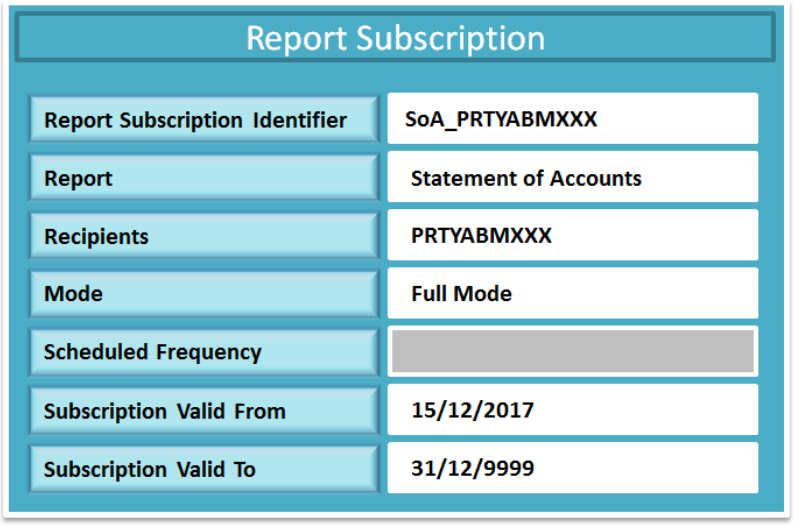


Figure 251 – Statement of Accounts example: report subscription (delta mode)

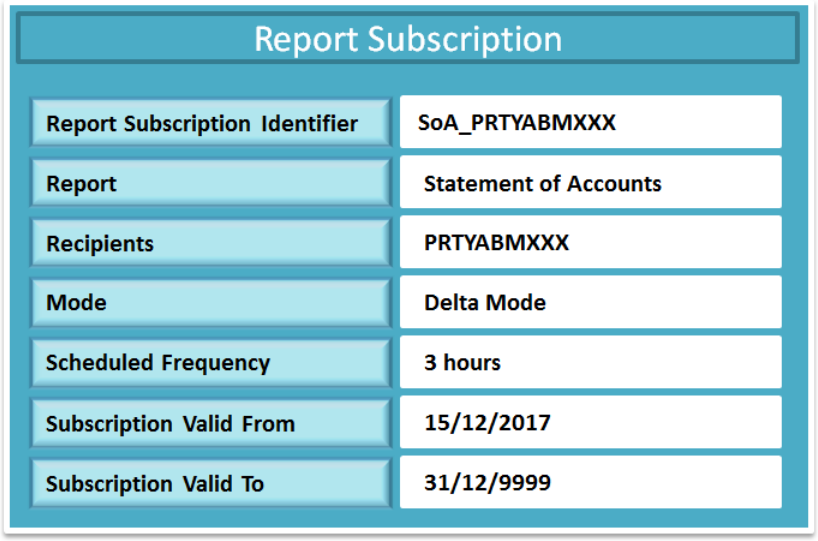
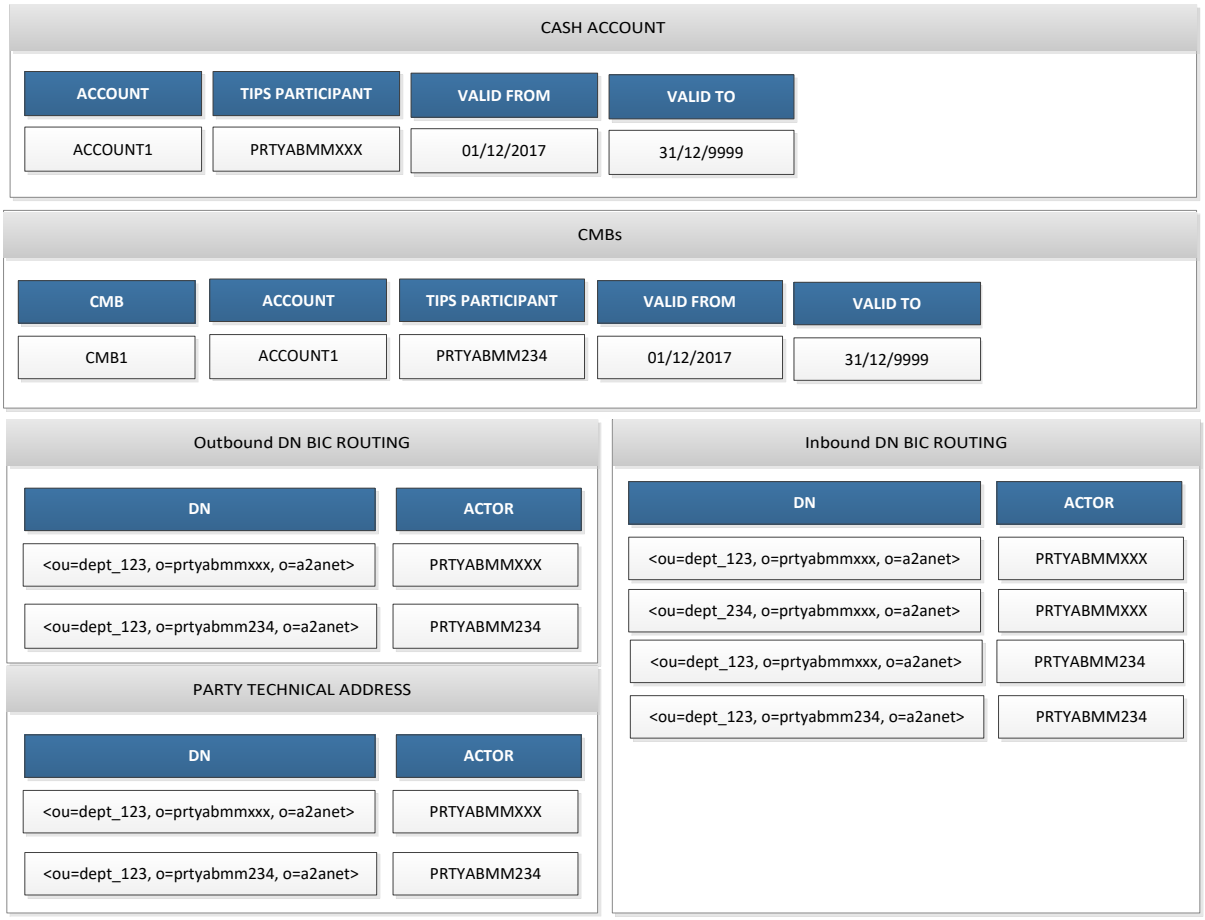


Figure 252 shows the details of the reference data setup for both the examples.

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Figure 252 – Statement of Accounts example: data constellation



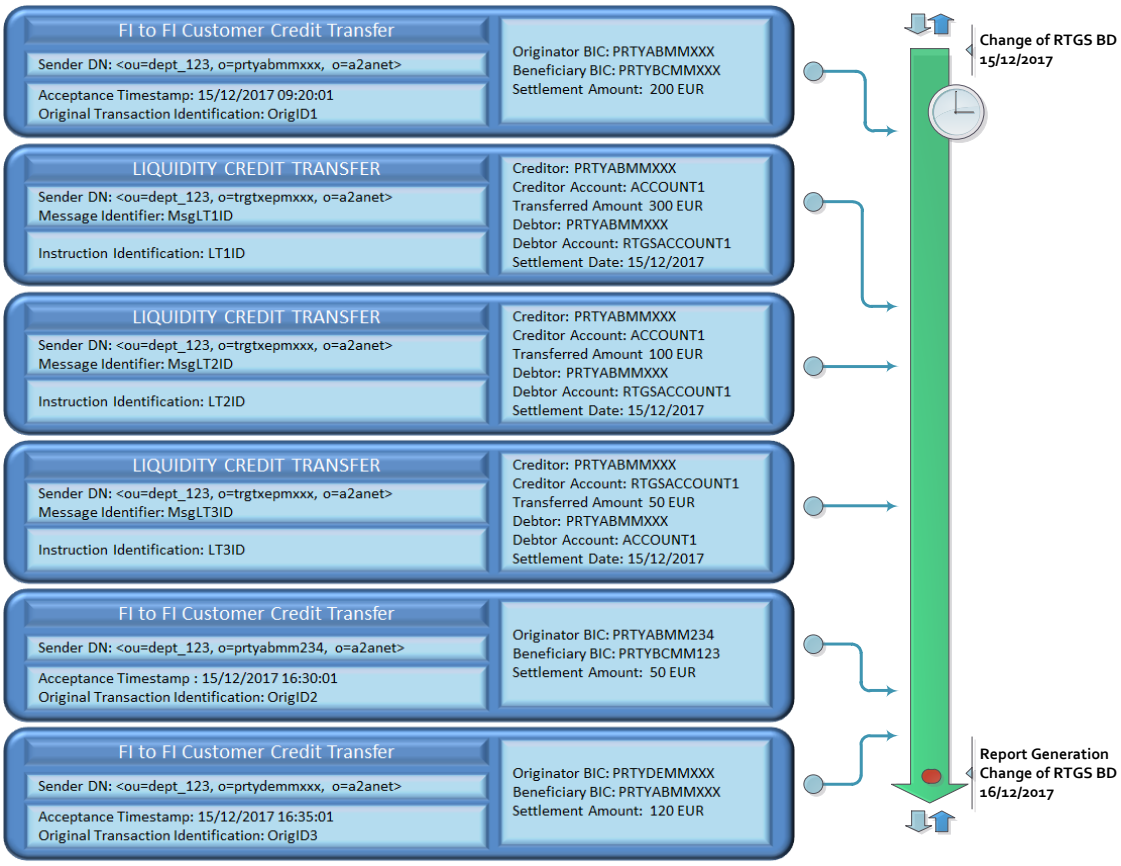
2.8.2.1.1Statement of Accounts – Full mode

The underlying assumptions for this representative case are the following: i) the opening balance at the start of RTGS business day (15/12/2017) for the ACCOUNT1 is 500.00 EUR; ii) the RTGS system open at 7 a.m. and close at 6 p.m.; no interruption of the service or disruptive event would occur.

- The following payment transactions are received and settled in TIPS during the current RTGS business date (15/12/2017).

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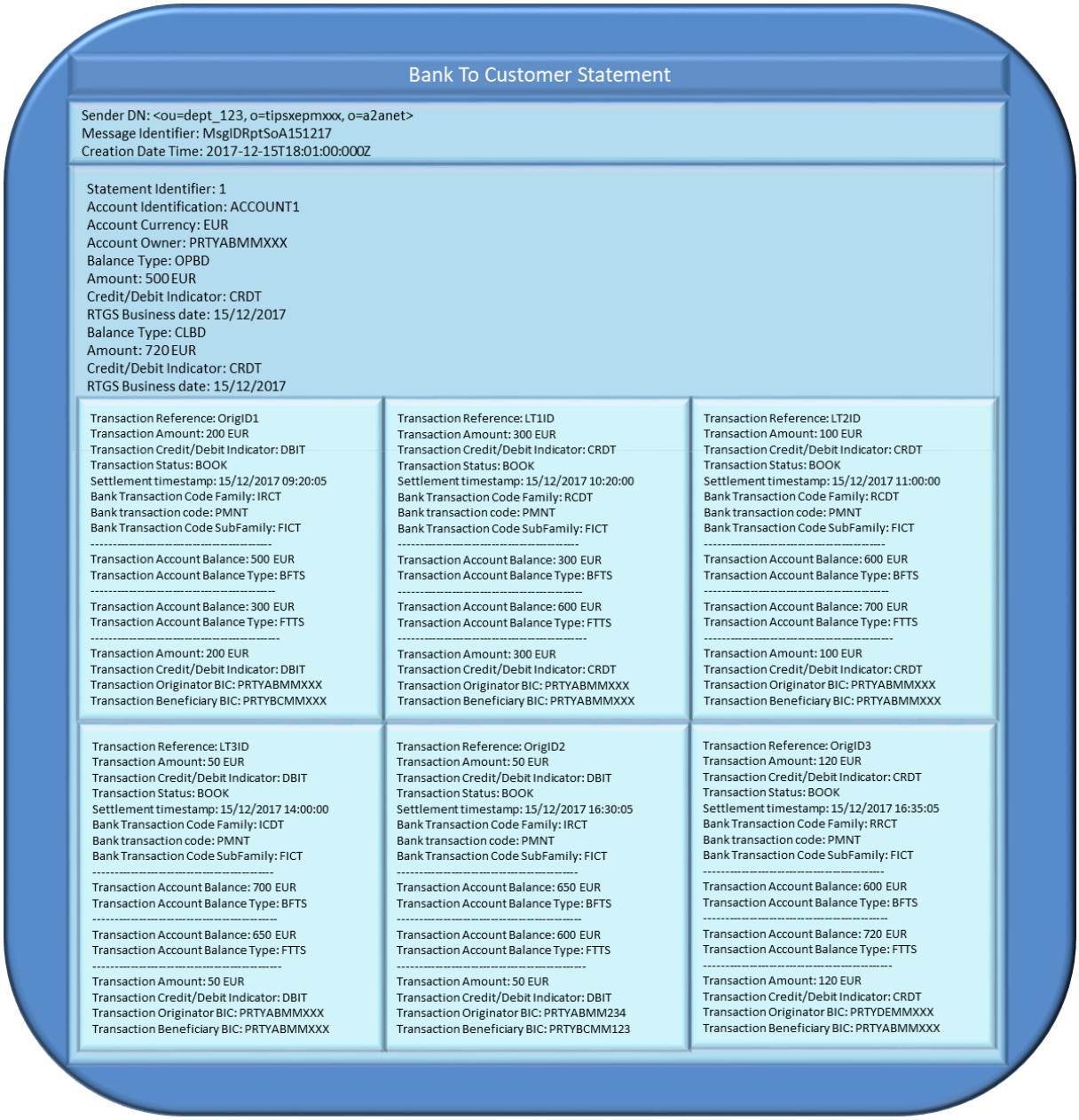
Figure 253 – Statement of Accounts example: list of transactions (full mode)



- On receipt of the notification made by the relevant RTGS system, the RTGS business date parameter is updated accordingly in TIPS (16/12/2017);
- The system takes the snapshot of in-memory balances and downloads transaction data from the database;
- The Basic Report component retrieves the data to be included in the Statement of Accounts;
- The system identifies the Recipient DN from the “Routing Configuration” in combination with the “Party Technical Address” (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
- The Message Router component sends the following BankToCustomerStatement message to the Recipient.

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Figure 254 – Statement of Accounts example: BankToCustomerStatement



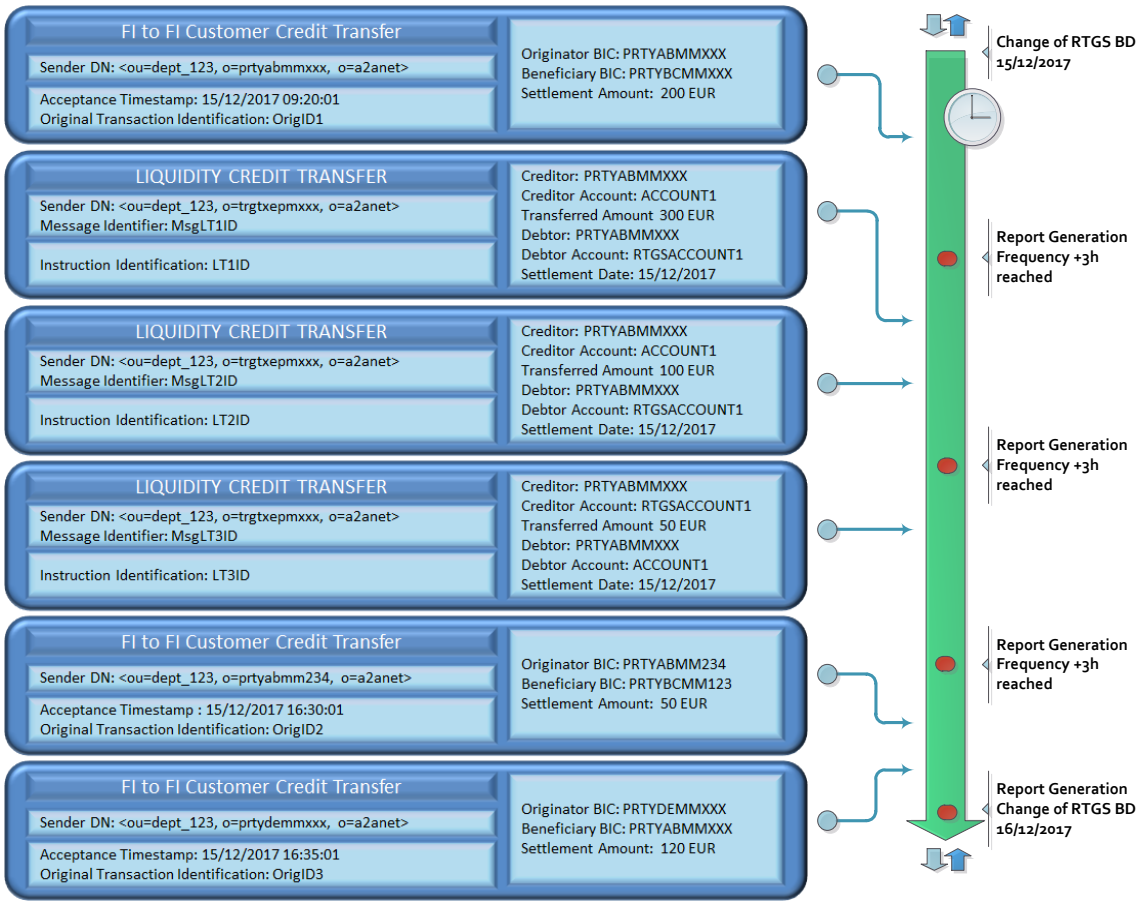
2.8.2.1.2 Statement of Accounts – Delta mode

The same assumptions are used in this example as in the above example illustrating the creation of a Statement of Accounts in Full mode.

- The following payment transactions are received and settled in TIPS during the current RTGS business date (15/12/2017).

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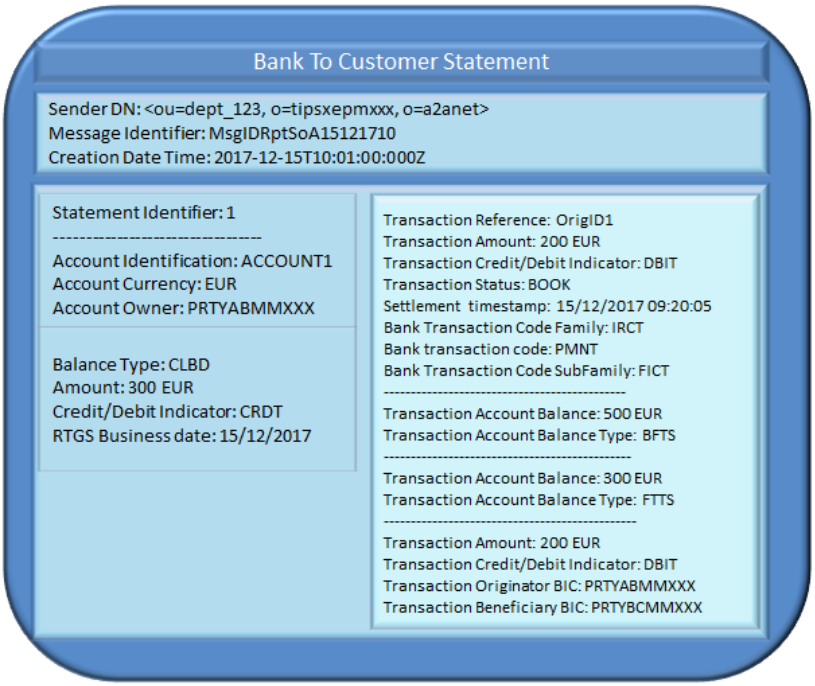
Figure 255 – Statement of Accounts example: list of transaction (delta mode)



- The period of time configured in the report subscription (scheduled frequency: 3 hours) is elapsed from the last change of RTGS business date (15/12/2017);
- The system takes the snapshot of in-memory balances and downloads transaction data from the database;
- The Basic Report component retrieves the data to be included in the Statement of Accounts.
- The system identifies the Recipient DN from the “Routing Configuration” in combination with the “Party Technical Address” (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);
- The Message Router component sends the following BankToCustomerStatement message to the Recipient.

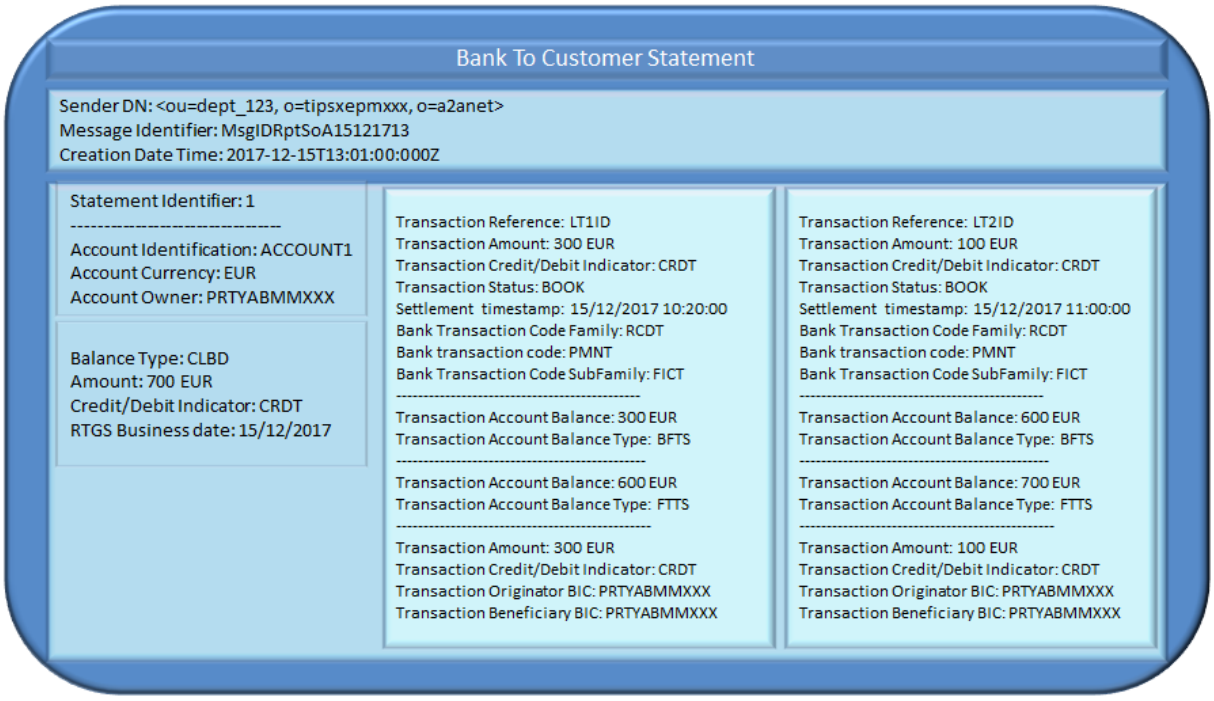
All rights reserved.

Figure 256 – Statement of Accounts example: scheduled frequency n.1



- As shown in Figure 255, the creation of the report is triggered other three times throughout the current RTGS business day. The last generation is activated by the RTGS business date update in TIPS (16/12/2017). The following messages are sent in chronological order by the Message Router to the Recipient.

Figure 257 – Statement of Accounts example: scheduled frequency n.2



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Figure 258 – Statement of Accounts example: scheduled frequency n.3

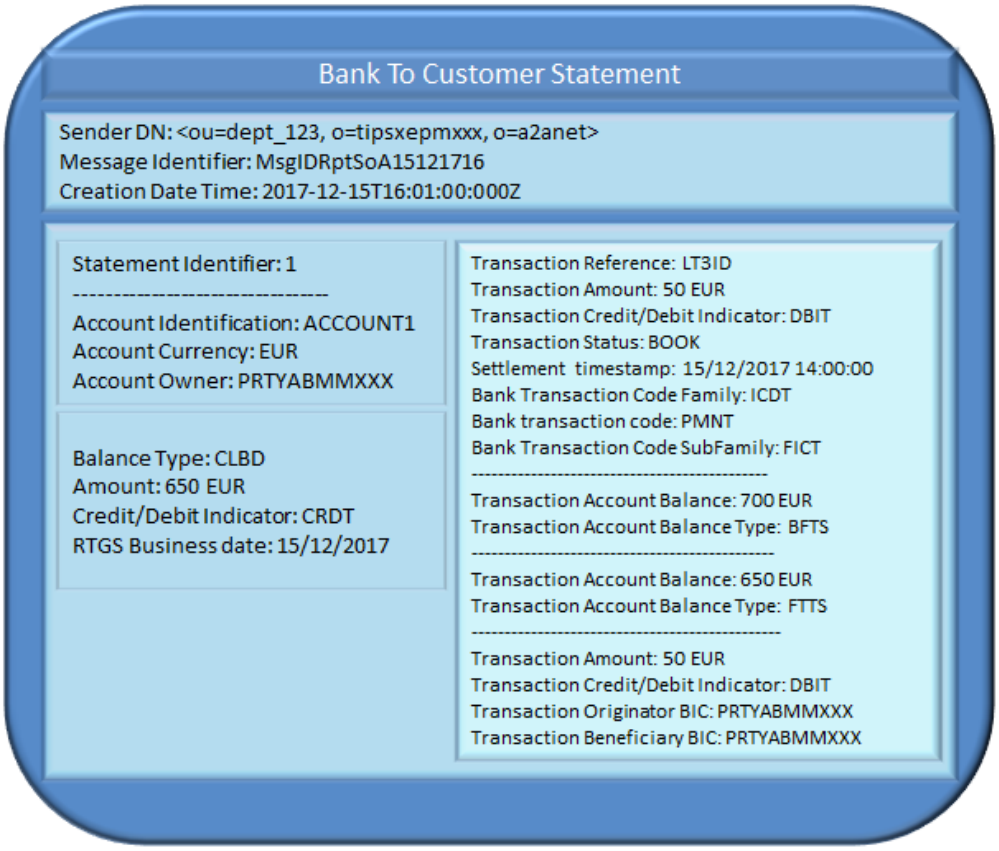
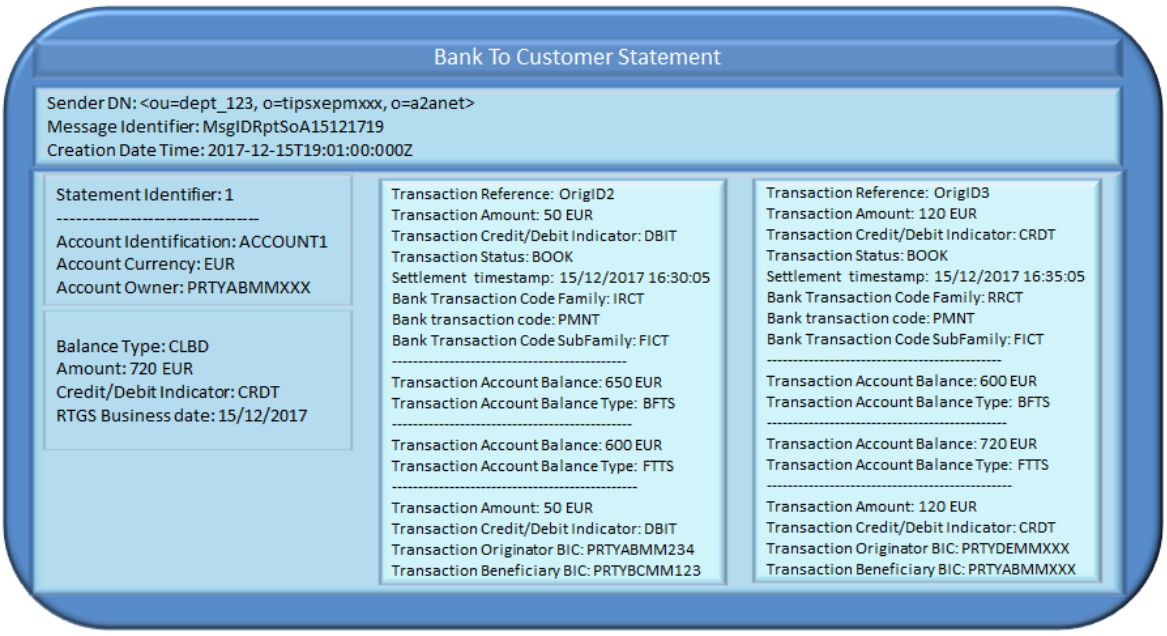


Figure 259 – Statement of Accounts example: scheduled frequency n.4



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2.8.3. Report naming convention

TIPS supports production of the following reports whose naming convention is described below.

Table 42 – Report naming convention

Report	Report Type ID	Format	Granularity
Statement of Account Turnover	- SAT-F	XML (camt.052.001.12)	- Daily (at EOD)
Statement of Accounts	- SA-F - SA-D3 - SA-D6 - SA-D12	XML (camt.053.001.12)	- Daily (at EOD) - Every 3 hours (from 00:00 UTC) and at EOD - Every 6 hours (from 00:00 UTC) and at EOD - Every 12 hours (from 00:00 UTC) and at EOD

TIPS Directory (Full and Update version) is produced and delivered by CRDM. Therefore, it is no longer sent via the MEPT protocol.

Filenames and Message Business Identifiers[55] of reports are built as described below:

- Report File Name: *<reportType>_<partyId>_<dnId>_<sequence>.xml*

  e.g. SAT-F_24r_P12_ab4.xml

- Message Business Identifier: <reportType><partyId>-<dnId>-<sequence>

  e.g. SAT-F24r-P12-ab4

2.9. Reference data management

This section focuses on the management of the pieces of information that the user can amend with the functionalities available in TIPS (see Table 15 – Reference data management functions available in TIPS for references). Only the A2A aspects of these operations are described. The U2A details are described in the TIPS User Handbook.

The introductory part of the section presents the general flow, including all the steps, for the single possible operations (block/unblock of TIPS Participant, Ancillary System, Account or CMB, update of a CMB Limit).

[55] Filenames and Message Business Identifiers are of a merely technical nature, not fully open to user interpretation. For reasons of effectiveness, it is important to provide them as complementary information to the Operator when detecting functional or operational problems

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All the remaining sub-sections contain examples of the possible scenarios for each operation, starting from a successful one and detailing possible failure scenarios. Each example shows the relevant messages and how the main fields are filled.

Block/unblock of TIPS Participant or Ancillary System

The process covers the scenarios in which a Central Bank instructs the system in order to immediately block/unblock either a TIPS Participant or an Ancillary System for debiting and/or crediting operations. The involved actor is:

- The Central Bank starting the scenario and receiving the answer.

The involved messages are:

- The PartyModificationRequest message in order to request the block/unblock of the TIPS Actor;
- The PartyStatusAdvice message in order to report the successful or unsuccessful execution of the requested block/unblock operation.

Block/unblock of account/CMB

The process covers the scenarios in which:

(i) a Central Bank instructs the system in order to immediately block/unblock an account/CMB for debiting and/or crediting operations or

(ii) a TIPS Participant (optionally through its Instructing Party) or an Ancillary System instructs the system in order to immediately block/unblock a CMB for debiting and/or crediting operations.

In particular:

- Any TIPS Account or TIPS AS Technical Account can be blocked separately for debit only, credit only or both debit and credit;
- Any CMB can be blocked separately for headroom decrease, headroom increase or both.

The involved actors are:

- The Central Bank, the TIPS Participant (or optionally its Instructing Party) or the Ancillary System starting the scenario and receiving the answer.

The involved messages are:

- AccountExcludedMandateMaintenanceRequest message in order to request the block/unblock of the Account or CMB;
- AccountRequestAcknowledgement message in order to report the successful block/unblock operation;
- AccountRequestRejection message in order to report the unsuccessful block/unblock operation.

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Update of a CMB Limit

The process covers the scenarios in which a TIPS Participant (optionally through its Instructing Party), an Ancillary System or a Central Bank instructs the system in order to immediately update a CMB Limit, increasing or decreasing it.

The involved actors are:

- The Central Bank, the TIPS Participant or the Ancillary System initiating the request and receiving the answer.

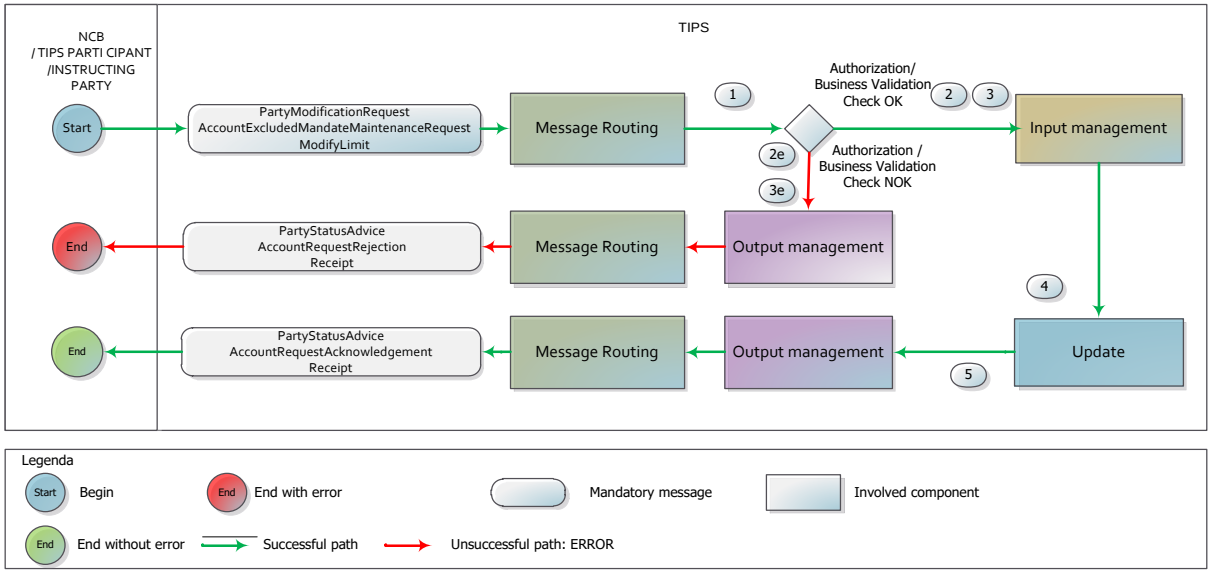
The involved messages are:

- ModifyLimit message in order to request the amendment of the CMB Limit;
- Receipt (camt.025.001.07) message in order to report the successful or unsuccessful execution of the requested update limit operation.

All the described scenarios are triggered under the assumption that the technical validation, check of mandatory fields and authentication of the user have already been successfully performed by ESMIG.

Below is the diagram describing the process and the involved actors. The details of the steps are described in the following Table 43 – Block/unblock TIPS Actor steps, Table 44 – Block/unblock account/CMB steps and Table 45 – Update of a CMB Limit steps.

Figure 260 – Reference Data Messages flow



All rights reserved.

Table 43 – Block/unblock TIPS Actor steps

Step	Involved messages	Involved actors	Description
1	PartyModificationRequest	Central Bank as sender TIPS as receiver	TIPS receives an incoming request for the amendment of a Party (block/unblock TIPS Actor[56] for debit/credit or both) from the National Central Bank. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Duplicate check for local reference data transaction See 4.1- Business Rules for details.
2e	PartyStatusAdvice	TIPS as sender Central Bank as receiver	TIPS unsuccessfully executes the check of **step 2**. The system stops and sends a message to the Central Bank – same DN of the sender – containing the proper error code.
3		TIPS	TIPS successfully executes the checks: - TIPS Actor block/unblock type allowed; - Party existence; - Party type allowed. See 4.1- Business Rules for details.
3e	PartyStatusAdvice	TIPS as sender Central Bank as receiver	TIPS unsuccessfully executes one of the checks of **step 3**. At the first negative check the system stops and sends a message to the Central Bank – same DN of the sender – containing the proper error code. See 4.1- Business Rules for details.

[56] A TIPS Actor can be in this context either a TIPS Participant or an Ancillary System

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS executes the requested operation. If the received message requests to insert a restriction, then: - If the specified Restriction Type is “Block for credit”, the system sets the blocking status to “Blocked for credit” on the specified TIPS Actor data; - If the specified Restriction Type is “Block for debit”, the system sets the blocking status to “Blocked for debit” on the specified TIPS Actor data; - If the specified Restriction Type is “Block for both debit and credit”, the system sets the blocking status to “Blocked for both debit and credit” on the specified TIPS Actor data. If the received message requests to remove a restriction: - If the removed Restriction Type removed is “Block for credit”, the system sets the blocking status to “Unblocked for credit” on the specified TIPS Actor data; - If the removed Restriction Type is “Block for debit”, the system sets the blocking status to “unblocked for debit” on the specified TIPS Actor data; - If the removed Restriction Type is “Block for both debit and credit”, the system sets the blocking status to “Unblocked for both debit and credit” on the specified TIPS Actor data.
5	PartyStatusAdvice	TIPS as sender Central Bank as receiver	The system sends a message to the Central Bank – same DN of the sender – containing the proper information of successful execution.

Table 44 – Block/unblock account/CMB steps

Step	Involved messages	Involved actors	Description
1	AccountExcludedMandateMaintenanceRequest	Central Bank, TIPS Participant/Instructing Party or Ancillary System as sender TIPS as receiver	TIPS receives an incoming request for the amendment of an Account (block/unblock account for debit/credit or both) from the National Central Bank or amendment of a CMB (block/unblock CMB for debit/credit or both) from either a TIPS Participant, an Ancillary System or a National Central Bank. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.

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Step	Involved messages	Involved actors	Description
2		TIPS	TIPS successfully executes the following check: - Access Rights check; - Duplicate check for local reference data transaction. See 4.1- Business Rules for details.
2e	AccountRequestRejection	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	TIPS unsuccessfully executes the check of **step 2**. The system stops and sends a message to the sender containing the proper error code.
3		TIPS	TIPS successfully executes the checks: - Account/CMB block/unblock type allowed; - Currency of the Account/CMB; - Account/CMB existence; - User allowed to block/unblock operation. See 4.1- Business Rules for details.
3e	AccountRequestRejection	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	TIPS unsuccessfully executes one of the checks of **step 3**. At the first negative check the system stops and sends a message to the sender containing the proper error code. See 4.1- Business Rules for details.

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Step	Involved messages	Involved actors	Description
4		TIPS	TIPS executes the requested operation. If the received message requests to insert a restriction: - If the specified Restriction Type is “Block for credit”, the system sets the blocking status to “Blocked for credit” on the specified account or CMB data; - If the specified Restriction Type is “Block for debit”, the system sets the blocking status to “Blocked for debit” on the specified account or CMB data; - If the specified Restriction Type is “Block for both debit and credit”, the system sets the blocking status to “Blocked for both debit and credit” on the specified account or CMB data. If the received message requests to remove a restriction: - If the removed Restriction Type is “Block for credit”, the system sets the blocking status to “Unblocked for credit” on the specified account or CMB data; - If the removed Restriction Type is “Block for debit”, the system sets the blocking status to “Unblocked for debit” on the specified account or CMB data; - If the removed Restriction Type is “Block for both debit and credit”, the system sets the blocking status to “Unblocked for both debit and credit” on the specified account or CMB data.
5	AccountRequestAcknowledgement	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	The system sends a message to the DN of the sender containing the proper information of successful execution.

Table 45 – Update of a CMB Limit steps

Step	Involved messages	Involved actors	Description
1	ModifyLimit	Central Bank, TIPS Participant/Instructing Party or Ancillary System as sender TIPS as receiver	TIPS receives an incoming request for the amendment of a CMB Limit from an authorised TIPS Actor. Technical validation, check of mandatory fields and authentication checks have already been successfully executed.

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Step	Involved messages	Involved actors	Description
2		TIPS	TIPS successfully executes the checks: - Access Rights check; - Duplicate check for local reference data transaction See 4.1- Business Rules for details.
2e	Receipt (camt.025.001.07)	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	TIPS unsuccessfully executes the check of **step 2**. The system stops and sends a message to the sender containing the proper error code.
3		TIPS	TIPS successfully executes the checks: - CMB existence; - User allowed to change Limit. See 4.1- Business Rules for details.
3e	Receipt (camt.025.001.07)	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	TIPS unsuccessfully executes one of the checks of **step 3**. At the first negative check the system stops and sends a message to the sender containing the proper error code. See 4.1- Business Rules for details.
4		TIPS	TIPS executes the requested operation, setting the limit to the new value and adjusting the headroom accordingly.
5	Receipt (camt.025.001.07)	TIPS as sender Central Bank, TIPS Participant/Instructing Party or Ancillary System as receiver	The system sends a message to the DN of the sender containing the proper information of successful execution.

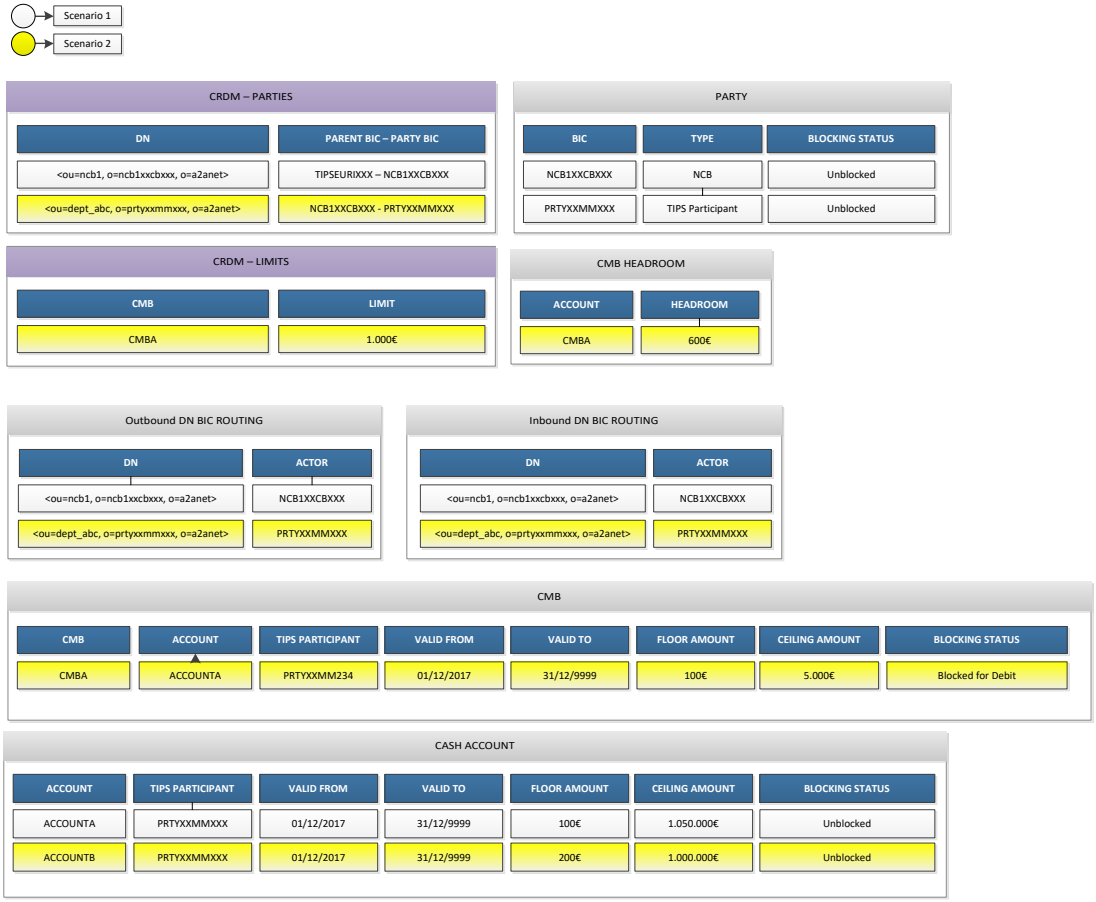
All rights reserved.

2.9.1. Examples

This sub-section presents a non-exhaustive list of examples of the possible scenarios related to the Reference data management in A2A mode for each kind of operation.

The figure below summarises, for each reference data object mentioned in the following examples, the related configuration.

Figure 261 – Reference Data Management examples: data constellation



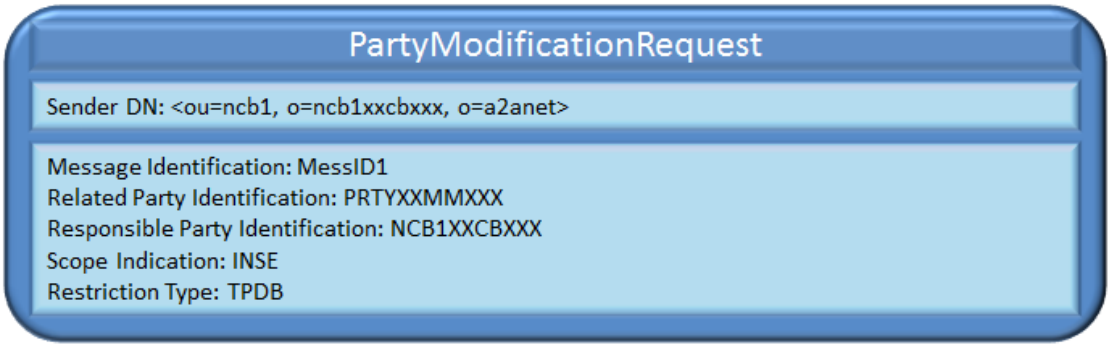
2.9.1.1. Successful scenario – Block of a TIPS Participant

In this positive scenario a Central Bank successfully blocks for debit a TIPS Participant. “Scenario 1” (white in the above table) is considered.

The PartyModificationRequest message received by TIPS and triggering the scenario looks like the following one.

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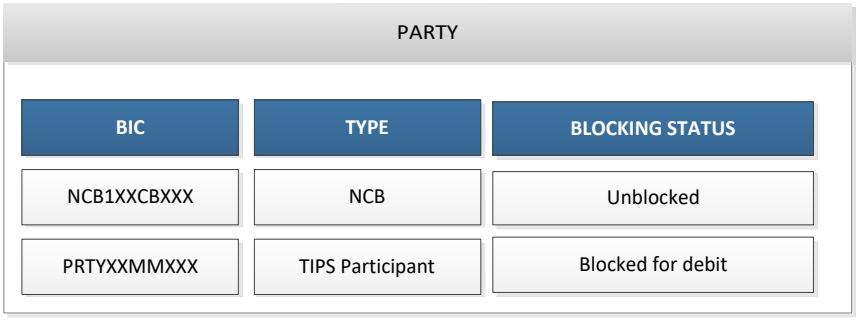
Figure 262 – Successful block of a TIPS Participant: PartyModificationRequest



The system, after performing the expected checks successfully, performs the requested amendment:

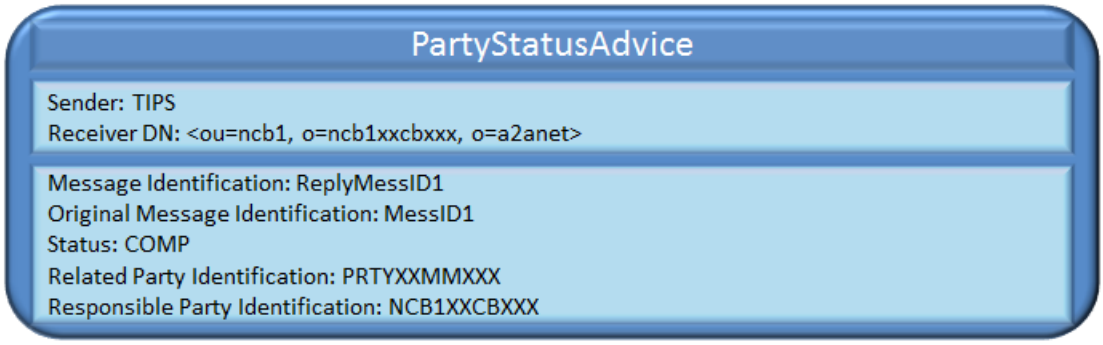
- It identifies the TIPS Participant from the Related Party Identification (PRTYXXMMXXX);
- It identifies the type of block to be performed from the Restriction Type;
- It amends the TIPS Participant reporting the requested type of block.

Figure 263 – TIPS Participant blocked for debiting



After the amendment, TIPS sends a confirmation message to the Central Bank sending the request. The PartyStatusAdvice message sent by TIPS and triggering the scenario looks like the following one.

Figure 264 – Successful block of a TIPS Participant: PartyStatusAdvice



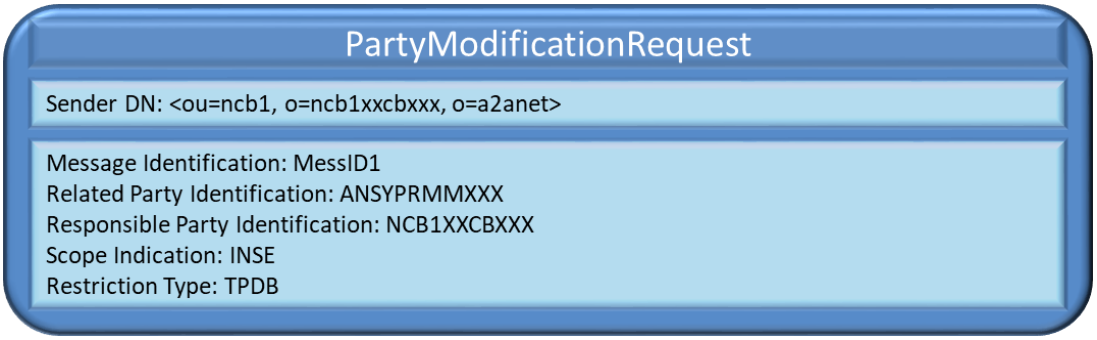
All rights reserved.

2.9.1.2. Successful scenario – Block of an Ancillary System

In this positive scenario a Central Bank successfully blocks for debit an Ancillary System.

The PartyModificationRequest message received by TIPS and triggering the scenario looks like the following one.

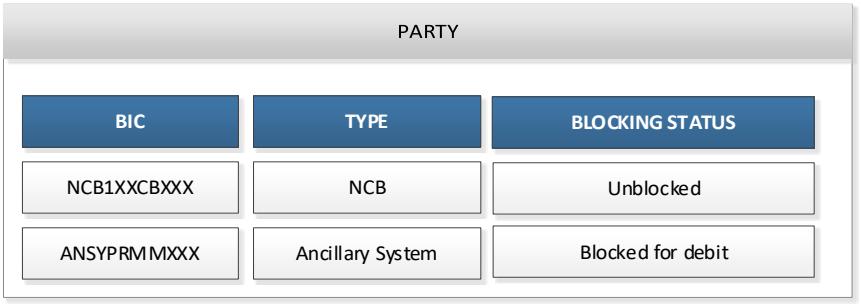
Figure 265 – Successful block of an Ancillary System: PartyModificationRequest



TIPS, after having performed successfully the expected checks on the message, executes the requested amendment:

- It identifies the Ancillary System from the Related Party Identification (ANSYPRMMXXX);
- It identifies the type of block to be performed from the Restriction Type;
- It updates the Ancillary System entities by applying the requested type of block.

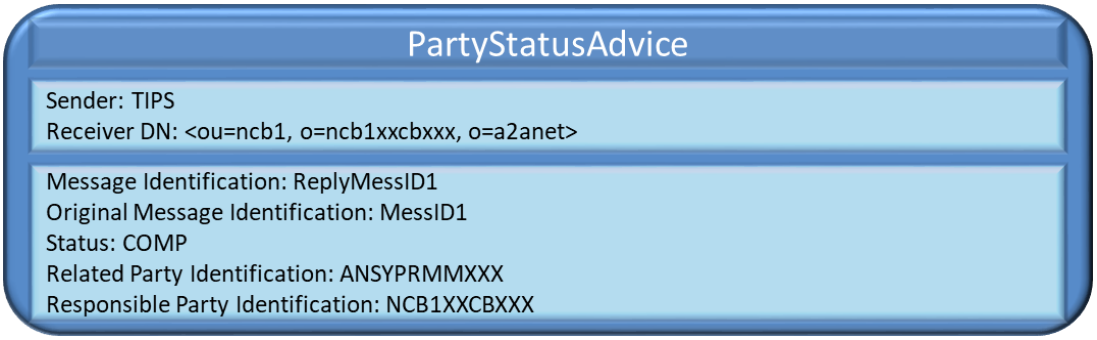
Figure 266 – Ancillary System blocked for debiting



After the amendment, TIPS sends a confirmation message to the Central Bank sending the request. The PartyStatusAdvice message sent by TIPS is shown in the following figure.

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Figure 267 – Successful block of a TIPS Participant: PartyStatusAdvice

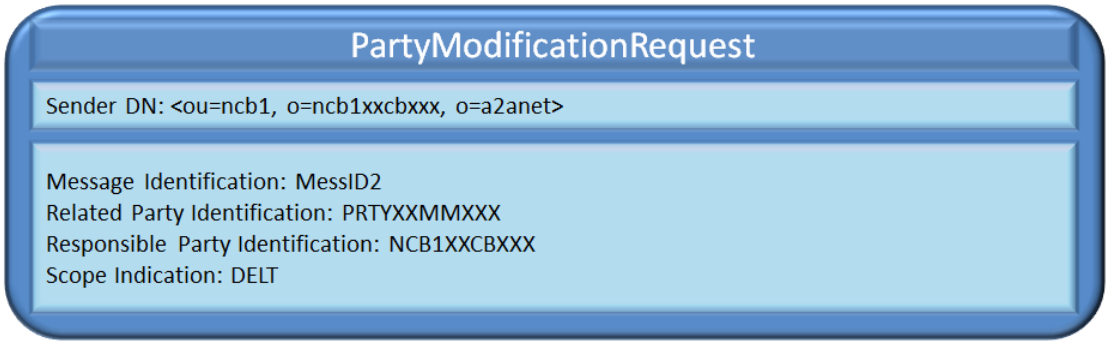


2.9.1.3. Successful scenario – Unblock of a TIPS Participant

In this positive scenario a Central Bank successfully unblocks a TIPS Participant. “Scenario 1” (highlighted in white in Figure 261 – Reference Data Management examples: data constellation) is considered.

No errors occur. The PartyModificationRequest message received by TIPS and triggering the scenario looks like the following one.

Figure 268 – Successful unblock of a TIPS Participant: PartyModificationRequest

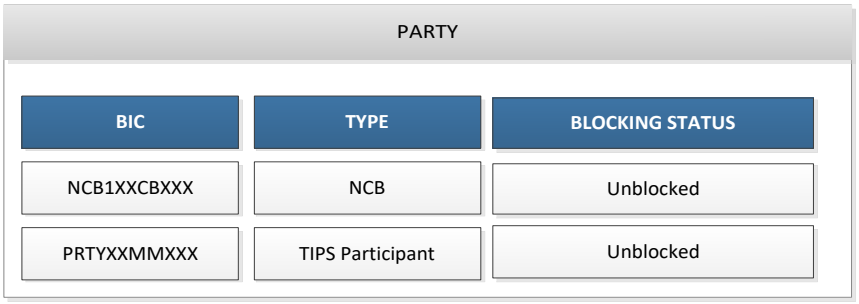


The system, after performing the expected checks successfully, performs the requested amendment:

- It identifies the TIPS Participant from the Related Party Identification (PRTYXXMMXXX);
- It identifies the type of block to be performed from the Restriction Type;
- It amends the TIPS Participant setting the party as unblocked.

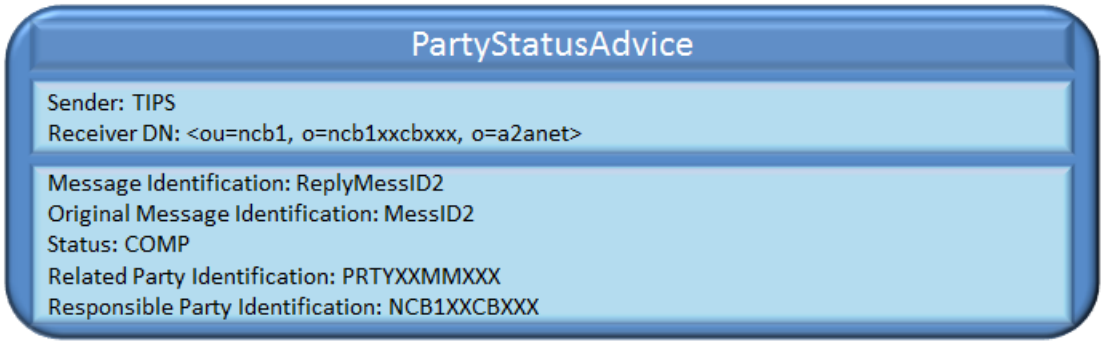
All rights reserved.

Figure 269 – TIPS Participant unblocked



After the amendment, TIPS sends a confirmation message to the Central Bank sending the request. The PartyStatusAdvice message sent by TIPS and triggering the scenario looks like the following one.

Figure 270 – Successful unblock of a TIPS Participant: PartyStatusAdvice

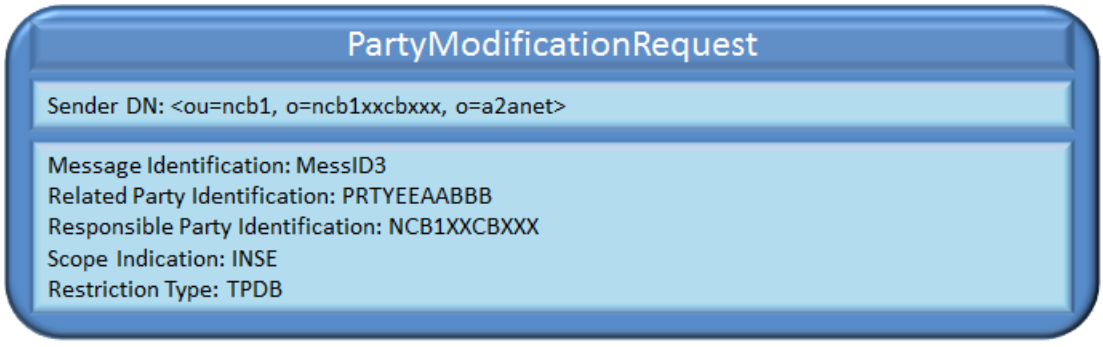


2.9.1.4. Unsuccessful scenario – Party not existing

In this negative scenario a Central Bank sends a message for blocking a TIPS Participant but the specified BIC does not match with a Participant in the TIPS reference data. “Scenario 1” (highlighted in white in Figure 261 – Reference Data Management examples: data constellation) is considered.

In this case, the system rejects the request since the referenced party does not exist. The PartyModificationRequest message received by TIPS and triggering the scenario looks like the following one.

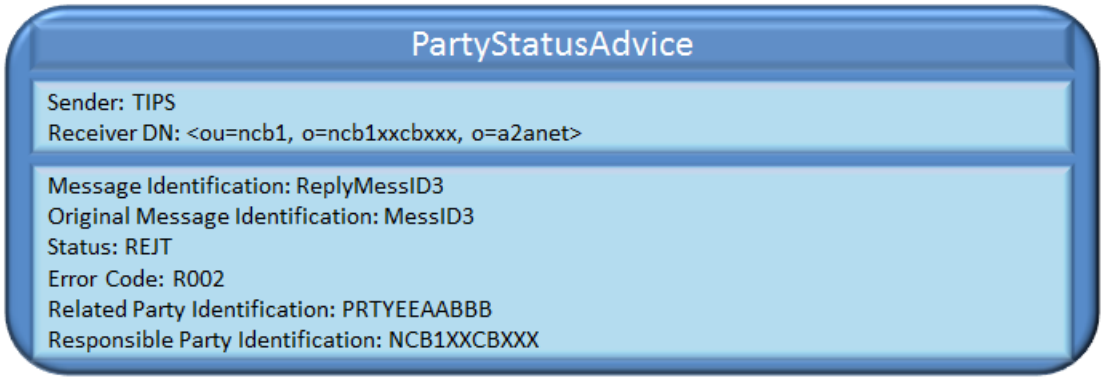
Figure 271 – Unsuccessful block of a TIPS Participant: PartyModificationRequest



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The system, when performing the expected checks, cannot find the referenced TIPS Participant and returns the related message. The PartyStatusAdvice message sent by TIPS and triggering the scenario looks like the following one:

Figure 272 – Successful block of a TIPS Participant: PartyStatusAdvice

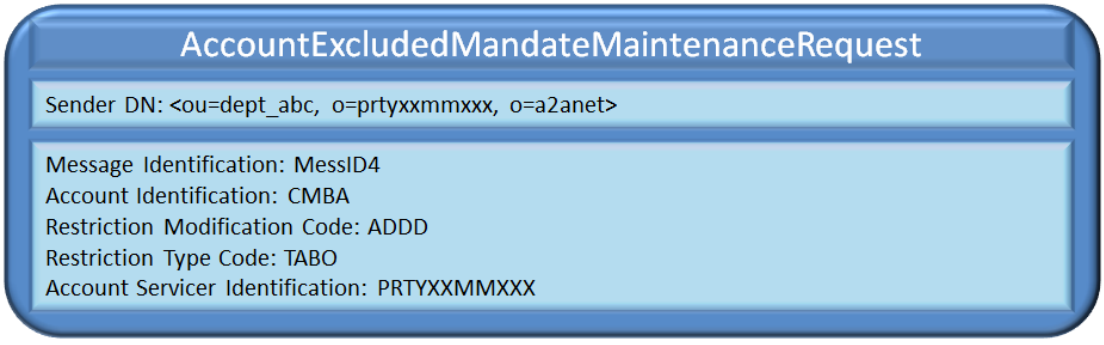


2.9.1.5. Successful scenario – Block of a CMB

In this positive scenario a TIPS Participant successfully blocks for both credit and debit a CMB. “Scenario 2” (highlighted in yellow in Figure 261 – Reference Data Management examples: data constellation) is considered.

No errors occur. The AccountExcludedMandateMaintenanceRequest message received by TIPS and triggering the scenario looks like the following one.

Figure 273 – Successful block of a CMB: AccountExcludedMandateMaintenanceRequest

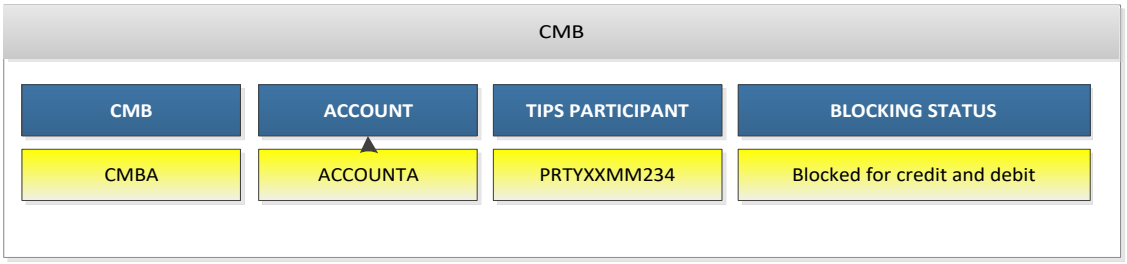


The system, after performing the expected checks successfully, performs the requested amendment:

- It identifies the CMB from the Account Identification;
- It identifies the type of block to be performed from the Restriction Type Code;
- It amends the CMB setting the requested type of block.

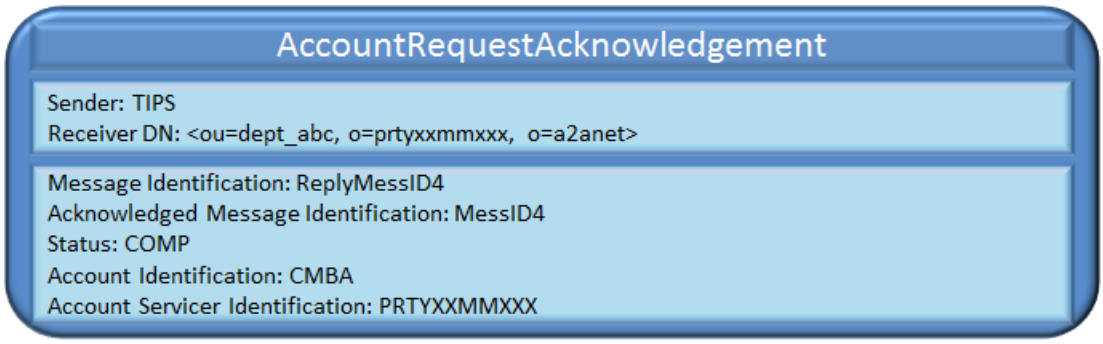
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Figure 274 – CMB blocked for both credit and debit



After the amendment, TIPS sends a confirmation message to the TIPS Participant or Instructing Party sending the request. The AccountRequestAcknowledgement message sent by TIPS and triggering the scenario looks like the following one.

Figure 275 – Successful block of a CMB: AccountRequestAcknowledgement

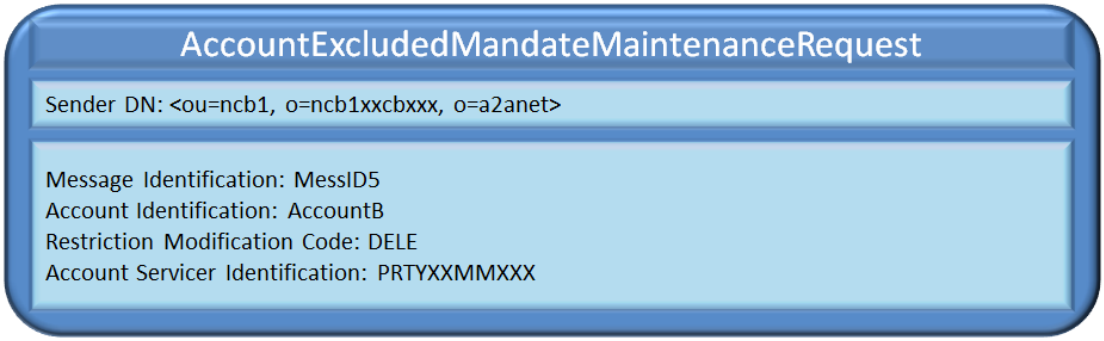


2.9.1.6. Successful scenario – Unblock of an Account

In this positive scenario a Central Bank successfully unblocks an Account. “Scenario 1” and “Scenario 2” (highlighted in white and yellow in Figure 261 – Reference Data Management examples: data constellation) are considered.

No errors occur. The AccountExcludedMandateMaintenanceRequest message received by TIPS and triggering the scenario looks like the following one.

Figure 276 – Successful unblock of an Account: AccountExcludedMandateMaintenanceRequest

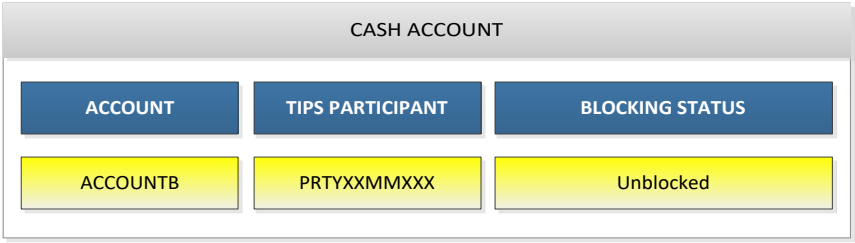


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The system, after performing the expected checks successfully, applies the requested amendment:

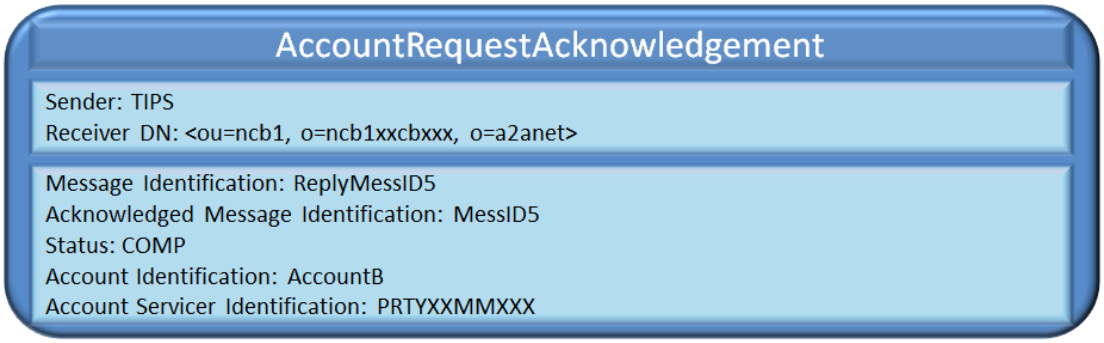
- It identifies the Account from the Account Identification;
- It amends the Account setting it as unblocked.

Figure 277 – Account unblocked



After the amendment, TIPS sends a confirmation message to the TIPS Participant or Instructing Party sending the request. The AccountRequestAcknowledgement message sent by TIPS and triggering the scenario looks like the following one.

Figure 278 – Successful unblock of an Account: AccountRequestAcknowledgement



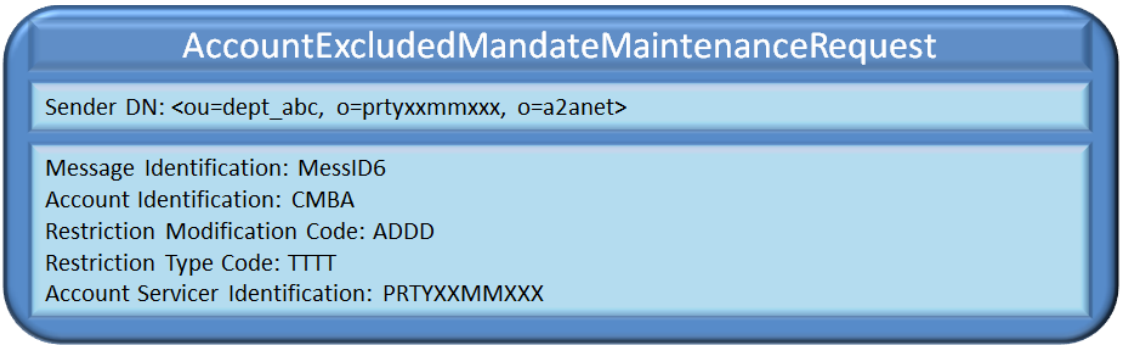
2.9.1.7. Unsuccessful scenario – Restriction type not allowed

In this negative scenario a TIPS Participant sends a message for blocking a CMB. The message contains a wrong reference to the type of blocking operation (e.g. 'TTTT' is an invalid Restriction Type Code) and an error is raised and notified. "Scenario 2" (highlighted in yellow in Figure 261 – Reference Data Management examples: data constellation) is considered.

The AccountExcludedMandateMaintenanceRequest message received by TIPS and triggering the scenario looks is described in the following figure.

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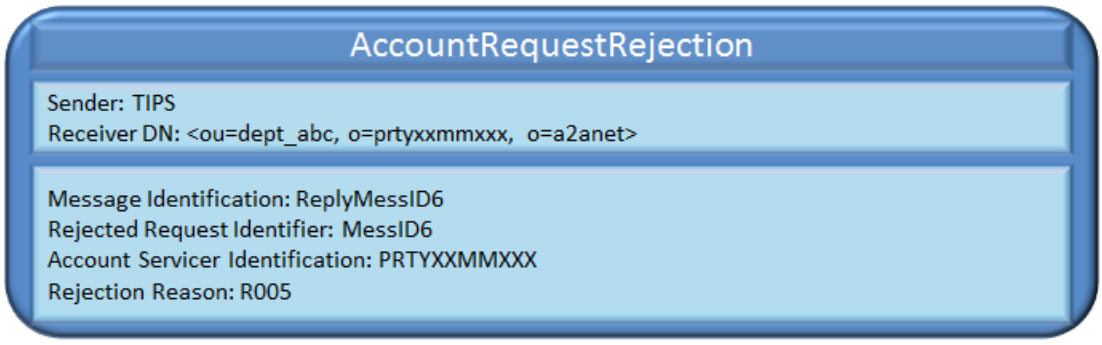
Figure 279 – Unsuccessful block of a CMB: AccountExcludedMandateMaintenanceRequest



The system, when performing the expected checks, cannot identify the requested block type and consequently it raises the error (i.e. 'R005' - Restriction Type not allowed).

TIPS notifies the error with a rejection message to the TIPS Participant sending the request. The AccountRequestRejection message sent by TIPS and triggering the scenario looks like the following one.

Figure 280 – Unsuccessful block of a CMB: AccountRequestRejection



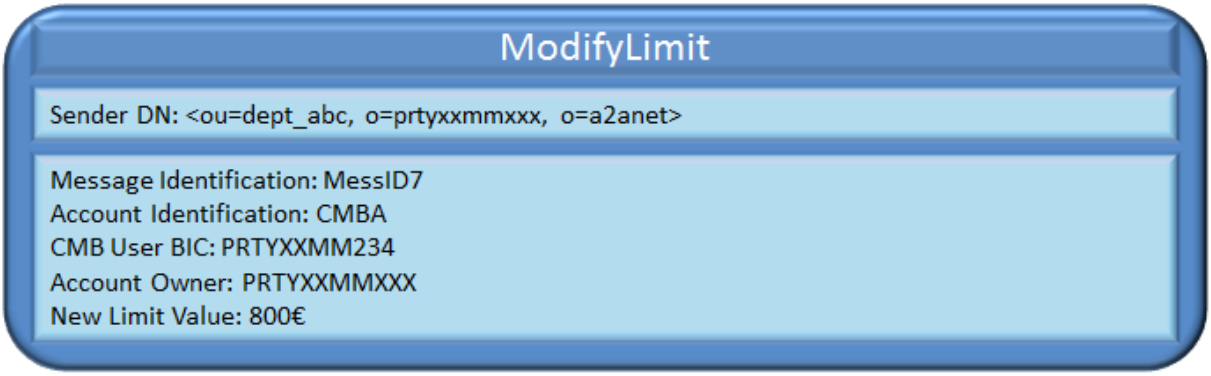
2.9.1.8. Successful scenario – Decrease of a CMB Limit

In this positive scenario a TIPS Participant successfully decreases the CMB Limit of a CMB under its data scope. "Scenario 2" (highlighted in yellow in Figure 261 – Reference Data Management examples: data constellation) is considered. The CMB Headroom is amended accordingly.

The ModifyLimit message received by TIPS and triggering the scenario looks like the following one:

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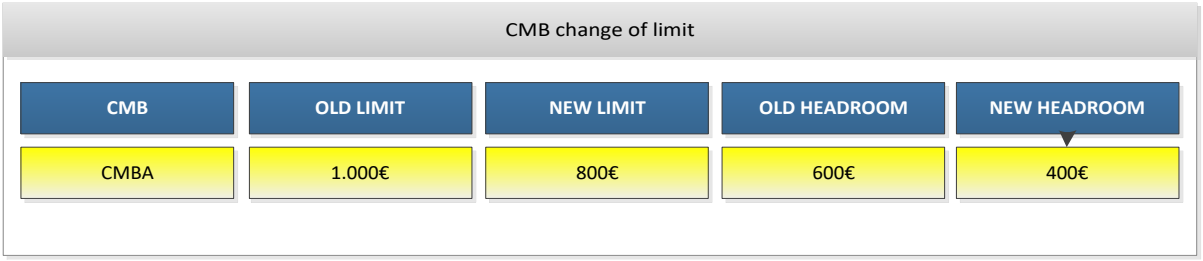
Figure 281 – Successful decrease of a CMB Limit: ModifyLimit



The system, after performing the expected checks successfully, completes the requested amendment:

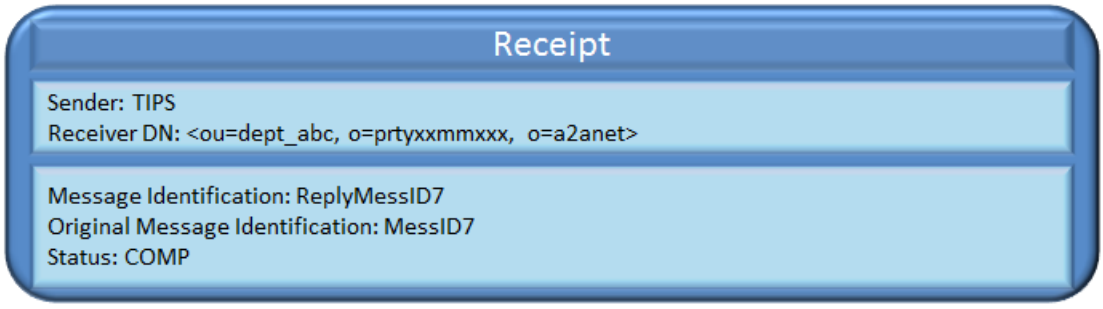
- It sets the new Limit for the CMB to 800.00 EUR;
- It amends the CMB Headroom decreasing it by the difference between the old limit value and the new limit value. In this example, the headroom of the CMB is 600.00 EUR and must be adjusted of 200.00 EUR (old limit 1,000.00 EUR – new limit 800.00 EUR) reaching the final value of 400.00 EUR.

Figure 282 – Successful decrease of a CMB Limit



After the amendment, TIPS sends a confirmation message to the TIPS Participant or Instructing Party sending the request. The Receipt (camt.025.001.07) message sent by TIPS and triggering the scenario looks like the following one.

Figure 283 – Successful decrease of a CMB Limit: Receipt



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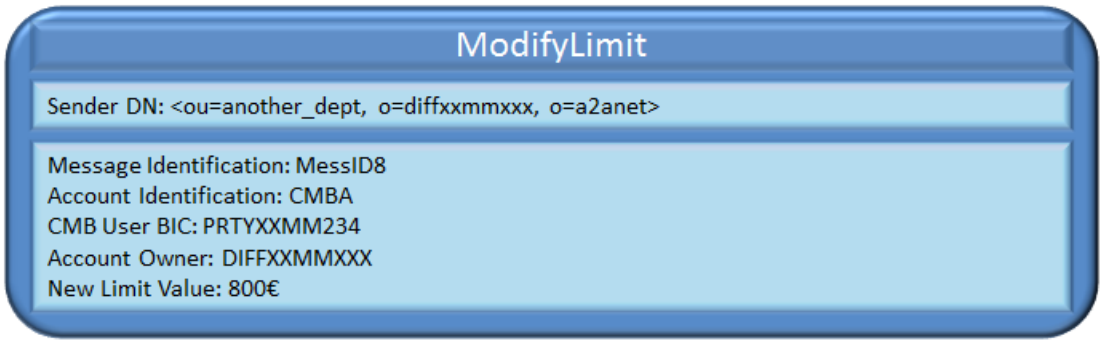
2.9.1.9. Unsuccessful scenario – User not allowed to change the Limit

In this negative scenario a TIPS Participant tries to decrease the CMB Limit of a CMB that does not fall under its data scope. “Scenario 2” (highlighted in yellow in Figure 261 – Reference Data Management examples: data constellation) is considered.

The system rejects the request and no actions are executed on the CMB.

The ModifyLimit message received by TIPS and triggering the scenario looks like the following one.

Figure 284 – Unsuccessful decrease of a CMB Limit: ModifyLimit



The system, performing the expected checks, verifies that the Account Owner is not correctly reported and it is not the owner of the CMB to be modified.

In this case, the system returns an error and sends a confirmation message to the TIPS Participant sending the request. The Receipt (camt.025.001.07) message sent by TIPS and triggering the scenario looks like the following one.

Figure 285 – Unsuccessful decrease of a CMB Limit: Receipt



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3. Catalogue of messages

This section aims at describing the detailed specifications of the A2A messaging resources used in TIPS. It is the reference guide for business readers checking the adherence to the SCT^{Inst} scheme and completeness of information to cover the business needs. Together with published XSD schemas, it is the reference guide for developing software components interacting with TIPS.

All of the messages are registered in ISO 20022 standards or have been submitted to the Registration Authority for starting the registration process.

3.1. Introduction

Following ISO 20022 business domains classification, messages from four different domains are used to cover the different business scenarios:

- Payments Clearing and Settlement
- Cash Management
- Account Management
- Reference Data

Payments Clearing and Settlement messages are used to adhere with SEPA SCT^{Inst} rulebook and Inter-PSP Guidelines. The description includes the related Data Source reference when available.

Cash Management messages are used to provide complete coverage for SEPA SCT^{Inst} investigation and recall processes as specified by the EPC SCT^{Inst} Scheme and to let users instruct liquidity transfers, query TIPS Accounts and CMBs balances and modify CMB limits.

Account Management messages are used to let users change the blocking status for TIPS Accounts or TIPS AS Technical Accounts.

Reference Data messages are used to let Central Banks change the blocking status for a TIPS Participant or an Ancillary System.

3.2. General information

A2A Interactions with TIPS are based on XML ISO 20022 standards as described in the EPC SCT^{Inst} Scheme.

The processing of the incoming XML messages is performed in different steps described in the following sections, which are not necessarily under TIPS responsibility.

3.2.1. Message signing

The message signature is handled in the ESMIG TIPS plug-in component. After successful validation, the ESMIG TIPS plug-in passes on to TIPS Message Router pieces of information that will be stored within TIPS repository, including sender's information and signature and technical network parameters, that would be required for Non-Repudiation of Origin (NRO) purposes.

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No further processing but storing is performed in TIPS with such pieces of information.

3.2.2. Technical validation

Technical validation of incoming TIPS messages is performed in two different steps:

1) Schema validation;
2) Additional technical validation.

Both steps are performed within the ESMIG component. The schema validation is performed using standard parser components. Every message is validated against the published XSD subset for TIPS. The additional technical validation includes all of the checks which cannot be done in the schema validation with an automated parsing process (e.g. cross fields validation). They are performed only for messages which have passed the schema validation.

The type and quantity of the checks performed vary depending on the message type and on the SCT^{Inst} or ISO message constraints.

Rejection occurring for both schema validation and additional technical validation check is reported in the same way, that is with the same message type.

3.2.3. Supported Character Set

TIPS fully supports UTF-8 Character Set.

Following the SEPA Instant Credit Transfer specifications, the character set is restricted for references and identifiers to support the Latin characters which are commonly used in international communication.

The complete list is as follows:

a b c d e f g h i j k l m n o p q r s t u v w x y z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9

/ - ? : ( ) . , ' + Space

For cross-currency transactions only, also special characters are allowed in:

- All party (agents and non agents) ‘Name’ and ‘Address’ elements.
- The ‘Related Remittance Information’ element.
- The ‘Remittance Information’ (structured & unstructured) element.
- The ‘Email Address’ where included as part of ‘Proxy’ elements.
- ‘City of Birth’ and ‘Province of Birth’ elements nested in Private Identification.

Cross-currency transactions special characters are: ! # $ % & * = ^ _ ` { | } ~ " ; < > @ [\ ]

As additional rules, it is required that references, identifications and identifiers must not start or end with ‘/’ or contain ‘//’.

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3.3. Messages usage

3.3.1. List of messages

In the following table, messages are grouped by ISO 20022 business domain.

Table 46 – List of messages for SCT^{Inst} scheme

ISO Message	Message Name	Scenario
Payments Clearing and Settlement		
pacs.002.001.10	FIToFIPaymentStatusReport	Settlement of Instant Payments Settlement of Recall Investigation
pacs.004.001.09	PaymentReturn	Settlement of Recall
pacs.008.001.08	FIToFICustomerCreditTransfer	Settlement of Instant Payments
pacs.028.001.03	FIToFIPaymentStatusRequest	Investigation and Recall
Cash Management		
camt.003.001.08	GetAccount	Reports and queries
camt.004.001.10	ReturnAccount	Settlement of Instant Payments Settlement of Recall Liquidity Management Reports and queries
camt.005.001.11	GetTransaction	Reports and queries
camt.006.001.11	ReturnTransaction	Reports and queries
camt.011.001.08	ModifyLimit	Reference data maintenance
camt.019.001.07	ReturnBusinessDayInformation	Reports and queries
camt.025.001.07	Receipt	Liquidity Management Reference data maintenance
camt.025.001.07	Receipt	Communication with RTGS system
camt.029.001.09	ResolutionOfInvestigation	Recall

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ISO Message	Message Name	Scenario
camt.050.001.07	LiquidityCreditTransfer	Liquidity Management
camt.052.001.12	BankToCustomerAccountReport	Reports and queries
camt.053.001.12	BankToCustomerStatement	Reports and queries
camt.053.001.12	BankToCustomerStatement (General Ledger)	Reports and queries
camt.054.001.12	BankToCustomerDebitCreditNotification	Liquidity Management
camt.056.001.08	FIToFIPaymentCancellationRequest	Recall
Account Management (acmt)		
acmt.010.001.04	AccountRequestAcknowledgement	Reference data maintenance
acmt.011.001.04	AccountRequestRejection	Reference data maintenance
acmt.015.001.04	AccountExcludedMandateMaintenanceRequest	Reference data maintenance
Reference Data (reda)		
reda.016.001.01	PartyStatusAdvice	Reference data maintenance
reda.022.001.02	PartyModificationRequest	Reference data maintenance
Administration (admi)		
admi.004.001.02	SystemEventNotification	Broadcast

Table 47 – List of messages for non-Euro schemes

ISO Message	Message Name	Scenario
Payments Clearing and Settlement		
pacs.002.001.10	FIToFIPaymentStatusReport	Settlement of Instant Payments Settlement of Recall Investigation
pacs.004.001.09	PaymentReturn	Settlement of Recall
pacs.008.001.08	FIToFICustomerCreditTransfer	Settlement of Instant Payments
pacs.028.001.03	FIToFIPaymentStatusRequest	Investigation and Recall

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ISO Message	Message Name	Scenario
Cash Management		
camt.003.001.08	GetAccount	Reports and queries
camt.004.001.10	ReturnAccount	Settlement of Instant Payments Settlement of Recall Liquidity Management Reports and queries
camt.005.001.11	GetTransaction	Reports and queries
camt.006.001.11	ReturnTransaction	Reports and queries
camt.011.001.08	ModifyLimit	Reference data maintenance
camt.019.001.07	ReturnBusinessDayInformation	Reports and queries
camt.025.001.07	Receipt	Liquidity Management Reference data maintenance
camt.025.001.07	Receipt	Communication with RTGS system
camt.029.001.09	ResolutionOfInvestigation	Recall
camt.050.001.07	LiquidityCreditTransfer	Liquidity Management
camt.052.001.12	BankToCustomerAccountReport	Reports and queries
camt.053.001.12	BankToCustomerStatement	Reports and queries
camt.053.001.12	BankToCustomerStatement (General Ledger)	Reports and queries
camt.054.001.12	BankToCustomerDebitCreditNotification	Liquidity Management
camt.056.001.08	FIToFIPaymentCancellationRequest	Recall
Account Management (acmt)		
acmt.010.001.04	AccountRequestAcknowledgement	Reference data maintenance
acmt.011.001.04	AccountRequestRejection	Reference data maintenance
acmt.015.001.04	AccountExcludedMandateMaintenanceRequest	Reference data maintenance
Reference Data (reda)		

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ISO Message	Message Name	Scenario
reda.016.001.01	PartyStatusAdvice	Reference data maintenance
reda.022.001.02	PartyModificationRequest	Reference data maintenance
Administration (admi)		
admi.004.001.02	SystemEventNotification	Broadcast

Table 48 – List of messages for cross-currency model

ISO Message	Message Name	Scenario
Payments Clearing and Settlement		
pacs.002.001.10	FIToFIPaymentStatusReport	Settlement of cross-currency Transactions
pacs.008.001.08	FIToFICustomerCreditTransfer	Settlement of cross-currency Transactions
pacs.028.001.03	FIToFIPaymentStatusRequest	Investigation on cross-currency Transactions

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3.3.2. Messages description

3.3.2.1. Payments Clearing and Settlement

3.3.2.1.1 FIToFIPaymentStatusReport (pacs.002.001.10)

The FItoFIPaymentStatusReport message is used in several business cases

1. It is sent by TIPS to the Originator Participant to report a rejection for a pacs.008 transaction;
2. It is sent by the Beneficiary Participant or Instructing Party to TIPS to report the processing result of a pacs.008 sent by TIPS upon request of an Originator Participant;
3. The message as received by the Beneficiary Participant is forwarded to the Originator Participant. This scenario covers also the positive response to a Status Investigation request;
4. It is sent by TIPS to the Beneficiary Participant as a confirmation for processing of the pacs.002 received from the Beneficiary Participant itself;
5. It is sent by TIPS to the Originator Participant after a negative response to a Status Investigation request.
6. It is sent by TIPS to the Originator Participant (e.g., in case of errors during the conditional phase or in case of timeout condition triggered by TIPS during either the conditional phase or settlement phase);
7. It is sent by TIPS to the sender of the Recall in case of errors;
8. It is sent by TIPS to the sender of the positive Recall Response either as a positive settlement confirmation or in case of errors (e.g. not sufficient funds to settle the positive recall or validation error related to the Recall Response);
9. It is sent by TIPS to the sender of the negative Recall Response in case of errors (e.g. missing access rights);
10. It is sent by TIPS to inform the Single Instructing Party about the result of the settlement (i.e. settled, rejected, timed-out) in the SIP settlement model;
11. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to missing positive confirmation from the Beneficiary Participant;
12. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to delayed positive confirmation from the Beneficiary Participant.

Message specification is compliant to EPC DS-03 Confirmation Message as described in the SEPA Instant Credit Transfer scheme Rulebook.

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References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.002.001.10

Table 49 – Description of the fields for DS-03 Dataset vs pacs.002.001.10

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	The Identification of the message.	FIToFIPmtStsRpt/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsRpt/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Message Identification	Message Identification of the originating message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgId	Yes	This field matches with the Identification of the original message. Business cases 1,2,3, 6,10,11: **FIToFICstmrCdtTrf/GrpHdr/MsgId** Business case 4,12: **FIToFIPmtStsRpt/GrpHdr/MsgId** Business case 5: **FIToFIPmtStsReq/GrpHdr/MsgId** Business case 7: **FIToFIPmtCxlReq/Assgnmt/Id** Business case 8: **PmtRtr/GrpHdr/MsgId** Business case 9: **RsltnOfInvstgtn/Assgnmt/Id**

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Original Message Name Identification	Message identifier of the originating message. SEPA usage rule: Must begin with **pacs.008**. The addition of a variant number and version number is optional.	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgNmId	Yes	Business cases 1,2,3, 6,10,11: **pacs.008.001.08** Business cases 4,12: **pacs.002.001.10** Business case 5: **pacs.028.001.03** Business case 7: **camt.056.001.08** Business case 8: **pacs.004.001.09** Business case 9: **camt.029.001.09** SEPA usage rule applicable only to business cases 2, 3
AT-R001	Group Status Transaction Status	The type of "R" message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/GrpSts FIToFIPmtStsRpt/TxInfAndSts/TxSts	No	Either Group Status or Transaction Status must be used. If incoming pacs.002 from beneficiary does not include any status or both are filled in, connected payment transaction will be rejected by TIPS. In outgoing pacs.002 messages produced by TIPS, Group Status will be used for positive confirmation while Transaction Status will be included for negative acknowledgements,
AT-R004	Reason	The reason code for non-acceptance of the SCT^{Inst} Transaction	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Rsn/Cd	No	This field is used for negative confirmation message only.
n/a	Transaction Information And Status	Information concerning the original transactions, to which the status report message refers.	FIToFIPmtStsRpt/TxInfAndSts	No	Only one occurrence is allowed
AT-R003 **AT-T055**	Status Identification	The specific reference of the party initiating the Reject	FIToFIPmtStsRpt/TxInfAndSts/StsId	Yes	For positive confirmation it is the AT-T055. For negative confirmation it is the AT-R003
n/a	Original Instruction Identification	Unique identification, as assigned by the original Instructing Party for the original instructed party.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlInstrId	No	Only schema validation is performed.
AT-T014	Original End To End Identification	The Originator's reference of the SCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	The Originator PSP's reference number of the SCT^{Inst} Transaction message	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxId	Yes	Reference of the Payment Transaction to which the PaymentStatusReport refers.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-R002	Originator	The Identification of the type of party initiating the "R" message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Orgtr FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Orgtr	No	These fields are mandatory for negative confirmation message, not allowed otherwise.
AT-R004	Reason	The reason code for non-acceptance of the SCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Rsn/Cd	No	This field is used for negative confirmation message only.
AT-T056	Acceptance Timestamp	Time Stamp of the SCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/AccptncDtTm	Yes	Only schema validation is performed.
n/a	Original Transaction Reference	Set of key elements used to identify the original transaction that is being referred to.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef	Yes	Only schema validation is performed.
AT-T001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	Yes	Possible values are checked within schema validation.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-D002	Originator BIC	The BIC code of the Originator PSP	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	

3.3.2.1.2 PaymentReturn (pacs.004.001.09)

The PaymentReturn message is sent by the Assignee Participant as a confirmation for a Recall instructed by the Assigner Participant.

Additionally, the PaymentReturn message can be sent in reply to a Request for Status Update on a Recall.

After processing the request, TIPS forwards the PaymentReturn message to the Assigner Participant who formerly instructed the Recall and sends a PaymentStatusReport message to the Assignee Participant.

Message specification is compliant to EPC DS-06 Response to a Recall of an SCT^{Inst} Dataset as described in the SEPA Instant Credit Transfer scheme Rulebook.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.004.001.09

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Table 50 – Description of the fields for DS-06 Dataset vs pacs.004.001.09

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	The Identification of the message.	PmtRtr/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	PmtRtr/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
n/a	Number Of Transactions	Number of individual transactions contained in the message.	PmtRtr/GrpHdr/NbOfTxs	Yes	TIPS supports only one transaction per message. If this field is not "1", message will be rejected.
n/a	Total Returned Interbank Settlement Amount	Total amount of money moved.	PmtRtr/GrpHdr/TtlRtrdIntrBkSttlmAmt	Yes	Only schema validation is performed.
AT-R056	Interbank Settlement Date	The Settlement Date for the positive response to the Recall	PmtRtr/GrpHdr/IntrBkSttlmDt	Yes	Only schema validation is performed.
n/a	Settlement Method	Method used to settle the Instant Payment Transaction.	PmtRtr/GrpHdr/SttlmInf/SttlmMtd	Yes	Possible values are checked within schema validation.
n/a	Settlement Account	A specific purpose account used to post debit and credit entries as a result of the transaction.	PmtRtr/GrpHdr/SttlmInf/SttlmAcct	No	Only schema validation is performed.
n/a	Clearing System	Specification of a pre-agreed offering between clearing agents or the channel through which the Instant Payment transaction is processed.	PmtRtr/GrpHdr/SttlmInf/ClrSys	No	Only schema validation is performed.
n/a	Group Header +Settlement Information ++Clearing System +++Code	Infrastructure through which the payment instruction is processed, as published in an external clearing system identification code list.	PmtRtr/GrpHdr/SttlmInf/ClrSys/Cd	Yes	Only schema validation is performed.
n/a	Group Header +Settlement Information ++Clearing System +++Proprietary	Clearing system identification in a proprietary form.	PmtRtr/GrpHdr/SttlmInf/ClrSys/Prtry	Yes	Only schema validation is performed.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	PmtRtr/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	PmtRtr/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Group Information	Information concerning the original group of transactions, to which the message refers.	PmtRtr/OrgnlGrpInf	No	Sub-elements of 'Original Group Information' must be present in either 'Original Group Information' or in 'Transaction Information'. If any of these sub-elements is included in both components, the message will be rejected.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Original Group Information + Original Message Identification	Point to point reference, as assigned by the original instructing party, to unambiguously identify the original message.	PmtRtr/OrgnlGrpInf/OrgnlMsgId	Yes	This information must be present in either 'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
n/a	Original Group Information + Original Message Name Identification	Specifies the original message name identifier to which the message refers. Must begin with **pacs.008**. The addition of a variant number and version number is optional.	PmtRtr/OrgnlGrpInf/OrgnlMsgNmId	Yes	This information must be present in either 'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
n/a	Transaction Information	Information concerning the original transactions to which the return message refers.	PmtRtr/TxInf	Yes	TIPS supports only one transaction per message. If more than one Transaction Information block is included, message will be rejected.
n/a	Return Identification	Unique identification, as assigned by an instructing party for an instructed party, to unambiguously identify the returned transaction.	PmtRtr/TxInf/RtrId	Yes	TIPS uses this field for the duplicate check.
n/a	Transaction Information + Original Group Information	Information concerning the original group of transactions, to which the message refers.	PmtRtr/TxInf/OrgnlGrpInf	No	Sub-elements of 'Original Group Information' must be present in either 'Original Group Information' or in 'Transaction Information'. If any of these sub-elements is included in both components, message will be rejected.
n/a	Transaction Information + Original Group Information ++ Original Message Identification	Point to point reference, as assigned by the original instructing party, to unambiguously identify the original message.	PmtRtr/TxInf/OrgnlGrpInf/OrgnlMsgId	Yes	This information must be present in either 'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
n/a	Transaction Information + Original Group Information ++ Original Message Name Identification	Specifies the original message name identifier to which the message refers. Must begin with **pacs.008**. The addition of a variant number and version number is optional.	PmtRtr/TxInf/OrgnlGrpInf/OrgnlMsgNmId	Yes	This information must be present in either 'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party, to unambiguously identify the original instruction.	PmtRtr/TxInf/OrgnlInstrId	No	It is mandatory if provided in the original transaction. Only schema validation is performed.
AT-T014	Original End To End Identification	The Originator's reference of the SCT^{Inst} Instruction.	PmtRtr/TxInf/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	The Originator PSP's reference of the SCT^{Inst} Transaction message.	PmtRtr/TxInf/OrgnlTxId	Yes	Only schema validation is performed.
AT-T002	Original Interbank Settlement Amount	The amount of the SCT^{Inst} in euro.	PmtRtr/TxInf/OrgnlIntrBkSttlmAmt	Yes	Only schema validation is performed.
AT-R054	Returned Interbank Settlement Amount	The returned amount of the positive response to the Recall in euro	PmtRtr/TxInf/RtrdIntrBkSttlmAmt	Yes	Amount to be settled in TIPS.
n/a	Returned Instructed Amount	Amount of money to be moved between the debtor and the creditor, before deduction of charges, in the returned transaction.	PmtRtr/TxInf/RtrdInstdAmt	No	Only schema validation is performed.
n/a	Charge Bearer	Specifies which party/parties will bear the charges associated with the processing of the payment transaction.	PmtRtr/TxInf/ChrgBr	No	Only schema validation is performed.
AT-R055	Charges Information + Amount	The fee for the positive response to a Recall in euro (optional)	PmtRtr/TxInf/ChrgsInf/amt	No	It is mandatory if Charges Information component is included. Only schema validation is performed.
AT-C002	Charges Information + Agent ++ Financial Institution Identification	The BIC code of the Beneficiary PSP.	PmtRtr/TxInf/ChrgsInf/Agt/FinInstnId	No	It is mandatory if Charges Information component is included. Only schema validation is performed.
n/a	Transaction Information + Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	PmtRtr/TxInf/InstgAgt	No	Only schema validation is performed.
n/a	Transaction Information + Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	PmtRtr/TxInf/InstdAgt	No	Only schema validation is performed.
AT-R001		The type of "R" message			
AT-R002	Return Reason Information + Originator	The Identification of the type of party initiating the "R" message	PmtRtr/TxInf/RtrRsnInf/Orgtr	Yes	Only schema validation is performed.
n/a	Return Reason Information + Reason	The reason code for non-acceptance of the SCT^{Inst} Transaction.	PmtRtr/TxInf/RtrRsnInf/Rsn/Cd	Yes	Only schema validation is performed.
AT-R053	Return Reason Information + Additional Information	The specific reference of the PSP initiating the Recall	PmtRtr/TxInf/RtrRsnInf/addtlInf	Yes	Only schema validation is performed.
AT-T051	Interbank Settlement Date	The Settlement Date of the SCT^{Inst} Transaction.	PmtRtr/TxInf/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.
n/a	Settlement Information	Specifies the details on how the settlement of the original transaction between the instructing agent and the instructed agent was completed.	PmtRtr/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-T001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No	Only schema validation is performed.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction.	PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-T009	Remittance Information	The Remittance information.	PmtRtr/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
AT-P006	Ultimate Debtor + Name	The name of the Originator Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
AT-P007	Ultimate Debtor + Identification	The identification code of the Originator Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
AT-P001	Debtor + Name	The name of the Originator.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	Yes	Only schema validation is performed.
AT-P005	Debtor + Postal Address	The address of the Originator.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
AT-P004	Debtor + Identification	The Originator identification code.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
AT-D001	Debtor Account	The IBAN of the account of the Originator.	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-P003	Proxy	Specifies an alternate assumed name for the identification of the account.	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
AT-D002	Debtor Agent	The BIC code of the Originator PSP.	PmtRtr/TxInf/OrgnlTxRef/DbtrAgt	No	This field is used in TIPS for recall response processing.
AT-C002	Creditor Agent	The BIC code of the Beneficiary PSP.	PmtRtr/TxInf/OrgnlTxRef/CdtrAgt	No	This field is used in TIPS for recall response processing.
AT-E001	Creditor + Name	The name of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/Nm	Yes	Only schema validation is performed.
AT-E004	Creditor + Postal Address	The address of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
AT-E005	Creditor + Identification	The Beneficiary identification code.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
AT-C001	Creditor Account	The IBAN of the account of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct	Yes	Only schema validation is performed.
AT-E003	Proxy	Specifies an alternate assumed name for the identification of the account.	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
AT-E007	Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
AT-E010	Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
AT-T007	Purpose	Underlying reason for the payment transaction.	PmtRtr/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

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3.3.2.1.3 FIToFICustomerCreditTransfer (pacs.008.001.08)

The FItoFICustomerCreditTransfer message allows instructing TIPS for an Instant Payment transaction of a positive amount of money from the originator participant account to the beneficiary participant account.

Message specification is compliant to EPC DS-02 Inter-PSP Payment Dataset as described in the SEPA Instant Credit Transfer scheme Rulebook.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.008.001.08

Table 51 – Description of the fields for DS-02 Dataset vs pacs.008.001.08

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	Point to point reference, as assigned by the instructing party.	FIToFICstmrCdtTrf/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFICstmrCdtTrf/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
n/a	Number Of Transactions	Number of individual transactions contained in the message.	FIToFICstmrCdtTrf/GrpHdr/NbOfTxs	Yes	Possible values are checked within schema validation.
n/a	Total Interbank Settlement Amount	Total amount of money moved between the instructing agent and the instructed agent.	FIToFICstmrCdtTrf/GrpHdr/TtlIntrBkSttlmAmt	Yes	Only schema validation is performed.
AT-T051	Settlement Date	The Settlement Date of the SCT^{Inst} Transaction	FIToFICstmrCdtTrf/GrpHdr/intrBkSttlmDt	Yes	Only schema validation is performed.
n/a	Settlement Information	Specifies the details on how the settlement of the transaction between the instructing agent and the instructed agent is completed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf	Yes	Only schema validation is performed.
n/a	Settlement Method	Method used to settle the Instant Payment Transaction.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmMtd	Yes	Possible values are checked within schema validation.
n/a	Settlement Account	A specific purpose account used to post debit and credit entries as a result of the transaction.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmAcct	No	Only schema validation is performed.
n/a	Clearing System	Specification of a pre-agreed offering between clearing agents or the channel through which the Instant Payment transaction is processed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys	No	Only schema validation is performed.
n/a	Payment Type Information	Set of elements used to further specify the type of transaction.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-T001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/SvcLvl/Cd FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/LclInstrm/Cd	Yes	Possible values are checked within schema validation.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFICstmrCdtTrf/GrpHdr/instgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFICstmrCdtTrf/GrpHdr/instdAgt	No	Only schema validation is performed.
n/a	Credit Transfer Transaction Information	Set of elements providing information specific to the individual credit transfer.	FIToFICstmrCdtTrf/CdtTrfTxInf	Yes	Only schema validation is performed.
n/a	Instruction Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/InstrId	No	Only schema validation is performed.
AT-T014	End To End Identification	The Originator's reference of the SCT^{Inst} Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/EndToEndId	Yes	Only schema validation is performed. In the event that no reference was given, "**NOTPROVIDED**" must be used.
AT-T054	Transaction Identification	The Originator PSP's reference number of the SCT^{Inst} Transaction message	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/TxId	Yes	The Transaction Reference used to identify the Instant Payment transaction and perform the duplicate check
AT-T002	Settlement Amount	The amount of SCT^{Inst} in euro	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrBkSttlmAmt	Yes	The currency of the Settlement Amount must be the same of the Creditor and Debtor Accounts
AT-T056	Acceptance Timestamp	Timestamp of the SCT^{Inst} Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/AccptncDtTm	Yes	The Acceptance Timestamp is used as a starting point in time for the Instant Payment transaction processing at Originator PSP level. The Acceptance Timestamp shall be expressed in UTC. Timestamps must be unambiguous and include milliseconds. The representation of milliseconds must follow the W3C recommendation.
n/a	Charge Bearer	Specifies which party/parties will bear the charges associated with the processing of the payment transaction.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgBr	Yes	Only schema validation is performed.
AT-P006	Originator Reference Party Name	The name of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Nm	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-P007	Originator Reference Party Identification Code	The identification code of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id	No	Only schema validation is performed.
n/a	Ultimate Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/OrgId	Yes	Either 'AnyBIC', 'LEI' and/or one occurrence of 'Other' is allowed.
n/a	Ultimate Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/PrvtId	Yes	Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
n/a	Debtor	Party that owes an amount of money to the (ultimate) creditor.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr	Yes	Only schema validation is performed.
AT-P001	Originator Name	The name of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Nm	Yes	Only schema validation is performed.
AT-P005	Originator Address	The address of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory. UNSTRUCTURED ADDRESS (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden. The use of 'Country' is mandatory when either the Debtor Agent or Creditor Agent is located in a non-EEA SEPA country or territory.
n/a	Debtor + Postal Address ++ Department	Identification of a division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Dept	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Sub Department	Identification of a sub-division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/SubDept	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Debtor +Postal Address ++Street Name	Name of a street or thoroughfare	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/StrtNm	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Building Number	Number that identifies the position of a building on a street	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/BldgNb	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Building Name	Name of the building or house	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/BldgNm	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Floor	Floor or storey within a building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Flr	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Post Box	Numbered box in a post office, assigned to a person or organisation, where letters are kept until called for	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/PstBx	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Room	Building room number	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Room	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Post Code	Identifier consisting of a group of letters and/or numbers that is added to a postal address to assist the sorting of mail	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/PstCd	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Town Name	Name of a built-up area, with defined boundaries, and a local government	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/TwnNm	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Town Location Name	Specific location name within the town	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/TwnLctnNm	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ District Name	Identifies a subdivision within a country sub-division	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/DstrctNm	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Country Sub Division	Identifies a subdivision of a country such as state, region, county	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/CtrySubDvsn	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Country Code	Nation with its own government.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Ctry	No	Only schema validation is performed.
n/a	Debtor + Postal Address ++ Address Line	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/AdrLine	No	Only schema validation is performed.
AT-P004	Originator Identification Code	The Originator identification code	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id	No	Only schema validation is performed.
n/a	Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/OrgId	Yes	Either 'AnyBIC', 'LEI' and/or one occurrence of 'Other' is allowed.
n/a	Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/PrvtId	Yes	Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
AT-D001	Originator IBAN	The IBAN of the account of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-P003	Proxy	Specifies an alternate assumed name for the identification of the account	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Prxy	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-D002	Originator BIC	The BIC code of the Originator PSP	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/BICFI	Yes	The Distinguished Name of the sender must be authorised to instruct for the Originator BIC. The Originator BIC must be stored as an Account Authorised BIC or CMB user
AT-C002	Beneficiary BIC	The BIC code of the Beneficiary PSP	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/BICFI	Yes	The Beneficiary BIC must be linked with at least one Distinguished Name for outbound message routing
n/a	Creditor	Party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr	Yes	Only schema validation is performed.
AT-E001	Creditor Name	The name of the Beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Nm	Yes	Only schema validation is performed.
AT-E004	Creditor Address	The address of the Beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory. UNSTRUCTURED ADDRESS (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden.
n/a	Creditor + Postal Address ++ Department	Identification of a division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Dept	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Sub Department	Identification of a sub-division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/SubDept	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Street Name	Name of a street or thoroughfare	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/StrtNm	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Creditor + Postal Address ++ Building Number	Number that identifies the position of a building on a street	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/BldgNb	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Building Name	Name of the building or house	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/BldgNm	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Floor	Floor or storey within a building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Flr	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Post Box	Numbered box in a post office, assigned to a person or organisation, where letters are kept until called for	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/PstBx	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Room	Building room number	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Room	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Post Code	Identifier consisting of a group of letters and/or numbers that is added to a postal address to assist the sorting of mail	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/PstCd	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Town Name	Name of a built-up area, with defined boundaries, and a local government	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/TwnNm	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Town Location Name	Specific location name within the town	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/TwnLctnNm	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ District Name	Identifies a subdivision within a country sub-division	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/DstrctNm	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Country Sub Division	Identifies a subdivision of a country such as state, region, county	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/CtrySubDvsn	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Country Code	Nation with its own government.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Ctry	No	Only schema validation is performed.
n/a	Creditor + Postal Address ++ Address Line	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/AdrLine	No	Only schema validation is performed.
AT-E005	Creditor Identification	The Beneficiary identification code	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id	No	Only schema validation is performed.
n/a	Creditor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/OrgId	Yes	Either 'AnyBIC', 'LEI' or one occurrence of 'Other' is allowed.
n/a	Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/PrvtId	Yes	Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
AT-C001	Creditor Account	The IBAN of the account of the beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-E003	Proxy	Specifies an alternate assumed name for the identification of the account	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Prxy	No	Only schema validation is performed.
n/a	Ultimate Creditor	Ultimate party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-E007	Ultimate Creditor Name	The name of the Beneficiary Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Nm	No	Only schema validation is performed.
AT-E010	Ultimate Creditor Identification	The identification code of the Beneficiary Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id	No	Only schema validation is performed.
n/a	Ultimate Creditor + Identification ++ Organisation Identification	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/OrgId	Yes	Either 'AnyBIC', 'LEI' or one occurrence of 'Other' is allowed.
n/a	Ultimate Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/PrvtId	Yes	Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
AT-T007	Purpose	The purpose of the SCT^{Inst} Instruction	FIToFICstmrCdtTrf/CdtTrfTxInf/Purp	No	Only schema validation is performed.
AT-T009	Remittance Information	The Remittance Information	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf	No	Only schema validation is performed.
n/a	Remittance Information + Unstructured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in an unstructured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Ustrd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.
n/a	Remittance Information + Structured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in a structured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.
n/a	Remittance Information + Structured ++ Creditor Reference Information	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in a structured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd/CdtrRefInf	No	As the Creditor PSP is not obliged to validate the reference information, TIPS will apply schema validation to this component and included sub-components.

3.3.2.1.4 FIToFIPaymentStatusRequest (pacs.028.001.03)

The FI to FI Payment Status Request message allows instructing TIPS for retrieving the status of a single or group of Instant Payment transactions.

This message covers the scenario of (i) Status investigation message and (ii) Request for Status Update on a Recall:

- The Originator PSP, Ancillary System or Instructing Party can start the investigation process on a single or group of previously instructed Instant Payment Transactions;

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- The Originator PSP, Ancillary System or Instructing Party can start the Request for Status Update on a single or group of Recalls previously instructed.

Message specification is compliant to EPC DS-07 Inter-PSP Payment Dataset as described in the SEPA Instant Credit Transfer scheme Rulebook.

Additional optional and mandatory fields not included in the DS-07 definition or in the following table, but foreseen by the EPC SCT Inst Inter-PSP Implementation Guidelines, are not used in TIPS.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.028.001.03

Table 52 – Status investigation Message EPC DS-07 vs pacs.028.001.03

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	Point to point reference, as assigned by the instructing party.	FIToFIPmtStsReq/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsReq/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Message Identification	Message Identification of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
n/a	Original Message Name Identification	Message identifier of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgNmId	Yes	Must begin with **pacs.008**. The addition of a variant number and version number is optional.
n/a	Status Request Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFIPmtStsReq/TxInf/stsReqId	Yes	Only schema validation is performed.
n/a	Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party	FIToFIPmtStsReq/TxInf/OrgnlInstrId	No	Only schema validation is performed.
AT-T014	Original End To End Identification	The Originator's reference of the SCT^{Inst} Transaction	FIToFIPmtStsReq/TxInf/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Transaction Identification	The Originator PSP's reference number of the SCT^{Inst} Transaction message	FIToFIPmtStsReq/TxInf/OrgnlTxId	Yes	Identification of the Payment Transaction to be investigated.
AT-T056	Acceptance Timestamp	Timestamp of the SCT^{Inst} Transaction	FIToFIPmtStsReq/TxInf/accptncDtTm	No	Acceptance timestamp of the Payment

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
					Transaction to be investigated. In case it is not filled, the investigation on the related transaction will be rejected by TIPS.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	Yes	Possible values are checked within schema validation.
AT-D002	Originator BIC	The BIC code of the Originator PSP	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	This field is used in combination with the requestor Distinguished Name to check user access rights.

Table 53 – Request for Status Update on a Recall

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	Point to point reference, as assigned by the instructing party.	FIToFIPmtStsReq/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsReq/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Message Identification	Message Identification of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
n/a	Original Message Name Identification	Message identifier of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgNmId	Yes	Must begin with **camt.056**. The addition of a variant number and version number is optional.
n/a	Status Request Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFIPmtStsReq/TxInf/stsReqId	Yes	Only schema validation is performed.
n/a	Original Instruction Identification	Cancellation ID of the relevant camt.056 Transaction Information.	FIToFIPmtStsReq/TxInf/OrgnlInstrId	No	If not present, the message will be rejected during the schema validation process.
AT-T14	Original End To End Identification	The Originator's reference of the SCT^{Inst} Transaction	FIToFIPmtStsReq/TxInf/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Transaction Identification	The Originator PSP's reference number of the SCTInst Transaction message	FIToFIPmtStsReq/TxInf/OrgnlTxId	Yes	Identification of the Payment Transaction to be investigated.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-T056	Acceptance Timestamp	Timestamp of the SCT^{Inst} Transaction	FIToFIPmtStsReq/TxInf/accptncDtTm	No	Acceptance timestamp of the Payment Transaction to be investigated.
n/a	Original Transaction Reference	Same values as the message elements of the original instruction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef	Yes	Only schema validation is performed.
AT-T002	Settlement Amount	Amount of the SCT^{Inst} in euro.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/IntrBkSttlmAmt	No	Only schema validation is performed.
AT-T051	Settlement Date	The Settlement Date of the SCT^{Inst} Transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.
n/a	Settlement Information	Specifies the details on the settlement.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.
AT-001	Scheme Identification Code	The identification code of the SCT^{Inst} scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	Yes	Possible values are checked within schema validation.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-T009	Remittance Information	The Remittance information.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
AT-P006	Ultimate Debtor + Name	The name of the Originator Reference Party	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
AT-P007	Ultimate Debtor + Identification	The identification code of the Originator Reference Party	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
AT-P001	Debtor + Name	The name of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
AT-P005	Debtor + Postal Address	The address of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
AT-P004	Debtor + Identification	The Originator identification code.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
AT-D001	Debtor Account	The IBAN of the account of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAcct/Id	No	Only schema validation is performed.
AT-P003	Proxy	The Proxy/Alias of the account of the Originator	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
AT-D002	Debtor Agent	The BIC code of the Originator PSP	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	This field is used in combination with the requestor Distinguished Name to check user access rights.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-C002	Creditor Agent	The BIC code of the Beneficiary PSP.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/CdtrAgt/FinInstnId/BICFI	No	This field is used to forward the request. If not present, the message will be rejected. Multiple instances of Transaction Information must report the same Creditor Agent BIC. Otherwise the message will be rejected by TIPS
AT-E001	Creditor + Name	The name of the Beneficiary.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
AT-E004	Creditor + Postal Address	The address of the Beneficiary.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/Cdtr/PstlAdr	No	Only schema validation is performed.
AT-E005	Creditor + Identification	The Beneficiary identification code.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/Cdtr/Id	No	Only schema validation is performed.
AT-C001	Creditor Account	The IBAN of the account of the Beneficiary.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/CdtrAcct	No	Only schema validation is performed.
AT-E003	Proxy	The Proxy/Alias of the account of the Beneficiary	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
AT-E007	Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/UltmtCdtr/Nm	No	Only schema validation is performed.
AT-E010	Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/UltmtCdtr/Id	No	Only schema validation is performed.
AT-T007	Purpose	Underlying reason for the payment transaction.	FIToFIPmtStsReq/TxInf/ OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.1.5 FIToFIPaymentStatusReport (pacs.002.001.10)

The FItoFIPaymentStatusReport message is used in several business cases for non-Euro settlement models:

1. It is sent by TIPS to the Originator Participant to report a rejection for a pacs.008 transaction;
2. It is sent by the Beneficiary Participant or Instructing Party to TIPS to report the processing result of a pacs.008 sent by TIPS upon request of an Originator Participant;
3. The message as received by the Beneficiary Participant is forwarded to the Originator Participant. This scenario covers also the positive response to a Status Investigation request;
4. It is sent by TIPS to the Beneficiary Participant as a confirmation for processing of the pacs.002 received from the Beneficiary Participant itself;
5. It is sent by TIPS to the Originator Participant after a negative response to a Status Investigation request;

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6. It is sent by TIPS to the Originator Participant (e.g., in case of errors during the conditional phase or in case of timeout condition triggered by TIPS) during either the conditional phase or settlement phase);
7. It is sent by TIPS to the sender of the Recall in case of errors;
8. It is sent by TIPS to the sender of the positive Recall Answer either as a positive settlement confirmation or in case of errors (e.g. not sufficient funds to settle the positive recall or validation error related to the Recall Answer);
9. It is sent by TIPS to the sender of the negative Recall Answer in case of errors (e.g. missing access rights);
10. It is sent by TIPS to inform the Single Instructing Party about the result of the settlement (i.e. settled, rejected, timed-out) in the SIP settlement model;
11. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to missing positive confirmation from the Beneficiary Participant;
12. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to delayed positive confirmation from the Beneficiary Participant.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.002.001.10

Table 54 – pacs.002.001.10

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	The Identification of the message.	FIToFIPmtStsRpt/GrpHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsRpt/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstgAgt	No	Only schema validation is performed.
Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstdAgt	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Original Message Identification	Message Identification of the originating message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgId	Yes	This field matches with the Identification of the original message. Business cases 1,2,3,6,10,11: **FIToFICstmrCdtTrf/GrpHdr/MsgId** Business case 4,12; **FIToFIPmtStsRpt/GrpHdr/MsgId** Business case 5: **FIToFIPmtStsReq/GrpHdr/MsgId** Business case 7: **FIToFIPmtCxlReq/Assgnmt/Id** Business case 8: **PmtRtr/GrpHdr/MsgId** Business case 9: **RsltnOfInvstgtn/Assgnmt/Id**
Original Message Name Identification	Message identifier of the originating message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgNmId	Yes	Business cases 1,2,3,6,10,11: **pacs.008.001.08** Business cases 4,12: **pacs.002.001.10** Business case 5: **pacs.028.001.03** Business case 7: **camt.056.001.08** Business case 8: **pacs.004.001.09** Business case 9: **camt.029.001.09**
Group Status Transaction Status	The type of "R" message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/GrpSts FIToFIPmtStsRpt/TxInfAndSts/TxSts	No	Either Group Status or Transaction Status must be used. If incoming pacs.002 from beneficiary does not include any status or both are filled in, connected payment transaction will be rejected by TIPS. In outgoing pacs.002 messages produced by TIPS, Group Status will be used for positive confirmation while Transaction Status will be included for negative acknowledgements,

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Field Name	Description	XML path	Mand.	TIPS Usage
Reason	The reason code for non-acceptance of the Transaction	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Rsn/Cd	No	This field is used for negative confirmation message only.
Transaction Information And Status	Information concerning the original transactions, to which the status report message refers.	FIToFIPmtStsRpt/TxInfAndSts	No	Only one occurrence is allowed
Status Identification	The specific reference of the party initiating the Reject	FIToFIPmtStsRpt/TxInfAndSts/StsId	Yes	For positive confirmation it is the Beneficiary Bank's reference of the SCT^{Inst} Transaction. For negative confirmation it is the specific reference of the party initiating the Reject.
Original Instruction Identification	Unique identification, as assigned by the original Instructing Party for the original instructed party.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlInstrId	No	Only schema validation is performed.
Original End To End Identification	The Originator's reference of the Transaction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlEndToEndId	No	Only schema validation is performed.
Original Transaction Identification	The Originator Bank's reference number of the Transaction message	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxId	Yes	Reference of the Payment Transaction to which the PaymentStatusReport refers.
Original UETR	UETR number of the Transaction message	FIToFIPmtStsRpt/TxInfAndSts/OrgnlUETR	No	Only schema validation is performed.
Originator	The Identification of the type of party initiating the "R" message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Orgtr FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Orgtr	No	These fields are mandatory for negative confirmation message, not allowed otherwise.
Reason	The reason code for non-acceptance of the Transaction	FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Rsn/Cd	No	This field is used for negative confirmation message only.
Acceptance Timestamp	Timestamp of the Transaction	FIToFIPmtStsRpt/TxInfAndSts/AccptncDtTm	No	Only schema validation is performed.
Original Transaction Reference	Set of key elements used to identify the original transaction that is being referred to.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef	Yes	Only schema validation is performed.
Scheme Identification Code	The identification code of the Scheme	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Only schema validation is performed.
Category Purpose	The category purpose of the Instruction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Originator BIC	The BIC code of the Originator Bank	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	

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3.3.2.1.6 FIToFICustomerCreditTransfer (pacs.008.001.08)

The FItoFICustomerCreditTransfer message allows instructing TIPS for an Instant Payment transaction of a positive amount of money from the originator participant account to the beneficiary participant account for non-Euro settlement models.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.008.001.08

Table 55 – pacs.008.001.08

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Point to point reference, as assigned by the instructing party.	FIToFICstmrCdtTrf/GrpHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Date and time at which the message was created.	FIToFICstmrCdtTrf/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
Number Of Transactions	Number of individual transactions contained in the message.	FIToFICstmrCdtTrf/GrpHdr/NbOfTxs	Yes	Possible values are checked within schema validation.
Total Interbank Settlement Amount	Total amount of money moved between the instructing agent and the instructed agent.	FIToFICstmrCdtTrf/GrpHdr/TtlIntrBkSttlmAmt	No	Only schema validation is performed.
Settlement Date	The Settlement Date of the Transaction	FIToFICstmrCdtTrf/GrpHdr/intrBkSttlmDt	No	Only schema validation is performed.
Settlement Information	Specifies the details on how the settlement of the transaction between the instructing agent and the instructed agent is completed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf	Yes	Only schema validation is performed.
Settlement Method	Method used to settle the Instant Payment Transaction.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmMtd	Yes	Possible values are checked within schema validation.
Settlement Account	A specific purpose account used to post debit and credit entries as a result of the transaction.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmAcct	No	Only schema validation is performed.
Clearing System	Specification of a pre-agreed offering between clearing agents or the channel through which the Instant Payment transaction is processed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys	No	Only schema validation is performed.
Payment Type Information	Set of elements used to further specify the type of transaction.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf	Yes	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Scheme Identification Code	The identification code of the Scheme	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/SvcLvl FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/LclInstrm	No Yes	Possible values are checked within schema validation.
Category Purpose	The category purpose of the Instruction	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFICstmrCdtTrf/GrpHdr/instgAgt	No	Only schema validation is performed.
Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFICstmrCdtTrf/GrpHdr/instdAgt	No	Only schema validation is performed.
Credit Transfer Transaction Information	Set of elements providing information specific to the individual credit transfer.	FIToFICstmrCdtTrf/CdtTrfTxInf	Yes	Only schema validation is performed.
Instruction Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/InstrId	No	Only schema validation is performed.
End To End Identification	The Originator's reference of the Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/EndToEndId	No	Only schema validation is performed.
Transaction Identification	The Originator Bank's reference number of the Transaction message	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/TxId	Yes	The Transaction Reference used to identify the Instant Payment transaction and perform the duplicate check
UETR	UETR number of the Transaction message	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/UETR	No	Only schema validation is performed.
Service Level	GPI Service Type Identifiers of the Transaction message	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtTpInf/SvcLvl	No	No
Settlement Amount	The amount of the Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrBkSttlmAmt	Yes	The currency of the Settlement Amount must be the same of the Creditor and Debtor Accounts
Acceptance Timestamp	Timestamp of the Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/AccptncDtTm	Yes	The Acceptance Timestamp is used as a starting point in time for the Instant Payment transaction processing at Originator Bank level. The Acceptance Timestamp shall be expressed in UTC.
Instructed Amount	Amount of money to be moved between the debtor and creditor, before deduction of charges, expressed in the currency as ordered by the initiating party.	FIToFICstmrCdtTrf/CdtTrfTxInf/InstdAmt	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Exchange Rate	Factor used to convert an amount from one currency into another. This reflects the price at which one currency was bought with another currency.	FIToFICstmrCdtTrf/CdtTrfTxInf/XchgRate	No	Only schema validation is performed.
Charge Bearer	Specifies which party/parties will bear the charges associated with the processing of the payment transaction.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgBr	Yes	Only schema validation is performed.
Charges Information	Set of elements providing information on the charges to be paid by the charge bearer(s) related to the payment transaction.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf	No	Only schema validation is performed.
Charges Information + Amount	Transaction charges to be paid by the charge bearer.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Amt	Yes	Only schema validation is performed.
Charges Information + Agent	Agent that takes the transaction charges or to which the transaction charges are due.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt	Yes	Only schema validation is performed.
Previous Instructing Agent 1	Agent immediately prior to the instructing agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1	No	Only schema validation is performed.
Previous Instructing Agent 2	Agent immediately prior to the instructing agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt2	No	Only schema validation is performed.
Intermediary Agent 1	Agent between the debtor's agent and the creditor's agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrmyAgt1	No	Only schema validation is performed.
Intermediary Agent 2	Agent between the debtor's agent and the creditor's agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrmyAgt2	No	Only schema validation is performed.
Originator Reference Party Name	The name of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Nm	Yes	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Ultimate Debtor + Postal Address	Ultimate Debtor Postal Address	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address Line' is mandatory. UNSTRUCTURED ADDRESS: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid address will be allowed - based on available information at the moment of publication). At least one occurrence of 'Address Line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden. The use of 'Country' is mandatory when either the Debtor Agent or Creditor Agent is a non-EEA SEPA PSP.
Originator Reference Party Identification Code	The identification code of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id	No	Only schema validation is performed.
Ultimate Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/OrgId	Yes	Only schema validation is performed.
Ultimate Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/PrvtId	Yes	Only schema validation is performed.
Ultimate Debtor + Country Of Residence	Country Of Residence	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/CtryOfRes	No	Only schema validation is performed.
Debtor	Party that owes an amount of money to the (ultimate) creditor.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr	Yes	Only schema validation is performed.
Originator Name	The name of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Nm	Yes	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Originator Address	The address of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address Line' is mandatory. UNSTRUCTURED ADDRESS: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid address will be allowed - based on available information at the moment of publication). At least one occurrence of 'Address Line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden. The use of 'Country' is mandatory when either the Debtor Agent or Creditor Agent is a non-EEA SEPA PSP.
Debtor + Postal Address ++ Address Type	Identifies the nature of the postal address	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/AdrTp	No	Only schema validation is performed.
Debtor + Postal Address ++ Department	Identification of a division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Dept	No	Only schema validation is performed.
Debtor + Postal Address ++ Sub Department	Identification of a sub-division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/SubDept	No	Only schema validation is performed.
Debtor +Postal Address ++Street Name	Name of a street or thoroughfare	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/StrtNm	No	Only schema validation is performed.
Debtor + Postal Address ++ Building Number	Number that identifies the position of a building on a street	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/BldgNb	No	Only schema validation is performed.
Debtor + Postal Address ++ Building Name	Name of the building or house	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/BldgNm	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Debtor + Postal Address ++ Floor	Floor or storey within a building	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Flr	No	Only schema validation is performed.
Debtor + Postal Address ++ Post Box	Numbered box in a post office, assigned to a person or organisation, where letters are kept until called for	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/PstBx	No	Only schema validation is performed.
Debtor + Postal Address ++ Room	Building room number	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Room	No	Only schema validation is performed.
Debtor + Postal Address ++ Post Code	Identifier consisting of a group of letters and/or numbers that is added to a postal address to assist the sorting of mail	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/PstCd	No	Only schema validation is performed.
Debtor + Postal Address ++ Town Name	Name of a built-up area, with defined boundaries, and a local government	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/TwnNm	No	Only schema validation is performed.
Debtor + Postal Address ++ Town Location Name	Specific location name within the town	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/TwnLctnNm	No	Only schema validation is performed.
Debtor + Postal Address ++ District Name	Identifies a subdivision within a country sub-division	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/DstrctNm	No	Only schema validation is performed.
Debtor + Postal Address ++ Country Sub Division	Identifies a subdivision of a country such as state, region, county	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/CtrySubDvsn	No	Only schema validation is performed.
Debtor + Postal Address ++ Country Code	Nation with its own government.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/Ctry	No	Only schema validation is performed.
Debtor + Postal Address ++ Address Line	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr/AdrLine	No	Only schema validation is performed.
Originator Identification Code	The Originator identification code	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id	No	Only schema validation is performed.
Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/OrgId	Yes	Only schema validation is performed.
Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/PrvtId	Yes	Only schema validation is performed.
Debtor + Country Of Residence	Country Of Residence	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/CtryOfRes	No	Only schema validation is performed.
Originator Account	The account of the Originator	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct	No	Only schema validation is performed.
Originator Account Identification	Identification of the Originator Account	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Id	Yes	Only schema validation is performed.
Originator Account + Currency	Identification of the currency in which the account is held.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Ccy	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Originator Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Prxy	No	Only schema validation is performed.
Originator	The Originator Bank	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId	Yes	The Distinguished Name of the sender must be authorised to instruct for the Originator BIC The Originator BIC must be stored as an Account Authorised BIC or CMB user
Beneficiary	The Beneficiary Bank	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId	Yes	The Beneficiary BIC must be linked with at least one Distinguish Name for outbound message routing
Creditor	Party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr	Yes	Only schema validation is performed.
Creditor Name	The name of the Beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Nm	Yes	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Creditor Address	The address of the Beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address Line' is mandatory. UNSTRUCTURED ADDRESS: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid address will be allowed - based on available information at the moment of publication). At least one occurrence of 'Address Line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden. The use of 'Country' is mandatory when either the Debtor Agent or Creditor Agent is a non-EEA SEPA PSP.
Creditor + Postal Address ++ Address Type	Identifies the nature of the postal address	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/AdrTp	No	Only schema validation is performed.
Creditor + Postal Address ++ Department	Identification of a division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Dept	No	Only schema validation is performed.
Creditor + Postal Address ++ Sub Department	Identification of a sub-division of a large organisation or building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/SubDept	No	Only schema validation is performed.
Creditor + Postal Address ++ Street Name	Name of a street or thoroughfare	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/StrtNm	No	Only schema validation is performed.
Creditor + Postal Address ++ Building Number	Number that identifies the position of a building on a street	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/BldgNb	No	Only schema validation is performed.
Creditor + Postal Address ++ Building Name	Name of the building or house	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/BldgNm	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Creditor + Postal Address ++ Floor	Floor or storey within a building	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Flr	No	Only schema validation is performed.
Creditor + Postal Address ++ Post Box	Numbered box in a post office, assigned to a person or organisation, where letters are kept until called for	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/PstBx	No	Only schema validation is performed.
Creditor + Postal Address ++ Room	Building room number	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Room	No	Only schema validation is performed.
Creditor + Postal Address ++ Post Code	Identifier consisting of a group of letters and/or numbers that is added to a postal address to assist the sorting of mail	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/PstCd	No	Only schema validation is performed.
Creditor + Postal Address ++ Town Name	Name of a built-up area, with defined boundaries, and a local government	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/TwnNm	No	Only schema validation is performed.
Creditor + Postal Address ++ Town Location Name	Specific location name within the town	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/TwnLctnNm	No	Only schema validation is performed.
Creditor + Postal Address ++ District Name	Identifies a subdivision within a country sub-division	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/DstrctNm	No	Only schema validation is performed.
Creditor + Postal Address ++ Country Sub Division	Identifies a subdivision of a country such as state, region, county	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/CtrySubDvsn	No	Only schema validation is performed.
Creditor + Postal Address ++ Country Code	Nation with its own government.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/Ctry	No	Only schema validation is performed.
Creditor + Postal Address ++ Address Line	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr/AdrLine	No	Only schema validation is performed.
Creditor Identification	The Beneficiary identification code	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id	No	Only schema validation is performed.
Creditor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/OrgId	Yes	Only schema validation is performed.
Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, e.g. passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/PrvtId	Yes	Only schema validation is performed.
Creditor Account	The account of the beneficiary	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct	No	Only schema validation is performed.
Creditor Account Identification	Identification of the Creditor Account	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Id/	Yes	Only schema validation is performed.
Creditor Account + Currency	Identification of the currency in which the account is held.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Ccy	No	Only schema validation is performed.
Creditor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Prxy	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Ultimate Creditor	Ultimate party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr	No	Only schema validation is performed.
Ultimate Creditor Name	The name of the Beneficiary Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Nm	Yes	Only schema validation is performed.
Ultimate Creditor + Postal Address	Ultimate Creditor Postal Address	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/PstlAdr	No	STRUCTURED ADDRESS: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID ADDRESS: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address Line' is mandatory. UNSTRUCTURED ADDRESS: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid address will be allowed - based on available information at the moment of publication). At least one occurrence of 'Address Line' is mandatory. 'Postal Address' sub-elements other than 'Address Line' and 'Country' are forbidden. The use of 'Country' is mandatory when either the Debtor Agent or Creditor Agent is a non-EEA SEPA PSP.
Ultimate Creditor Identification	The identification code of the Beneficiary Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id	No	Only schema validation is performed.
Ultimate Creditor + Identification ++ Organisation Identification	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/OrgId	Yes	Only schema validation is performed.
Ultimate Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/PrvtId	Yes	Only schema validation is performed.
Purpose	The purpose of the Instruction	FIToFICstmrCdtTrf/CdtTrfTxInf/Purp	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Regulatory Reporting	Information needed due to regulatory and statutory requirements.	FIToFICstmrCdtTrf/CdtTrfTxInf/RgltryRptg	No	Only schema validation is performed.
Regulatory Reporting + Debit Credit Reporting Indicator	Information needed due to regulatory and statutory requirements.	FIToFICstmrCdtTrf/CdtTrfTxInf/RgltryRptg/DbtCdtRptgInd	No	Only schema validation is performed.
Regulatory Reporting + Authority	Information needed due to regulatory and statutory requirements.	FIToFICstmrCdtTrf/CdtTrfTxInf/RgltryRptg/Authrty	No	Only schema validation is performed.
Regulatory Reporting + Details	Information needed due to regulatory and statutory requirements.	FIToFICstmrCdtTrf/CdtTrfTxInf/RgltryRptg/Dtls	No	Only schema validation is performed.
Remittance Information	The Remittance Information	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf	No	Only schema validation is performed.
Remittance Information + Unstructured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in an unstructured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Ustrd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.
Remittance Information + Structured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in a structured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.
Remittance Information + Structured ++ Referred Document Information	Set of elements used to identify the documents referred to in the remittance information.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd/RfrdDocInf	No	Only schema validation is performed.
Remittance Information + Structured ++ Referred Document Amount	Set of elements used to provide details on the amounts of the referred document.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd/RfrdDocAmt	No	Only schema validation is performed.
Remittance Information + Structured ++ Creditor Reference Information	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in a structured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd/CdtrRefInf	No	As the Creditor Bank is not obliged to validate the reference information, TIPS will apply schema validation to this component and included sub-components.

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3.3.2.1.7 PaymentReturn (pacs.004.001.09)

The PaymentReturn message is used for non-Euro settlement models and is sent by the Assignee Participant as a confirmation for a Recall instructed by the Assigner Participant

Additionally, the PaymentReturn message can be sent in reply to a Request for Status Update on a Recall.

After processing the request, TIPS forwards the PaymentReturn message to the Assigner Participant who formerly instructed the Recall and sends a PaymentStatusReport message to the Assignee Participant.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.004.001.09

Table 56 – pacs.004.001.09

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	The Identification of the message.	PmtRtr/GrpHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Date and time at which the message was created.	PmtRtr/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
Number Of Transactions	Number of individual transactions contained in the message.	PmtRtr/GrpHdr/NbOfTxs	Yes	TIPS supports only one transaction per message. If this field is not **1**, the message will be rejected.
Total Returned Interbank Settlement Amount	Total amount of money moved.	PmtRtr/GrpHdr/TtlRtrdIntrBkSttlmAmt	Yes	Only schema validation is performed.
Interbank Settlement Date	The Settlement Date for the positive answer to the Recall	PmtRtr/GrpHdr/IntrBkSttlmDt	No	Only schema validation is performed.
Settlement Method	Method used to settle the Instant Payment Transaction.	PmtRtr/GrpHdr/SttlmInf/SttlmMtd	Yes	Possible values are checked within schema validation.
Settlement Account	A specific purpose account used to post debit and credit entries as a result of the transaction.	PmtRtr/GrpHdr/SttlmInf/SttlmAcct	No	Only schema validation is performed.
Clearing System	Specification of a pre-agreed offering between clearing agents or the channel through which the Instant Payment transaction is processed.	PmtRtr/GrpHdr/SttlmInf/ClrSys	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	PmtRtr/GrpHdr/InstgAgt	No	Only schema validation is performed.
Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	PmtRtr/GrpHdr/InstdAgt	No	Only schema validation is performed.
Original Group Information	Information concerning the original group of transactions, to which the message refers.	PmtRtr/OrgnlGrpInf	No	Sub-elements of 'Original Group Information' must be present in either'Original Group Information' or in 'Transaction Information'. If any of these sub-elements is included in both components, message will be rejected.
Original Group Information + Original Message Identification	Point to point reference, as assigned by the original instructing party, to unambiguously identify the original message.	PmtRtr/OrgnlGrpInf/OrgnlMsgId	Yes	This information must be present in either'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
Original Group Information + Original Message Name Identification	Specifies the original message name identifier to which the message refers. Only **pacs.008.001.08** is allowed.	PmtRtr/OrgnlGrpInf/OrgnlMsgNmId	Yes	This information must be present in either'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
Transaction Information	Information concerning the original transactions, to which the return message refers.	PmtRtr/TxInf	Yes	TIPS supports only one transaction per message. If more than one Transaction Information block is included, message will be rejected.
Return Identification	Unique identification, as assigned by an instructing party for an instructed party, to unambiguously identify the returned transaction.	PmtRtr/TxInf/RtrId	Yes	TIPS uses this field for the duplicate check

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Field Name	Description	XML path	Mand.	TIPS Usage
Transaction Information + Original Group Information	Information concerning the original group of transactions, to which the message refers.	PmtRtr/TxInf/OrgnlGrpInf	No	Sub-elements of 'Original Group Information' must be present in either'Original Group Information' or in 'Transaction Information'. If any of these sub-elements is included in both components, message will be rejected.
Transaction Information + Original Group Information ++ Original Message Identification	Point to point reference, as assigned by the original instructing party, to unambiguously identify the original message.	PmtRtr/TxInf/OrgnlGrpInf/OrgnlMsgId	Yes	This information must be present in either 'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
Transaction Information + Original Group Information ++ Original Message Name Identification	Specifies the original message name identifier to which the message refers. Only **pacs.008.001.08** is allowed.	PmtRtr/TxInf/OrgnlGrpInf/OrgnlMsgNmId	Yes	This information must be present in either'Original Group Information' or in 'Transaction Information'. If it is included in both components, message will be rejected.
Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party, to unambiguously identify the original instruction.	PmtRtr/TxInf/OrgnlInstrId	No	It is mandatory if provided in the original transaction. Only schema validation is performed.
Original End To End Identification	The Originator's reference of the Instruction.	PmtRtr/TxInf/OrgnlEndToEndId	No	Only schema validation is performed.
Original Transaction Identification	The Originator Bank's reference of the Transaction message.	PmtRtr/TxInf/OrgnlTxId	No	Only schema validation is performed.
Original UETR	UETR number of the Transaction message	PmtRtr/TxInf/OrgnlUETR	No	Only schema validation is performed.
Original Interbank Settlement Amount	The amount .	PmtRtr/TxInf/OrgnlIntrBkSttlmAmt	No	Only schema validation is performed.
Returned Interbank Settlement Amount	The returned amount of the positive answer to the Recall.	PmtRtr/TxInf/RtrdIntrBkSttlmAmt	Yes	Amount to be settled in TIPS.
Returned Instructed Amount	Amount of money to be moved between the debtor and the creditor, before deduction of charges, in the returned transaction.	PmtRtr/TxInf/RtrdInstdAmt	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Exchange Rate	Factor used to convert an amount from one currency into another. This reflects the price at which one currency was bought with another currency.	PmtRtr/TxInf/XchgRate	No	Only schema validation is performed.
Charge Bearer	Specifies which party/parties will bear the charges associated with the processing of the payment transaction.	PmtRtr/TxInf/ChrgBr	No	Only schema validation is performed.
Charges Information + Amount	The fee for the positive answer to a Recall (optional)	PmtRtr/TxInf/ChrgsInf/Amt	No	It is mandatory if Charges Information component is included. Only schema validation is performed.
Charges Information + Agent ++ Financial Institution Identification	The BIC code of the Beneficiary Bank.	PmtRtr/TxInf/ChrgsInf/Agt/FinInstnId	No	Only schema validation is performed.
Transaction Information + Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	PmtRtr/TxInf/InstgAgt	No	Only schema validation is performed.
Transaction Information + Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	PmtRtr/TxInf/InstdAgt	No	Only schema validation is performed.
Return Reason Information + Originator	The Identification of the type of party initiating the “R” message	PmtRtr/TxInf/RtrRsnInf/Orgtr	Yes	Only schema validation is performed.
Return Reason Information + Reason	The reason code for non-acceptance of the Transaction.	PmtRtr/TxInf/RtrRsnInf/Rsn/Cd	Yes	Only schema validation is performed.
Return Reason Information + Additional Information	The specific reference of the bank initiating the Recall	PmtRtr/TxInf/RtrRsnInf/AddtlInf	Yes	Only schema validation is performed.
Amount + Instructed Amount	Amount of money to be moved between the debtor and creditor, before deduction of charges, expressed in the currency as ordered by the initiating party.	PmtRtr/TxInf/OrgnlTxRef/Amt/InstdAmt	Yes	Only schema validation is performed.
Interbank Settlement Date	The Settlement Date of the Transaction.	PmtRtr/TxInf/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.
Settlement Information	Specifies the details on how the settlement of the original transaction between the instructing agent and the instructed agent was completed.	PmtRtr/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Scheme Identification Code	The identification code of the Scheme	PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Only schema validation is performed.
Category Purpose	The category purpose of the Instruction.	PmtRtr/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Remittance Information	The Remittance information.	PmtRtr/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
Ultimate Debtor + Name	The name of the Originator Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Debtor + Identification	The identification code of the Originator Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
Debtor + Name	The name of the Originator.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
Debtor + Postal Address	The address of the Originator.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
Debtor + Identification	The Originator identification code.	PmtRtr/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
Debtor Account	The account of the Originator.	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct	No	Only schema validation is performed.
Debtor Account Identification	Identification of the Debtor Account	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct/Id	Yes	Only schema validation is performed.
Debtor Account + Currency	Identification of the currency in which the account is held.	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct/Ccy	No	Only schema validation is performed.
Debtor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
Debtor Agent	The BIC code of the Originator Bank.	PmtRtr/TxInf/OrgnlTxRef/DbtrAgt	No	Only schema validation is performed. This field is used in TIPS for recall answer processing.
Creditor Agent	The BIC code of the Beneficiary Bank.	PmtRtr/TxInf/OrgnlTxRef/CdtrAgt	No	Only schema validation is performed. This field is used in TIPS for recall answer processing.
Creditor + Name	The name of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
Creditor + Postal Address	The address of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
Creditor + Identification	The Beneficiary identification code.	PmtRtr/TxInf/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
Creditor Account	The account of the Beneficiary.	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct	No	Only schema validation is performed.
Creditor Account Identification	Identification of the Creditor Account	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct/Id	Yes	Only schema validation is performed.
Creditor Account + Currency	Identification of the currency in which the account is held.	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct/Ccy	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Creditor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	PmtRtr/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
Purpose	Underlying reason for the payment transaction.	PmtRtr/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.1.8 FIToFIPaymentStatusRequest (pacs.028.001.03)

The FI to FI Payment Status Request message is used for non-Euro settlement models and it allows instructing TIPS for retrieving the status of an Instant Payment transaction.

This message covers the scenario of (i) Status investigation message and (ii) Request for Status Update on a Recall:

- The Originator PSP or Instructing Party can start the investigation process on a previously instructed Instant Payment Transaction;
- The Originator PSP or Instructing Party can start the Request for Status Update on a Recall previously instructed.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.028.001.03

Table 57 – Status investigation Message pacs.028.001.03

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Point to point reference, as assigned by the instructing party.	FIToFIPmtStsReq/GrpHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsReq/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstgAgt	No	Only schema validation is performed.
Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstdAgt	No	Only schema validation is performed.
Original Message Identification	Message Identification of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgId	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Original Message Name Identification	Message identifier of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgNmId	No	Possible allowed value: - **pacs.008.001.08**
Status Request Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFIPmtStsReq/TxInf/stsReqId	No	Only schema validation is performed.
Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party	FIToFIPmtStsReq/TxInf/OrgnlInstrId	No	Only schema validation is performed.
Original End To End Identification	The Originator's reference of the Transaction	FIToFIPmtStsReq/TxInf/OrgnlEndToEndId	No	Only schema validation is performed.
Transaction Identification	The Originator Bank's reference number of the Transaction message	FIToFIPmtStsReq/TxInf/OrgnlTxId	Yes	Identification of the Payment Transaction to be investigated.
Original UETR	UETR number of the Transaction message	FIToFIPmtStsReq/TxInf/OrgnlUETR	No	Only schema validation is performed.
Acceptance Timestamp	Timestamp of the Transaction	FIToFIPmtStsReq/TxInf/AccptncDtTm	No	Acceptance timestamp of the Payment Transaction to be investigated.
Category Purpose	The category purpose of the Instruction	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Scheme Identification Code	The identification code of the Scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Only schema validation is performed.
Originator BIC	The BIC code of the Originator Bank	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	This field is used in combination with the requestor Distinguish Name to check user access rights.
Purpose	Underlying reason for the payment transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

Table 58 – Request for Status Update on a Recall pacs.028.001.03

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Point to point reference, as assigned by the instructing party.	FIToFIPmtStsReq/GrpHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsReq/GrpHdr/CreDtTm	Yes	Only schema validation is performed.
Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstgAgt	No	Only schema validation is performed.
Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsReq/GrpHdr/InstdAgt	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Original Message Identification	Message Identification of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgId	No	Only schema validation is performed.
Original Message Name Identification	Message identifier of the originating message	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgNmId	No	Possible allowed value is: - **camt.056.001.08**
Status Request Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFIPmtStsReq/TxInf/stsReqId	No	Only schema validation is performed.
Original Instruction Identification	Cancellation ID of the relevant camt.056 Transaction Information.	FIToFIPmtStsReq/TxInf/OrgnlInstrId	No	If not present, the message will be rejected during the schema validation process.
Original End To End Identification	The Originator's reference of the Transaction	FIToFIPmtStsReq/TxInf/OrgnlEndToEndId	No	Only schema validation is performed.
Transaction Identification	The Originator Bank's reference number of the Transaction message	FIToFIPmtStsReq/TxInf/OrgnlTxId	Yes	Identification of the Payment Transaction to be investigated.
Original UETR	UETR number of the Transaction message	FIToFIPmtStsReq/TxInf/OrgnlUETR	No	Only schema validation is performed.
Acceptance Timestamp	Timestamp of the Transaction	FIToFIPmtStsReq/TxInf/AccptncDtTm	No	Acceptance timestamp of the Payment Transaction to be investigated.
Original Transaction Reference	Same values as the message elements of the original instruction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef	Yes	Only schema validation is performed.
Settlement Amount	Amount.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/IntrBkSttlmAmt	No	If not present, the message will be rejected by TIPS.
Amount + Instructed Amount	Amount of money to be moved between the debtor and creditor, before deduction of charges, expressed in the currency as ordered by the initiating party.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Amt/InstdAmt	Yes	Only schema validation is performed.
Settlement Date	The Settlement Date of the Transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.
Settlement Information	Specifies the details on the settlement.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.
Scheme Identification Code	The identification code of the Scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Only schema validation is performed.
Category Purpose	The category purpose of the Instruction	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Remittance Information	The Remittance information.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
Originator Reference Party Name	The name of the Originator Reference Party	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Originator Reference Party Identification Code	The identification code of the Originator Reference Party	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
Debtor + Name	The name of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
Debtor + Postal Address	The address of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
Debtor + Identification	The Originator identification code.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
Debtor Account	The account of the Originator.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAcct	No	Only schema validation is performed.
Debtor Account Identification	Identification of the Originator Account	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAcct/Id	Yes	Only schema validation is performed.
Debtor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
Debtor Agent	The BIC code of the Originator Bank	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	Yes	This field is used in combination with the requestor Distinguish Name to check user access rights.
Creditor Agent	The BIC code of the Beneficiary Bank.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/CdtrAgt/FinInstnId/BICFI	No	This field is used to forward the request. If not present, the message will be rejected during the schema validation process. Multiple instances of Transaction Information must report the same Creditor Agent BIC. Otherwise the message will be rejected by TIPS.
Creditor + Name	The name of the Beneficiary.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
Creditor + Postal Address	The address of the Beneficiary.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
Creditor + Identification	The Beneficiary identification code.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
Creditor Account	The account of the Beneficiary.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/CdtrAcct	No	Only schema validation is performed.
Creditor Account Identification	Identification of the Beneficiary Account	FIToFIPmtStsReq/TxInf/OrgnlTxRef/CdtrAcct/Id	Yes	Only schema validation is performed.
Creditor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
Purpose	Underlying reason for the payment transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.1.9 FIToFIPaymentStatusReport (pacs.002.001.10)

The FItoFIPaymentStatusReport message is used in several business cases for cross-currency settlement models:

1. It is sent by TIPS to the Originator Participant to report a rejection for a pacs.008 transaction;
2. It is sent by the Beneficiary Participant or Instructing Party to TIPS to report the processing result of a pacs.008 sent by TIPS upon request of an Originator Participant;
3. The message as received by the Beneficiary Participant is forwarded to the Originator Participant. This scenario covers also the positive response to a Status Investigation request;
4. It is sent by TIPS to the Beneficiary Participant as a confirmation for processing of the pacs.002 received from the Beneficiary Participant itself;
5. It is sent by TIPS to the Originator Participant after a negative response to a Status Investigation request.
6. It is sent by TIPS to the Originator Participant (e.g., in case of errors during the conditional phase or in case of timeout condition triggered by TIPS during either the conditional phase or settlement phase);
7. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to missing positive confirmation from the Beneficiary Participant;
8. It is sent by TIPS to the Beneficiary Participant in case of timeout condition triggered by TIPS during the settlement phase due to delayed positive confirmation from the Beneficiary Participant.

For Outgoing cross-currency transactions, the Beneficiary Participant of the leg is the Leg Exit PSP. For Incoming cross-currency transactions, the Originator Participant of the leg is the Leg Entry PSP.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.002.001.10

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Table 59 – Cross-currency pacs.002.001.10

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	The Identification of the message.	FIToFIPmtStsRpt/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsRpt/GrpHdr/CreDtTm	Yes	Timestamps must be unambiguous and include milliseconds. The representation of milliseconds must follow the W3C recommendation.Only UTC time format or local time with UTC offset format can be used.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the instruction.	FIToFIPmtStsRpt/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Message Identification	Message Identification of the originating message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgId	Yes	This field matches with the Identification of the original message. Business cases 1, 2, 3, 6, 7: **FIToFICstmrCdtTrf/GrpHdr/MsgId** Business case 4, 8: **FIToFIPmtStsRpt/GrpHdr/MsgId** Business case 5: **FIToFIPmtStsReq/GrpHdr/MsgId**
n/a	Original Message Name Identification	Message identifier of the originating message. EOLO usage rule: Must begin with 'pacs.008'. The addition of a variant number and version number is optional.	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/OrgnlMsgNmId	Yes	Business cases 1, 2, 3, 6, 7: **pacs.008.001.08** Business cases 4, 8: **pacs.002.001.10** Business case 5: **pacs.028.001.03** EOLO usage rule applicable only to business cases 2, 3

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-R001	Group Status Transaction Status	The type of “R” message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/GrpSts FIToFIPmtStsRpt/TxInfAndSts/TxSts	No	Either Group Status or Transaction Status must be used. If pacs.002 sent by beneficiary does not include any status or both are filled in, connected payment transaction will be rejected by TIPS. In pacs.002 messages produced by TIPS, Group Status will be used for positive confirmation while Transaction Status will be included for negative acknowledgements.
AT-R002	Originator	The Identification of the type of Actor initiating the “R” message	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Orgtr	Yes	This field is mandatory for negative confirmation message if Group Status is used, not allowed otherwise.
AT-R004	Reason	The reason code for non-acceptance of the OCT^{Inst} Transaction	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Rsn	Yes	This field is mandatory for negative confirmation message if Group Status is used, not allowed otherwise.
n/a	Reason + Code	Reason for the status, as published in an external reason code list.	FIToFIPmtStsRpt/OrgnlGrpInfAndSts/StsRsnInf/Rsn/Cd	Yes	This field is mandatory for negative confirmation message if Group Status is used, not allowed otherwise. Only “FF01” is allowed.
AT-R003 **AT-T055**	Status Identification	Unique identification to unambiguously identify the reported status.	FIToFIPmtStsRpt/TxInfAndSts/StsId	Yes	Only schema validation is performed. For positive confirmation it is the AT-T055: - The Euro Leg-Based Payee’s PSP reference of the OCT^{Inst} for incoming messages. - The Euro Leg Exit PSP reference of the OCT^{Inst} for outgoing messages. For negative confirmation it is the AT-R003: - The specific reference of the Actor initiating the Reject.
n/a	Original Instruction Identification	Unique identification, as assigned by the original Instructing Party for the original instructed party.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlInstrId	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-T014	Original End To End Identification	The Originator's reference of the OCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	The Originator PSP's reference number of the OCT^{Inst} Transaction message	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxId	Yes	Reference of the cross-currency transaction to which the PaymentStatusReport refers. With the Debtor Agent BIC, it is used by TIPS to uniquely identify the cross-currency transaction.
AT-T016	Original UETR	Unique End-to-End Transaction Reference (UETR)	FIToFIPmtStsRpt/TxInfAndSts/OrgnlUETR	No	Only schema validation is performed.
AT-R002	Originator	The Identification of the type of party initiating the "R" message	FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Orgtr	Yes	This field is mandatory for negative confirmation message if Transaction Status is used, not allowed otherwise.
AT-R004	Reason	The reason code for non-acceptance of the OCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Rsn	Yes	This field is mandatory for negative confirmation message if Transaction Status is used, not allowed otherwise.
n/a	Reason + Code	Reason for the status, as published in an external reason code list.	FIToFIPmtStsRpt/TxInfAndSts/StsRsnInf/Rsn/Cd	Yes	This field is mandatory for negative confirmation message if Transaction Status is used, not allowed otherwise.
AT-T056	Acceptance Timestamp	Euro Leg Time Stamp of the OCT^{Inst} Transaction	FIToFIPmtStsRpt/TxInfAndSts/AccptncDtTm	Yes	Only schema validation is performed.
n/a	Original Transaction Reference	Set of key elements used to identify the original transaction that is being referred to.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef	Yes	Only schema validation is performed.
AT-T001	Scheme Identification Code	The identification code of the OCT^{Inst} Scheme	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/SvcLvl/Cd	No	Only schema validation is performed.
AT-T001	Local Instrument Code	The identification code of the OCT^{Inst} Scheme	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	Yes	Only schema validation is performed. Only "INST" should be used.
AT-T008	Category Purpose	The category purpose of the OCT^{Inst} Instruction	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Debtor Agent	Financial institution servicing an account for the debtor.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt	Yes	Only schema validation is performed. For incoming OCT^{Inst} transactions AT-D002, AT-D005, AT-D006 can be used: - The Identification Code of the non-Euro Leg Payer's FI. - The name of the non-Euro Leg Payer's FI. - The address of the non-Euro Leg Payer's FI. For outgoing OCT^{Inst} transactions AT-D002 can be used: - The Identification Code of the Euro Leg-Based Payer's PSP.
AT-D002	Debtor Agent + Financial Insitution Identification ++ BIC	The Identification Code of the Payer's PSP/FI	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	No	'BICFI' is mandatory for the processing in TIPS: if not present, the message will be rejected by TIPS.
n/a	Debtor Agent +Financial Institution Identification ++Clearing System Member Identification	Information used to identify a member within a clearing system.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
n/a	Debtor Agent +Financial Institution Identification ++LEI	Legal entity identifier of the financial institution.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
AT-D005	Debtor Agent + Financial Insitution Identification ++ Name	Name by which an agent is known and which is usually used to identify that agent	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-D006	Debtor Agent + Financial Insitution Identification ++ Postal Address	Information that locates and identifies a specific address, as defined by postal services	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when AT-D005 is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible. HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory. UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
n/a	Debtor Agent +Financial Institution Identification ++Other	Unique identification of an agent, as assigned by an institution, using an identification scheme.	FIToFIPmtStsRpt/TxInfAndSts/OrgnlTxRef/DbtrAgt/FinInstnId/Othr	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.

3.3.2.1.10 FIToFICustomerCreditTransfer (pacs.008.001.08)

The FItoFICustomerCreditTransfer message allows instructing TIPS for a cross-currency transaction of a positive amount of money from the participant account on debtor side to the participant account on creditor side.

Before the forwarding of the pacs.008 to the Beneficiary CSM, TIPS performs the following list of changes:

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- *removal of the Clearing System Code "TGT"* from the field FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys/Cd;
- *swap of the position of amounts in the message*. The Interbank Settlement Amount (FIToFICstmrCdtTrf/CdtTrfTxInf/IntrBkSttlmAmt) will be populated with the amount in the destination currency while the Instructed Amount (FIToFICstmrCdtTrf/CdtTrfTxInf/InstdAmt) will be populated should contain the amount in the source currency. The field Total Interbank Settlement Amount (FIToFICstmrCdtTrf/GrpHdr/TtlIntrBkSttlmAmt) will be updated accordingly;
- *generation of a new Transaction ID for the beneficiary leg*, in order to avoid rejection for duplicate check in the scenario where both sub-transactions are settled within the same technical platform. The E2E reconciliation can still be performed using the End To End Identification or the UETR;
- *Insert a default (per currency) Entry-Leg PSP BIC in case not present in the message.* In case the Originator opted for the LKT settlement model but the pacs.008 outbound flow direction does not contain the Entry-Leg PSP BIC related to the destination currency, TIPS will fill it in the message using the default Entry-Leg PSP BIC value as direct destination CSM participant defined by the related Central Bank for the interested currency.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.008.001.08

Table 60 – Cross-currency pacs.008.001.08

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	Point to point reference, as assigned by the instructing party.	FIToFICstmrCdtTrf/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFICstmrCdtTrf/GrpHdr/CreDtTm	Yes	Timestamps must be unambiguous and include milliseconds. The representation of milliseconds must follow the W3C recommendation.Only UTC time format or local time with UTC offset format can be used.
n/a	Number Of Transactions	Number of individual transactions contained in the message.	FIToFICstmrCdtTrf/GrpHdr/NbOfTxs	Yes	The number of transactions is limited to one.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Total Interbank Settlement Amount	Total amount of money moved between the instructing agent and the instructed agent.	FIToFICstmrCdtTrf/GrpHdr/TtlIntrBkSttlmAmt	Yes	Only schema validation is performed. For PSPs compliant with the EPC OCTInst schema, only 'EUR' is allowed as currency.
AT-T051	Settlement Date	The Settlement Date Euro Leg of the OCT^{Inst}.	FIToFICstmrCdtTrf/GrpHdr/intrBkSttlmDt	Yes	Only schema validation is performed.
n/a	Settlement Information	Specifies the details on how the settlement of the transaction between the instructing agent and the instructed agent is completed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf	Yes	Only schema validation is performed.
n/a	Settlement Method	Method used to settle the (batch of) payment instructions.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmMtd	Yes	Possible values are checked within schema validation.
n/a	Settlement Account	A specific purpose account used to post debit and credit entries as a result of the transaction.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmAcct	No	Only schema validation is performed.
n/a	Clearing System	Specification of a pre-agreed offering between clearing agents or the channel through which the Instant Payment transaction is processed.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys	No	It should be present for Outgoing cross-currency transactions.
n/a	Clearing System +Code	Infrastructure through which the payment instruction is processed, as published in an external clearing system identification code list.	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys/Cd	Yes	The Clearing System Code is used in TIPS to understand the payment direction (Outgoing vs Incoming) via the indication of the Clearing System which should settle the Debtor leg of the cross-currency transaction. In case of Outgoing cross-currency transaction, the Code 'TGT' must be used. In case of Incoming cross-currency transaction, the Code 'TGT' cannot be used.
n/a	Clearing System +Proprietary	Clearing system identification in a proprietary	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys/Prtry	Yes	Only schema validation is performed.
n/a	Payment Type Information	Set of elements used to further specify the type of transaction.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf	Yes	Only schema validation is performed.
AT-T001	Scheme Identification Code	The identification code of the Scheme.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/SvcLvl/Cd	Yes	The last occurrence refers to the Euro Leg and hence only "EOLO" is allowed.
AT-T001	Local Instrument +Code	The identification code of the Scheme.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/LclInstrm/Cd	Yes	Only "INST" is allowed.
AT-T008	Category Purpose	The category purpose of the OCT^{Inst}.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/CtgyPurp	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Category Purpose +Code	Category purpose, as published in an external category purpose code list.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/CtgyPurp/Cd	Yes	Only schema validation is performed.
n/a	Category Purpose +Proprietary	Category purpose, in a proprietary form.	FIToFICstmrCdtTrf/GrpHdr/PmtTpInf/CtgyPurp/Prtry	Yes	Only schema validation is performed.
AT-X001	Instructing Agent	The Identification Code of the Leg Entry PSP.	FIToFICstmrCdtTrf/GrpHdr/instgAgt	No	For Incoming cross-currency transactions: - this is the Identification Code of the Entry PSP (AT-X001); - AT-X001 must be provided here in case it is a direct CSM participant, if not AT-X001 is to be provided in the last Previous Instructing Agent BICFI (agent immediately prior to the 'Instructing Agent' in the chain); - in case both Previous Instructing Agent 1 BICFI and Instructing Agent BICFI are not populated, the message is rejected by TIPS; - in case the Previous Instructing Agent 1 BICFI is populated and the Instructing Agent BICFI is not populated, the message is rejected by TIPS; - in case Previous Instructing Agent 1 BICFI is not populated, the Distinguished Name of the Instructing Agent BICFI must be authorised to instruct for the Debtor Agent BICFI, and the Instructing Agent BICFI must be stored as an Account Authorised BIC or CMB user.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-X002	Instructed Agent	The Identification Code of the Leg Exit PSP.	FIToFICstmrCdtTrf/GrpHdr/instdAgt	No	For Outgoing cross-currency transactions: - This is the Identification Code of the Exit PSP (AT-X002); - AT-X002 must be provided here in case it is a direct CSM participant, if not AT-X002 is to be provided under Intermediary Agent 1 BICFI; - in case both Intermediary Agent 1 BICFI and Instructed Agent BICFI are not populated, the message is rejected by TIPS; - in case the Intermediary Agent 1 BICFI is populated and the Instructed Agent BICFI is not populated, the message is rejected by TIPS; - in case the Intermediary Agent 1 BICFI is not populated, the Instructed Agent BICFI must be linked with at least one Distinguished Name for outbound message routing.
n/a	Credit Transfer Transaction Information	Set of elements providing information specific to the individual credit transfer.	FIToFICstmrCdtTrf/CdtTrfTxInf	Yes	Only schema validation is performed.
n/a	Instruction Identification	Unique identification, as assigned by an instructing party for an instructed party.	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/InstrId	No	Only schema validation is performed.
AT-T014	End To End Identification	The Payer's reference of the OCT^{Inst}.	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/EndToEndId	Yes	Only schema validation is performed. In the event that no reference was given, NOTPROVIDED must be used.
AT-T054	Transaction Identification	The Reference of the OCT^{Inst} message	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/TxId	Yes	With the Debtor Agent BIC, it is used by TIPS to uniquely identify the cross-currency transaction and to perform the duplicate check.
AT-T016	UETR	Unique End-to-End Transaction Reference (UETR).	FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/UETR	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-T002	Settlement Amount	The amount of the OCT^{Inst}	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrBkSttlmAmt	Yes	Amount to be settled in the current cross-currency transaction leg. The currency of the Settlement Amount must be the same of the Accounts on Creditor and Debtor sides. Only schema validation is performed. For PSPs compliant with the EPC OCTInst schema, only 'EUR' is allowed as currency.
AT-T057	Settlement Time Indication	Non-Euro Leg Time Stamp	FIToFICstmrCdtTrf/CdtTrfTxInf/SttlmTmIndctn	No	Only schema validation is performed.
n/a	Settlement Time Indication +Debit Date Time	Debit Date Time	FIToFICstmrCdtTrf/CdtTrfTxInf/SttlmTmIndctn/DbtDtTm	No	This is the 'Date Time' format as received from the non-Euro Leg.
AT-T056	Acceptance Timestamp	Timestamp of the OCT^{Inst} Transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/AccptncDtTm	Yes	The Acceptance Timestamp is used as a starting point in time for the Instant Payment transaction processing at Originator PSP level. Timestamps must be unambiguous and at least include milliseconds. The representation of milliseconds must follow the W3C recommendation.Only UTC time format or local time with UTC offset format can be used.
AT-T003	Instructed Amount	The Initial Amount of the OCT^{Inst} ordered by the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/InstdAmt	No	Only schema validation is performed. Mandatory if AT-T004 is different from Euro and/or if AT-T003 is different from 'Interbank Settlement Amount' (for example in case of fees).
AT-T004	Currency	Currency of the Initial Amount	FIToFICstmrCdtTrf/CdtTrfTxInf/InstdAmt/@Ccy	No	Only schema validation is performed.
AT-T005	Exchange Rate	Currency exchange rate applied on the Initial Amount.	FIToFICstmrCdtTrf/CdtTrfTxInf/XchgRate	No	Only schema validation is performed. Only to be used if the currency of the Initial Amount (AT-T004) is different from Euro.
n/a	Charge Bearer	Specifies which party/parties will bear the charges associated with the processing of the payment transaction.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgBr	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Charges Information	Provides information on the charges to be paid by the charge bearer(s) related to the payment	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf	No	Only schema validation is performed.
AT-T058	Charges Information +Amount	The amount of the OCT^{Inst} charges	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Amt	Yes	Only schema validation is performed. For PSPs compliant with the EPC OCT Inst schema, only 'EUR' is allowed as currency.
AT-T059	Charges Information +Agent	The party that levies the OCT^{Inst}	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt	Yes	Only schema validation is performed.
n/a	Charges Information +Agent	The party that levies the OCT^{Inst}	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt	Yes	Only schema validation is performed.
n/a	Charges Information +Agent ++Financial Institution Identification	Unique and unambiguous identification of a financial institution	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId	Yes	Only schema validation is performed. If the Party which receives the fee is a Euro Leg-Based PSP, then only 'BICFI' is allowed. If the Party which receives the fee is a non-Euro Leg FI, then it is strongly recommended to provide: - Either 'BICFI' only (preferred option); - Or the combination of any other identification with 'Name' and 'Postal Address'; - Or 'Name' and 'Postal Address'.
n/a	Charges Information +Agent ++Financial Institution Identification +++BICFI	Business identifier code	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/BICFI	No	Only schema validation is performed. To be used if the Party which receives a fee is a PSP or FI.
n/a	Charges Information +Agent ++Financial Institution Identification +++Clearing System Member Identification	Information used to identify a member within a clearing system	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-T059 is a BIC.
n/a	Charges Information +Agent ++Financial Institution Identification +++LEI	Legal entity identifier of the financial institution.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-T059 is a BIC.
n/a	Charges Information +Agent ++Financial Institution Identification +++Name	Name by which an agent is known and which is usually used to identify that agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-T059 is a BIC.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Charges Information +Agent ++Financial Institution Identification +++Postal Address	Information that locates and identifies a specific address, as defined by postal services	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when 'Name' is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
n/a	Charges Information +Agent ++Financial Institution Identification +++Other	Unique identification of an agent, as assigned by an institution, using an identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/ChrgsInf/Agt/FinInstnId/Othr	No	Only schema validation is performed. Not to be used in case AT-T059 is a BIC.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-X001 **AT-X003**	Previous Instructing Agent 1	Agent immediately prior to the instructing agent	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1	No	For Incoming cross-currency transactions: - this is the Identification Code of the Entry PSP, in case it is an indirect participant of the CSM (AT- X001). - Only 'BICFI' is allowed; - the Previous Instructing Agent 1 BICFI must be linked with at least one Distinguished Name for outbound message routing. Otherwise: For AT-X003 'The Identification Code of the Intermediary FI(s) of the non-Euro Leg Payer's FI', it is strongly recommended to provide: - Either 'BICFI' only (preferred option); - Or the combination of any other identification with 'Name' and 'Postal Address'; - Or 'Name' and 'Postal Address'.
AT-X001 **AT-X003** **AT-X004** **AT-X005**	Previous Instructing Agent 1 +Financial Institution Identification	Unique and unambiguous identification of a financial institution	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId	Yes	Only schema validation is performed.
n/a	Previous Instructing Agent 1 +Financial Institution Identification +BICFI	Business identifier code	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/BICFI	No	Only schema validation is performed.
n/a	Previous Instructing Agent 1 +Financial Institution Identification +Clearing System Member Identification	Information used to identify a member within a clearing system.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-X003 is a BIC.
n/a	Previous Instructing Agent 1 +Financial Institution Identification +LEI	Legal entity identifier of the financial institution.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-X003 is a BIC.
n/a	Previous Instructing Agent 1 +Financial Institution Identification +Name	Name by which an agent is known and which is usually used to identify that agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-X003 is a BIC.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Previous Instructing Agent 1 +Financial Institution Identification +Postal Address	Information that locates and identifies a specific address, as defined by postal services.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when AT-X004 is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
n/a	Previous Instructing Agent 1 +Financial Institution Identification +Other	Unique identification of an agent, as assigned by an institution, using an identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt1/FinInstnId/PstlAdr	No	Only schema validation is performed. Not to be used in case AT-X003 is a BIC.
AT-X001 **AT-X003** **AT-X004** **AT-X005**	Previous Instructing Agent 2	Agent immediately prior to the instructing agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt2	No	Only schema validation is performed. Identical to 'Previous Instructing Agent 1'.
AT-X001 **AT-X003** **AT-X004** **AT-X005**	Previous Instructing Agent 3	Agent immediately prior to the instructing agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt3	No	Only schema validation is performed. Identical to 'Previous Instructing Agent 1'.
AT-X001 **AT-X003** **AT-X004** **AT-X005**	Previous Instructing Agent 3	Agent immediately prior to the instructing agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/PrvsInstgAgt3	No	Only schema validation is performed. Identical to 'Previous Instructing Agent 1'.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-X002	Intermediary Agent 1	Agent between the debtor's agent and the creditor's agent	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrmyAgt1	No	For Outgoing cross-currency transactions: - this is the Identification Code of the Exit PSP, in case it is an indirect participant of the CSM (AT-X002). If not, ATX002 is to be provided under 'Group Header/Instructed Agent'. - Only 'BICFI' is allowed; - the Instructed Agent 'BICFI' must be linked with at least one Distinguished Name for outbound message routing.
AT-P006	Ultimate Debtor +Name	Name of the Payer Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Nm	No	Only schema validation is performed.
AT-P008	Ultimate Debtor +Postal Address	The address of the Payer Reference Party.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/PstlAdr	No	Only schema validation is performed. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
AT-P007	Ultimate Debtor +Identification	Identification code of the Payer Reference Party.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Ultimate Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/OrgId	Yes	Only schema validation is performed. Either 'AnyBIC', 'LEI' and/or one occurrence of 'Other' is allowed.
n/a	Ultimate Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr/Id/PrvtId	Yes	Only schema validation is performed. Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
n/a	Debtor	Party that owes an amount of money to the (ultimate) creditor.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr	Yes	Only schema validation is performed.
AT-P001	Debtor +Name	Name of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Nm	Yes	Only schema validation is performed.
AT-P005	Debtor +Postal Address	The address of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/PstlAdr	Yes	Only schema validation is performed. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is notallowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresseswill be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
AT-P004	Debtor +Identification	The Payer Identification Code.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id	No	Only schema validation is performed.
n/a	Debtor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/OrgId	Yes	Only schema validation is performed. Either 'AnyBIC', 'LEI' and/or one occurrence of 'Other' is allowed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Debtor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr/Id/PrvtId	Yes	Only schema validation is performed. Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
n/a	Debtor Account	Unambiguous identification of the account of the debtor to which a debit entry will be made as a result of the transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct	Yes	Only schema validation is performed.
AT-D001	Debtor Account +Identification	The unique identifier of the Account of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Id	Yes	Only schema validation is performed.
AT-D001	Debtor Account +Identification ++IBAN	The unique identifier of the Account of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Id/IBAN	Yes	Only schema validation is performed. It is strongly recommended to use the IBAN as identifier of the Account of the Payer to be debited for the OCTInst Instruction.
n/a	Debtor Account +Identification ++Other	Unique identification of an account, as assigned by the account servicer, using an identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Id/Othr	Yes	Only schema validation is performed.
AT-D003	Debtor Account +Type	The type of the Account of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Tp	No	Only schema validation is performed.
AT-D004	Debtor Account +Currency	The currency of the Account of the Payer	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Ccy	No	Only schema validation is performed.
AT-P003	Proxy	Proxy/Alias of the Account of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct/Prxy	No	Only schema validation is performed.
n/a	Debtor Agent	Financial institution servicing an account for the debtor.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt	Yes	Financial Institution Identification 'BICFI' is mandatory for the processing in TIPS: if not present, the message will be rejected by TIPS.
n/a	Debtor Agent +Financial Institution Identification	Unique and unambiguous identification of a financial institution, as assigned under an internationally recognised or proprietary identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-D002	Debtor Agent +Financial Institution Identification ++BIC	The Identification Code of the Payer's PSP/FI.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/BICFI	No	'BICFI' is mandatory for the processing in TIPS: if not present, the message will be rejected by TIPS. With the Transaction ID, it is used by TIPS to uniquely identify the cross-currency transaction. For Outgoing cross-currency transactions: - the Originator BIC must be stored as an Account Authorised BIC or CMB user, and - the Distinguished Name of the sender must be authorised to instruct for the Originator BIC.
n/a	Debtor Agent +Financial Institution Identification ++Clearing System Member Identification	Information used to identify a member within a clearing system.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
n/a	Debtor Agent +Financial Institution Identification ++LEI	Legal entity identifier of the financial institution.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
AT-D005	Debtor Agent +Financial Institution Identification ++Name	Name by which an agent is known and which is usually used to identify that agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-D006	Debtor Agent +Financial Institution Identification ++Postal Address	Information that locates and identifies a specific address, as defined by postal services.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when AT-D005 is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is notallowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresseswill be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
n/a	Debtor Agent +Financial Institution Identification ++Other	Unique identification of an agent, as assigned by an institution, using an identification scheme.	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt/FinInstnId/Othr	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
n/a	Creditor Agent	Financial institution servicing an account for the creditor.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt	Yes	Only schema validation is performed. It is strongly recommended to provide: - Either 'BICFI' only (preferred option); - Or the combination of any other identification with 'Name' and 'Postal Address'; - Or 'Name' and 'Postal Address'.
n/a	Creditor Agent +Financial Institution Identification	Unique and unambiguous identification of a financial institution, as assigned under an internationally recognised or proprietary identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-C002	Creditor Agent +Financial Institution Identification ++BIC	The Identification Code of the Payee's PSP/FI.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/BICFI	No	For Incoming cross-currency transactions: - 'BICFI' is mandatory for the processing in TIPS: if not present, the message will be rejected by TIPS, and - The 'BICFI' must be linked with at least one Distinguished Name for outbound message routing.
n/a	Creditor Agent +Financial Institution Identification ++Clearing System Member Identification	Information used to identify a member within a clearing system.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-C002 is a BIC.
n/a	Creditor Agent +Financial Institution Identification ++LEI	Legal entity identifier of the financial institution.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-C002 is a BIC.
AT-C005	Creditor Agent +Financial Institution Identification ++Name	Name by which an agent is known and which is usually used to identify that agent.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-C002 is a BIC.
AT-C006	Creditor Agent +Financial Institution Identification ++Postal Address	Information that locates and identifies a specific address, as defined by postal services.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when AT-C005 is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Creditor Agent +Financial Institution Identification ++Other	Unique identification of an agent, as assigned by an institution, using an identification scheme.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt/FinInstnId/Othr	No	Only schema validation is performed. Not to be used in case AT-C002 is a BIC.
n/a	Creditor	Party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr	Yes	Only schema validation is performed.
AT-E001	Creditor +Name	Name of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Nm	Yes	Only schema validation is performed.
AT-E004	Creditor +Postal Address	The address of the Payer.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/PstlAdr	No	Only schema validation is performed. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
AT-E005	Creditor +Identification	The Payer Identification Code.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id	No	Only schema validation is performed.
n/a	Creditor + Identification ++ Organisation Identification	Unique and unambiguous way to identify an organisation	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/OrgId	Yes	Only schema validation is performed. Either 'AnyBIC', 'LEI' or one occurrence of 'Other' is allowed.
n/a	Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr/Id/PrvtId	Yes	Only schema validation is performed. Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
n/a	Creditor Account	Unambiguous identification of the account of the creditor to which a debit entry will be made as a result of the transaction	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-C001	Creditor Account +Identification	The unique identifier of the Account of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Id	Yes	Only schema validation is performed.
AT-C001	Creditor Account +Identification ++IBAN	The unique identifier of the Payment Account of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Id/IBAN	Yes	Only schema validation is performed. It is strongly recommended to use the IBAN as identifier of the Account of the Payer to be debited for the OCTInst Instruction.
n/a	Creditor Account +Identification ++Other	Unique identification of an account, as assigned by the account servicer, using an identification scheme	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Id/Othr	Yes	Only schema validation is performed.
AT-C003	Creditor Account +Type	The type of the Account of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Tp	No	Only schema validation is performed.
AT-C004	Creditor Account +Currency	The currency of the Account of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Ccy	No	Only schema validation is performed.
AT-E003	Proxy	Proxy/Alias of the Account of the Payee.	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct/Prxy	No	Only schema validation is performed.
n/a	Ultimate Creditor	Ultimate party to which an amount of money is due.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr	No	Only schema validation is performed.
AT-E007	Ultimate Creditor Name	The name of the Payee Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Nm	No	Only schema validation is performed.
AT-P008	Ultimate Creditor +Postal Address	The address of the Payer Reference Party.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/PstlAdr	No	Only schema validation is performed. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
AT-E010	Ultimate Creditor Identification	The identification code of the Payee Reference Party	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id	No	Only schema validation is performed.
n/a	Ultimate Creditor + Identification ++ Organisation Identification	Information that locates and identifies a specific address, as defined by postal services, presented in free format text.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/OrgId	Yes	Only schema validation is performed. Either 'AnyBIC', 'LEI' or one occurrence of 'Other' is allowed.
n/a	Ultimate Creditor + Identification ++ Private Identification	Unique and unambiguous identification of a person, eg, passport.	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr/Id/PrvtId	Yes	Only schema validation is performed. Either 'Date and Place of Birth' or one occurrence of 'Other' is allowed.
AT-T020	Instruction For Next Agent	The currency requested by the Payer for the funds in the non-Euro Leg	/FIToFICstmrCdtTrf/CdtTrfTxInf/InstrForNxtAgt	No	Only schema validation is performed. For Outgoing cross-currency transactions only one occurrence is allowed.
n/a	Instruction For Next Agent +Instruction Information	The currency requested by the Payer for the funds in the non-Euro Leg	/FIToFICstmrCdtTrf/CdtTrfTxInf/InstrForNxtAgt/InstrInf	No	Only schema validation is performed.
AT-T007	Purpose	The purpose of the OCT[Inst].	FIToFICstmrCdtTrf/CdtTrfTxInf/Purp	No	Only schema validation is performed.
n/a	Purpose + Code	Underlying reason for the payment transaction, as published in an external purpose code list.	FIToFICstmrCdtTrf/CdtTrfTxInf/Purp/Cd	No	Only schema validation is performed.
AT-T053	Regulatory Reporting	Regulatory reporting.	FIToFICstmrCdtTrf/CdtTrfTxInf/RgltryRptg	No	Only schema validation is performed.
AT-T009	Remittance Information	The Remittance Information	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf	No	Only schema validation is performed.
n/a	Remittance Information + Unstructured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in an unstructured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Ustrd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.
n/a	Remittance Information + Structured	Information supplied to enable the matching/reconciliation of an entry with the items that the payment is intended to settle, such as commercial invoices in an account receivable system, in a structured form.	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd	No	Either Unstructured or Structured may be present. If both components are included, the message will be rejected during the schema validation process.

3.3.2.1.11 FIToFIPaymentStatusRequest (pacs.028.001.03)

The FI to FI Payment Status Request message allows instructing TIPS for the retrieval of the status of a single or group of cross-currency Instant Payment transaction.

This message covers the scenario of Status investigation message:

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- The Originator PSP, Ancillary System or Instructing Party acting on debtor side of the leg of the cross currency transaction under analysis (Originator Participant for Outgoing transactions and Leg Entry PSP for Incoming ones) can start the investigation process on a single or group of previously instructed Instant cross-currency Payment Transactions.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/pacs.028.001.03

Table 61 – Cross-currency pacs.028.001.03

EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
n/a	Message Identification	Point to point reference, as assigned by the instructing party, and sent to the next party in the chain to unambiguously identify the message.	FIToFIPmtStsReq/GrpHdr/MsgId	Yes	Only schema validation is performed.
n/a	Creation Date Time	Date and time at which the message was created.	FIToFIPmtStsReq/GrpHdr/CreDtTm	Yes	Timestamps must be unambiguous and include milliseconds. The representation of milliseconds must follow the W3C recommendation.Only UTC time format or local time with UTC offset format can be used.
n/a	Instructing Agent	Agent that instructs the next party in the chain to carry out the (set of) instruction(s).	FIToFIPmtStsReq/GrpHdr/InstgAgt	No	Only schema validation is performed.
n/a	Instructed Agent	Agent that is instructed by the previous party in the chain to carry out the (set of) instruction(s).	FIToFIPmtStsReq/GrpHdr/InstdAgt	No	Only schema validation is performed.
n/a	Original Message Identification	Point to point reference, as assigned by the original instructing party, to unambiguously identify the original message.	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
n/a	Original Message Name Identification	original message name identifier to which the message refers.	FIToFIPmtStsReq/OrgnlGrpInf/OrgnlMsgNmId	Yes	Must begin with ‘pacs.008’. The addition of a variant number and version number is optional.
n/a	Status Request Identification	Unique identification, as assigned by an instructing party for an instructed party, to unambiguously identify the status request.	FIToFIPmtStsReq/TxInf/stsReqId	Yes	Only schema validation is performed.
n/a	Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party, to unambiguously	FIToFIPmtStsReq/TxInf/OrgnlInstrId	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
		identify the original instruction.			
AT-T014	Original End To End Identification	Unique identification, as assigned by the original initiating party, to unambiguously identify the original transaction.	FIToFIPmtStsReq/TxInf/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	Unique identification, as assigned by the original first instructing agent, to unambiguously identify the transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxId	Yes	Identification of the Payment Transaction to be investigated.
AT-T016	Original UETR	Universally unique identifier to provide the original end-to-end reference of a payment transaction.	FIToFIPmtStsReq/TxInf/OrgnlUETR	No	Only schema validation is performed.
AT-T056	Acceptance Timestamp	Timestamp of the OCT^{Inst} Transaction	FIToFIPmtStsReq/TxInf/accptncDtTm	Yes	Acceptance timestamp of the Payment Transaction to be investigated. In case it is not filled, the investigation on the related transaction will be rejected by TIPS.
n/a	Payment Type Information	Set of elements used to further specify the type of transaction.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf	Yes	Only schema validation is performed.
AT-001	Scheme Identification Code	The identification code of the OCT^{Inst} Scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd	Yes	Only schema validation is performed.
AT-T001	Local Instrument +Code	The identification code of the OCT^{Inst} Scheme.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	Yes	Only schema validation is performed. Only "INST" should be used.
AT-T008	Category Purpose	The category purpose of the OCT^{Inst} Instruction	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
n/a	Category Purpose +Code	Category purpose, as published in an external category purpose code list.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp/Cd	Yes	Only schema validation is performed.
n/a	Category Purpose +Proprietary	Category purpose, in a proprietary form.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp/Prtry	Yes	Only schema validation is performed.
n/a	Debtor Agent	Financial institution servicing an account for the debtor.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt	Yes	Only schema validation is performed. For incoming OCTInst transactions AT-D002, AT-D005, AT-D006 can be used: - The Identification Code of the non-Euro Leg Payer's FI. - The name of the non-Euro Leg Payer's FI. - The address of the non-Euro Leg Payer's FI.

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
					For outgoing OCTInst transactions AT-D002 can be used: - The Identification Code of the Euro Leg-Based Payer's PSP.
n/a	Debtor Agent +Financial Institution Identification	Unique and unambiguous identification of a financial institution, as assigned under an internationally recognised or proprietary identification scheme	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId	Yes	Only schema validation is performed.
AT-D002	Debtor Agent +Financial Institution Identification ++BIC	The Identification Code of the Payer's PSP/FI.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/BICFI	No	'BICFI' is mandatory for the processing in TIPS: if not present, the message will be rejected by TIPS. With the Transaction ID, it is used by TIPS to uniquely identify the cross-currency transaction. This field is used in combination with the requestor Distinguished Name to check user access rights..
n/a	Debtor Agent +Financial Institution Identification ++Clearing System Member Identification	Information used to identify a member within a clearing system.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/ClrSysMmbId	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
n/a	Debtor Agent +Financial Institution Identification ++LEI	Legal entity identifier of the financial institution.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/LEI	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
AT-D005	Debtor Agent +Financial Institution Identification ++Name	Name by which an agent is known and which is usually used to identify that agent.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/Nm	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.
AT-D006	Debtor Agent +Financial Institution Identification ++Postal Address	Information that locates and identifies a specific address, as defined by postal services.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/PstlAdr	No	Only schema validation is performed. Mandatory when AT-D005 is provided. STRUCTURED: Usage is recommended. 'Town Name' and 'Country' are mandatory. 'Address

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EPC Ref.	Reference Name	EPC/ISO Description	XML path	Mand.	TIPS Usage
					Line' is not allowed. It is recommended to provide as many structured elements as possible.HYBRID: 'Town Name' and 'Country' are mandatory. At least one occurrence of 'Address line' is mandatory.UNSTRUCTURED: (As of 22 November 2026 at 03:30 CET only the use of structured and hybrid addresses will be allowed - based on available information at the moment of publication): At least one occurrence of 'Address line' is mandatory. 'Postal Address' subelements other than 'Address Line' and 'Country' are forbidden.
n/a	Debtor Agent +Financial Institution Identification ++Other	Unique identification of an agent, as assigned by an institution, using an identification scheme.	FIToFIPmtStsReq/TxInf/OrgnlTxRef/DbtrAgt/FinInstnId/Othr	No	Only schema validation is performed. Not to be used in case AT-D002 is a BIC.

3.3.2.2. Cash Management (camt)

3.3.2.2.1 GetAccount (camt.003.001.08)

This message is sent by a TIPS Participant, Ancillary System or Instructing Party to TIPS to instruct the following queries:

- Account Balance and Status Query;
- CMB Limit and Status Query.

The table describes the message elements to be filled.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.003.001.08

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Table 62 – GetAccount (camt.003.001.08)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	GetAcct/MsgHdr/MsgId	Yes	This information will be included in the resulting camt.004
Account or CMB Identifier	Identification of the Account or CMB to query	GetAcct/AcctQryDef/AcctCrit/NewCrit/SchCrit/AcctId/EQ/Othr/Id	Yes	
Account User	Identification of either the BIC of the Authorised Account User of the Account/ CMB, or the BIC of the owner of the Account/CMB to query, depending on the access right profile of the requestor.	GetAcct/AcctQryDef/AcctCrit/NewCrit/SchCrit/AcctOwnr/Id/OrgId/AnyBIC	Yes	TIPS uses this BIC in combination with the Distinguished Name to derive access rights granted to the requestor

3.3.2.2.2 ReturnAccount (camt.004.001.10)

This message is sent by TIPS to the interested TIPS Participant, Ancillary System or Instructing Party in the following business cases:

- Account Balance and Status Query response;
- CMB Limit and Status Query response;
- Query response error;
- Account Floor and Ceiling notifications;
- CMB Floor and Ceiling notifications.

The message content differs depending on the business case. All the optional fields which are out of the related table will not be included in the message.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.004.001.10

Table 63 – Account Balance and Status Query response

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrAcct/MsgHdr/MsgId	Yes	
Timestamp of the Query	Timestamp assigned when retrieval of records has been performed	RtrAcct/MsgHdr/CreDtTm	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrAcct/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is filled with originating Message Identifier when the camt.004 is a query response.

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Field Name	Description	XML path	Mand.	TIPS Usage
Fields* reported *for account for which no errors are triggered				
TIPS Account Identifier	Account identifier retrieved from reference data repository	RtrAcct/RptOrErr/AcctRpt/AcctId/Othr/Id	Yes	
Currency	Currency for which the returned account is issued	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ccy	Yes	
TIPS Participant Identifier	BIC code of the account owner	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ownr/Id /OrgId/AnyBIC	Yes	Field is always filled when the camt.004 is a response for Account Balance and Status query
Current Balance	Current balance of the account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/ Amt	Yes	The balance is the sum of unreserved and reserved balances
Credit Debit Indicator	Specifies if balance is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/ CdtDbtInd	Yes	As negative balances are not foreseen for accounts, only the value **CRDT** is expected for them. The value **DBIT** could be used in queries coming from RTGS Systems for transit accounts, in case of a negative balance.
Account Status	Status details for the retrieved account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/ RstrctnTp	No	This message component is included only if the account is blocked
Restriction Type Identification	Restriction Type identifier applied to the account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/ RstrctnTp/Tp/Id	Yes	Restriction Type code. If not provided, this field must be filled with **BLCK**
Processing Type	Specifies the processing type for the restriction type applied to the account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/ RstrctnTp/PrcgTp/Cd	Yes	Filled with **BLCK**
Fields reported for account for which at least one error is triggered				
Business Error	Specifies the error occurred when processing the originating query message	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Err/Pr try	Yes	
Business Error Description	Provides with additional error description	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Desc	No	

Table 64 – CMB Limit and Status Query response

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrAcct/MsgHdr/MsgId	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Timestamp of the Query	Timestamp assigned when retrieval of records has been performed	RtrAcct/MsgHdr/CreDtTm	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrAcct/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is filled with originating Message Identifier when the camt.004 is a query response.
Fields reported for CMB for which no errors are triggered				
TIPS Account Identifier	Account identifier retrieved from reference data repository	RtrAcct/RptOrErr/AcctRpt/AcctId/Othr/Id	Yes	
Currency	Currency of the account linked to the returned CMB	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ccy	Yes	
TIPS Participant Identifier	BIC code of the CMB user	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/CtrPtyId/FinInstnId/BICFI	Yes	
TIPS CMB Identifier	Identification of the CMB	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Nm	Yes	Field is always filled
CMB Limit	Limit amount of the CMB for the counterparty	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/LmtAmt	Yes	
Credit Debit Indicator	Specifies if limit which has been set up for the CMB is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/CdtDbtInd	Yes	
CMB Headroom	Dynamic headroom of the CMB limit	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/BilBal/Amt	Yes	
Credit Debit Indicator	Specifies if the current headroom for the CMB is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/BilBal/CdtDbtInd	Yes	As negative limits are not foreseen, only the value **CRDT** is expected
CMB Status	Specifies the status of the CMB	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/BilBal/Tp/Cd	No	This field is filled only if the CMB is blocked. It must be filled with one of the following values: - **BLCK**: Blocked for credit and debit - **CRDT**: Blocked for credit - **DBIT**: Blocked for debit
Fields reported for CMB for which at least one error is triggered				
Business Error	Specifies the error occurred when processing the originating query message	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Err/Prtry	Yes	
Business Error Description	Provides with additional error description	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Desc	No	

Table 65 – Query response error

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrAcct/MsgHdr/MsgId	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Timestamp of the Query	Timestamp assigned when retrieval of records has been performed	RtrAcct/MsgHdr/CreDtTm	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrAcct/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is always filled when the camt.004 is a query response.
TIPS Account Identifier	Account identifier retrieved from reference data repository	RtrAcct/RptOrErr/AcctRpt/AcctId/Othr/Id	Yes	
Business Error	Specifies the error occurred when processing the originating query message	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Err/Prtry	Yes	
Business Error Description	Provides with additional error description	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/BizErr/Desc	No	

Table 66 – CMB Floor and Ceiling notification

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrAcct/MsgHdr/MsgId	Yes	
Timestamp of the Notification	Timestamp assigned when notification has been triggered	RtrAcct/MsgHdr/CreDtTm	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrAcct/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is not required by the business case and will be filled with "**NOTPROVIDED**"
TIPS Account Identifier	Account identifier retrieved from reference data repository	RtrAcct/RptOrErr/AcctRpt/AcctId/Othr/Id	Yes	
Currency	Currency of the account linked to the related CMB	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ccy	Yes	
Current Balance	Current balance of the account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/Amt	Yes	The balance is the value of the configured floor/ceiling threshold
Credit Debit Indicator	Specifies if balance is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/CdtDbtInd	Yes	As negative balances are not foreseen, only the value **CRDT** is expected
Balance Type	Specifies the type of reported balance	/RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/Tp/Prtry	Yes	Mandatory. It reports the floor/ceiling threshold for CMB. Possible values are: - 'FLOR' for configured floor threshold; - 'CEIL' for configured ceiling threshold.
TIPS Participant Identifier	BIC code of the CMB user	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/CtrPtyId/FinInstnId/BICFI	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
TIPS CMB Identifier	Identification of the CMB	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Nm	Yes	Field is always filled
CMB Limit	Limit amount of the CMB for the counterparty	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/LmtAmt	Yes	The field is filled by TIPS as it is mandatory, but the value will always be **0**, independently of the real value, as not relevant for the business case.
CMB Headroom	Dynamic headroom of the CMB limit	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/CurBilLmt/BilBal/Amt	Yes	
Credit Debit Indicator	Specifies if the current headroom for the CMB is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/acct/CurBilLmt/BilBal/CdtDbtInd	Yes	As negative limits are not foreseen, only the value **CRDT** is expected

Table 67 – Account Floor and Ceiling notification

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrAcct/MsgHdr/MsgId	Yes	
Timestamp of the Notification	Timestamp assigned when notification has been triggered	RtrAcct/MsgHdr/CreDtTm	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrAcct/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is not required by the business case. A "**NOTPROVIDED**" will be included in the field.
TIPS Account Identifier	Account identifier retrieved from reference data repository	RtrAcct/RptOrErr/AcctRpt/AcctId/Othr/Id	Yes	
Currency	Currency for which the returned account is issued	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ccy	Yes	
TIPS Participant Identifier	BIC code of the account owner	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/Ownr/Id/OrgId/AnyBIC	Yes	Field is always filled when the camt.004 is a response for Account Balance and Status query
Current Balance	Current balance of the account	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/Amt	Yes	The balance is the sum of unreserved and reserved balances after the settlement of the cash transfer which breached the floor/ceiling notification trigger amount or the value of the configured floor/ceiling threshold, depending on the value of the Balance Type filled in. This value is reported twice in this scenario, in

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Field Name	Description	XML path	Mand.	TIPS Usage
				distinct Multilateral Balance groups, in order to convey both information about balance and thresholds
Credit Debit Indicator	Specifies if balance is below or above zero	RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/CdtDbtInd	Yes	As negative balances are not foreseen, only the value **CRDT** is expected
Balance Type	Specifies the type of reported balance	/RtrAcct/RptOrErr/AcctRpt/AcctOrErr/Acct/MulBal/Tp/Prtry	Yes	Mandatory. It reports the balance flag and threshold flag, depending on the Multilateral Balance instance in which it is contained. Possible values are: - 'ACCA' for account balance; - 'FLOR' for configured floor threshold; - 'CEIL' for configured ceiling threshold.

3.3.2.2.3 GetTransaction (camt.005.001.11)

This message is sent by the TIPS actor to TIPS to instruct a Payment transaction status query.

The following table describes the message elements to be filled.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.005.001.11

Table 68 – GetTransaction (camt.005.001.11)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	GetTx/MsgHdr/MsgId	Yes	This information will be included in the resulting camt.006
Request Type	Type of the request	GetTx/MsgHdr/ReqTp/Prtry/Id	Yes	Allowed value: - **INPA**: for Payment transaction status query
Debtor Agent	BIC of the debtor agent of the searched IP Transaction	GetTx/TxQryDef/TxCrit/NewCrit/SchCrit/PmtFr/MmbId/FinInstnId/BICFI	Yes	
Transaction Identification	Identification of the Instant Payment or cross-currency Instant Payment	GetTx/TxQryDef/TxCrit/NewCrit/SchCrit/PmtSch/TxId	Yes	pacs.008 Transaction Identification or pacs.004 Return Identification

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Field Name	Description	XML path	Mand.	TIPS Usage
	Transaction to be found.			

3.3.2.2.4 ReturnTransaction (camt.006.001.11)

This message is sent by TIPS to the interested TIPS Actor as an answer to a previously received Payment transaction status query.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.006.001.11

Table 69 – ReturnTransaction (camt.006.001.11)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrTx/MsgHdr/MsgId	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrTx/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is filled with originating Message Identifier.
Request Type	Type of the request	RtrTx/MsgHdr/ReqTp/Prtry/Id	Yes	Possible value: - **INPA**: for Payment transaction status query
Originator BIC	Originator of the Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/PmtFr/MmbId/FinInstnId/BICFI	No	It contains: - The Originator BIC in case of an Instant Payment Transaction or the Debtor Agent BIC in case of an outgoing cross-currency Instant Payment Transaction; - The Entry PSP BIC in case of incoming cross-currency Instant Payment Transaction.

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Field Name	Description	XML path	Mand.	TIPS Usage
Beneficiary BIC	Beneficiary of the Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/PmtTo/MmbId/FinInstnId/BICFI	No	It contains: - The Beneficiary BIC in case of an Instant Payment Transaction or the Creditor Agent BIC in case of an incoming cross-currency Instant Payment Transaction; - The Exit PSP BIC in case of an outgoing cross-currency Instant Payment Transaction
Transaction Identification	Identification of the Instant Payment or cross-currency Instant Payment Transaction.	RtrTx/RptOrErr/BizRpt/TxRpt/PmtId/TxId	Yes	This field will be equal to the Payment Transaction reference
Payment Transaction reference	Identification of the Instant Payment or cross-currency Instant Payment Transaction.	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/TxId	Yes	pacs.008 Transaction Identification or pacs.004 Return Identification
Transaction Type	Type of the reported payment	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Tp/Cd	Yes	Possible value: - **EXP**: for Instant Payment Transaction
Payment transaction amount	Amount of the reported Instant Payment or cross-currency Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/IntrBkSttlmAmt/AmtWthCcy	Yes	
Payment status code	Status of the Instant Payment Transaction and codes of related timestamps.	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Cd	Yes	
Payment status code + Final	Status of the Instant Payment Payment or cross-currency Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Cd/Fnl	Yes	Used to report the following statuses: - **STLD**: for Settled; - **CAND**: for Cancelled; - **FNLD**: for Expired.
Payment status code + RTGS	Status of the Instant Payment Payment or cross-currency Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Cd/RTGS	Yes	Used to report the status: - **FAIL**: for Failed.
Payment status code + Pending	Status of the Instant Payment Payment or cross-currency Instant Payment Transaction	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Cd/Pdg		Used to report the status: - **PSTL:** for Reserved.

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Field Name	Description	XML path	Mand.	TIPS Usage
Payment status code + Proprietary	Proprietary code of the reported timestamp.	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Cd/Prtry	Yes	In combination with the Timestamp field, it identifies the reported timestamps related to the Instant Payment Transaction. Possible values: - **ACCP**: for acceptance timestamp; - **ORCV**: for payment transaction reception timestamp (from the originator); - **BFWD**: for payment transaction forwarding timestamp (to the beneficiary); - **BRCV**: for confirmation reception timestamp (from the beneficiary); - **OFWD**: for confirmation to the originator timestamp.

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Field Name	Description	XML path	Mand.	TIPS Usage
Timestamp	Timestamp related to the status code	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/DtTm/DtTm	No	In case the status is STLD, it reports the time at which Instant Payment Transaction was settled. For the Proprietary codes in Sts/Cd/Prtry, it reports the following timestamps: - for **ACCP**: the acceptance timestamp; - for **ORCV**: the payment transaction reception timestamp (from the originator); - for **BFWD**: the payment transaction forwarding timestamp (to the beneficiary); - for **BRCV**: the confirmation reception timestamp (from the beneficiary); - for **OFWD**: the confirmation to the originator timestamp. It is not reported otherwise
Reason	Reason of the unsettled status	RtrTx/RptOrErr/BizRpt/TxRpt/TxOrErr/Tx/Pmt/Sts/Rsn/PrtryRjctn		Not filled in case the Transaction status is settled

Table 70 – ReturnTransaction (camt.006.001.11) – error scenario

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message assigned by TIPS	RtrTx/MsgHdr/MsgId	Yes	
Original Query Message Identifier	Identification of the originating query message	RtrTx/MsgHdr/OrgnlBizQry/MsgId	Yes	Field is filled with originating Message Identifier.
Request Type	Type of the request	RtrTx/MsgHdr/ReqTp/Prtry/Id	Yes	Possible value: - **INPA**: for Payment transaction status query

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Field Name	Description	XML path	Mand.	TIPS Usage
Operational Error	Specifies the error occurred when processing the originating query message	RtrTx/RptOrErr/OprlErr/Err/Cd	Yes	

3.3.2.2.5 ModifyLimit (camt.011.001.08)

The ModifyLimit message is used in TIPS to manage the limit definition for CMBs.

It is sent by a TIPS Participant, Ancillary System or authorised Instructing Party to request an immediate change to the allowed Limit on a specific account for a CMB user.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.011.001.08

Table 71 – ModifyLimit (camt.011.001.08)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	ModfyLmt/MsgHdr/MsgId	Yes	Field is referenced in the resulting camt.025 message
Creation Date Time	Timestamp assigned when message has been generated	ModfyLmt/MsgHdr/CreDtTm	Yes	Only schema validation is performed.
CMB User BIC	BIC of the CMB user	ModfyLmt/LmtDtls/LmtId/Cur/BilLmtCtrPtyId/FinInstnId/BICFI	Yes	Field is used to retrieve the unique CMB defined for the BIC
Limit Type	Type of the limit to be modified	ModfyLmt/LmtDtls/LmtId/Cur/Tp/Cd	Yes	Only allowed value is **INBI**. Possible values are checked within schema validation.
Account Owner	BIC of the requestor party	ModfyLmt/LmtDtls/LmtId/Cur/AcctOwnr/FinInstnId/BICFI	Yes	Field is used in combination with the requestor DN to perform the access rights check
Account Identification	Identification of the account linked to the referenced CMB	ModfyLmt/LmtDtls/LmtId/Cur/AcctId/Othr/Id	Yes	Field is used to identify the limit
New Limit Value	New limit to be applied to the CMB	ModfyLmt/LmtDtls/NewLmtValSet/Amt/AmtWthCcy	Yes	Possible values are checked within schema validation.

3.3.2.2.6 ReturnBusinessDayInformation (camt.019.001.07)

The ReturnBusinessDayInformation message is sent by the RTGS system to TIPS to:

- Notify the change of RTGS Business Date;
- Notify the partial closure for inter-service liquidity transfers;

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- Trigger the generation of the snapshot containing all the TIPS accounts balances in a given currency;
- Enable or disable the acceptance of outbound liquidity transfers instructed to TIPS.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.019.001.07

Table 72 – ReturnBusinessDayInformation (camt.019.001.07)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message.	RtrBizDayInf/MsgHdr/MsgId	Yes	Identifier which will be referenced in the Receipt.
Creation Date Time	Timestamp assigned when message has been generated.	RtrBizDayInf/MsgHdr/CreDtTm	Yes	Only schema validation is performed.
Market Infrastructure Identification	Identification code of the Market Infrastructure.	RtrBizDayInf/RptOrErr/BizRpt/SysId/MktInfrstrctrId/Cd	Yes	Only schema validation is performed.
System Date	Business date of the RTGS System.	RtrBizDayInf/RptOrErr/BizRpt/BizDayOrErr/BizDayInf/SysDt/Dt	Yes	In case the message is sent for the change of business date, this field contains the next RTGS business date.
System Status	Status of the RTGS System	RtrBizDayInf/RptOrErr/BizRpt/BizDayOrErr/BizDayInf/SysSts/Sts/Prtry/Id	Yes	Status change of the RTGS System. Possible values: - **CHBD**: for Change Business Date; - **STRT**: for Start Inbound/Outbound Liquidity Transfers; - **STOP**: for Stop Inbound/Outbound Liquidity Transfers; - **SNAP**: for taking the snapshot of the accounts denominated in the field RTGS interested currency; - **STCB**: for preventing any Outbound Liquidity Transfer denominated in the field RTGS interested currency

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Field Name	Description	XML path	Mand.	TIPS Usage
				from a non-Central Bank user.
System Currency	RTGS interested currency	RtrBizDayInf/RptOrErr/BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/SysCcy	Yes	Currency for which the RTGS status is changed.

3.3.2.2.7 Receipt (camt.025.001.07)

The Receipt (camt.025.001.07) message is used in TIPS in different business cases related to Liquidity Credit Transfer area (for the interaction with the customer) and CMB limit modification.

The Receipt message is then sent to the Originator of the Liquidity Transfer.

In the intra-service Liquidity Transfer scenario, it is sent by TIPS to the sender to report about the execution of the liquidity transfer.

In the CMB Limit modification context, it is sent by TIPS to the interested TIPS Participant, Ancillary System or Instructing Party originating the Modify Limit message.

In contingency situation, the message is sent back to the originator of a liquidity transfer that either credits or debits a transit account in TIPS.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.025.001.07

Table 73 – Receipt (camt.025.001.07)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	Rct/MsgHdr/MsgId	Yes	Only schema validation is performed.
Creation Date Time	Timestamp of the creation of the message	Rct/MsgHdr/CreDtTm	No	Timestamp when the request has been processed.
Original Message Identification	Identification of the originating liquidity credit transfer or limit modification request	Rct/RctDtls/OrgnlMsgId/MsgId	Yes	
Status Code	Specifies the status of the originating liquidity credit transfer or limit modification request	Rct/RctDtls/ReqHdlg/StsCd	Yes	
Status Description	Additional information on the reported status of the originating liquidity credit transfer or limit modification request	Rct/RctDtls/ReqHdlg/Desc	No	It must be filled whenever an error occurs

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3.3.2.2.8 Receipt (camt.025.001.07)

The Receipt message (camt.025.001.07) is used in TIPS in the interaction with the RTGS Systems for the Liquidity Credit Transfer scenarios and for the change of business date of the RTGS System scenario.

In the Inbound Liquidity Transfer scenario, it is sent by TIPS to the RTGS System to report about the execution of the liquidity transfer.

In the Outbound liquidity transfer, it is sent by the RTGS System to TIPS to report about the execution of the liquidity transfer.

In the Outbound liquidity transfer - pull request scenario, it is sent by the RTGS System to TIPS to report about the execution of the liquidity transfer and then it is forwarded by TIPS to the RTGS System.

In the RTGS System change of business date and Snapshot[57] message scenarios, it is used by TIPS to inform the RTGS System that TIPS received the confirmation of settlement or the rejection for all the transient Liquidity Transfers.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.025.001.07

Table 74 – Receipt (camt.025.001.07)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	Rct/MsgHdr/MsgId	Yes	Only schema validation is performed.
Transaction Identification	Identification of the originating Liquidity Transfer	Rct/RctDtls/OrgnlPmtId/ShrtBizId/TxId	No	For camt.025 sent by RTGS to TIPS, It must be filled with the Instruction Identification of the originating Liquidity Transfer. It is not filled in camt.025 generated by TIPS.
Interbank Settlement Date	Settlement Date of the originating Liquidity Transfer	Rct/RctDtls/OrgnlPmtId/ShrtBizId/IntrBkSttlmDt	No	For camt.025 sent by an RTGS System to TIPS, it must be filled with the Settlement Date of the originating Liquidity Transfer. It is not filled in camt.025 generated by TIPS.

[57] The snapshot message is optional and configured on the basis of the business requirements. For the time being, only snapshot for DKK accounts is envisaged

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Field Name	Description	XML path	Mand.	TIPS Usage
Instructing Agent	Debtor of the originating Liquidity Transfer	Rct/RctDtls/OrgnlPmtId/ShrtBizId/InstgAgt/FinInstnId/BICFI	No	For camt.025 sent by an RTGS System to TIPS, it must be filled with the Debtor BIC of the originating Liquidity Transfer. It is not filled in camt.025 generated by TIPS.
Creation Date Time	Timestamp of the creation of the message	Rct/MsgHdr/CreDtTm	No	Timestamp when the request has been processed.
Original Message Identification	Identification of the originating liquidity credit transfer	Rct/RctDtls/OrgnlMsgId/MsgId	Yes	
Status Code	Specifies the status of the originating liquidity credit transfer	Rct/RctDtls/ReqHdlg/StsCd	Yes	Possible status codes: - **RREJ**: for rejection; - **RCON**: for confirmation; - **CMPT**: for completed. The latter status is sent by TIPS to the RTGS System to inform that all transient LT have been processed.
Status Description	Additional information on the reported status of the originating liquidity credit transfer	Rct/RctDtls/ReqHdlg/Desc	No	It must be filled whenever an error occurs

3.3.2.2.9 ResolutionOfInvestigation (camt.029.001.09)

The Resolution of Investigation message is sent by the Assignee party of a FIToFIPaymentCancellationRequest (Recall), triggered by an Assigner party for a formerly settled Instant Payment transaction, as a negative response. The Recall's Assignee party becomes the Assigner party of the negative response.

Additionally, the ResolutionOfInvestigation message can be sent in reply to a Request for Status Update on a Recall.

Message specification is compliant to EPC DS-06 Inter-PSP Payment Dataset as described in the SEPA Instant Credit Transfer scheme Rulebook.

TIPS receives this message by the Assignee party, checks the related access rights and the reachability of the Assigner party.

No further processing but message schema validation is performed as the message is directly forwarded to the party which formerly triggered the Recall process.

References/links

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The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.029.001.09

Table 75 – ResolutionOfInvestigation (camt.029.001.09)

EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
n/a	Assignment + Identification	Uniquely identifies the case assignment.	RsltnOfInvstgtn/Assgnmt/Id	Yes	Only schema validation is performed.
n/a	Assigner	Party who sends the Resolution of Investigation message.	RsltnOfInvstgtn/Assgnmt/Assgnr/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party sending the Resolution of Investigation message and is used in combination with the requestor Distinguished Name to check user access rights.
n/a	Assignee	Party to which the case is assigned	RsltnOfInvstgtn/Assgnmt/Assgne/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party to which the Resolution of Investigation message is forwarded.
n/a	Assignment + Creation Date Time	Date and time at which the assignment was created.	RsltnOfInvstgtn/Assgnmt/CreDtTm	Yes	Only schema validation is performed.
n/a	Status + Confirmation	Specifies the status of the investigation, in a coded form.	RsltnOfInvstgtn/Sts/Conf	Yes	Possible values are checked within schema validation.
n/a	Cancellation Status Identification	Unique and unambiguous identifier of a cancellation request status, as assigned by the assigner.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsId	Yes	Only schema validation is performed.
n/a	Original Message Identification	Message Identification of the originating message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
n/a	Original Message Name Identification	Message identifier of the originating message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgNmId	Yes	Must begin with **pacs.008**. The addition of a variant number and version number is optional.
n/a	Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlInstrId	No	Only schema validation is performed.
AT-T014	Original End To End Identification	The Originator's reference of the SCT^{Inst} Transaction	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	The Originator PSP's reference number of the SCT^{Inst} Transaction message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxId	Yes	Only schema validation is performed.
n/a	Transaction Cancellation Status	Specifies the status of the transaction cancellation request.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/TxCxlSts	Yes	Possible values are checked within schema validation.
n/a	Cancellation Status Reason Information	Set of elements used to provide detailed information on the cancellation status reason.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
AT-E001/ AT-C002	Cancellation Status Reason Information + Originator	The Name of the Beneficiary or the BIC code of the Beneficiary PSP	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Orgtr	Yes	Only schema validation is performed.
AT-R057	Cancellation Status Reason Information + Reason	The Reason Code for non-acceptance of the Recall.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn	Yes	Only schema validation is performed.
n/a	Cancellation Status Reason Information + Reason ++ Code	Reason for the cancellation status, in a coded form.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn/Cd	Yes	Only schema validation is performed.
n/a	Cancellation Status Reason Information + Reason ++ Proprietary	Reason for the status, in a proprietary form.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn/Prtry	Yes	Only schema validation is performed.
AT-R053 AT-R057 / AT-R072 AT-R078	Cancellation Status Reason Information + Additional Information	Further details on the cancellation status reason.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/AddtlInf	Yes	Only schema validation is performed.
n/a	Original Transaction Reference	Set of key elements used to identify the original transaction that is being referred to.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef	Yes	Only schema validation is performed.
AT-T002	Interbank Settlement Amount	The amount of the SCT^{Inst} in euro.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmAmt	No	Only schema validation is performed.
AT-T051	Interbank Settlement Date	The Settlement Date of the SCT^{Inst} Transaction.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.
AT-T001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/SvcLvl/Cd RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No	Possible values are checked within schema validation.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-T009	Remittance Information	Information supplied to enable the matching of an entry with the items that the transfer is intended to settle	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
AT-P006	Ultimate Debtor + Name	The name of the Originator Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
AT-P007	Ultimate Debtor + Identification	The identification code of the Originator Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
AT-P001	Debtor + Name	The name of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
AT-P005	Debtor + Postal Address	The address of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
AT-P004	Debtor + Identification	The Originator identification code.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
AT-D001	Debtor Account	The IBAN of the account of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-P003	Proxy	Specifies an alternate assumed name for the identification of the account.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
AT-D002	Debtor Agent	The BIC code of the Originator PSP.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAgt	No	Only schema validation is performed.
AT-C002	Creditor Agent	The BIC code of the Beneficiary PSP.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAgt	No	Only schema validation is performed.
AT-E001	Creditor + Name	The name of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
AT-E004	Creditor + Postal Address	The address of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
AT-E005	Creditor + Identification	The Beneficiary identification code.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
AT-C001	Creditor Account	The IBAN of the account of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-E003	Proxy	Specifies an alternate assumed name for the identification of the account.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
AT-E007	Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
AT-E010	Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
AT-T007	Purpose	Underlying reason for the payment transaction.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.2.10 LiquidityCreditTransfer (camt.050.001.07)

The Liquidity Credit Transfer message is used in TIPS in order to instruct inbound and outbound liquidity transfers to/from RTGS Systems to fund accounts of TIPS Participants or repatriate money in the related RTGS System.

Besides these usages, Internal Contingency Liquidity Transfers between a TIPS Account and a Transit account are also permitted in emergency condition, provided that they are denominated in the same currency.

Authorised technical user (RTGS System) can send inbound liquidity transfers from the corresponding RTGS to TIPS. In case the validation is successful TIPS transfers the requested amount from the (technical) transit account to the TIPS Account.

TIPS Participants or Instructing Parties can trigger outbound liquidity transfers in TIPS using a liquidity transfer order message.

Additionally, the message is used to instruct intra-service Liquidity Transfers to fund/defund TIPS AS Technical Account.

TIPS Participants or Instructing Parties can trigger intra-service liquidity transfers to fund a TIPS AS Technical Account. If the Ancillary System owning the TIPS AS Technical Account to be funded has been set up as Instructing Party of the TIPS Participant, it can trigger the liquidity transfer on behalf of the TIPS Participant, provided it has been granted the necessary privileges.

Ancillary systems can trigger intra-service liquidity transfers to defund their TIPS AS Technical Account.

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References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.050.001.07

Table 76 – Outbound and intra-service LiquidityCreditTransfer (camt.050.001.07)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	LqdtyCdtTrf/MsgHdr/MsgId	Yes	
Instruction Identification	Identification of the requested credit transfer	LqdtyCdtTrf/LqdtyCdtTrf/LqdtyTrfId/InstrId	Yes	
End to End Identification	End to end identifier for the requested credit transfer	LqdtyCdtTrf/LqdtyCdtTrf/LqdtyTrfId/EndToEndId	Yes	If not used, it must be filled with **NOTPROVIDED**
Creditor	BIC of Financial Institution owning the account to be credited or the BIC of the Financial Institution on whose behalf the Liquidity Transfer is performed (only in case of intra-service liquidity transfers funding a TIPS AS technical account).	LqdtyCdtTrf/LqdtyCdtTrf/Cdtr/FinInstnId/BICFI	No	This field must be included in outbound liquidity transfers. The field is optional in intra-service liquidity transfers.
Creditor Account	Account to be credited	LqdtyCdtTrf/LqdtyCdtTrf/CdtrAcct/Id/Othr/Id	Yes	
Creditor Account Type	Type of the account to be credited	LqdtyCdtTrf/LqdtyCdtTrf/CdtrAcct/Tp	No	This field must not be included in the request. The message will be rejected in that case.
Transferred Amount	Amount to be transferred from the debited account to the credited account	LqdtyCdtTrf/LqdtyCdtTrf/TrfdAmt/AmtWthCcy	Yes	
Debtor	BIC of Financial Institution owning the account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/Dbtr/FinInstnId/BICFI	Yes	
Debtor Account	Account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/DbtrAcct/Id/Othr/Id	Yes	
Debtor Account Type	Type of the account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/DbtrAcct/Tp	No	This field must not be included in the request. The message will be rejected in that case.
Settlement Date	Settlement date of the Credit Transfer	LqdtyCdtTrf/LqdtyCdtTrf/SttlmDt	No	This must be included in outgoing Credit Transfer. It must be filled with the stored RTGS business date.

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Table 77 – Inbound and Outbound Pull LiquidityCreditTransfer (camt.050.001.07) – RTGS interaction scenarios

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	LqdtyCdtTrf/MsgHdr/MsgId	Yes	
Instruction Identification	Identification of the requested credit transfer	LqdtyCdtTrf/LqdtyCdtTrf/LqdtyTrfId/InstrId	Yes	
End to End Identification	End to end identifier for the requested credit transfer	LqdtyCdtTrf/LqdtyCdtTrf/LqdtyTrfId/EndToEndId	Yes	If not used, it must be filled with **NOTPROVIDED**
Creditor	BIC of Financial Institution owning the account to be credited	LqdtyCdtTrf/LqdtyCdtTrf/Cdtr/FinInstnId/BICFI	No	This field must be included in outbound liquidity transfers pull.
Creditor Account	Account to be credited	LqdtyCdtTrf/LqdtyCdtTrf/CdtrAcct/Id/Othr/Id	Yes	
Creditor Account Type	Type of the account to be credited	LqdtyCdtTrf/LqdtyCdtTrf/CdtrAcct/Tp	No	This field must be filled with the following values: - **SACC**: for Outbound Liquidity Transfer Pull Request; - **CASH**: for Inbound Liquidity Transfer
Transferred Amount	Amount to be transferred from the debited account to the credited account	LqdtyCdtTrf/LqdtyCdtTrf/TrfdAmt/AmtWthCcy	Yes	
Debtor	BIC of Financial Institution owning the account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/Dbtr/FinInstnId/BICFI	Yes	
Debtor Account	Account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/DbtrAcct/Id/Othr/Id	Yes	
Debtor Account Type	Type of the account to be debited	LqdtyCdtTrf/LqdtyCdtTrf/DbtrAcct/Tp	No	This field must be filled with the following values: - **CASH**: for Outbound Liquidity Transfer Pull Request; - **SACC**: for Inbound Liquidity Transfer.
Settlement Date	Settlement date of the Credit Transfer	LqdtyCdtTrf/LqdtyCdtTrf/SttlmDt	No	This must be included in Outbound Liquidity Transfer Pull Request. It must be filled with the RTGS business date.

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3.3.2.2.11 BankToCustomerAccountReport (camt.052.001.12)

The Bank To Customer Account Report is used in TIPS to provide information regarding all the accounts in the data scope of the TIPS actor.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.052.001.12

Table 78 – BankToCustomerAccountReport (camt.052.001.12)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	BkToCstmrAcctRpt/GrpHdr/MsgId	Yes	
Creation Date Time	Timestamp of the creation of the message	BkToCstmrAcctRpt/GrpHdr/CreDtTm	Yes	
Report Identifier	Unique identification, as assigned by TIPS , to unambiguously identify each report: contains Sequential Number of the report.	BkToCstmrAcctRpt/Rpt/Id	Yes	
Creation Date Time	Timestamp of the creation of the report	BkToCstmrAcctRpt/Rpt/CreDtTm	Yes	Must be equal to the Creation Date Time of the message
Account Identification	Account reported	BkToCstmrAcctRpt/Rpt/Acct/Id/Othr/Id	Yes	
Account Currency	Currency of the Account	BkToCstmrAcctRpt/Rpt/Acct/Ccy	Yes	
Account Owner	BIC of Financial Institution owning the account reported	BkToCstmrAcctRpt/Rpt/Acct/Ownr/Id/OrgId/AnyBIC	Yes	
Balance	Set of elements to define the balance.	BkToCstmrAcctRpt/Rpt/Bal	Yes	For every Report of the statement, two Balance blocks are included. These blocks provide with the Opening and Closing Balance for the reported Account.
Balance Type	Type of the balance reported	BkToCstmrAcctRpt/Rpt/Bal/Tp/CdOrPrtry/Prtry	Yes	Allowed values: - **OPBD**: Opening balance at start of RTGS business day; - **CLBD**: Closing balance at end of RTGS business day.
Amount	Balance Amount with currency	BkToCstmrAcctRpt/Rpt/Bal/Amt	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Credit/debit Indicator	Specifies if the Amount is credited or debited	BkToCstmrAcctRpt/Rpt/Bal/CdtDbtInd	Yes	
RTGS business date	RTGS business date for which the information is retrieved;	BkToCstmrAcctRpt/Rpt/Bal/Dt	Yes	It must be filled with the stored RTGS business date.
Sum of credits	Sum of the credits occurred on the Account for the pre-agreed account reporting period.	BkToCstmrAcctRpt/Rpt/TxsSummry/TtlCdtNtries/Sum	Yes	
Sum of debits	Sum of the debits occurred on the Account for the pre-agreed account reporting period.	BkToCstmrAcctRpt/Rpt/TxsSummry/TtlDbtNtries/Sum	Yes	

3.3.2.2.12 BankToCustomerStatement (camt.053.001.12)

The Bank To Customer Statement (camt.053.001.12) provides detailed information on the activities recorded for all the accounts in the data scope of the recipient actor.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.053.001.12

Table 79 – BankToCustomerStatement (camt.053.001.12)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	BkToCstmrStmt/GrpHdr/MsgId	Yes	
Creation Date Time	Timestamp of the creation of the message	BkToCstmrStmt/GrpHdr/CreDtTm	Yes	
Statement Identifier	Sequential number, as assigned by TIPS, to unambiguously identify each reported Account in the statement.	BkToCstmrStmt/Stmt/Id	Yes	
Creation Date Time	Timestamp of the creation of the statement	BkToCstmrStmt/Stmt/CreDtTm	Yes	Must be equal to the Creation Date Time of the message
Start Timestamp	Start Timestamp for which the account statement is issued	BkToCstmrStmt/Stmt/FrToDt/FrDtTm	No	Filled only for delta statement
End Timestamp	End Timestamp for which the account statement is issued	BkToCstmrStmt/Stmt/FrToDt/ToDtTm	No	Filled only for delta statement
Account Identification	Account reported	BkToCstmrStmt/Stmt/Acct/Id	Yes	
Account Currency	Currency of the Account	BkToCstmrStmt/Stmt/Acct/Ccy	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Account Owner	BIC of Financial Institution owning the account reported	BkToCstmrStmt/Stmt/Acct/Ownr/Id/OrgId/AnyBIC	Yes	
Balance Type	Type of the balance reported	BkToCstmrStmt/Stmt/Bal/Tp/CdOrPrtry/Cd	Yes	Allowed value: - **OPBD**: Balance of the account at the start of the pre-agreed account reporting period (for full reports only); - **CLBD**: Balance of the account at the end of the pre-agreed account reporting period.
Amount	Balance Amount with currency	BkToCstmrStmt/Stmt/Bal/Amt	Yes	
Credit/debit Indicator	Specifies if the Account balance is positive or negative	BkToCstmrStmt/Stmt/Bal/CdtDbtInd	Yes	
RTGS business date	RTGS business date for which the information is retrieved	BkToCstmrStmt/Stmt/Bal/Dt	Yes	It must be filled with the stored RTGS business date.
Entry	Entries of the statement	BkToCstmrStmt/Stmt/Ntry	No	Every Entry block contains the details of an Instant Payment or cross-currency Instant Payment Transaction or Liquidity Transfer which resulted in a movement for the reported account. If no activity occurred for the reported account during the pre-agreed account reporting period, no Entry blocks will be returned.
Transaction Reference	Payment transaction or Liquidity transfer reference	BkToCstmrStmt/Stmt/Ntry/NtryRef	Yes	This the Transaction Identification of the reported Instant Payment or cross-currency Instant Payment Transaction or Liquidity Transfer.
Transaction Amount	Transaction Amount with currency	BkToCstmrStmt/Stmt/Ntry/Amt	Yes	
Transaction Credit/debit Indicator	Specifies if the transaction Amount is credited or debited on the account	BkToCstmrStmt/Stmt/Ntry/CdtDbtInd	Yes	
Transaction Status Code	Specifies the status of the transaction	BkToCstmrStmt/Stmt/Ntry/Sts/Cd	Yes	Only **BOOK** is allowed as only settled transactions are reported.
Settlement timestamp	Settlement timestamp of the transaction	BkToCstmrStmt/Stmt/Ntry/BookgDt/DtTm	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Bank transaction code	Bank transaction code of the transaction, which allows to distinguish between Payment Transactions and Liquidity transfer Orders.	BkToCstmrStmt/Stmt/Ntry/BkTxCd/Domn/Cd	Yes	Used codes are based on the ExternalBankTransactionDomain ISO documentation. The Domain code allowed value is: - **PMNT** (Payments).
Bank Transaction Code Family	Family of the Bank Transaction Code.	BkToCstmrStmt/Stmt/Ntry/BkTxCd/Domn/Fmly/Cd	Yes	Allowed values depend on the type of reported payment: - **ICDT**: Debited Liquidity Transfers (for Outbound, Internal Contingency[58] and intra-service LTs[59]) - **RCDT**: Credited Liquidity Transfers (for Inbound, Internal Contingency[60] and intra-service LTs[61]) - **IRCT**: Debited Instant Payment or cross-currency Instant Payment Transaction - **RRCT**: Credited Instant Payment or cross-currency Instant Payment Transaction
Bank Transaction Code SubFamily	SubFamily of the Bank Transaction Code.	BkToCstmrStmt/Stmt/Ntry/BkTxCd/Domn/Fmly/SubFmlyCd	Yes	In terms of reporting, both Instant Payment Transactions and Liquidity Transfers, are defined as Financial Institution Credit Transfer. The allowed value for this field is **FICT**.
Bank Transaction Code Family Proprietary	Proprietary bank transaction code	BkToCstmrStmt/Stmt/Ntry/BkTxCd/Prtry/Cd	No	Definition of the type of returned Bank Transaction Code Family. Used only in case of cross-currency Instant Payment Transaction. The allowed value for this field is **TCCY**.

[58] ICLT where the debited account is a TIPS DCA and the credited account is a Transit Account

[59] Intra-service LT where the debited account is a TIPS DCA and the credited account is a TIPS AS Technical Account

[60] ICLT where the credited account is a TIPS DCA and the debited account is a Transit Account

[61] Intra-service LT where the credited account is a TIPS DCA and the debited account is a TIPS AS Technical Account

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Field Name	Description	XML path	Mand.	TIPS Usage
Amount Details + ProprietaryAmount	Additional information for Account balance	BkToCstmrStmt/Stmt/Ntry/AmtDtls/PrtryAmt	Yes	For every Entry of the statement, two Proprietary Amount blocks are included. These blocks define the Account Balance before and after the settlement of the Instant Payment Transaction or Liquidity Transfers occurred.
Transaction Account Balance	Balance of the Account before/after the execution of the transaction	BkToCstmrStmt/Stmt/Ntry/AmtDtls/PrtryAmt/Amt	Yes	Amount of the Account Balance for the related Entry.
Transaction Account balance type	Type of the balance	BkToCstmrStmt/Stmt/Ntry/AmtDtls/PrtryAmt/Tp	Yes	Definition of the type of returned Proprietary Amount. Allowed values: - **BFTS**: Before the settlement of the Transaction; - **FTTS**: After the settlement of the Transaction.
Transaction Amount	Transaction Amount with currency	BkToCstmrStmt/Stmt/Ntry/NtryDtls/TxDtls/Amt	Yes	Same value of the field BkToCstmrStmt/Stmt/Ntry/Amt
Transaction Credit/debit Indicator	Specifies if the transaction Amount is credited or debited on the account	BkToCstmrStmt/Stmt/Ntry/NtryDtls/TxDtls/CdtDbtInd	Yes	Same value of the field BkToCstmrStmt/Stmt/Ntry/CdtDbtInd
Transaction Originator BIC	BIC of the Originator Participant of the transaction	BkToCstmrStmt/Stmt/Ntry/NtryDtls/TxDtls/RltdAgts/DbtrAgt/FinInstnId/BICFI	Yes	It contains: - The Originator BIC in case of an Instant Payment Transaction or Debtor Agent BIC in case of an outgoing cross-currency Instant Payment Transaction; - The Debtor BIC in case of a Liquidity Transfer Order; - The Entry PSP BIC in case of an incoming cross-currency Instant Payment Transaction.

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Field Name	Description	XML path	Mand.	TIPS Usage
Transaction Beneficiary BIC	BIC of the Beneficiary Participant of the transaction	BkToCstmrStmt/Stmt/Ntry/NtryDtls/TxDtls/RltdAgts/CdtrAgt/FinInstnId/BICFI	Yes	It contains: - The Beneficiary BIC in case of an Instant Payment Transaction or Creditor Agent BIC in case of an incoming cross-currency Instant Payment Transaction; - The Creditor BIC in case of a Liquidity Transfer Order; - The Exit PSP BIC for an outgoing cross-currency Instant Payment Transaction.

3.3.2.2.13 BankToCustomerStatement (camt.053.001.12)

The Bank To Customer Statement (camt.053.001.12) is used as General Ledger message sent by TIPS to the RTGS Systems.

Furthermore, the same message type is also used as Snapshot message to convey to the relevant RTGS System the account balance status.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.053.001.12

Table 80 – BankToCustomerStatement (camt.053.001.12) – General Ledger

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	BkToCstmrStmt/GrpHdr/MsgId	Yes	
Creation Date Time	Timestamp of the creation of the message	BkToCstmrStmt/GrpHdr/CreDtTm	Yes	
Page Number	Page number for message pagination	BkToCstmrStmt/GrpHdr/MsgPgntn/PgNb	Yes	Message pagination not used. Fixed value **1**.
Last Page Indicator	Last Page Indicator for message pagination	BkToCstmrStmt/GrpHdr/MsgPgntn/LastPgInd	Yes	Message pagination not used. Fixed value **true**.

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Field Name	Description	XML path	Mand.	TIPS Usage
Statement Identifier	Identifies the Settlement Service generating the General Ledger	BkToCstmrStmt/Stmt/Id	Yes	Fixed Value **TIPS**
Account Identification	Account reported	BkToCstmrStmt/Stmt/Acct/Id/Othr/Id	Yes	
Account Owner BIC	BIC of Financial Institution owning the account reported	BkToCstmrStmt/Stmt/Acct/Ownr/Id/OrgId/AnyBIC	Yes	
Account Owner country of residence	Country of residence of the Financial Institution owning the account reported	BkToCstmrStmt/Stmt/Acct/Ownr/CtryOfRes	Yes	
Balance Type	Type of the balance reported	BkToCstmrStmt/Stmt/Bal/Tp/CdOrPrtry/Cd	Yes	Possible values: - **OPBD**: for Balance at Start of Day; - **CLBD**: for Balance at End of Day; - **ITBD**: for snapshot balance.
Amount	Balance Amount with currency	BkToCstmrStmt/Stmt/Bal/Amt	Yes	
Credit/debit Indicator	Specifies if the Account balance is positive or negative	BkToCstmrStmt/Stmt/Bal/CdtDbtInd	Yes	
RTGS business date	RTGS business date for which the information is retrieved	BkToCstmrStmt/Stmt/Bal/Dt	Yes	It is filled with the stored RTGS business date.
Total Credit entries	Sum of Credit entries of the reported account	BkToCstmrStmt/Stmt/TxsSummry/TtlCdtNtries/Sum	Yes	
Total Debit entries	Sum of Debit entries of the reported account	BkToCstmrStmt/Stmt/TxsSummry/TtlDbtNtries/Sum	Yes	

3.3.2.2.14 BankToCustomerDebitCreditNotification (camt.054.001.12)

The Bank To Customer Debit Credit Notification message is used in TIPS in order to report to the account owner the settlement of a liquidity transfer credited or debited.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.054.001.12

Table 81 – BankToCustomerDebitCreditNotification (camt.054.001.12)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identifier	Identification of the message	BkToCstmrDbtCdtNtfctn/GrpHdr/MsgId	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Creation Date Time	Timestamp of the creation of the message	BkToCstmrDbtCdtNtfctn/GrpHdr/CreDtTm	Yes	
Notification Identifier	Identifier of the notification	BkToCstmrDbtCdtNtfctn/Ntfctn/Id	Yes	This field will be equal to the Message Identifier
Notification Creation Date Time	Timestamp of the creation of the notification	BkToCstmrDbtCdtNtfctn/Ntfctn/CreDtTm	Yes	This field will be equal to the Creation Date Time
Account Identifier	Account for which the notification has been generated	BkToCstmrDbtCdtNtfctn/Ntfctn/Acct/Id/Othr/Id	Yes	
Notification Amount	Amount that has been transferred to the Account	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/Amt	Yes	
Credit Debit Indicator	Specifies if the Amount has been credited or debited	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/CdtDbtInd	Yes	For credit movements, this field will be **CRDT**. For debit movements this field will be **DBIT**.
Status Code	Status of the underlying payment	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/Sts/Cd	Yes	As notification is generated for settled movements only, this field will be **BOOK**.
Booking Date	Date and time of Booking	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/BookgDt/DtTm	Yes	Timestamp of when the settlement occurred in TIPS
Value Date	Business Date of the underlying payment	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/ValDt/Dt	Yes	TIPS Business Date in which the liquidity transfer settlement took place.
Bank Transaction Code Domain	Bank Transaction Code of the underlying transaction	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/BkTxCd/Domn/Cd	Yes	Only Liquidity Transfers are reported. They belong to Payment Domain so this field will be **PMNT**.
Bank Transaction Family Code	Bank Transaction Family Code of the underlying transaction	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/BkTxCd/Domn/Fmly/Cd	Yes	If a credited Liquidity Transfer is reported, this field will be **RCDT**. If a debited Liquidity Transfer is reported, this field will be **ICDT**.
Bank Transaction SubFamily Code	Bank Transaction SubFamily Code of the underlying transaction	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/BkTxCd/Domn/Fmly/SubFmlyCd	Yes	Only Financial Institution Credit Transfers are reported. This field will be **FICT**.
Instruction Identification	Instruction identifier for the credit transfer	/BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/Refs/InstrId	Yes	This field will contain the Liquidity Transfer reference

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Field Name	Description	XML path	Mand.	TIPS Usage
End to End Identification	End to end identifier for the requested credit transfer	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/Refs/EndToEndId	Yes	If not used, it must be filled with **NOTPROVIDED**
Transaction Amount	Amount that has been transferred to the Account	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/Amt	Yes	This field will be equal to the Notification Amount
Credit Debit Indicator	Specifies if the Amount has been credited or debited	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/CdtDbtInd	Yes	For credit movements only, this field will be **CRDT**. For debit movements this field will be **DBIT**.
Debtor	Debtor BIC of the Liquidity transfer order	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/RltdPties/Dbtr/Pty/Id/OrgId/AnyBIC	Yes	
Debtor Account	Account to be debited	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/RltdPties/dbtrAcct/Id/Othr/Id	Yes	
Creditor	Creditor BIC of the Liquidity transfer order	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/RltdPties/Cdtr/Pty/Id/OrgId/AnyBIC	Yes	
Creditor Account	Account to be credited	BkToCstmrDbtCdtNtfctn/Ntfctn/Ntry/NtryDtls/TxDtls/RltdPties/cdtrAcct/Id/Othr/Id	Yes	

3.3.2.2.15 FIToFIPaymentCancellationRequest (camt.056.001.08)

The FIToFIPaymentCancellationRequest message allows instructing TIPS to trigger a recall process for a formerly settled Instant Payment transaction.

Message specification is compliant to EPC DS-05 Inter-PSP Payment Dataset as described in the SEPA Instant Credit Transfer scheme Rulebook.

TIPS receives this message by the Assigner party, checks the related access rights and the reachability of the Assignee party.

No further processing but message schema validation is performed as the message is directly forwarded to the party to which the case is assigned.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.056.001.08

Table 82 – FIToFIPaymentCancellationRequest (camt.056.001.08)

EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
n/a	Assignment Identification	Uniquely identifies the case assignment.	FIToFIPmtCxlReq/Assgnmt/Id	Yes	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
n/a	Assigner	Party who assigns the case.	FIToFIPmtCxlReq/Assgnmt/Assgnr/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the originating party and is used in combination with the requestor Distinguished Name to check user access rights.
n/a	Assignee	Party to which the case is assigned	FIToFIPmtCxlReq/Assgnmt/Assgne/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party to which the Cancellation Request is forwarded.
n/a	Creation Date Time	Date and time at which the assignment was created.	FIToFIPmtCxlReq/Assgnmt/CreDtTm	Yes	Only schema validation is performed.
n/a	Number Of Transactions	Number of individual transactions contained in the message.	FIToFIPmtCxlReq/CtrlData/NbOfTxs	No	Only a single transaction can be included. Fixed value for the Message Element is **1**.
n/a	Underlying	Identifies the payment instruction to be cancelled.	FIToFIPmtCxlReq/Undrlyg	Yes	Only a single underlying element is allowed in TIPS.
n/a	Transaction Information	Set of elements used to provide information on the original transactions to which the cancellation request message refers.	FIToFIPmtCxlReq/Undrlyg/TxInf	Yes	Only a single Transaction Information element is allowed in TIPS.
AT-R053	Cancellation Identification	The specific reference of the PSP initiating the Recall.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlId	Yes	
n/a	Original Message Identification	Point to point reference assigned by the original instructing party to unambiguously identify the original transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
n/a	Original Message Name Identification	Specifies the original message name identifier to which the message refers.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgNmId	Yes	Must begin with **pacs.008**. The addition of a variant number and version number is optional.
n/a	Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party, to unambiguously identify the original instruction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlInstrId	No	Only schema validation is performed.
AT-T014	Original End To End Identification	The Originator's reference of the SCT^{Inst} Transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId	Yes	Only schema validation is performed.
AT-T054	Original Transaction Identification	The Originator PSP's reference of the SCT^{Inst} Transaction message.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxId	Yes	Reference of the Instant Payment Transaction for which the Recall is requested.
AT-T002	Original Interbank Settlement Amount	The amount of the SCT^{Inst} in euro.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	Yes	Amount of the Instant Payment Transaction for which the Recall is requested.
AT-T051	Original Interbank Settlement Date	The Settlement Date of the SCT^{Inst} Transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	Yes	Settlement Date of the Instant Payment Transaction for which the Recall is requested.

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EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
n/a	Cancellation Reason Information	Set of elements used to provide detailed information on the cancellation reason.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf	Yes	Only one occurrence is allowed.
AT-R002	Cancellation Reason Information + Originator	Identification of the type of party initiating the R-message.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr	Yes	Only schema validation is performed.
AT-R051	Cancellation Reason Information + Reason	The Recall reason code.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Rsn	Yes	Only schema validation is performed.
AT-R052	Cancellation Reason Information + Additional Information	Additional information to **AT-R051** The Recall reason code.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/AddtlInf	No	Only schema validation is performed.
n/a	Original Transaction Reference	An exact copy of all attributes of the initially sent DS-02 which is to be cancelled.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef	Yes	Only schema validation is performed.
n/a	Settlement Information	Specifies the details on the settlement.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.
AT-T001	Scheme Identification Code	The identification code of the SCT^{Inst} Scheme	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No	Only schema validation is performed.
AT-T008	Category Purpose	The category purpose of the SCT^{Inst} Instruction	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
AT-T009	Remittance Information	The Remittance information.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
AT-P006	Ultimate Debtor + Name	The name of the Originator Reference Party	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
AT-P007	Ultimate Debtor + Identification	The identification code of the Originator Reference Party	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
AT-P001	Debtor + Name	The name of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	Yes	Only schema validation is performed.
AT-P005	Debtor + Postal Address	The address of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/pstlAdr	No	Only schema validation is performed.
AT-P004	Debtor + Identification	The Originator identification code.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
AT-D001	Debtor Account	The IBAN of the account of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-P003	Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
AT-D002	Debtor Agent	The BIC code of the Originator PSP.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt	No	Only schema validation is performed.
AT-C002	Creditor Agent	The BIC code of the Beneficiary PSP.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt	No	Only schema validation is performed.
AT-E001	Creditor + Name	The name of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/Nm	Yes	Only schema validation is performed.
AT-E004	Creditor + Postal Address	The address of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/pstlAdr	No	Only schema validation is performed.

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EPC Ref.	Reference Name	EPC Description	XML path	Mand.	TIPS Usage
AT-E005	Creditor + Identification	The Beneficiary identification code.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
AT-C001	Creditor Account	The IBAN of the account of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct/Id/IBAN	Yes	Only schema validation is performed.
AT-E003	Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
AT-E007	Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
AT-E010	Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
AT-T007	Purpose	Underlying reason for the payment transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.2.16 FIToFIPaymentCancellationRequest (camt.056.001.08)

The FI To FI Payment Cancellation Request message is used for non-Euro settlement models and it allows instructing TIPS to trigger a recall process for a formerly settled Instant Payment transaction.

TIPS receives this message by the Assigner party, checks the related access rights and the reachability of the Assignee party.

No further processing but message schema validation is performed as the message is directly forwarded to the party to which the case is assigned.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.056.001.08

Table 83 – camt.056.001.08

Field Name	Description	XML path	Mand.	TIPS Usage
Assignment Identification	Uniquely identifies the case assignment.	FIToFIPmtCxlReq/Assgnmt/Id	Yes	Only schema validation is performed.
Assigner	Party who assigns the case.	FIToFIPmtCxlReq/Assgnmt/Assgnr/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the originating party and is used in combination with the requestor Distinguish Name to check user access rights.

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Field Name	Description	XML path	Mand.	TIPS Usage
Assignee	Party to which the case is assigned	FIToFIPmtCxlReq/Assgnmt/Assgne/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party to which the Cancellation Request is forwarded.
Creation Date Time	Date and time at which the assignment was created.	FIToFIPmtCxlReq/Assgnmt/CreDtTm	Yes	Only schema validation is performed.
Number Of Transactions	Number of individual transactions contained in the message.	FIToFIPmtCxlReq/CtrlData/NbOfTxs	No	Only a single transaction can be included. Fixed value for the Message Element is **1**.
Underlying	Identifies the payment instruction to be cancelled.	FIToFIPmtCxlReq/Undrlyg	Yes	Only a single Underlying element is allowed in TIPS.
Transaction Information	Set of elements used to provide information on the original transactions to which the cancellation request message refers.	FIToFIPmtCxlReq/Undrlyg/TxInf	Yes	Only a single Transaction Information element is allowed in TIPS.
Cancellation Identification	The specific reference of the bank initiating the Recall.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlId	Yes	
Original Message Identification	Point to point reference assigned by the original instructing party to unambiguously identify the original transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
Original Message Name Identification	Specifies the original message name identifier to which the message refers.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgNmId	Yes	Only value **pacs.008.001.08** is allowed.
Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party,to unambiguously identify the original instruction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlInstrId	No	Only schema validation is performed.
Original End To End Identification	The Originator's reference of the Transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId	No	Only schema validation is performed.
Original Transaction Identification	The Originator Bank's reference of the Transaction message.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxId	Yes	Reference of the Instant Payment Transaction for which the Recall is requested.
Original UETR	UETR number of the Transaction message	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlUETR	No	Only schema validation is performed.
Original Interbank Settlement Amount	The amount of Transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	Yes	Amount of the Instant Payment Transaction for which the Recall is requested.

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Field Name	Description	XML path	Mand.	TIPS Usage
Original Interbank Settlement Date	The Settlement Date of the Instant Payment Transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	No	Settlement Date of the Instant Payment Transaction for which the Recall is requested.
Cancellation Reason Information	Set of elements used to provide detailed information on the cancellation reason.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf	No	Only one occurrence is allowed.
Cancellation Reason Information + Originator	Identification of the type of party initiating the R-message.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr	No	Only schema validation is performed.
Cancellation Reason Information + Reason	The Recall reason code.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Rsn	Yes	Only schema validation is performed.
Cancellation Reason Information + Additional Information	Additional information to the Recall reason code.	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/AddtlInf	No	Only schema validation is performed.
Original Transaction Reference	Attributes of the initially transaction which is to be cancelled.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef	Yes	Only schema validation is performed.
Amount + Instructed Amount	Amount of money to be moved between the debtor and creditor, before deduction of charges, expressed in the currency as ordered by the initiating party.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Amt/InstdAmt	Yes	Only schema validation is performed.
Settlement Information	Specifies the details on the settlement.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf	No	Only schema validation is performed.
Scheme Identification Code	The identification code of the Scheme	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/SvcLvl/Cd FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Only schema validation is performed.
Category Purpose	The category purpose of the Instruction	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Remittance Information	The Remittance information.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
Ultimate Debtor + Name	The name of the Originator Reference Party	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Debtor + Identification	The identification code of the Originator Reference Party	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
Debtor + Name	The name of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
Debtor + Postal Address	The address of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
Debtor + Identification	The Originator identification code.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
Debtor Account	The account of the Originator.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Debtor Account Identification	Identification of the Debtor Account	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct/Id	Yes	Only schema validation is performed.
Debtor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
Debtor Agent	The identification of the Originator Bank.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt	No	Only schema validation is performed.
Creditor Agent	The identification of the Beneficiary Bank.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt	No	Only schema validation is performed.
Creditor + Name	The name of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
Creditor + Postal Address	The address of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
Creditor + Identification	The Beneficiary identification code.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
Creditor Account	The account of the Beneficiary.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct	No	Only schema validation is performed.
Creditor Account Identification	Identification of the Creditor Account	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct/Id	Yes	Only schema validation is performed.
Creditor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
Purpose	Underlying reason for the payment transaction.	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.2.17 ResolutionOfInvestigation (camt.029.001.09)

The Resolution of Investigation message is used for non-Euro settlement models and it is sent by the Assignee party of a FIToFIPaymentCancellationRequest (Recall), triggered by an Assigner party for a formerly settled Instant Payment transaction, as a negative response. The Recall's Assignee party becomes the Assigner party of the negative answer.

Additionally, the ResolutionOfInvestigation message can be sent in reply to a Request for Status Update on a Recall.

TIPS receives this message by the Assignee party, checks the related access rights and the reachability of the Assigner party.

No further processing but message schema validation is performed as the message is directly forwarded to the party which formerly triggered the Recall process.

References/links

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The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/camt.029.001.09

Table 84 – camt.029.001.09

Field Name	Description	XML path	Mand.	TIPS Usage
Assignment + Identification	Uniquely identifies the case assignment.	RsltnOfInvstgtn/Assgnmt/Id	Yes	Only schema validation is performed.
Assigner	Party who sends the Resolution of Investigation message.	RsltnOfInvstgtn/Assgnmt/Assgnr/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party sending the Resolution of Investigation message and is used in combination with the requestor Distinguish Name to check user access rights.
Assignee	Party to which the case is assigned	RsltnOfInvstgtn/Assgnmt/Assgne/Agt/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the party to which the Resolution of Investigation message is forwarded.
Assignment + Creation Date Time	Date and time at which the assignment was created.	RsltnOfInvstgtn/Assgnmt/CreDtTm	Yes	Only schema validation is performed.
Status + Confirmation	Specifies the status of the investigation, in a coded form.	RsltnOfInvstgtn/Sts/Conf	Yes	Possible values are checked within schema validation.
Cancellation Status Identification	Unique and unambiguous identifier of a cancellation request status, as assigned by the assigner.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsId	Yes	Only schema validation is performed.
Original Message Identification	Message Identification of the originating message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgId	Yes	Only schema validation is performed.
Original Message Name Identification	Message identifier of the originating message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgNmId	Yes	Possible allowed value is: - **pacs.008.001.08**
Original Instruction Identification	Unique identification, as assigned by the original instructing party for the original instructed party	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlInstrId	No	Only schema validation is performed.
Original End To End Identification	The Originator's reference of the Transaction	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlEndToEndId	No	Only schema validation is performed.
Original Transaction Identification	The Originator Bank's reference number of the Transaction message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxId	Yes	Only schema validation is performed.
Original UETR	UETR number of the Transaction message	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlUETR	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Transaction Cancellation Status	Specifies the status of the transaction cancellation request.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/TxCxlSts	Yes	Possible values are checked within schema validation.
Cancellation Status Reason Information	Set of elements used to provide detailed information on the cancellation status reason.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf	Yes	Only schema validation is performed.
Cancellation Status Reason Information + Originator	The Name of the Beneficiary or The BIC code of the Beneficiary Bank	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Orgtr	No	Only schema validation is performed.
Cancellation Status Reason Information + Reason	The Reason Code for non-acceptance of the Recall.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn	Yes	Only schema validation is performed.
Cancellation Status Reason Information + Reason ++ Code	Reason for the cancellation status, in a coded form.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn/Cd	Yes	Allowed values: - **AC04**: Account closed; - **AM04**: Insufficient funds on the account; - **ARDT**: Already returned transaction; - **CUST**: Beneficiary's Refusal; - **LEGL**: Legal reasons; - **NOAS**: No response from Beneficiary; - **NOOR**: Original Credit Transfer never received.
Cancellation Status Reason Information + Reason ++ Proprietary	Reason for the status, in a proprietary form.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Rsn/Prtry	Yes	Only schema validation is performed.
Cancellation Status Reason Information + Additional Information	Further details on the cancellation status reason.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/AddtlInf	Yes	Only schema validation is performed.
Original Transaction Reference	Set of key elements used to identify the original transaction that is being referred to.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef	Yes	Only schema validation is performed.
Interbank Settlement Amount	The amount of the transaction.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmAmt	No	If not present, the message will be rejected by TIPS.
Amount + Instructed Amount	Amount of money to be moved between the debtor and creditor, before deduction of charges, expressed in the currency as ordered by the initiating party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Amt/InstdAmt	Yes	Only schema validation is performed.
Interbank Settlement Date	The Settlement Date of the Transaction.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmDt	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Scheme Identification Code	The identification code of the Scheme	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/SvcLvl/Cd RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/LclInstrm/Cd	No Yes	Possible values are checked within schema validation.
Category Purpose	The category purpose of the Instruction	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf/CtgyPurp	No	Only schema validation is performed.
Remittance Information	Information supplied to enable the matching of an entry with the items that the transfer is intended to settle	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/RmtInf	No	Only schema validation is performed.
Ultimate Debtor + Name	The name of the Originator Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtDbtr/Pty/Nm	No	Only schema validation is performed.
Ultimate Debtor + Identification	The identification code of the Originator Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtDbtr/Pty/Id	No	Only schema validation is performed.
Debtor + Name	The name of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/Nm	No	Only schema validation is performed.
Debtor + Postal Address	The address of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/PstlAdr	No	Only schema validation is performed.
Debtor + Identification	The Originator identification code.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Dbtr/Pty/Id	No	Only schema validation is performed.
Debtor Account	The account of the Originator.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAcct	No	Only schema validation is performed.
Debtor Account Identification	Identification of the Debtor Account	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAcct/Id	Yes	Only schema validation is performed.
Debtor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAcct/Prxy	No	Only schema validation is performed.
Debtor Agent	The Identification of the Originator Bank.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/DbtrAgt	No	Only schema validation is performed.
Creditor Agent	The identification of the Beneficiary Bank.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAgt	No	Only schema validation is performed.
Creditor + Name	The name of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/Nm	No	Only schema validation is performed.
Creditor + Postal Address	The address of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/PstlAdr	No	Only schema validation is performed.
Creditor + Identification	The Beneficiary identification code.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Cdtr/Pty/Id	No	Only schema validation is performed.
Creditor Account	The account of the Beneficiary.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAcct	No	Only schema validation is performed.
Creditor Account Identification	Identification of the Creditor Account	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAcct/Id	Yes	Only schema validation is performed.
Creditor Account + Proxy	Specifies an alternate assumed name for the identification of the account.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/CdtrAcct/Prxy	No	Only schema validation is performed.
Ultimate Creditor + Name	Name of the Beneficiary Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtCdtr/Pty/Nm	No	Only schema validation is performed.

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Field Name	Description	XML path	Mand.	TIPS Usage
Ultimate Creditor + Identification	Identification code of the Beneficiary Reference Party.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/UltmtCdtr/Pty/Id	No	Only schema validation is performed.
Purpose	Underlying reason for the payment transaction.	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/Purp	No	Only schema validation is performed.

3.3.2.3. Account Management (acmt)

3.3.2.3.1 AccountRequestAcknowledgement (acmt.010.001.04)

The Account Request Acknowledgement message is sent by TIPS upon successful processing of a formerly instructed Account Excluded Mandate Maintenance Request message to the sender.

This message notifies the sender that the blocking status of an account or CMB has been changed.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/acmt.010.001.04

Table 85 – AccountRequestAcknowledgement (acmt.010.001.04)

Field Name	Description	XML path	Mand.	TIPS Usage
Request Type	Type of acknowledged request.	AcctReqAck/Refs/ReqTp	Yes	Only possible value is: - **MNTN:** Maintenance
Message Identification	Identification of the message.	AcctReqAck/Refs/MsgId/Id	Yes	
Creation Date Time	Date of creation of the message.	AcctReqAck/Refs/MsgId/CreDtTm	Yes	
Process Identification	Identification of the process.	AcctReqAck/Refs/PrcId/Id	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Message Identifier.
Process Date Time	Date of creation of the message.	AcctReqAck/Refs/PrcId/CreDtTm	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Creation Date Time.
Acknowledged Message Identification	Identification of the originating Account Excluded Maintenance Request message.	AcctReqAck/Refs/AckdMsgId/Id	Yes	

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Field Name	Description	XML path	Mand.	TIPS Usage
Acknowledged Date Time	Date of the acknowledgement of the message.	AcctReqAck/Refs/AckdMsgId/CreDtTm	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Creation Date Time.
Status	Specifies the status of the Account Excluded Maintenance Request message.	AcctReqAck/Refs/Sts	Yes	Only possible status is: - **COMP**: Completed
Account Identification	Identification of the account or CMB related to the originating Account Excluded Maintenance Request message.	AcctReqAck/AcctId/Id/Othr/Id	Yes	
Currency	Currency of the account or CMB related to the originating Account Excluded Maintenance Request message.	AcctReqAck/AcctId/Ccy	Yes	
Organisation Identification	BIC of the TIPS Actor owning the account or CMB User.	AcctReqAck/OrgId/AnyBIC	Yes	This field must be filled either with the BIC of the account owner or the BIC of the CMB user.
Account Servicer Identification	BIC of the TIPS actor owning the account,	AcctReqAck/AcctSvcrId/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the account owner.

3.3.2.3.2 AccountRequestRejection (acmt.011.001.04)

The Account Request Rejection message is sent by TIPS upon rejection of a formerly instructed Account Excluded Maintenance Request message to the sender.

This message notifies the sender that the request to modify the blocking status of the account or CMB has been rejected.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/acmt.011.001.04

Table 86 – AccountRequestRejection (acmt.011.001.04)

Field Name	Description	XML path	Mand.	TIPS Usage
Request Type	Type of rejected request.	AcctReqRjctn/Refs/RjctdReqTp	Yes	Only possible value is: - **MNTN:** Maintenance

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Field Name	Description	XML path	Mand.	TIPS Usage
Rejection Reason	Reason of the message rejection	AcctReqRjctn/Refs/RjctnRsn	Yes	Reports the detailed error information
Rejected Request Identifier	Identification of the rejected request message.	AcctReqRjctn/Refs/RjctdReqId/Id	Yes	
Rejected Request Date Time	Date of creation of the message.	AcctReqRjctn/Refs/RjctdReqId/CreDtTm	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Creation Date Time.
Message Identification	Identification of the message.	AcctReqRjctn/Refs/MsgId/Id	Yes	
Creation Date Time	Date of creation of the message.	AcctReqRjctn/Refs/MsgId/CreDtTm	Yes	
Process Identification	Identification of the process.	AcctReqRjctn/Refs/PrcId/Id	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Message Identifier.
Process Date Time	Date of creation of the message.	AcctReqRjctn/Refs/PrcId/CreDtTm	Yes	Not used in TIPS but required by ISO Standards. This field is filled with the same content of the Creation Date Time.
Account Servicer Identification	BIC of the TIPS Actor owning the account,	AcctReqRjctn/AcctSvcrId/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the account owner.
Organisation Identification	BIC of the TIPS Actor owning the account or CMB User.	AcctReqRjctn/OrgId/AnyBIC	Yes	This field must be filled either with the BIC of the account owner or the BIC of the CMB user.

3.3.2.3.3 AccountExcludedMandateMaintenanceRequest (acmt.015.001.04)

The Account Excluded Mandate Maintenance Request message is sent by an authorised TIPS Actor to request a change on the blocking status for an account or CMB.

If the request is successfully executed, TIPS notifies the sender with an acmt.010.001.04 message.

If the request is rejected, TIPS notifies the sender with an acmt.011.001.04 message.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/acmt.015.001.04

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Table 87 – AccountExcludedMandateMaintenanceRequest (acmt.015.001.04)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Identification of the message.	AcctExcldMndtMntncReq/Refs/MsgId/Id	Yes	
Creation Date Time	Date of creation of the message.	AcctExcldMndtMntncReq/Refs/MsgId/CreDtTm	Yes	
Process Identification	Identification of the message.	AcctExcldMndtMntncReq/Refs/PrcId/Id	Yes	Not used in TIPS but required by ISO Standards.
Process Date Time	Date of creation of the message.	AcctExcldMndtMntncReq/Refs/PrcId/CreDtTm	Yes	Not used in TIPS but required by ISO Standards.
Account Identification	Identification of the account or CMB.	AcctExcldMndtMntncReq/Acct/Id/Othr/Id	Yes	
Currency	Currency of the account or CMB.	AcctExcldMndtMntncReq/Acct/Ccy	Yes	
Floor Notification Amount	Specifies the value of the balance under which a notification will be sent to the account owner.	AcctExcldMndtMntncReq/Acct/FlrNtfctnAmt	No	Not used in TIPS. Usage is described in CRDM documentation.
Ceiling Notification Amount	Specifies the value of the balance above which a notification will be sent to the account owner.	AcctExcldMndtMntncReq/Acct/ClngNtfctnAmt	No	Not used in TIPS. Usage is described in CRDM documentation.
Closing Date	Date when the account will be or was closed.	AcctExcldMndtMntncReq/Acct/ClsgDt	No	Not used in TIPS. Usage is described in CRDM documentation.
Restriction Modification Code	Specifies the type of change.	AcctExcldMndtMntncReq/Acct/Rstrctn/ModCd	Yes	Possible values: - **ADDD**: Block - **DELE**: Unblock
Restriction Type Code	Type of the Restriction.	AcctExcldMndtMntncReq/Acct/Rstrctn/Rstrctn/RstrctnTp/Cd	Yes	Possible values are: - **TACR**: Block for credit; - **TADE**: Block for debit; - **TABO**: Block for both debit and credit
Restriction Valid From	Date from which the Restriction is valid.	AcctExcldMndtMntncReq/Acct/Rstrctn/Rstrctn/VldFr	Yes	Not used in TIPS.
Account Servicer Identification	BIC of the TIPS Actor owning the account.	AcctExcldMndtMntncReq/AcctSvcrId/FinInstnId/BICFI	Yes	This field must be filled with the BIC of the account owner. It is used in combination with the requestor DN to check user access rights. The Account Servicer Identification is enforced by TIPS only when the DN who sent the message is authorised at participant level.

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Field Name	Description	XML path	Mand.	TIPS Usage
Organisation	Organised structure that is set up for a particular purpose.	AcctExcldMndtMntncReq/Org	Yes	Any element included in this message component which are mandatory in ISO 20022 Standard, are not used in TIPS.

3.3.2.4. Reference Data (reda)

3.3.2.4.1 PartyStatusAdvice (reda.016.001.01)

The Party Status Advice message is sent by TIPS to report the results of the execution of the related Party Modification Request to the requesting Central Bank.

The XSD schema is shared with Common Reference Data Management to enable users to use a single implementation for the two services.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/reda.016.001.01

Table 88 – PartyStatusAdvice (reda.016.001.01)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Identification of the message.	PtyStsAdvc/MsgHdr/MsgId	Yes	
Original Message Identification	Identification of the originating Party Modification Request message.	PtyStsAdvc/MsgHdr/OrgnlBizInstr/MsgId	Yes	
Status	Status of the execution of the originating Party Modification Request message.	PtyStsAdvc/PtySts/Sts	Yes	Possible values: - **COMP**: Completed - **REJT** : Rejected
Status Reason	Additional information on rejected requests.	PtyStsAdvc/PtySts/StsRsn	No	This component will be included only in case of a rejected Party Modification Request message.
Error Code	Error code raised during the processing of the originating Party Modification Request message.	PtyStsAdvc/PtySts/StsRsn/Rsn/Prtry	Yes	This component will be included only in case of a rejected Party Modification Request message.
Additional Information	Possible additional text information to the requestor.	PtyStsAdvc/PtySts/StsRsn/AddtlInf	No	Not currently used in TIPS.

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Field Name	Description	XML path	Mand.	TIPS Usage
Related Party Identification	Unique identification to unambiguously identify the party within the system.	PtyStsAdvc/PtySts/SysPtyId/Id/Id/AnyBIC	Yes	This field will be included only in case of completed Party Modification Request messages. BIC of the TIPS Participant or Ancillary System for which the change of blocking status is requested.
Responsible Party Identification	Unique identification to unambiguously identify the party within the system.	PtyStsAdvc/PtySts/SysPtyId/RspnsblPtyId/Id/AnyBIC	Yes	This field will be included only in case of completed Party Modification Request messages. BIC of the Central Bank requesting the change of blocking status for a TIPS Participant or Ancillary System they are responsible for.

3.3.2.4.2 PartyModificationRequest (reda.022.001.02)

The Party Modification Request message is sent by a Central Bank to request a change on the blocking status for a TIPS Participant or an Ancillary System.

The sender is notified by TIPS with a reda.016.001.01 message with the result of the execution.

The XSD schema is shared with Common Reference Data Management to enable users to use a single implementation for the two services.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/reda.022.001.02

Table 89 – PartyModificationRequest (reda.022.001.02)

Field Name	Description	XML path	Mand.	TIPS Usage
Message Identification	Identification of the message.	PtyModReq/MsgHdr/MsgId	Yes	
Related Party Identification	Unique identification to unambiguously identify the party within the system.	PtyModReq/SysPtyId/Id/Id/AnyBIC	Yes	BIC of the TIPS Participant or Ancillary Systems for which the change of blocking status is requested.

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Field Name	Description	XML path	Mand.	TIPS Usage
Responsible Party Identification	Unique identification to unambiguously identify the party within the system.	PtyModReq/SysPtyId/RspnsblPtyId/Id/AnyBIC	Yes	Not used in TIPS. The authorisation is checked at DN level which must belong to a Central Bank user.
Scope Indication	Specifies the type of requested modification.	PtyModReq/Mod/ScpIndctn	Yes	Possible values: - **INSE**: Block; - **DELT**: Unblock.
System Party	Specifies the party reference data, as assigned by the system.	PtyModReq/Mod/ReqdMod/SysPtyDt	Yes	Not used in TIPS but required for CRDM functionality implementation.
Party Identification	Unique identification to unambiguously identify the party within the system.	PtyModReq/Mod/ReqdMod/PtyId	Yes	Not used in TIPS but required for CRDM functionality implementation.
Party Name	Specifies the name by which a party is known and which is usually used to identify that party.	PtyModReq/Mod/ReqdMod/PtyNm	Yes	Not used in TIPS but required for CRDM functionality implementation.
Technical Address	Unique technical address to unambiguously identify a party for receiving messages from the executing system.	PtyModReq/Mod/ReqdMod/TechAdr	Yes	Not used in TIPS but required for CRDM functionality implementation.
Party Address	Information that locates and identifies a specific address, as defined by postal services.	PtyModReq/Mod/ReqdMod/PtyAdr	Yes	Not used in TIPS but required for CRDM functionality implementation.
System Restriction	Specifies the date from which the restriction is valid.	PtyModReq/Mod/ReqdMod/SysRstrctn/VldFr	Yes	Not used in TIPS but required for CRDM functionality implementation.
Valid To	Specifies the date until which the restriction is valid.	PtyModReq/Mod/ReqdMod/SysRstrctn/VldTo	No	Not used in TIPS.
Restriction Type	Specifies the identification of a restriction.	PtyModReq/Mod/ReqdMod/SysRstrctn/Tp	Yes	Possible values are: - **TPCR**: Block for credit; - **TPDB**: Block for debit; - **TPBO**: Block for both debit and credit.
Market Specific Attribute	Additional attributes defined by a system entity for a party.	PtyModReq/Mod/ReqdMod/MktSpcfcAttr	Yes	Not used in TIPS but required for CRDM functionality implementation.

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3.3.2.5. Administration (admi)

3.3.2.5.1 SystemEventNotification (admi.004.001.02)

The SystemEventNotification message is used to provide broadcast information regarding immediate/planned downtime or in case of suspension, e.g. due to insolvency. Free text broadcasts are also allowed.

References/links

The schema and the related documentation in XSD/EXCEL/PDF format as well as the message examples are provided within the MyStandards repository under the following link:

https://www.swift.com/mystandards/TIPS/admi.004.001.02

Table 90 – SystemEventNotification (admi.004.001.02)

Field Name	Description	XML path	Mand.	TIPS Usage
Event Code	The broadcast type	SysEvtNtfctn/EvtInf/EvtCd	Yes	Broadcast Type: - **IDWS**: Immediate Downtime Start; - **IDWE**: Immediate Downtime End; - **PDWN**: Planned Downtime; - **INSL**: Insolvency; - **FREE**: Free Text.

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Field Name	Description	XML path	Mand.	TIPS Usage
Event Parameters	Parameters reported for each type of broadcast	SysEvtNtfctn/EvtInf/EvtParam	No	Parameters for event code **IDWS**: - **Parameter 1**: BIC object of the Immediate Downtime; - **Parameter 2**: BIC of the broadcast sender. Parameters for event code **IDWE**: - **Parameter 1**: BIC object of the Immediate Downtime; - **Parameter 2**: BIC of the broadcast sender. Parameters for event code **PDWN**: - **Parameter 1**: BIC object of the Planned Downtime; - **Parameter 2**: timestamp of the start of the planned downtime, expressed in UTC with format YYYY-MM-DDTHH:MM:SSZ; - **Parameter 3**: timestamp of the end of the planned downtime, expressed in UTC with format YYYY-MM-DDTHH:MM:SSZ; - **Parameter 4**: BIC of the broadcast sender. Parameters for event code **INSL**: - **Parameter 1**: BIC object of the Insolvency; - **Parameter 2**: BIC of the broadcast sender. Parameters for event code **FREE**: - **Parameter 1**: BIC of the broadcast sender.
Event Description	Additional free text included in the broadcast	SysEvtNtfctn/EvtInf/EvtDesc	No	Always reported for event code FREE.
Event Time	Timestamp of the broadcast generation	SysEvtNtfctn/EvtInf/EvtTm	Yes	Date and time related to the production of the broadcast, expressed in UTC.

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4. Appendices

4.1. Business Rules

Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
All	Access Rights check	000001	Sender User Role Entity	The DN of the Message sender as User of the Party is assigned to privilege XXX through its own role in the User Role Entity. List of couples service - privilege: - XXX - YYY	If no row is present: - error code **DS14**	The user is unknown on the server
Instant Payment transaction business process	Duplicate check	000002	Original Transaction Identification Debtor Agent System parameter: data retention period	The couple (Original Transaction Identification, Debtor Agent) must not exist in the list of transactions of the last X days, where X is equal to the system parameter "Retention Period"[28]	If a couple (Original Transaction Identification, Debtor Agent) already exists: - error code **AM05**	
Instant Payment transaction business process	Timeout Check - Originator Side	010001	Acceptance Date Time Parameter "SCT^{Inst} Timestamp Timeout" or "Cross-currency Timestamp Timeout" Parameter "Originator Side Offset" Parameter "Acceptable Future Time Window" Current timestamp	The "Acceptance Date Time" of the message sent by the Originator Participant, Ancillary System or Instructing Party must respect this check: *for SCT^{Inst} and non-Euro Instant Payments* Acceptance Date Time < (current timestamp + Acceptable Future Time Window) current timestamp < (Acceptance Date Time + SCT^{Inst} Timestamp Timeout + Originator Side Offset) *for cross-currency Instant Payments* Acceptance Date Time < (current timestamp + Acceptable Future Time Window) current timestamp < (Acceptance Date Time + Cross-currency Timestamp Timeout + Originator Side Offset)	If the check is not respected: - error code **AB06**	Timeout debtor side exceeded or "Acceptance datetime" too far in the future – acceptable future offset exceeded.
Instant Payment transaction business process	Timeout Check - Beneficiary Side	010002	Acceptance Date Time Parameter "SCT^{Inst} Timestamp Timeout" or "Cross-currency Timestamp Timeout" Parameter "Beneficiary Side Offset" Current timestamp	The "Acceptance Date Time" of the message sent for initiating the transaction must respect this check: *for SCT^{Inst} and non-Euro Instant Payments* current timestamp < (Acceptance Date Time + SCT^{Inst} Timestamp Timeout + Beneficiary Side Offset) *for cross-currency Instant Payments* current timestamp < (Acceptance Date Time + Cross-currency Timestamp Timeout + Beneficiary Side Offset)	If the check is not respected: - error code **AB05** to the Originator Side - error code **TM01** to the Beneficiary side	Timeout creditor side exceeded

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Instant Payment transaction business process	Timeout Check - Missing answer	010003	Transaction acceptance time Parameter "SCT^{Inst} Timestamp Timeout" or "Cross-currency Timestamp Timeout" Parameter "Beneficiary Side Offset" Current timestamp	The "Acceptance Date Time" of the transaction must respect this check: *for SCT^{Inst} and non-Euro Instant Payments* current timestamp < (Acceptance Date Time + SCT^{Inst} Timestamp Timeout + Beneficiary Side Offset) *for cross-currency Instant Payments* current timestamp < (Acceptance Date Time + Cross-currency Timestamp Timeout + Beneficiary Side Offset)	If the check is not respected: - error code **AB08** to the Originator Side - error code **TM01** to the Beneficiary side	Timeout creditor side - missing answer in the proper time
Instant Payment transaction business process Recall business process	Originator Account or CMB existence	000003	Debtor Agent Settlement amount Business Date	The system verifies that in table "Authorised Account User" the Debtor Agent exists and it is linked to one and only one Account, having type either "TIPS Account" or "TIPS AS Technical Account", that in table "Cash Accounts" has the currency equal to the one defined in the Settlement amount and is open for the current Business Date. If no account exists, the system verifies that in table "Authorised Account User" the Debtor Agent exists and it is linked to one and only one CMB linked to an Account that has the currency equal to the one defined in the Settlement amount and open for the current Business Date.	If the check is not respected: - error code **DNOR**	Originator Account or CMB not found – not existing or not yet open or already closed
All	Instructing Party authorised	000004	Sender Debtor Agent	For instant payment and recall operations, the system checks the existence of the couple (Sender, Debtor Agent) in the entity "Inbound DN-BIC Routing". For queries and liquidity transfers the system checks that the Sender is defined as an Instructing Party for the relevant Account Owner.	If no row is present: - **DNOR** error code is returned	
Instant Payment transaction business process Recall business process	Beneficiary Account or CMB existence	000005	Creditor Agent Settlement amount Business Date	The system verifies that in table "Authorised Account User" the Creditor Agent exists and it is linked to one and only one Account, having type either "TIPS Account" or "TIPS AS Technical Account", that in table "Cash Accounts" has the currency equal to the one defined in the Settlement amount and is open for the current Business Date. If no Account exists, the system verifies that in table "Authorised Account User" the Creditor Agent exists and it is linked to one and only one CMB linked to an Account that has the currency equal to the one defined in the Settlement amount and open for the current Business Date.	If the check is not respected: - error code **CNOR**	Beneficiary Account or CMB not found – not existing or not yet open or already closed
Instant Payment transaction business process	Maximum Amount not Exceeded	010005	Settlement amount Parameter "Maximum Amount"	The "Maximum Amount" parameter for the currency of the transaction is selected. The "Settlement amount" of the message must be lower than or equal to the "Maximum Amount".	If the check is not respected: - return error code **AM23**	Amount exceeds the maximum authorised amount

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Instant Payment transaction business process Recall business process	Originator Account/CMB not blocked	000006	Debtor Agent Settlement amount Business Date	The system selects the Originator account/CMB from the Debtor Agent as follows: - in the table "Authorised Account User" the system looks up the row related to the Debtor Agent linked to only one account whose type is either "TIPS Account" or "TIPS AS Technical Account" that in table "Cash Accounts" has the currency equal to the one defined in the Settlement amount and is open for the current Business Date - If no Account is returned, queries that in table "Cash Accounts" the row related to the Debtor Agent linked in table "Authorised Account User" to one and only one "TIPS CMB", for the currency equal to the one defined in the Settlement amount and open for the current Business Date. If an Originator account is involved, the system checks that the Blocking Status of the account is not "Blocked for credit and debit" or "Blocked for debit". If an Originator CMB is involved, the system checks that the Blocking Status of the CMB and the related account are not "Blocked for credit and debit" or "Blocked for debit". If the previous checks are passed, the system checks that the TIPS Participant or Ancillary System related to the Debtor Agent and to the account (directly involved or involved through a CMB) has Blocking Status different from "Blocked for credit and debit" or "Blocked for debit".	If the check is not respected: - return error code **TBL1**	The owner of the debtor account or the debtor account/CMB is blocked
Instant Payment transaction business process Recall business process	Beneficiary Account/CMB not blocked	000007	Creditor Agent Settlement amount Business Date	The system selects the Beneficiary account/CMB from the Creditor Agent as follows: - in the table "Authorised Account User" the system looks up the row related to the Creditor Agent linked to only one account whose, type is either "TIPS Account" or "TIPS AS Technical Account" that in table "Cash Accounts" has the currency equal to the one defined in the Settlement amount and it is open for the current Business Date - if the previous step fails, the system selects the row related to the Creditor Agent linked in table "Authorised Account User" to one and only one "TIPS CMB"; this CMB must have the currency equal to the one defined in the Settlement amount and must be open for the current Business Date. If a Beneficiary account is involved, the system checks that the Blocking Status of the account is not "Blocked for credit and debit" or "Blocked for credit". If a Beneficiary CMB is involved, the system checks that the Blocking Status of the CMB and the related account are not "Blocked for credit and debit" or "Blocked for credit". If the previous checks are passed, the system checks that the TIPS Participant or Ancillary System related to the Creditor Agent and to the Beneficiary account (directly involved or involved through a CMB) has Blocking Status different from "Blocked for credit and debit" or "Blocked for credit".	If the check is not respected: - return error code **TBL2**	The owner of the creditor account or the creditor account/CMB is blocked

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Instant Payment transaction business process Recall business process	Available amount not exceeded	000008	Debtor Agent Settlement amount Business Date	The system selects the Originator account/CMB from the Debtor Agent as follows: - in the table “Authorised Account User” the system looks up the row related to the Debtor Agent linked to only one account whose type is either "TIPS Account" or “TIPS AS Technical Account” hat; in table "Cash Accounts" has the currency equal to the one defined in the Settlement amount and it is open for the current Business Date - if the previous step fails, the system selects the row related to the Debtor Agent linked in table "Authorised Account User" to one and only one "TIPS CMB"; this CMB must have the currency equal to the one defined in the Settlement amount and must be open for the current Business Date. Then the system retrieves the available balance of the Originator account (directly involved or linked to the Debiting CMB) and/or the Debiting CMB Headroom. The system checks that the Settlement amount is lower than or equal to the Originator account available balance. If a Debiting CMB is involved, the system checks that (i) the Settlement amount is lower than or equal to its limit headroom is lower and that (ii) the Settlement amount is lower than or equal to the Originator account available balance.	If the check is not respected: - return error code **AM23**	
Instant Payment transaction business process Recall business process	Beneficiary correctly configured	010006	Creditor Agent	The system checks that a unique item related to the Creditor Agent exists in the entity "Outbound DN-BIC".	If no row is or multiple rows are returned: - return error code **MS01**	Beneficiary DN not found
Instant Payment transaction business process	Pending transaction existing	010007	Original Transaction Identification Debtor Agent	The system checks that a unique item related to the Original Transaction Identification and to the Debtor Agent with status "*Reserved*" exists in the transactional entity "Instant Payment".	If no row is or multiple rows are returned: - return error code **AG09**	Transaction not found
Instant Payment transaction business process Recall business process	Instructing Party authorised – creditor side	000009	Sender Creditor Agent	The system checks the existence of the couple (Sender, Creditor Agent) in the entity "Inbound DN-BIC Routing".	If no row is present: - **CNOR** error code is returned	
Queries business process Investigation business process	Instructing Party authorised for queries	000010	Sender Account User/ Originator BIC	The system checks the existence of the couple (Sender, Account User/ Originator BIC) in the entity "Inbound DN-BIC Routing", or, alternatively, that the Sender is defined as an Instructing Party for the Account Owner Party.	If no row is present: Business error RJCT is returned, error code **DNOR**	Instructing party not authorised to send query

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Instant Payment transaction business process	Creditor authorised for cross-currency	0000011	Creditor Agent	In case of an incoming cross-currency transaction, the system verifies that the Creditor Agent has the Cross-currency Flag set to “True”. In case of an outgoing cross-currency transaction, the system verifies that the Leg Exit PSP has the Cross-currency Flag set to “True”.	If the check is not respected: - error code CNOR	Creditor not authorised to receive cross-currency transactions.
Queries business process	Account or CMB existence	070001	Account or CMB Identifier Account User	For Account balance and status query, TIPS verifies that the Account or CMB Identifier corresponds to an account whose type is either "TIPS Account" or “TIPS AS Technical Account” in the table "Cash Accounts" and if the TIPS Participant, Ancillary System or Instructing Party is authorised to query on it based on the query permission. For CMB limit and status query, TIPS verifies that the account or CMB Identifier corresponds to a CMB in the table “CMB” and if the TIPS Participant, Ancillary System or Instructing Party is authorised to query on it based on the query permission. The system selects also the account linked to the CMB.	If the check is not respected: Business error RJCT, error code **DNOR**	Account or CMB not found – not existing or not yet open or already closed
Queries business process	Query uniformity check	070002	Account or CMB Identifier Account User	In case of multiple instances are present in the camt.003 message as search criteria, TIPS verifies that: - all instances of ‘Account or CMB Identifier’ correspond to an account whose type is either "TIPS Account" or “TIPS AS Technical Account” in the table "Cash Accounts"; OR - all instances of ‘Account or CMB Identifier’ correspond to a CMB in the table “CMB”.	In case of an uneven set of requests: business error RJCT, error code **MS01**	Account balance and CMB limit are not allowed in the same message.
Queries business process	Payment Transaction existence for query	070003	Transaction Identification Originator BIC Sender	The system checks that: - an item related to the Transaction Identification and to the Originator BIC exists in the transactional entity "Instant Payment" (Data retention period not expired) - the TIPS actor is the Originator of the interested Payment transaction or the Instructing Party acting on behalf of the Participant or Reachable Party on the originator side, or Beneficiary Participant and the Instructing Party acting on behalf of the Beneficiary Participant or Reachable Party on the beneficiary side.	If no row is present: - Business error RJCT, error code **AG09**	
Investigation business process	Payment Transaction existence	030001	Transaction Identification Originator BIC	The system checks that: - an item related to the Transaction Identification and to the Originator BIC exists in the transactional entity "Instant Payment" (Data retention period not expired) - the TIPS actor is the Originator of the interested Payment transaction or the Instructing Party acting on behalf of the Participant or Reachable Party on the originator side.	If no row is present: - Business error RJCT, error code **AG09**	

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Investigation business process	Investigation allowed	030002	Transaction Identification Originator BIC Acceptance date time SCT^{Inst} Timestamp Timeout or "Cross-currency Timestamp Timeout" Investigation Offset or Investigation Offset (cross-currency) Current timestamp	for SCTInst and non-Euro Instant Payments Current Timestamp => (Transaction_ Acceptance Date Time + SCT^{Inst} Timestamp Timeout + Investigation Offset) for cross-currency Instant Payments Current Timestamp => (Transaction_ Acceptance Date Time + Cross-currency Timestamp Timeout + Investigation Offset (cross-currency))	If the check is not respected: - Business error RJCT, error code **AG09**	Investigation not allowed for the Payment Transaction
Investigation business process	Payment Transaction existence in final status	030003	Transaction Identification Originator BIC	The system checks that: - an item related to the Transaction Identification and to the Originator BIC exists in the transactional entity "Instant Payment" (Data retention period not expired) with final status - the TIPS actor is the Originator of the interested Payment transaction or the Instructing Party acting on behalf of the Participant or Reachable Party on the originator side.	The underlying instant payment is present but did not reach a final status yet - Business error RJCT, error code **MS01**	
Liquidity Transfer business process	Creditor Account existence	040001	Creditor Account	The TIPS Account to be credited of an Inbound Liquidity Transfer exists with opening date equal or less than the current RTGS Business day and closing date equal or greater than the current RTGS Business day.	If the check is not respected: - error code **L001**	Unknown Creditor or Creditor Account
Liquidity Transfer business process	Debtor Account existence	040002	Debtor Account Sender DN	The Debtor Account of an outbound Liquidity Transfer should be an existing TIPS Account with opening date equal or less than the current RTGS Business day and closing date equal or later than the current business day of the relevant RTGS system. The responsible Central Bank is able to initiate an Outbound Liquidity Transfer even if the closing date of the TIPS Account is exceeded (e.g. if the balance of a closed account is still greater than zero).	If the check is not respected: - error code **L002**	Unknown Debtor or Debtor Account
Liquidity Transfer business process	Currency Check	040003	Transferred Amount	The currency of the incoming flow should be the same as the currency of the account to be credited/debited, otherwise the incoming Outbound, Inbound or intra-service Liquidity Transfer will be rejected.	If the check is not respected: - error code **L003**	Currency of incoming flow differs from Account currency or RTGS System not configured.

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Liquidity Transfer business process	Creditor and Creditor Account not blocked	040004	Creditor Creditor Account	The system checks that: - The Creditor has a Blocking Status different from "Blocked for credit and debit" or "Blocked for credit". - The Blocking Status of the account to be credited is not "Blocked for credit and debit" or "Blocked for credit".	If the check is not respected: - return error code **L004**	The Creditor or the Creditor Account is blocked.
Liquidity Transfer business process	Debtor and Debtor Account not blocked	040005	Debtor Debtor Account Sender DN	The system checks that: - The Debtor has a Blocking Status different from "Blocked for credit and debit" or "Blocked for debit". - The Blocking Status of the account to be debited is not "Blocked for credit and debit" or "Blocked for debit". The responsible Central Bank is able to initiate an Outbound Liquidity Transfer, Intra-Service Liquidity Transfer or Internal Contingency Liquidity Transfer regardless of the TIPS Account's blocking status.	If the check is not respected: Business error RJCT, error code **L005**	The Debtor or the Debtor Account is blocked.
Liquidity Transfer business process	LT Duplicate Check	040006	Instruction Identification Debtor	The couple (Instruction Identification, Debtor) must not exist in the list of transactions of the last X days, where X is equal to the system parameter "Retention Period"[28]	If the check is not respected: - return error code **L006**	Outbound or Inbound LT is a duplicate submission
Liquidity Transfer business process	Funds Check	040007	Transferred Amount	The Transferred Amount must be lower or equal to the Available Balance (Cash Balance) on the account to be debited.	If the check is not respected: - return error code **L007**	Failure of the settlement attempt of the instruction due to insufficient cash balance
Liquidity Transfer business process	RTGS opening hours Check	040008	RTGS system data - RTGS Status	The value of the attribute "RTGS Status" is "Open" for the RTGS system.	If the check is not respected: - error code **L008**	RTGS system is closed
Liquidity Transfer business process	Invalid status code in RTGS Answer Check	040009	Status code	TIPS expects that an RTGS Answer returns only one RTGS status, either 'RREJ[62]' or 'RCON'[63]. If the status value is neither 'RREJ' nor 'RCON' the RTGS answer will be rejected.	If the check is not respected: - error code **L009**	Invalid content of the field RTGS Status
Liquidity Transfer business process	RTGS Access Rights Check	040010	Sender DN Transferred Amount	The sender DN is an existing and active RTGS DN in TIPS. The RTGS currency corresponds to the currency of the Liquidity Transfer	If the check is not respected: - error code **L010**	Unknown RTGS System DN

[62] RREJ (RTGS "Rejected") status code informs the sender of the Outbound Liquidity Transfer about a rejection at RTGS System level.

[63] RCON (RCON "Confirmation") status code informs the sender of the Outbound Liquidity Transfer about successful settlement at the RTGS System level

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Liquidity Transfer business process	Pending (Transient) order existing	040011	Original Message Identification	The system checks that a unique item related to the Original Message Identification with status "*Transient*" exists in TIPS.	If the check is not respected: - error code **L011**	Order not found
Liquidity Transfer business process	LT Amount Check	040012	Transferred Amount	The Transferred Amount must be greater than zero.	If the check is not respected: - error code **L012**	The amount is lower or equal to zero.
Liquidity Transfer business process	LT via Transit Account allowed	040013	Account debited Account credited Enable ICLT parameter	If the LT attempts to debit or credit a transit account, the system shall verify whether the "Enable ICLT" parameter is set to true. Otherwise, the LT will be rejected.	If the check is not respected: - error code **L013**	LT via a transit account is allowed in contingency scenario only.
Liquidity Transfer business process	Intra-service LT check	040014	Debtor Account Creditor Account	The account to be debited for an Intra-service Liquidity Transfer shall exist, it shall have type either "TIPS Account" or "TIPS AS Technical Account", having an opening date equal or less than the current RTGS Business day and closing date equal or greater than the current RTGS Business day. The account to be credited for an Intra-service Liquidity Transfer shall exist, it shall have type either "TIPS Account" or "TIPS AS Technical Account", having an opening date equal or less than the current RTGS Business day and closing date equal or greater than the current RTGS Business day. If both accounts are of the same type, the Liquidity Transfer is rejected.	If the check is not respected: - error code **L014**	Intra-service LT not allowed
Liquidity Transfer business process	RTGS partial closure Check	040015	RTGS system data - RTGS Status Sender DN	The value of the attribute "RTGS Status" is "Partially Closed" and the Sender DN corresponds to a CB user.	If the check is not respected: - error code **L015**	User not authorised when the RTGS System is partially closed
Liquidity Transfer business process	Contingency Liquidity Transfer check	040016	Debtor Account Creditor Account	In contingency scenarios it is not possible to perform Inbound Contingency Liquidity Transfer through A2A channel.	If the check is not respected: - error code **L099**	Contingency Inbound LT not allowed in A2A
Liquidity Transfer business process	Timeout Check - Originator Side	040099	Debtor Account Creditor Account	In the internal communication between TIPS and any connected RTGS system, in case of Liquidity Transfer, the Creditor Account type shall be 'CASH' while the Debtor Account type shall be 'SACC'.	If the check is not respected: - error code **L099**	Cannot determine the direction of the LT order

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Recall business process	Maximum Amount not exceeded for Returned Amount	020001	Returned Amount (AT-R054 DS-06) Parameter "Maximum Amount"	The "Maximum Amount" parameter for the currency of the transaction is selected. The "Returned Amount" of the message must be lower than or equal to the "Maximum Amount".	If the check is not respected: - return error code **AM23**	Amount exceeds the maximum authorised amount
Recall business process	Duplicate check for positive Recall Response	020002	Return Identification Beneficiary BIC (ATC002 – DS-02 subset of DS-06) System parameter: Retention Period	The couple Return Identification and Beneficiary BIC (to be interpreted as new Originator BIC) must not exist as a couple Transaction ID/Originator BIC in the list of transactions of the last X days with status "*Settled*", where X is equal to the system parameter "Retention Period"[28].	If the check is not respected: - error code **AM05**	
Reference data management	TIPS Actor block/unblock type allowed	050001	Restriction Type Code	The Restriction Type Code must be TPCR (Block for credit), TPDB (Block for debit) or TPBO (Block for both debit and credit).	If the check is not respected: - error code **R001**	Restriction Type for TIPS Actor not allowed
Reference data management	Party existence	050002	Related Party Identification	The party identified by the Related Party Identification must exist.	If the check is not respected: - error code **R002**	Party not existing
Reference data management	Party type allowed	050003	Related Party Identification	The party identified by the Related Party Identification must be either a TIPS Participant or Ancillary System.	If the check is not respected: - error code **R003**	Party Type not allowed for blocking/unblocking operations
Reference data management	Account/CMB block/unblock type allowed	050005	Restriction Type Code	The Restriction Type Code must be TACR (Block for credit), TADE (Block for debit) or TABO (Block for both debit and credit).	If the check is not respected: - error code **R005**	Restriction Type for Account/CMB not allowed
Reference data management	Account/CMB existence	050006	Account Identification	The Account or CMB identified by the Account Identification must exist.	If the check is not respected: - error code **R006**	Account/CMB not existing
Reference data management	Currency of the Account/CMB	050007	Currency Account Identification	The Currency must be the same of the Account/CMB specified by the Account or CMB identified by the Account Identification.	If the check is not respected: - error code **R007**	Currency not correct

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Reference data management	User allowed to block/unblock operation	050008	Sender DN Account Identification	If the Account Identification identifies an account, the system checks that the user of a Central Bank and that the owner of the Account is under the Central Bank responsibility. If the Account Identification identifies a CMB, the system checks that user of the party Account owner is: - Either a Central Bank and that the owner of the Account linked to the CMB is under the Central Bank responsibility; - Or the TIPS Participant/Ancillary System owner of the account linked to the CMB.	If the check is not respected: - error code **R008**	User not allowed to block/unblock the account/CMB
Reference data management	CMB existence	050020	Account Identification CMB User BIC	The CMB identified by the Account Identification must exist and its user must be CMB User BIC.	If the check is not respected: - error code **R020**	CMB not existing
Reference data management	User allowed to change Limit	050021	Account Owner	The system checks that the party identified by the account owner is: - Either a Central Bank and that the owner of the account linked to the CMB is under the Central Bank responsibility; - Or the TIPS Participant/Ancillary System owner of the account linked to the CMB.	If the check is not respected: - error code **R021**	User not allowed to change the Limit
Reference data management	Duplicate check for local reference data transaction	050022	Message Identification Account servicer	The combination of Message Identification and Sender BIC should not exist in the list of reference data transactions of the last X days, where X is equal to the system parameter "Retention Period"	If the check is not respected: - error code **R099**	
EPC Report	Unique Requestor Check	080001	Valid From Valid To	The system checks that no more than one user at the same time is requesting the generation of the report.	**S001**	Impossible to generate more than one report in parallel.
EPC Report	Data existence check	080002	Valid From Valid To	The system checks that the data for the selected period are available for the generation of the report.	**S002**	Data not available for the selected period
Cross-currency process	Entry Leg PSP correctly configured	090001	Creditor Agent	The system checks that a unique item related to the Entry Leg PSP exists in the entity "Outbound DN-BIC".	If no row or multiple rows are returned: - return error code **MS01**	Entry Leg PSP DN not found

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Business process	BR Name	Check ID	Input Fields and parameters	Business check	Error codes	Error Description
Cross-currency process	Cross-currency CSM Access Rights check	090002	Sender DN	The sender DN is an existing and active CSM DN in TIPS present in the CSM Mapping Table.	If the check is not respected: - error code **DNOR**	Unknown cross-currency RTGS System DN

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4.2. List of Error codes

4.2.1. List of ISO Error codes

The table below contains the exhaustive list of ISO error codes generated by TIPS in case of error detected during the validation processes.

ISO Code	ISO Name	SEPA Core Reason as specified in the Rulebook	Comments
AB05	TimeoutCreditorAgent	Transaction stopped due to timeout at the Creditor Agent.	
AB06	TimeoutInstructedAgent	Transaction stopped due to timeout at the Instructed Agent.	
AB08	OfflineCreditorAgent	Creditor Agent is not online.	Used in TIPS for the orphan payments
AG09	PaymentNotReceived	Original payment never received.	Pending item to be confirmed not existing or already expired
AM03	NotAllowedCurrency	Specified message amount is an non processable currency outside of existing agreement	Not present in SEPA document – introduced for checking the validity of the currency since TIPS is multi-currency
AM05	Duplication	Duplicate payment	
AM23	AmountExceedsSettlementLimit	Transaction amount exceeds settlement limit.	
CNOR	Creditor bank is not registered	Beneficiary PSP is not registered under this BIC in the CSM	
DNOR	Debtor bank is not registered	Originator PSP is not registered under this BIC in the CSM	
DS14	UserDoesNotExist	The user is unknown on the server	Not present in SEPA document.
MS01	NotSpecifiedReason	Reason not specified	Currently used for generic error when no related error code has been defined in the ISO documentation. Not present in SEPA document.
TM01	InvalidCutOffTime	Time-out – maximum execution time has been exceeded	

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4.2.2. List of non-ISO Error codes

The table below contains the exhaustive list of non-ISO error codes generated by TIPS in case of error detected during the validation processes.

Error Code	Error description
L001	Unknown Creditor or Creditor Account
L002	Unknown Debtor or Debtor Account
L003	Currency of incoming flow differs from Account currency or RTGS System not configured
L004	The Creditor or the Creditor Account is blocked
L005	The Debtor or the Debtor Account is blocked
L006	Outbound or Inbound LT is a duplicate submission
L007	Failure of the settlement attempt of the instruction due to insufficient cash balance
L008	RTGS system is closed
L009	Invalid content of the field RTGS Status
L010	Unknown RTGS System DN
L011	Order not found
L012	The amount is lower or equal to zero
L013	LT via a transit account is allowed in contingency scenario only
L014	Intra-service LT not allowed
L015	User not authorised when the RTGS System is partially closed
L099	Cannot determine the direction of the LT order
L099	Contingency Inbound LT not allowed in A2A
R001	Restriction Type for Actor not allowed
R002	Party not existing
R003	Party Type not allowed for blocking/unblocking operations
R005	Restriction Type for account/CMB not allowed
R006	Account/CMB not existing
R007	Currency not correct
R008	User not allowed to block/unblock the account/CMB
R020	CMB not existing
R021	User not allowed to change the Limit
R099	Duplicate instruction
S001	Request not allowed
S002	Data not available
TBL1	The owner of the debtor account or the debtor account/CMB is blocked
TBL2	The owner of the creditor account or the creditor account/CMB is blocked

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4.5. List of acronyms

Item	Description
24/7/365	24-hour and seven-day around the year
A2A	Application-to-Application
AS	Ancillary System
BIC	Business Identifier Code
CAMT	Cash Management
CET	Central European Time
CMB	Credit Memorandum Balance
CRDM	Common Reference Data Management
DN	Distinguished Name
DS	Dataset
ECB	European Central Bank
EIDB	Enhanced Information Database
EPC	European Payments Council
ESMIG	Eurosystem Single Market Infrastructure Gateway
GL	General Ledger
GUI	Graphical User Interface (see U2A)
IBAN	International Bank Account Number
ICLT	Internal Contingency Liquidity Transfer
ILT	Inbound Liquidity Transfer
LeA	Legal Archiving
LKT	Lined Transaction Model
LRDM	Local Reference Data Management
NCB	National Central Bank
NRO	Non-Repudiation of Origin
NSP	Network Service Provider
OLO	One-Leg Out
OLT	Outbound Liquidity Transfer
PACS	Payments Clearing and Settlement
RTGS	Real Time Gross Settlement
SEPA	Single Euro Payments Area
SIP	Single Instructing Party
T2S	TARGET2-Securities
TIPS	TARGET Instant Payment Settlement

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Item	Description
U2A	User-to-Application
UDFS	User Detailed Functional Specifications
UHB	User Handbook
UR	User Requirement
URD	User Requirements Document
XML	Extensible Mark-up Language

4.6. List of referenced documents

	Title	Source
[1]	SEPA Instant Credit Transfer (SCT^{Inst}) Scheme Rulebook, Version 1.0, 2025	EPC
[2]	SEPA Instant Credit Transfer Scheme Inter-PSP Implementation Guidelines, Version V1.0, 2025	EPC
[3]	TARGET Instant Payment Settlement User Requirements	ECB
[4]	TARGET Instant Payment Settlement User Handbook	4CB
[5]	TIPS Connectivity Guide	4CB

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Annex A. TIPS Automatic Counterparty Simulator

A.1. Overview

The TIPS Automatic Counterparty Simulator, for simplicity called “simulator” in the following, is designed in two phases:

- in the first phase the simulator only functions as an auto-responder, enabling a payer’s PSP to receive an automatic response from TIPS for an instant payment. The response is systematically determined as positive or negative, depending on the BIC used as the counterparty on the creditor side. This native functionality is described in section A.2.1 of this technical annex.
- in the second phase some enhancements are introduced due to change request TIPS-0074-SYS. The proposed enhancements aim to empower simulator users to test TIPS production scenarios more comprehensively, specifically focusing on simulating the Instant Payment flow, Recall flow and activating error/rejection codes on demand. These additional functionalities are described in sections A.2.2, A.2.3 and A.2.4 of this technical annex.

A.2. Functionalities of TIPS Automatic Counterparty Simulator

In following sections we will describe all new scenarios related to additional Simulator functionalities. In addition, we will report the mapping between XML tags in trigger messages and relating tags in Simulator responses. Optional tags in triggered responses will not be populated and won’t be reported.

A.2.1. Instant Payment basic business scenario

In the Instant Payment basic business scenario, the originator initiates a pacs.008 (FItoFICustomerCreditTransfer) and awaits a response in the form of a pacs.002 (FIToFIPaymentStatusReport).

In the simplest case the BICs are:

- ’ACCPITRRXXX’ for positive responses;
- ’REJEITRRXXX’ for negative responses.

Besides 'ACCPITRRXXX' and 'REJEITRRXXX’, it is possible the usage of real alternate BICs configured in CRDM, as described in section A.3.

A.2.2. Instant Payment enhanced business scenario

To enhance the simulator's capabilities in the perimeter of Instant Payment business process initiation, the simulator should be able of rejecting a pacs.008 sent by a customer with a pacs.002 message whose reason code is customised on-demand, based on an error code extracted from the underlying pacs.008. In details, the customised error code is captured by the sender in the “End To End Identification” field (field path: *FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/EndToEndId*) not used for TIPS processing, and

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should be inserted right after the escape string CERR. In case this string is omitted by the customer, a default error code (i.e., MS03) is provided in pacs.002 in order to keep backward compatibility with the current simulator behaviour.
The field format is not modified; however, since the error code is four characters, only the first four characters of the field, after the escape string, are captured to be sent as reason code. Any other character after the fourth is ignored.
For instance, if error 'AC04' has to be triggered, the tag *FIToFICstmrCdtTrf/CdtTrfTxInf/PmtId/EndToEndId* shall be informed as in the following example: *<EndToEndId >CERR**AC04**xxxxxxxx</EndToEndId>*.

It is also worth noting that no specific check is envisioned to verify that the error code encapsulated in the "End To End Identification" field corresponds to a legitimate error code for a pacs.002 confirmation message.
In the simplest case the BIC is:

- 'REJEITRRXXX', since this scenario foresees only negative responses.

Besides 'REJEITRRXXX', it is possible the usage of real alternate BICs configured in CRDM, as described in section A.3.

A.2.3. Recall business scenario

In the recall scenario, a party that previously settled an Instant Payment transaction seeks a refund from the beneficiary PSP. The initiator triggers a camt.056 (FIToFIPaymentCancellationRequest) and awaits a response, which could be positive in the form of a pacs.004 (PaymentReturn) or negative in the form of a camt.029 (ResolutionOfInvestigation) from the beneficiary PSP. The simulator automatically generates either a pacs.004 or camt.029 as a response to a camt.056 message sent by a customer as the initial request. In order to convey the specific rejection code, a key:value approach is adopted within field with path */Document/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf/Ustrd*. In details, users must insert ''E:XXXX'' to report a specific rejection code. In case this field is also used for business purposes, the combination ''B:xxx'' must be added right after the specification of the error code (e.g., ''E:XXXXB:XXXXXXXXXX''). In order to maintain compliance with both EPC and NPC flows, users will have to insert as first four characters only a value which is foreseen by the schema or by application rules. The complete set of values is reported in the table below. The remainder of this file will be used for the business specific purposes. The absence of any combination of key:value will be interpreted as equivalent to B:XXX. In addition, due to technical constraints, the combination ''B:XXX'' must be inserted always at the end of the field. All other occurrences of key:value after ''B:XXX'' will not be recognized.

In details, in order to receive a pacs.004 or camt.029 as response message, customers can send a camt.056 to a predefined BIC (i.e., respectively, ACCPITRRXXX and REJEITRRXXX). According to the selected BIC, a positive or negative recall response is generated.

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Information which needs to be sent out can be conveyed through predefined formatted fields not used for TIPS processing, specified in the following mapping tables that associate the fields of the input message respectively with the fields of the positive or negative response.

*a) FIToFIPmtCxlReq/Assgnmt/Assgne='**ACCPITRRXXX**'*

Positive Recall Response	
Input message	**Simulator response**
camt.056	***pacs.004***[64]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	PmtRtr/GrpHdr/TtlRtrdIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	PmtRtr/GrpHdr/IntrBkSttlmDt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd	PmtRtr/GrpHdr/SttlmInf/SttlmMtd
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct	PmtRtr/GrpHdr/SttlmInf/SttlmAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys	PmtRtr/GrpHdr/SttlmInf/ClrSys
/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgId	PmtRtr/OrgnlGrpInf/OrgnlMsgId
/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgNmId	PmtRtr/OrgnlGrpInf/OrgnlMsgNmId[65]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf	PmtRtr/TxInf/OrgnlGrpInf
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlInstrId	PmtRtr/TxInf/OrgnlInstrId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId	PmtRtr/TxInf/OrgnlEndToEndId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxId	PmtRtr/TxInf/OrgnlTxId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	PmtRtr/TxInf/OrgnlIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	PmtRtr/TxInf/RtrdIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	PmtRtr/TxInf/RtrdInstdAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	PmtRtr/TxInf/OrgnlTxRef/IntrBkSttlmDt
FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr	PmtRtr/TxInf/RtrRsnInf/Orgtr
FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/AddtlInf	PmtRtr/TxInf/RtrRsnInf/AddtlInf
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd	PmtRtr/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct	PmtRtr/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys	PmtRtr/TxInf/OrgnlTxRef/SttlmInf/ClrSys
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef	PmtRtr/TxInf/OrgnlTxRef
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt	PmtRtr/TxInf/OrgnlTxRef/CdtrAgt[66]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt	PmtRtr/TxInf/OrgnlTxRef/DbtrAgt[73]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct	PmtRtr/TxInf/OrgnlTxRef/DbtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct	PmtRtr/TxInf/OrgnlTxRef/CdtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlInstrId	PmtRtr/TxInf/RtrId

[64] PmtRtr/GrpHdr/NbOfTxs is always set to "1"

[65] Sub-elements of 'Original Group Information' must be present in either 'Original Group Information' or in 'Transaction Information'. 'Original Group Information' is the preferred option. They should not be present at the same time in trigger message in order to avoide any exception

[66] Those BICs will later be reversed by TIPS while processing the recall positive response:
/Document/PmtRtr/TxInf/OrgnlTxRef/CdtrAgt (pacs.004) --> originator of the recall transaction
/Document/PmtRtr/TxInf/OrgnlTxRef/DbtrAgt (pacs.004) --> beneficiary of the recall transactio

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*b) FIToFIPmtCxlReq/Assgnmt/Assgne='**REJEITRRXXX**'*

Negative Recall Response	
Input Message	**Simulator response**
camt.056	***camt.029***
FIToFIPmtCxlReq/Assgnmt/Assgne	RsltnOfInvstgtn/Assgnmt/Assgnr
FIToFIPmtCxlReq/Assgnmt/Assgnr	RsltnOfInvstgtn/Assgnmt/Assgne
/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgId	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgId
/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf/OrgnlMsgNmId	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlGrpInf/OrgnlMsgNmId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlInstrId	RsltnOfInvstgtn/ CxlDtls/TxInfAndSts /OrgnlInstrId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlEndToEndId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxId	RsltnOfInvstgtn/ CxlDtls/TxInfAndSts /OrgnlTxId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/IntrBkSttlmDt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/SttlmInf
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/SttlmInf/SttlmMtd
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/SttlmInf/SttlmAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/ClrSys
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/PmtTpInf	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef/PmtTpInf
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/OrgnlTxRef
FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/Orgtr
FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/AddtlInf	RsltnOfInvstgtn/CxlDtls/TxInfAndSts/CxlStsRsnInf/AddtlInf

The exhaustive list of possible rejection reasons which can be triggered through camt.056 is reported below.

Code	Description
AC04	The account of the Beneficiary is closed at the Beneficiary PSP.
AM04	There are not enough funds on the Beneficiary's account to debit the full amount of the Recall.
ARDT	The Beneficiary has already transferred back the funds to the Originator (via SCT, SCT Inst or another payment means).
CUST	Beneficiary does not want to honour the Recall.
LEGL	Beneficiary PSP is not allowed to reimburse the funds following the Recall.
NOAS	Originator or Originator PSP tries to recover funds from a previously executed SCT Inst transaction.
NOOR	Beneficiary PSP or Beneficiary denies having received the initial SCT Inst transaction.

In the simplest case the BICs are:

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- 'ACCPITRRXXX' for positive responses;
- 'REJEITRRXXX' for negative responses.

Besides 'ACCPITRRXXX' and 'REJEITRRXXX', it is possible the usage of real alternate BICs configured in CRDM, as described in section A.3.

A.2.4. Testing scenarios in the capacity of a beneficiary PSP

The simulator is enhanced in order to automatically generate a pacs.008 or a camt.056 to TIPS (and towards the requestor) based on a trigger.

In order to differentiate between the need of a pacs.008 and a camt.056 response, the camt.056 used as trigger contains *'/FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf/Ustrd'* field which, depending on the scenario that needs to be tested by the customer, will report a different combination of the key:value approach described for Recall business scenario. As per the latter, B:XXX can be added right after the specification of a certain scenario in order to convey business related information.

In details, "S:INST" value is used at the beginning of the aforementioned field to produce a pacs.008 (i.e., *'S:INSTXXXXXXXXXX'*), while "S:RECA" is used to produce a camt.056 (i.e.,*'S:RECAXXXXXXXXXXX'*).

Information which needs to be sent out can be conveyed through predefined formatted fields not used for TIPS processing, specified in the following mapping tables that associate the fields of the trigger respectively with the fields of the pacs.008 or camt.056.

a) */FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf/Ustrd=*

*'**S:INSTXXXXXXXX**'*

Solicitation of an instant payment	
Trigger	**Simulator response**
camt.056	***pacs.008***
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	FIToFICstmrCdtTrf/GrpHdr/TtlIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	FIToFICstmrCdtTrf/GrpHdr/IntrBkSttlmDt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys[67]	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/ClrSys[68]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd[69]	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmMtd
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct	FIToFICstmrCdtTrf/GrpHdr/SttlmInf/SttlmAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	FIToFICstmrCdtTrf/CdtTrfTxInf/IntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtDbtr

[67] This field is optional in the camt.056 Trigger message, but it is mandatory in the pacs.008 field of the Simulator response. In order to avoid any exception raised by Simulator it should be populated by customer

[68] FIToFICstmrCdtTrf/GrpHdr/SttlmInf is mandatory for pacs.008, and therefore the correspondant relating tag in the camt.056 must be present

[69] Even though the value "COVE" could be specified in the Trigger message (for NPC flows), this field must not be equal to "COVE" in the Trigger message since it is mapped on a field of the Simulator response that does not accept this value

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Solicitation of an instant payment	
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr[70]	FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr[77]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt	FIToFICstmrCdtTrf/CdtTrfTxInf/DbtrAgt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAgt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr[77]	FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr[77]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct	FIToFICstmrCdtTrf/CdtTrfTxInf/CdtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr	FIToFICstmrCdtTrf/CdtTrfTxInf/UltmtCdtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp[71]	FIToFICstmrCdtTrf/CdtTrfTxInf/Purp
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf[72]	FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf

b) */FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf/Ustrd = 'S:RECAXXXXXXXX'*

Solicitation of a Recall Request	
Trigger	**Simulator response**
camt.056	***camt.056***
FIToFIPmtCxlReq/Assgnmt/Assgne	FIToFIPmtCxlReq/Assgnmt/Assgnr
FIToFIPmtCxlReq/Assgnmt/Assgnr	FIToFIPmtCxlReq/Assgnmt/Assgne
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlGrpInf[73]
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlEndToEndId
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmDt
FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr	FIToFIPmtCxlReq/Undrlyg/TxInf/CxlRsnInf/Orgtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmMtd
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/SttlmAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/SttlmInf/ClrSys
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlIntrBkSttlmAmt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtDbtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Dbtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/DbtrAgt

[70] FIToFICstmrCdtTrf/CdtTrfTxInf/Dbtr\Pty\Nm, FIToFICstmrCdtTrf/CdtTrfTxInf/Cdtr\Pty\Nm are mandatory in pacs.008 and therefore must be specified in the camt.056 trigger message

[71] The child field "FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp/Code" must always be used, in order to maintain the compliance with pacs.008 response

[72] FIToFICstmrCdtTrf/CdtTrfTxInf/RmtInf/Strd/CdtrRefInf/Tp/CdOrPrtry/Cd in pacs.008 Simulator response will always be populated with "SCOR", as per xml schema. Any other value will be discarded.

[73] This field is not mandatory in NPC scheme, therefore, in case it is absent from the trigger camt.056, it won't be mapped. In case it is present, instead, it will be mapped as described in the table.

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FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAgt
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Cdtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/CdtrAcct
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/UltmtCdtr
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/Purp
FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf	FIToFIPmtCxlReq/Undrlyg/TxInf/OrgnlTxRef/RmtInf

In the simplest case the BIC is:

- ’ACCPITRRXXX’, since this scenario triggers only positive responses.

Besides ’ACCPITRRXXX’, it is possible the usage of real alternate BICs configured in CRDM, as described in section A.3.

A.3. Configuration steps in CRDM

Besides 'ACCPITRRXXX' and 'REJEITRRXXX’, it is possible the usage of real alternate BICs configured in CRDM, as described below:

a) Authorised Account User (AAU) and DN-BIC Routing: customers can rely on their predefined configuration, as already envisaged by standard CRDM procedures and configured by the TIPS Service Desk. To this respect, for each currency the following data shall be captured in CRDM:

   1. Two TIPS DCAs dedicated to the simulator processing
   2. AAU BIC configuration, linking the accounts at step 1 with the corresponding BICs. In the simplest case the BICs are ’ACCPITRRXXX’ and ’REJEITRRXXX’. For these predefined BIC, no additional configuration is required. If more sophisticated configurations are required, e.g. by using real published BICs, each customer has to configure a pair of BICs devoted only to simulator usage and link them through AAU to the TIPS DCAs which be involved in specific scenarios.
   3. Inbound/Outbound DN-BIC configuration shall be also captured. In the simplest scenario the BICs ’ACCPITRRXXX’ and ’REJEITRRXXX’, as per predefined configuration, are linked to the DNs of the TIPS Simulator which are respectively:
      I. for positive response:
      CN=ft1,OU=tips,OU=test,O=xbdi1,DC=test4cbnet,DC=4cb,DC=eu
      II. for negative responses:
      CN=ft2,OU=tips,OU=test,O=xbdi1,DC=test4cbnet,DC=4cb,DC=eu

b) Network Service: in order to rely on TIPS simulator functionalities, Party configured as receivers of trigger messages needs to be set up with FT1 and FT2 network service. These services, indeed, will allow the triggering respectively of positive and negative recall responses. In addition, these network services should be linked to the aforementioned DN through Technical Address-Network Service Link at Party level.

   In all other cases, both network services can be used to trigger instant payments and recall requests.

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c) Users and privileges: at least a user should be configured under the Party which owns the involved accounts. In addition, it should be created a specific User-DN Link object, with “Main User” flag set to “True” between this user and the aforementioned DNs. Obviously, with regard to those scenarios where the triggering of an instant payment or a recall is foreseen, this user should also be granted with the appropriate roles and privileges required to instruct instant payments and recalls.

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Annex B. Enhanced Information Database

B.1. Overview

The Enhanced Information Database (EIDB) is a component which allows users to visualize and explore aggregated transactional data, with a data retention period of three months. It provides additional information with respect to EPC framework (or equivalent frameworks for non-euro communities) that envisages a monthly/quarterly set of indicators related to the scheme processing including instant payment, recall and error scenarios.

EIDB data is accessible to the authorized TIPS National Central Bank users. Visibility is based on the currency of the community: all the NCB users of a community will be able to view all transactions attempting to debit or credit a BIC, authorised on a TIPS account denominated in their currency, regardless of the country of the NCB in which the account was opened and regardless of the country of the AAU BIC. All transactions are split between debit and credit legs before being aggregated in the EIDB data. In case of cross-currency transactions, only one leg will be visible to NCB users (as they are allowed to see only legs in their own currency).

B.2. Apache Superset

A dedicated tool (i.e. Apache Superset 4.1.1) reachable from ESMIG Portal allows users to visualize the available information, through a “self-service” and “pull” approach. The access through the ESMIG Portal is driven by a dedicated privilege captured in CRDM (namely, EIDB_Access) that can be granted at role level.

Apache Superset is accessible only via U2A. User manual of the tool can be found at the following link:

https://superset.apache.org/docs/intro

Users can compile and save their own queries on the aggregated data, create custom visualizations for business reporting, produce graphs or tabular data and export results to the local workstation. Different user profiling, such as “NCB advanced user” or “NCB analyst”, is directly granted by the tool offering the possibility to segregate user profiles depending on the needs. System-wide TIPS data is also available for authorised Central Bank users.

B.3. Datasets in EIDB

When accessing to EIDB GUI, users can create charts and organize charts into dashboards. When creating or editing charts, users can visualize aggregated data on the basis of the available information. The table below details the datasets available in EIDB with the corresponding description.

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Table 146 – Dataset structure

Name	Description
calendar_date	Date on which aggregated transactional data is received from TIPS Operational Database (on a daily basis).
payment_date	Date on which the transaction occurred in CET. Despite it is not mandatory, its usage in filtering conditions is strongly recommended to experience faster query processing time. In fact an index has been configured based on *payment_date* field.
business_date	Business date associated to the transaction. *business_date* can be different from *payment_date* if transaction occurred after the "change of date" event. The value must be set in milliseconds since the UNIX epoch (Jan 1, 1970) according to the UTC time zone.[74]
business_date_formatted	Business date associated to the transaction. Value can be set in the following formats: dd-mm-yyyy, yyyy-mm-gg or dd-mmmm-yyyy.
transaction_type	Type of transaction. The field can assume one of the following values: • "Instant Payment" • "Cross-currency Instant Payment" • "Recall Response"[75] • "Liquidity Transfer" • "Intra-service LT"
transaction_status	Status of transaction. The field can assume one of the following values: • "Settled" • "Unsettled" • "Pending" • "Expired"
currency_unit	Currency denomination of the transaction.
direction	Direction. The field can assume one of the following values: • "D" (Debit): if *bic* field shall be interpreted as the "Originator PSP" of the transaction • "C" (Credit): if *bic* field shall be interpreted as the "Beneficiary PSP" of the transaction

[74] The requested date can be converted to milliseconds through an available online conversion tool

[75] "Recall response" refers only to positive recall response

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country_code	Country code of: • Originator PSP BIC (in case of debit direction) • Beneficiary PSP BIC (in case of credit direction)
bic	BIC of the payment: • Originator PSP BIC (in case of debit direction) • Beneficiary PSP BIC (in case of credit direction)
account	Account number: • Debited account number (in case of debit direction) • Credited account number (in case of credit direction)
transaction_error_code	Transaction error code: • TIPS error code if error is triggered by TIPS • Beneficiary PSP error code, if error is triggered by beneficiary • "N.A." if transaction has no errors
amount	Sum (in cents) of amounts in the aggregate. The aggregate is calculated on all the other fields. One row is generated for each tuple: • calendar_date • payment_date • business_date • transaction_type • transaction_status • currency_unit • direction • country_code • bic • account • transaction_error_code
records	Count of records in the aggregate

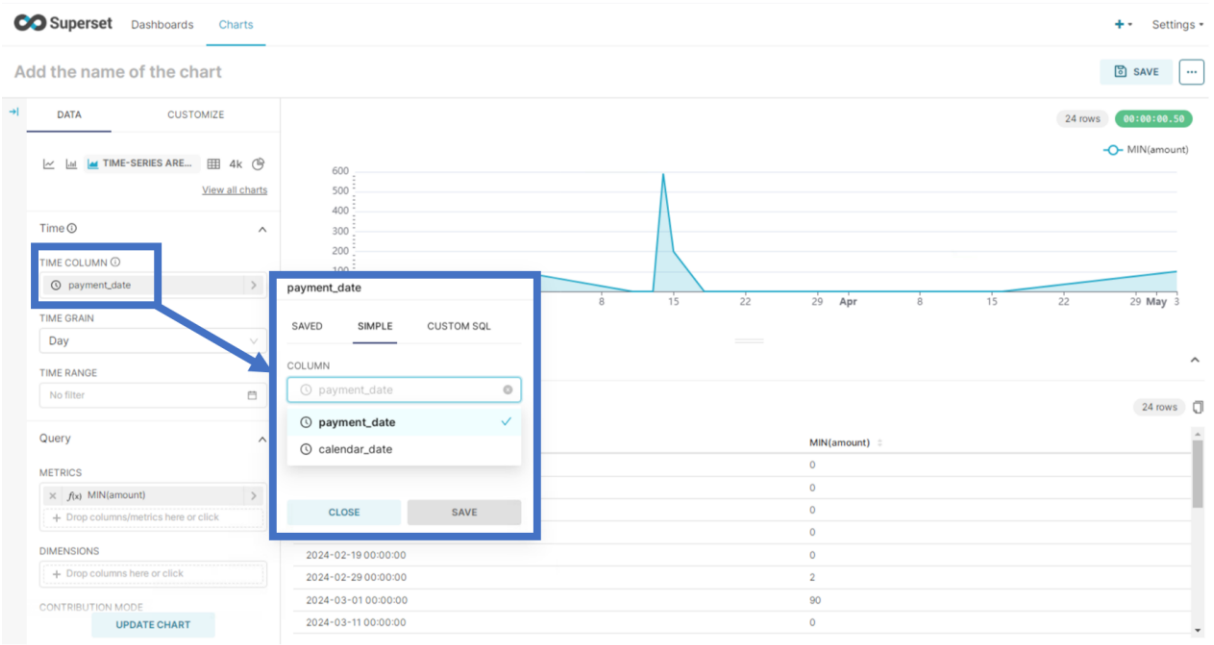
All the available fields can be used as x-axis and as filters in the charts. Only calendar_date, payment_date, business_date_formatted can be used to aggregate data when "Temporal x-axis" is requested (e.g. big number with trendline).

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B.3.1. Examples

When creating or editing a time-series chart, the only possible aggregation fields to be set in "TIME COLUMN"[76] section are *payment_date* and *calendar_date in "SIMPLE" tab* and *business_date_formatted in "SAVED" tab* (see Figure 286 – Time column field). *business_date* aggregation field is not allowed. In order to visualize data, "METRICS" field must be filled (see Figure 287 – Metrics field).

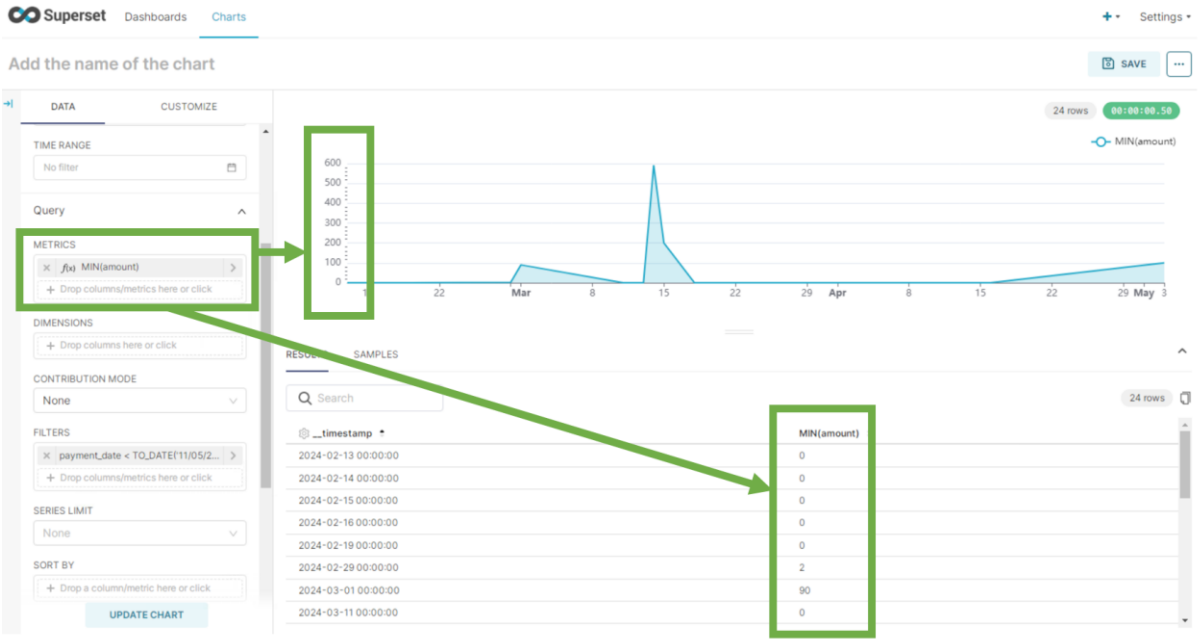
Figure 286 – Time column field



[76] In some charts "TIME COLUMN" is referred as "TEMPORAL X-AXIS

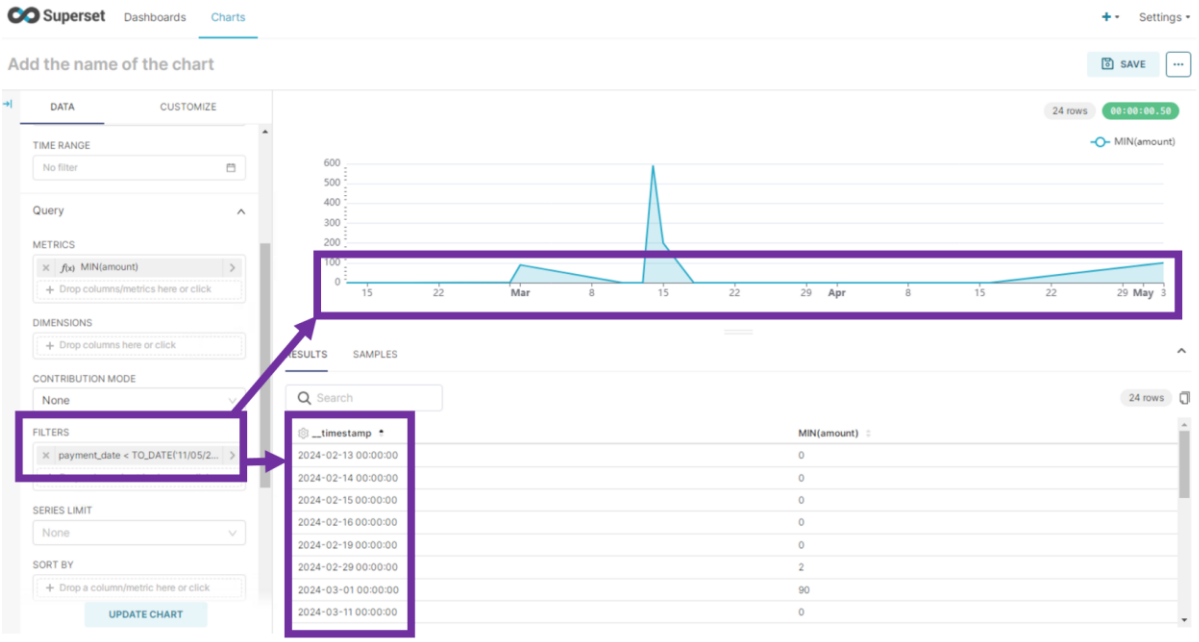
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Figure 287 – Metrics field



Additional filters (on all the datasets listed in Table 146, including *payment_date*, *calendar_date* and *business_date*) can be set in "FILTERS" section (see Figure 288 – Additional filters). If data is filtered through *payment_date*, *calendar_date* or *business_date_formatted, it is possible to set time-dedicated filters (i.e. Last, Previous, Custom, Advanced).*

Figure 288 – Additional filters



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Figure 289 – Example of custom SQL filter on payment_date

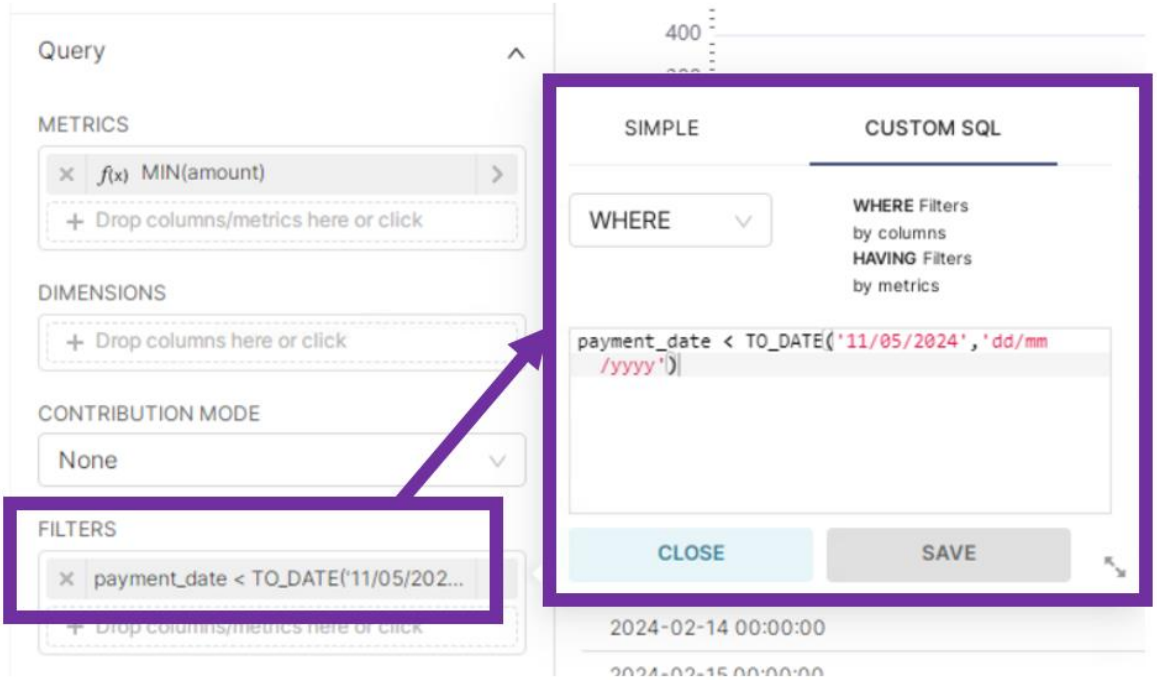
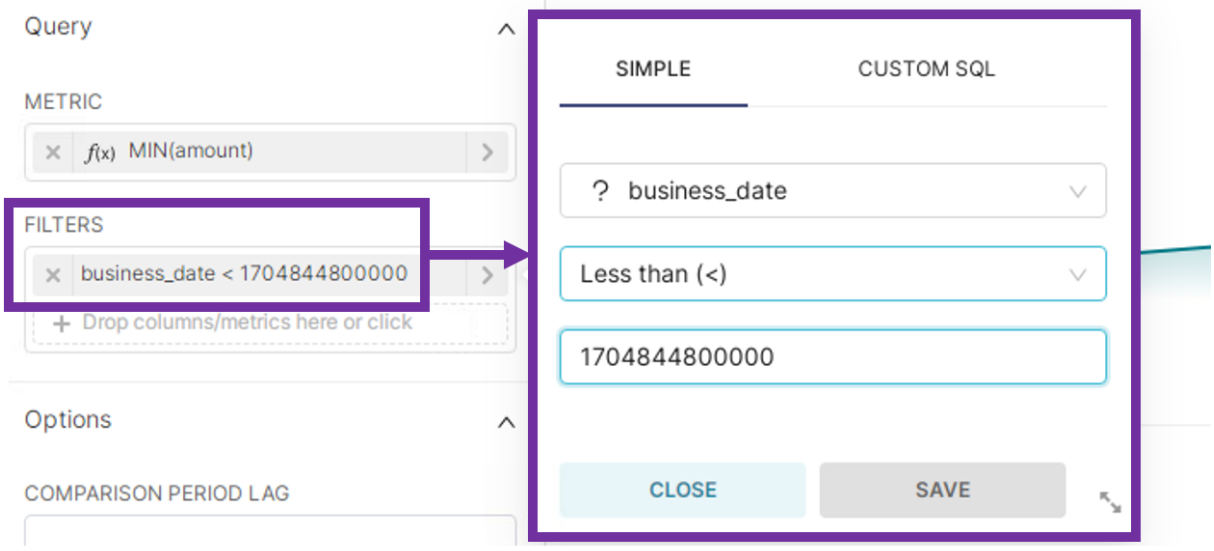


Figure 290 – Business date filtering shows an example of usage of *business_date* filter to retrieve the requests executed before 10/01/2024 (value is set in milliseconds since 01/01/1970 according to the UTC time zone).

Figure 290 – Business date filtering



B.4. Apache Superset Privilege Management

Users who create dashboards and charts are “owner” of these objects with all privileges (i.e. read, edit, delete). Other users have read-only privilege on these objects.

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Visibility of dashboards and charts is limited to the data scope (i.e. a NCB user cannot read, edit or delete objects created from other Central Banks). NCB users can see dashboard of the other users of the same NCB, once they are in status "published" (they are not visible when in status "draft"). It is not possible to allow users different from the owner to modify dashboards.

B.5. Data loading from TIPS to EIDB

EIDB receives aggregated transactional data from the TIPS Operational Database on a daily basis. This process is triggered every day at 0.30 UTC and ends within 1.00 UTC. Data of the current day (i.e. payment_date equal to current day) is then not available in the EIDB. Data of the previous day can be considered in the analyses after 1.00 UTC.

Annex C. TIPS statistical indicators (for Central Banks only)

C.1. List of Indicators

C.1.1. List of general SCT Inst Indicators

The table below contains the exhaustive list of general SCT Inst Indicators present in TIPS. The detailed information about these measures is defined in paragraph C.2.1 “General SCT Inst”.

Label	Indicator’s reference
Period (month or quarter):	
SCT INST TRANSACTIONS	
Amount	
< 1.000	TIPS.stat.1.a
1.000 - 5.000	TIPS.stat.1.b
5.000 - 10.000	TIPS.stat.1.c
10000 – 15000	TIPS.stat.1.d
≥ 15.000	TIPS.stat.1.e
Hour	
00h00 - 06h00 CET	TIPS.stat.2.a
06h00 - 12h00 CET	TIPS.stat.2.b
12h00 - 18h00 CET	TIPS.stat.2.c
18h00 - 00h00 CET	TIPS.stat.2.d
Duration of processing	
Within 5 seconds	TIPS.stat.3.a/TIPS.stat.4.a
Within 10 seconds	TIPS.stat.3.b/TIPS.stat.4.b
Within 15 seconds	TIPS.stat.3.c/TIPS.stat.4.c
Within 20 seconds	TIPS.stat.3.d/TIPS.stat.4.d
Within 25 seconds	TIPS.stat.3.e/TIPS.stat.4.e
> 25 seconds	TIPS.stat.3.f/TIPS.stat.4.f

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Label	Indicator's reference
no confirmation after 25 sec	TIPS.stat.4.g
Investigations	
[Number of Investigations]	TIPS.stat.5.a

C.1.2. List of National Transactions indicators for euro currency

The table below contains the exhaustive list of general National Transactions Indicators present in TIPS. The detailed information about these measures is defined in paragraph C.2.2 "National Transactions".

Label	Indicator's reference
Period (month or quarter):	
NATIONAL TRANSACTIONS	
Transactions Per country	
[Country code]$_1$	TIPS.stat.6.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.6.[Country code]$_n$ OR [empty]
Unsettled Transactions Per country	
[Country code]$_1$	TIPS.stat.7.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.7.[Country code]$_n$ OR [empty]
Recall Request per Country	
[Country code]$_1$	TIPS.stat.8.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.8.[Country code]$_n$ OR [empty]
Unsettled Transactions Per Reason Code	
[Country code]$_1$[Reason code]$_{1.....}$[Country code]$_1$ [Reason code]$_m$	TIPS.stat.9.[Country code]$_1$.[Reason code] $_1$
[…]……[…]	[…]……[…]
[Country code]$_n$[Reason code]$_{1.....}$[Country code]$_n$[Reason code]$_m$	TIPS.stat.9.[Country code]$_n$.[Reason code]$_m$
Recall Request per Reason code	
[Country code]$_1$[Reason code]$_{1.....}$[Country code]$_1$ [Reason code]$_m$	TIPS.stat.10.[Country code]$_1$.[Reason code] $_1$
[…]……[…]	[…]……[…]
[Country code]$_n$[Reason code]$_{1.....}$[Country code]$_n$[Reason code]$_m$	TIPS.stat.10.[Country code]$_n$.[Reason code]$_m$
Request for Recall per Country	
[Country code]$_1$	TIPS.stat.11.[Country code]$_1$ OR [empty]
[…]	[...]

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Label	Indicator's reference
[Country code]$_n$	TIPS.stat.11.[Country code]$_n$ OR [empty]

C.1.3. List of cross-border Transactions indicators for euro currency

The table below contains the exhaustive list of general SCT Inst Indicators present in TIPS. The detailed information about these measures is defined in paragraph C.2.3 "Cross-border Transactions".

Label	Indicator's reference
Period (month or quarter):	
CROSS_BORDER TRANSACTIONS	
Transactions sent Per Originator Country	
[Country code]$_1$	TIPS.stat.12.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.12.[Country code]$_n$ OR [empty]
Transactions received Per Beneficiary Country	
[Country code]$_1$	TIPS.stat.13.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.13.[Country code]$_n$ OR [empty]
Unsettled sentTransactions Per Originator Country	
[Country code]$_1$	TIPS.stat.14.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.14.[Country code]$_n$ OR [empty]
Unsettled received Transactions Per Beneficiary Country	
[Country code]$_1$	TIPS.stat.15.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.15.[Country code]$_n$ OR [empty]
Recall Request sent per Originator Country	
[Country code]$_1$	TIPS.stat.16.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.16.[Country code]$_n$ OR [empty]
Recall Request received per Beneficiary Country	
[Country code]$_1$	TIPS.stat.17.[Country code]$_1$ OR [empty]
[…]	[...]
[Country code]$_n$	TIPS.stat.17.[Country code]$_n$ OR [empty]
Unsettled Transactions sent Per Reason Code and Originator Country	
[Country code]$_1$[Reason code]$_{1.....}$[Country code]$_1$ [Reason code]$_m$	TIPS.stat.18.[Country code]$_1$.[Reason code] $_1$
[…]……[…]	[…]……[…]

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Label	Indicator's reference
[Country code]$_n$[Reason code]$_1$.....[Country code]$_n$[Reason code]$_m$	TIPS.stat.18.[Country code]$_n$.[Reason code]$_m$
Unsettled Transactions received Per Reason Code and Originator Country	
[Country code]$_1$[Reason code]$_1$.....[Country code]$_1$ [Reason code]$_m$	TIPS.stat.19.[Country code]$_1$.[Reason code] $_1$
[…]……[…]	[…]……[…]
[Country code]$_n$[Reason code]$_1$.....[Country code]$_n$[Reason code]$_m$	TIPS.stat.19.[Country code]$_n$.[Reason code]$_m$
Recall Request sent per Reason code and Originator Country	
[Country code]$_1$[Reason code]$_1$.....[Country code]$_1$ [Reason code]$_m$	TIPS.stat.20.[Country code]$_1$.[Reason code] $_1$
[…]……[…]	[…]……[…]
[Country code]$_n$[Reason code]$_1$.....[Country code]$_n$[Reason code]$_m$	TIPS.stat.20.[Country code]$_n$.[Reason code]$_m$
Recall Request received per Reason code and Beneficiary Country	
[Country code]$_1$[Reason code]$_1$.....[Country code]$_1$ [Reason code]$_m$	TIPS.stat.21.[Country code]$_1$.[Reason code]$_1$
[…]……[…]	[…]……[…]
[Country code]$_n$[Reason code]$_1$.....[Country code]$_n$[Reason code]$_m$	TIPS.stat.21.[Country code]$_n$.[Reason code]$_m$
Request for Recall sent per Originator Country	
[Country code]$_1$	TIPS.stat.22.[Country code]$_1$ OR [empty]
[…]	[…]
[Country code]$_n$	TIPS.stat.22.[Country code]$_n$ OR [empty]
Request for Recall received per Beneficiary Country	
[Country code]$_1$	TIPS.stat.23.[Country code]$_1$ OR [empty]
[…]	[…]
[Country code]$_n$	TIPS.stat.23.[Country code]$_n$ OR [empty]

C.1.4. List of general indicators for non-Euro currencies

The table below contains the exhaustive list of general Indicators present in TIPS for non-Euro currencies. The detailed information about each indicator is defined in paragraph C.3.1 "General figures".

Label	Code reference
Period (month or quarter)	
Instant payments	

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Label	Code reference
Amount (SEK)	
< 100 SEK	TIPS.stat.M1.a(SEK)
>= 100 SEK and < 500 SEK	TIPS.stat.M1.b(SEK)
>= 500 SEK and < 1,000 SEK	TIPS.stat.M1.c(SEK)
>= 1,000 SEK and < 5,000 SEK	TIPS.stat.M1.d(SEK)
>= 5,000 SEK and < 10,000 SEK	TIPS.stat.M1.e(SEK)
>= 10,000 SEK and < 50,000 SEK	TIPS.stat.M1.f(SEK)
>= 50,000 SEK and < 100,000 SEK	TIPS.stat.M1.g(SEK)
>= 100,000 SEK and <= 500,000 SEK	TIPS.stat.M1.h(SEK)
>= 500,000 SEK and <= 1,000,000 SEK	TIPS.stat.M1.i(SEK)
>= 1,000,000 SEK and <= 5,000,000 SEK	TIPS.stat.M1.j(SEK)
>= 5,000,000 SEK and <= 10,000,000 SEK	TIPS.stat.M1.k(SEK)
> 10,000,000 SEK	TIPS.stat.M1.l(SEK)
Amount (DKK)	
< 50.00 DKK	TIPS.stat.M1.a(DKK)
≥ 50 DKK and < 100 DKK	TIPS.stat.M1.b(DKK)
≥ 100 DKK and < 500 DKK	TIPS.stat.M1.c(DKK)
≥ 500 DKK and < 1,000 DKK	TIPS.stat.M1.d(DKK)
≥ 1,000 DKK and < 2,500 DKK	TIPS.stat.M1.e(DKK)
≥ 2,500 DKK and < 5,000 DKK	TIPS.stat.M1.f(DKK)
≥ 5,000 DKK and < 7,500 DKK	TIPS.stat.M1.g(DKK)
≥ 7,500 DKK and < 10,000 DKK	TIPS.stat.M1.h(DKK)
≥ 10,000 DKK and < 20,000 DKK	TIPS.stat.M1.i(DKK)
≥ 20,000 DKK and < 100,000 DKK	TIPS.stat.M1.j(DKK)
≥ 100,000 DKK and < 200,000 DKK	TIPS.stat.M1.k(DKK)
≥ 200,000 DKK and < 300,000 DKK	TIPS.stat.M1.l(DKK)
≥ 300,000 DKK and < 400,000 DKK	TIPS.stat.M1.m(DKK)
≥ 400,000 DKK and < 500,000 DKK	TIPS.stat.M1.n(DKK)
≥ 500,000 DKK and < 600,000 DKK	TIPS.stat.M1.o(DKK)
≥ 600,000 DKK and < 700,000 DKK	TIPS.stat.M1.p(DKK)
≥ 700,000 DKK and < 800,000 DKK	TIPS.stat.M1.q(DKK)
≥ 800,000 DKK and < 900,000 DKK	TIPS.stat.M1.r(DKK)
≥ 900,000 DKK and < 1,000,000 DKK	TIPS.stat.M1.s(DKK)
≥ 1,000,000 DKK and < 2,000,000 DKK	TIPS.stat.M1.t(DKK)
≥ 2,000,000 DKK and < 5,000,000 DKK	TIPS.stat.M1.u(DKK)
≥ 5,000,000 DKK and < 7,500,000 DKK	TIPS.stat.M1.v(DKK)
≥ 7,500,000 DKK	TIPS.stat.M1.w(DKK)
Hour	

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Label	Code reference
00h00 - 01h00 CET	TIPS.stat.M2.a
01h00 - 02h00 CET	TIPS.stat.M2.b
02h00 - 03h00 CET	TIPS.stat.M2.c
03h00 - 04h00 CET	TIPS.stat.M2.d
04h00 - 05h00 CET	TIPS.stat.M2.e
05h00 - 06h00 CET	TIPS.stat.M2.f
06h00 - 07h00 CET	TIPS.stat.M2.g
07h00 - 08h00 CET	TIPS.stat.M2.h
08h00 - 09h00 CET	TIPS.stat.M2.i
09h00 - 10h00 CET	TIPS.stat.M2.j
10h00 - 11h00 CET	TIPS.stat.M2.k
11h00 - 12h00 CET	TIPS.stat.M2.l
12h00 - 13h00 CET	TIPS.stat.M2.m
13h00 - 14h00 CET	TIPS.stat.M2.n
14h00 - 15h00 CET	TIPS.stat.M2.o
15h00 - 16h00 CET	TIPS.stat.M2.p
16h00 - 17h00 CET	TIPS.stat.M2.q
17h00 - 18h00 CET	TIPS.stat.M2.r
18h00 - 19h00 CET	TIPS.stat.M2.s
19h00 - 20h00 CET	TIPS.stat.M2.t
20h00 - 21h00 CET	TIPS.stat.M2.u
21h00 - 22h00 CET	TIPS.stat.M2.v
22h00 - 23h00 CET	TIPS.stat.M2.w
23h00 - 24h00 CET	TIPS.stat.M2.x
Duration of processing (IP settled)	
≤ 0.5 second	TIPS.stat.M3.a
> 0.5 second and ≤ 1 second	TIPS.stat.M3.b
> 1 second and ≤ 2 seconds	TIPS.stat.M3.c
> 2 seconds and ≤ 3 seconds	TIPS.stat.M3.d
> 3 seconds and ≤ 4 seconds	TIPS.stat.M3.e
> 4 seconds and ≤ 5 seconds	TIPS.stat.M3.f
> 5 seconds and ≤ 10 seconds	TIPS.stat.M3.g
> 10 seconds and ≤ 15 seconds	TIPS.stat.M3.h
> 15 seconds and ≤ 20 seconds	TIPS.stat.M3.i
> 20 seconds and ≤ 25 seconds	TIPS.stat.M3.j
> 25 seconds	TIPS.stat.M3.k
Duration of processing (IP unsettled)	
≤ 5 seconds	TIPS.stat.M4.a

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Label	Code reference
> 5 seconds and ≤ 10 seconds	TIPS.stat.M4.b
> 10 seconds and ≤ 15 seconds	TIPS.stat.M4.c
> 15 seconds and ≤ 20 seconds	TIPS.stat.M4.d
> 20 seconds and ≤ 25 seconds	TIPS.stat.M4.e
> 25 seconds	TIPS.stat.M4.f
no confirmation after 25 sec	TIPS.stat.M4.g
Investigations	
[Number of Investigations]	TIPS.stat.M5.a
Volume of settled IPs by Originator PSP BIC	
$[BIC]_x.[Calendar\ day]_y.[IP]_z$	$TIPS.stat.M14_{(DKK)}$
Value of settled IPs by Originator PSP BIC	
$[BIC]_x.[Calendar\ day]_y.[Total\ amount]_z$	$TIPS.stat.M15_{(DKK)}$
Volume of settled IPs in DKK by amount and calendar day	
$[< 50.00\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.a_{(DKK)}$
$[\geq 50\ DKK\ and < 100\ DKK].[Day]_x$	$TIPS.stat.M16.b_{(DKK)}$
$[\geq 100\ DKK\ and < 500\ DKK].[Day]_x$	$TIPS.stat.M16.c_{(DKK)}$
$[\geq 500\ DKK\ and < 1{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.d_{(DKK)}$
$[\geq 1{,}000\ DKK\ and < 2{,}500\ DKK].[Day]_x$	$TIPS.stat.M16.e_{(DKK)}$
$[\geq 2{,}500\ DKK\ and < 5{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.f_{(DKK)}$
$[\geq 5{,}000\ DKK\ and < 7{,}500\ DKK].[Day]_x$	$TIPS.stat.M16.g_{(DKK)}$
$[\geq 7{,}500\ DKK\ and < 10{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.h_{(DKK)}$
$[\geq 10{,}000\ DKK\ and < 20{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.i_{(DKK)}$
$[\geq 20{,}000\ DKK\ and < 100{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.j_{(DKK)}$
$[\geq 100{,}000\ DKK\ and < 200{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.k_{(DKK)}$
$[\geq 200{,}000\ DKK\ and < 300{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.l_{(DKK)}$
$[\geq 300{,}000\ DKK\ and < 400{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.m_{(DKK)}$
$[\geq 400{,}000\ DKK\ and < 500{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.n_{(DKK)}$
$[\geq 500{,}000\ DKK\ and < 600{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.o_{(DKK)}$
$[\geq 600{,}000\ DKK\ and < 700{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.p_{(DKK)}$
$[\geq 700{,}000\ DKK\ and < 800{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.q_{(DKK)}$
$[\geq 800{,}000\ DKK\ and < 900{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.r_{(DKK)}$
$[\geq 900{,}000\ DKK\ and < 1{,}000{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.s_{(DKK)}$
$[\geq 1{,}000{,}000\ DKK\ and < 2{,}000{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.t_{(DKK)}$
$[\geq 2{,}000{,}000\ DKK\ and < 5{,}000{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.u_{(DKK)}$
$[\geq 5{,}000{,}000\ DKK\ and < 7{,}500{,}000\ DKK].[Day]_x$	$TIPS.stat.M16.v_{(DKK)}$
$[\geq 7{,}500{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.w_{(DKK)}$
Value of settled IPs in DKK by amount and calendar day	
$[< 50.00\ DKK].[Day]_x.[Amount]_y$	$TIPS.stat.M17.a_{(DKK)}$

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Label	Code reference
[≥ 50 DKK and < 100 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.f$_{(DKK)}$
[≥ 5,000 DKK and < 7,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.o$_{(DKK)}$
[≥ 600,000 DKK and < 700,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M17.w$_{(DKK)}$
Volume of unsettled IPs in DKK by amount and calendar day	
[< 50.00 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.a$_{(DKK)}$
[≥ 50 DKK and < 100 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.f$_{(DKK)}$
[≥ 5,000 DKK and < 7,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.o$_{(DKK)}$

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Label	Code reference
[≥ 600,000 DKK and < 700,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M18.w$_{(DKK)}$
Value of unsettled IPs in DKK by amount and calendar day	
[< 50.00 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.a$_{(DKK)}$
[≥ 50 DKK and < 100 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.f$_{(DKK)}$
[≥ 5,000 DKK and < 7,500 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.o$_{(DKK)}$
[≥ 600,000 DKK and < 700,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.v$_{DKK)}$
[≥ 7,500,000 DKK].[Day]$_x$.[Amount]$_y$	TIPS.stat.M19.w$_{(DKK)}$
Number of settled IPs in DKK, per Hour and calendar day	
[00h00 - 01h00 CET].[Day]$_x$	TIPS.stat.M20.a$_{(DKK)}$
[01h00 - 02h00 CET].[Day]$_x$	TIPS.stat.M20.b$_{(DKK)}$
[02h00 - 03h00 CET].[Day]$_x$	TIPS.stat.M20.c$_{(DKK)}$
[03h00 - 04h00 CET].[Day]$_x$	TIPS.stat.M20.d$_{(DKK)}$
[04h00 - 05h00 CET].[Day]$_x$	TIPS.stat.M20.e$_{(DKK)}$

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Label	Code reference
[05h00 - 06h00 CET].[Day]$_x$	TIPS.stat.M20.f$_{(DKK)}$
[06h00 - 07h00 CET].[Day]$_x$	TIPS.stat.M20.g$_{(DKK)}$
[07h00 - 08h00 CET].[Day]$_x$	TIPS.stat.M20.h$_{(DKK)}$
[08h00 - 09h00 CET].[Day]$_x$	TIPS.stat.M20.i$_{(DKK)}$
[09h00 - 10h00 CET].[Day]$_x$	TIPS.stat.M20.j$_{(DKK)}$
[10h00 - 11h00 CET].[Day]$_x$	TIPS.stat.M20.k$_{(DKK)}$
[11h00 - 12h00 CET].[Day]$_x$	TIPS.stat.M20.l$_{(DKK)}$
[12h00 - 13h00 CET].[Day]$_x$	TIPS.stat.M20.m$_{(DKK)}$
[13h00 - 14h00 CET].[Day]$_x$	TIPS.stat.M20.n$_{(DKK)}$
[14h00 - 15h00 CET].[Day]$_x$	TIPS.stat.M20.o$_{(DKK)}$
[15h00 - 16h00 CET].[Day]$_x$	TIPS.stat.M20.p$_{(DKK)}$
[16h00 - 17h00 CET].[Day]$_x$	TIPS.stat.M20.q$_{(DKK)}$
[17h00 - 18h00 CET].[Day]$_x$	TIPS.stat.M20.r$_{(DKK)}$
[18h00 - 19h00 CET].[Day]$_x$	TIPS.stat.M20.s$_{(DKK)}$
[19h00 - 20h00 CET].[Day]$_x$	TIPS.stat.M20.t$_{(DKK)}$
[20h00 - 21h00 CET].[Day]$_x$	TIPS.stat.M20.u$_{(DKK)}$
[21h00 - 22h00 CET].[Day]$_x$	TIPS.stat.M20.v$_{(DKK)}$
[22h00 - 23h00 CET].[Day]$_x$	TIPS.stat.M20.w$_{(DKK)}$
[23h00 - 24h00 CET].[Day]$_x$	TIPS.stat.M20.x$_{(DKK)}$
Value of settled IPs in DKK, per Hour and calendar day	
[00h00 - 01h00 CET].[Day]$_x$	TIPS.stat.M21.a$_{(DKK)}$
[01h00 - 02h00 CET].[Day]$_x$	TIPS.stat.M21.b$_{(DKK)}$
[02h00 - 03h00 CET].[Day]$_x$	TIPS.stat.M21.c$_{(DKK)}$
[03h00 - 04h00 CET].[Day]$_x$	TIPS.stat.M21.d$_{(DKK)}$
[04h00 - 05h00 CET].[Day]$_x$	TIPS.stat.M21.e$_{(DKK)}$
[05h00 - 06h00 CET].[Day]$_x$	TIPS.stat.M21.f$_{(DKK)}$
[06h00 - 07h00 CET].[Day]$_x$	TIPS.stat.M21.g$_{(DKK)}$
[07h00 - 08h00 CET].[Day]$_x$	TIPS.stat.M21.h$_{(DKK)}$
[08h00 - 09h00 CET].[Day]$_x$	TIPS.stat.M21.i$_{(DKK)}$
[09h00 - 10h00 CET].[Day]$_x$	TIPS.stat.M21.j$_{(DKK)}$
[10h00 - 11h00 CET].[Day]$_x$	TIPS.stat.M21.k$_{(DKK)}$
[11h00 - 12h00 CET].[Day]$_x$	TIPS.stat.M21.l$_{(DKK)}$
[12h00 - 13h00 CET].[Day]$_x$	TIPS.stat.M21.m$_{(DKK)}$
[13h00 - 14h00 CET].[Day]$_x$	TIPS.stat.M21.n$_{(DKK)}$
[14h00 - 15h00 CET].[Day]$_x$	TIPS.stat.M21.o$_{(DKK)}$
[15h00 - 16h00 CET].[Day]$_x$	TIPS.stat.M21.p$_{(DKK)}$
[16h00 - 17h00 CET].[Day]$_x$	TIPS.stat.M21.q$_{(DKK)}$
[17h00 - 18h00 CET].[Day]$_x$	TIPS.stat.M21.r$_{(DKK)}$

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Label	Code reference
[18h00 - 19h00 CET].[Day]$_x$	TIPS.stat.M21.s$_{(DKK)}$
[19h00 - 20h00 CET].[Day]$_x$	TIPS.stat.M21.t$_{(DKK)}$
[20h00 - 21h00 CET].[Day]$_x$	TIPS.stat.M21.u$_{(DKK)}$
[21h00 - 22h00 CET].[Day]$_x$	TIPS.stat.M21.v$_{(DKK)}$
[22h00 - 23h00 CET].[Day]$_x$	TIPS.stat.M21.w$_{(DKK)}$
[23h00 - 24h00 CET].[Day]$_x$	TIPS.stat.M21.x$_{(DKK)}$
Number of unsettled IPs in DKK, per Hour and calendar day	
[00h00 - 01h00 CET].[Day]$_x$	TIPS.stat.M22.a$_{(DKK)}$
[01h00 - 02h00 CET].[Day]$_x$	TIPS.stat.M22.b$_{(DKK)}$
[02h00 - 03h00 CET].[Day]$_x$	TIPS.stat.M22.c$_{(DKK)}$
[03h00 - 04h00 CET].[Day]$_x$	TIPS.stat.M22.d$_{(DKK)}$
[04h00 - 05h00 CET].[Day]$_x$	TIPS.stat.M22.e$_{(DKK)}$
[05h00 - 06h00 CET].[Day]$_x$	TIPS.stat.M22.f$_{(DKK)}$
[06h00 - 07h00 CET].[Day]$_x$	TIPS.stat.M22.g$_{(DKK)}$
[07h00 - 08h00 CET].[Day]$_x$	TIPS.stat.M22.h$_{(DKK)}$
[08h00 - 09h00 CET].[Day]$_x$	TIPS.stat.M22.i$_{(DKK)}$
[09h00 - 10h00 CET].[Day]$_x$	TIPS.stat.M22.j$_{(DKK)}$
[10h00 - 11h00 CET].[Day]$_x$	TIPS.stat.M22.k$_{(DKK)}$
[11h00 - 12h00 CET].[Day]$_x$	TIPS.stat.M22.l$_{(DKK)}$
[12h00 - 13h00 CET].[Day]$_x$	TIPS.stat.M22.m$_{(DKK)}$
[13h00 - 14h00 CET].[Day]$_x$	TIPS.stat.M22.n$_{(DKK)}$
[14h00 - 15h00 CET].[Day]$_x$	TIPS.stat.M22.o$_{(DKK)}$
[15h00 - 16h00 CET].[Day]$_x$	TIPS.stat.M22.p$_{(DKK)}$
[16h00 - 17h00 CET].[Day]$_x$	TIPS.stat.M22.q$_{(DKK)}$
[17h00 - 18h00 CET].[Day]$_x$	TIPS.stat.M22.r$_{(DKK)}$
[18h00 - 19h00 CET].[Day]$_x$	TIPS.stat.M22.s$_{(DKK)}$
[19h00 - 20h00 CET].[Day]$_x$	TIPS.stat.M22.t$_{(DKK)}$
[20h00 - 21h00 CET].[Day]$_x$	TIPS.stat.M22.u$_{(DKK)}$
[21h00 - 22h00 CET].[Day]$_x$	TIPS.stat.M22.v$_{(DKK)}$
[22h00 - 23h00 CET].[Day]$_x$	TIPS.stat.M22.w$_{(DKK)}$
[23h00 - 24h00 CET].[Day]$_x$	TIPS.stat.M22.x$_{(DKK)}$
Value of unsettled IPs in DKK, per Hour and calendar day	
[00h00 - 01h00 CET].[Day]$_x$	TIPS.stat.M23.a$_{(DKK)}$
[01h00 - 02h00 CET].[Day]$_x$	TIPS.stat.M23.b$_{(DKK)}$
[02h00 - 03h00 CET].[Day]$_x$	TIPS.stat.M23.c$_{(DKK)}$
[03h00 - 04h00 CET].[Day]$_x$	TIPS.stat.M23.d$_{(DKK)}$
[04h00 - 05h00 CET].[Day]$_x$	TIPS.stat.M23.e$_{(DKK)}$
[05h00 - 06h00 CET].[Day]$_x$	TIPS.stat.M23.f$_{(DKK)}$

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Label	Code reference
[06h00 - 07h00 CET].[Day]$_x$	TIPS.stat.M23.g$_{(DKK)}$
[07h00 - 08h00 CET].[Day]$_x$	TIPS.stat.M23.h$_{(DKK)}$
[08h00 - 09h00 CET].[Day]$_x$	TIPS.stat.M23.i$_{(DKK)}$
[09h00 - 10h00 CET].[Day]$_x$	TIPS.stat.M23.j$_{(DKK)}$
[10h00 - 11h00 CET].[Day]$_x$	TIPS.stat.M23.k$_{(DKK)}$
[11h00 - 12h00 CET].[Day]$_x$	TIPS.stat.M23.l$_{(DKK)}$
[12h00 - 13h00 CET].[Day]$_x$	TIPS.stat.M23.m$_{(DKK)}$
[13h00 - 14h00 CET].[Day]$_x$	TIPS.stat.M23.n$_{(DKK)}$
[14h00 - 15h00 CET].[Day]$_x$	TIPS.stat.M23.o$_{(DKK)}$
[15h00 - 16h00 CET].[Day]$_x$	TIPS.stat.M23.p$_{(DKK)}$
[16h00 - 17h00 CET].[Day]$_x$	TIPS.stat.M23.q$_{(DKK)}$
[17h00 - 18h00 CET].[Day]$_x$	TIPS.stat.M23.r$_{(DKK)}$
[18h00 - 19h00 CET].[Day]$_x$	TIPS.stat.M23.s$_{(DKK)}$
[19h00 - 20h00 CET].[Day]$_x$	TIPS.stat.M23.t$_{(DKK)}$
[20h00 - 21h00 CET].[Day]$_x$	TIPS.stat.M23.u$_{(DKK)}$
[21h00 - 22h00 CET].[Day]$_x$	TIPS.stat.M23.v$_{(DKK)}$
[22h00 - 23h00 CET].[Day]$_x$	TIPS.stat.M23.w$_{(DKK)}$
[23h00 - 24h00 CET].[Day]$_x$	TIPS.stat.M23.x$_{(DKK)}$

C.1.5. List of national and cross-border transactions indicators for non-Euro currencies

The table below contains the exhaustive list of general national and cross-border transaction indicators produced in TIPS for non-Euro currencies. The detailed information about these measures is defined in paragraphs C.3.2 "National transactions" and C.3.3 "Cross-border transactions"

Label	Code reference
Period (month or quarter)	
National transactions	
Transactions per country	
[Country code]	TIPS.stat.M6.[Country code] OR [empty]
Unsettled Transactions per country	
[Country code]	TIPS.stat.M7.[Country code] OR [empty]
Recall Request per country	
[Country code]	TIPS.stat.M8.[Country code] OR [empty]
Unsettled transactions per reason code	
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M9.[Country code].[Reason code] $_{1...}$ TIPS.stat.M9.[Country code].[Reason code] $_m$
Recall Request per reason code	

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Label	Code reference
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M10.[Country code].[Reason code] $_{1...}$ TIPS.stat.M10.[Country code].[Reason code] $_m$
Request for Recall per Country	
[Country code]	TIPS.stat.M11.[Country code] OR [empty] TIPS.stat.M11.[Country code] OR [empty]
Volume of national payment transactions	
[Country code].[Currency code]	TIPS.stat.M24.[Country code]
Value of national payment transactions	
[Country code].[Currency code]	TIPS.stat.M25.[Country code]
Volume of national settled IPs in DKK	
[Country code]	TIPS.stat.M12.[Country code]$_{(DKK)}$
Value of national settled IPs in DKK	
[Country code]	TIPS.stat.M13.[Country code]$_{(DKK)}$
Volume of national unsettled IPs in DKK	
[Country code]	TIPS.stat.M26.[Country code]$_{(DKK)}$
Volume of settled cross-border IPs in DKK	
Transactions per Originator PSP country	
[Country code]$_x$	TIPS.stat.M27.[Country code]$_{(DKK)}$
Transactions per Beneficiary PSP country	
[Country code]$_x$	TIPS.stat.M28.[Country code]$_{(DKK)}$
Value of settled cross-border IPs in DKK	
Value per Originator PSP country	
[Country code]$_x$	TIPS.stat.M29.[Country code]$_{(DKK)}$
Value per Beneficiary PSP country	
[Country code]$_x$	TIPS.stat.M30.[Country code]$_{(DKK)}$
Volume of unsettled cross-border IPs in DKK	
Transactions per Originator PSP country	
[Country code]$_x$	TIPS.stat.M31.[Country code]$_{(DKK)}$
Transactions per Beneficiary PSP country	
[Country code]$_x$	TIPS.stat.M32.[Country code]$_{(DKK)}$
Value of unsettled cross-border IPs in DKK	
Value per Originator PSP country	
[Country code]$_x$	TIPS.stat.M33.[Country code]$_{(DKK)}$
Value per Beneficiary PSP country	
[Country code]$_x$	TIPS.stat.M34.[Country code]$_{(DKK)}$
Volume of cross-border Recall request in DKK	
Recall Request per Originator PSP country	
[Country code]$_x$	TIPS.stat.M35.[Country code]$_{(DKK)}$
Recall Request per Beneficiary PSP country	
[Country code]$_x$	TIPS.stat.M36.[Country code]$_{(DKK)}$

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Label	Code reference
Unsettled cross-border IPs in DKK per reason code	
Transactions per reason code and Originator PSP Country	
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M37.[Country code].[Reason code] $_{1...}$ TIPS.stat.M37.[Country code].[Reason code] $_m$
Transactions per reason code and Originator PSP Country	
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M38.[Country code].[Reason code] $_{1...}$ TIPS.stat.M38.[Country code].[Reason code] $_m$
Cross-border Recall Requests in DKK per reason code	
Recall requests per reason code and Originator PSP Country	
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M39.[Country code].[Reason code] $_{1...}$ TIPS.stat.M39.[Country code].[Reason code] $_m$
Recall requests per reason code and Originator PSP Country	
[Country code].[Reason code]$_1$ ...[Country code].[Reason code]$_m$	TIPS.stat.M40.[Country code].[Reason code] $_{1...}$ TIPS.stat.M40.[Country code].[Reason code] $_m$
Cross-border Request for Recall by Originator in DKK per reason code	
Request for Recall by Originator per reason code and Originator PSP Country	
[Country code]$_x$	TIPS.stat.M41.[Country code] $_{(DKK)}$
Request for Recall by Originator per reason code and Originator PSP Country	
[Country code]x	TIPS.stat.M42.[Country code] $_{(DKK)}$

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C.2. Statistical Indicators for Euro currency

TIPS provides the TIPS Operator with the functionality for creating monthly and quarterly reports for statistical information on Instant Payment, Recall and Investigation transactions.

TIPS Operators are the only users allowed creating the reports. The TIPS Operator, then, provides the report to the requesting CBs.

The created reports remain available in the system for 12 months.

This section describes the statistical indicators provided by TIPS giving useful information about Instant payment transactions, including the transactions being submitted by an Ancillary System to TIPS. All the indicators described below rely on a time frame of a quarter of year or a month, despite the data are collected on a daily basis.

The Indicators are divided into four main categories:

1. General SCT Inst
2. National Transactions
3. Cross-border Transactions
4. Overall monthly figures on payment transactions processed by TIPS

Each indicator is referenced with a code. The reader can refer to C.1 “List of Indicators” for additional details.

C.2.1. General SCT Inst

This category of indicators provides general information about transactions in TIPS, not focusing on qualitative aspects (e.g. the country code of the BIC of the Originator or the Beneficiary) of the operations, but only on quantitative measures. Five indicators belong to this category:

- Number of transactions per Amount;
- Number of transactions per Hour;
- Number of positive confirmation messages per duration of the processing;
- Number of negative confirmation messages per duration of the processing;
- Number of Investigation Requests processed by TIPS.

C.2.1.1. Number of IP transactions per Amount

This indicator (TIPS.stat.1) gives the number of all the IP transactions in the period under analysis grouped by the amount of the operation. The final status of the transaction is irrelevant, therefore not only the settled, but also the unsettled operations (‘rejected’, ‘failed’ or ‘expired’) are involved into the calculation of the indicator.

In the table below there are the five amount ranges in which shall be divided the IP transactions:

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Table 19 – Number of transactions per Amount

Amount	Indicator's reference
< 1.000	TIPS.stat.1.a
1.000 - 5.000	TIPS.stat.1.b
5.000 - 10.000	TIPS.stat.1.c
10.000 – 15.000	TIPS.stat.1.d
≥ 15.000	TIPS.stat.1.e

For every of the three mid-classes, only the left-side extremity is included in the range; whereby, if an IP transaction amounts to 5,000 € it will be part of the third range (5,000 – 10,000), while an operation of 10,000 € belongs to the fourth class (10,000 – 15,000).

C.2.1.2. Number of IP transactions per Hour

This indicator (TIPS.stat.2) gives the number of all the IP transactions in the period under analysis grouped by the timestamp of execution. The final status of the transaction is irrelevant, therefore not only the settled, but also but also the unsettled operations ('rejected', 'failed' or 'expired'), are involved in the calculation of the index.

In the table below there are the four time ranges in which shall be divided the IP transactions:

Table 20 – Number of transactions per timestamp

Hour	Indicator's reference
00h00 - 06h00 CET	TIPS.stat.2.a
06h00 - 12h00 CET	TIPS.stat.2.b
12h00 - 18h00 CET	TIPS.stat.2.c
18h00 - 00h00 CET	TIPS.stat.2.d

For every class, only the left-side extremity is included in the range; whereby, if a IP transaction is executed at 06h00 it will be part of the second range (06h00 - 12h00 CET), while an operation occurred at 12h00 belongs to the third range (12h00 - 18h00 CET).

C.2.1.3. Number of positive confirmation messages per duration of the processing

This indicator (TIPS.stat.3) gives the number of settled IP transactions divided by duration of the processing. In case of IP transaction with positive result, the duration of the processing is calculated as the time elapsed from acceptance timestamp to the settlement timestamp, i.e. with the reception of the positive confirmation messages.

In the table below there are the six time ranges in which shall be divided the IP transactions:

Table 21 – Number of settled transactions per duration of processing

Receipt of confirmation message	Indicator's reference
Within 5 seconds	TIPS.stat.3.a
Within 10 seconds	TIPS.stat.3.b

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Receipt of confirmation message	Indicator's reference
Within 15 seconds	TIPS.stat.3.c
Within 20 seconds	TIPS.stat.3.d
Within 25 seconds	TIPS.stat.3.e
> 25 seconds	TIPS.stat.3.f

For every class the upper extremity is included in the range; whereby, if a message is received after exactly 10 seconds it will be part of the second class.

C.2.1.4. Number of negative confirmation messages per duration of the processing

This indicator (TIPS.stat.4) gives the number of unsettled IP Transaction (i.e. 'rejected', 'failed' or 'expired') divided by duration of the processing. In case of IP transaction with negative result, the duration of the processing is calculated as the time elapsed from the acceptance timestamp and the timestamp by when the transaction reached its final status, i.e. with the reception of the negative confirmation messages. Furthermore, if no confirmation message is received, neither positive nor negative, the transaction is considered unsettled and counted in specific time range ("No confirmation").

In the table below there are the seven ranges in which shall be divided the IP transactions:

Table 22 – Number of unsettled IP transactions per duration of processing

Receipt of confirmation message	Indicator's reference
Within 5 seconds	TIPS.stat.4.a
Within 10 seconds	TIPS.stat.4.b
Within 15 seconds	TIPS.stat.4.c
Within 20 seconds	TIPS.stat.4.d
Within 25 seconds	TIPS.stat.4.e
> 25 seconds	TIPS.stat.4.f
no confirmation after 25 sec	TIPS.stat.4.g

For every class the upper extremity is included in the range; whereby, if a message is received after exactly 5 seconds it will be part of the first class.

C.2.1.5. Number of Investigation Requests processed by TIPS

This indicator (TIPS.stat.5) gives the total amount of investigations requested in TIPS. Differently from the previous measures, in this case there is no division in classes; obviously this occurs because the information provided refers to all investigations processed by TIPS, regardless the time of the request and the type of actor who requested it.

Table 23 – Number of investigation requests

Number of Investigations	Indicator's reference
Investigations	TIPS.stat.5.a

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C.2.2. National Transactions

This category of indicators provides information about IP transactions, recall requests and request for recall by the originator executed in a national context in a given quarter/ month of the year. Consequently, the operations taken into consideration refer to an Originator PSP and a Beneficiary PSP that belong to the same country and therefore hold the same Country code of the BIC. Six Indicators belong to this category:

- Number of national IP transactions;
- Number of national IP transactions with an unsettled status;
- Number of national Recall Requests;
- Number of national IP transactions with an unsettled status and grouped by reason code;
- Number of national Recall Requests grouped by reason code;
- Number of national Request for Recall by Originator

Each index provides the number of operations grouped by the country code of the actors. In other words, TIPS provides the exact number of transaction/recall carried out for every country code of the BIC, when the IP transaction or recall is operated by two PSPs from the same country.

Besides, TIPS analyses the unsettled IPs and the Recall Requests grouped by reason code. TIPS distinguishes the Reason codes between three categories:

- Internal Reason Code: Error code generated by TIPS and compliant with SCT^{Inst} scheme;
- External Reason Code: Error code generated by other systems outside TIPS and compliant with SCT^{Inst} scheme.
- TIPS reason code: Error code generated and defined only in TIPS and not in SCT^{Inst} scheme.

The only reason codes by which the indicators can be grouped are those generated by TIPS. All the other operations are grouped inside the category “External Reason Code”.

For the list of error code generated by TIPS see section 4.2.1 “List of ISO Error codes”.

C.2.2.1. Number of national IP transactions

This indicator (TIPS.stat.6) gives the number of all the national IP transactions in the period under analysis grouped by the common Country code of the BIC of the actors (Originator PSP and Beneficiary PSP). The final status of the transaction is irrelevant, therefore not only the settled, but also the unsettled operations (‘rejected’, ‘failed’ or ‘expired’), are involved into the calculation of the index.

Table 24 – Number of national IP transactions

Transactions Per country	Indicator’s reference
[Country code]$_x$	TIPS.stat.6.[Country code]$_x$

The indicator returns a value for each Country whose BIC has executed a transaction in the period under analysis.

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C.2.2.2. Number of national IP transactions with an unsettled status

This indicator (TIPS.stat.7) gives the number of unsettled IP transaction in the period under analysis grouped by the common Country code of the BIC of the actors (Originator PSP and Beneficiary PSP). As mentioned above (C.2.2 "National Transactions"), the data are divided by country code of the actors, and consequently the indicator shows, for each Country, the number of IP transactions with status different from "Settled": Furthermore there is no specification between the final status of each transaction (i.e. 'rejected', 'failed' or 'expired').

Table 25 – Number of national Unsettled IP Transactions

Unsettled Transactions per country	Indicator's reference
[Country code]$_x$	TIPS.stat.7.[Country code]$_x$

C.2.2.3. Number of national Recall Requests

This indicator (TIPS.stat.8) gives the number of Recall Requests sent on a selected period and grouped by the common Country code of the BIC of the actors (Originator PSP and Beneficiary PSP). The Indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. In addition, only the Recall Requests successfully sent to the Beneficiary are taken in consideration for the calculation of the indicator.

Table 26 – Number of national Recall Requests

Recall Requests per country	Indicator's reference
[Country code]$_x$	TIPS.stat.8.[Country code]$_x$

C.2.2.4. Number of national Unsettled IP transactions grouped by reason code

This indicator (TIPS.stat.9) gives the number of unsettled IP transaction of a selected period and grouped by the common Country code of the BIC of the actors and by Reason Code. The transactions taken into account are the same analysed in paragraph C.2.2.2, i.e. the number of transactions with status different from "Settled", not looking at the final status of each transaction (i.e. 'rejected', 'failed' or 'expired'). Moreover, in addition to the Country code of the BIC of the actors, all the transactions are grouped looking at the Reason Code for non-acceptance of the SCT^{Inst} Transaction. Consequently, the total number of transactions given by this indicator and the indicator from paragraph C.2.2.2 shall be the same. The only Reason codes taken in consideration are those generated by TIPS (Internal Reason Code, see C.2.2). Therefore, all the IPs with status unsettled and with a Reason code not generated by TIPS, are grouped into a generic Code called "External Reason Code".

Table 27 – National Unsettled IP Transaction per Reason Code

Transactions per Reason Code	Indicator's reference
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.9.[Country code]$_x$.[Reason code]$_y$

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C.2.2.5. Number of national Recall Requests grouped by reason code

This indicator (TIPS.stat.10) gives the number of Recall Requests sent on a selected period and grouped by the common Country code of the BIC of the actors and by Reason Code. The Recall requests taken into account are the same analysed in paragraph C.2.2.3, i.e. only those sent to the Beneficiary irrespective if the response message is negative or positive. Moreover, in addition to the Country code of the BIC of the actors, all the Recall Requests are grouped looking at the Reason Code for non-acceptance of the SCT^{Inst} Transaction.

The Reason codes taken in consideration are the following:

- DUPL: Duplicate Sending
- FRAD: Fraudulent Origin
- TECH: Technical Problem resulting in erroneous SCT Inst

Table 28 – National Recall Requests per Reason Code

Recall per Reason Code	Indicator's reference
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.10.[Country code]$_x$.[Reason code]$_y$

C.2.2.6. Number of national Request for Recall by Originator

This indicator (TIPS.stat.11) gives the number of Requests for Recall sent on a selected period and grouped by the common country code of the BIC of the involved PSPs. The Indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. In addition, only the Recall Requests successfully sent to the Beneficiary are taken in consideration for the calculation of the index. In order to distinguish a Recall Request from a Request for Recall, the latter shall be defined by the following parameters:

- Index 4.18 'Originator' shall be populated with AT-02 "The name of the Originator".
- Index 4.20 'Reason Code' shall be populated with ISO code **"CUST"** (Requested by Customer).
- Index 4.21 'Reason Proprietary' shall be populated with the proprietary codes **"AM09"** (Wrong amount) and **"AC03"** (Wrong IBAN).

Table 29 – National Requests for Recall

Requests for Recall per country	Indicator's reference
[Country code]$_x$	TIPS.stat.11.[Country code]$_x$

C.2.3. Cross-border Transactions

This category of indicators provides information about TIPS cross-border transactions, recall requests and request for recall in a given month/quarter of the year. Consequently, the operations taken into consideration refer to an Originator PSP and a Beneficiary PSP that belong to different countries and therefore hold different country codes of the BIC. In view of this aspect, each operation shall be considered both from the Originator and the Beneficiary side; consequently, there are more indicators referring to the Cross-border transactions, compared to National Transactions (see C.2.2). In particular,

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for each class of indicator, there are two measures to be considered, one from the Originator Side and one from Beneficiary side[25]. The Indicators that belong to this category are twelve:

- Number of cross-border IP transactions
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped by his country code of the BIC
- Number of cross-border IP transactions with an unsettled status
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped his by country code of the BIC
- Number of cross-border Recall Requests
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped by his country code of the BIC
- Number of cross-border IP transactions with an unsettled status and grouped by reason code
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped by his country code of the BIC
- Number of cross-border Recall Requests grouped by reason code
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped by his country code of the BIC
- Number of cross-border Request for Recall by Originator
    - Sent by the Originator and grouped by his country code of the BIC
    - Received by the Beneficiary and grouped by his country code of the BIC

As for the National indicators, TIPS distinguishes the Reason codes between three categories:

- Internal Reason Code: Error code generated by TIPS;
- External Reason Code: Error code generated by other systems outside TIPS;
- TIPS reason code: Error code generated and defined only in TIPS.

The only reason codes by which the indicators can be grouped are those generated by TIPS (see C.2.2). All the other operations are grouped inside the category “External Reason Code”.

C.2.3.1. Number of cross-border IP transactions

These indicators give the number of all the cross-border IP transactions of a selected time period. The final status of the transaction is irrelevant, therefore not only the settled, but also the unsettled operations (‘rejected’, ‘failed’ or ‘expired’), are involved into the calculation of the index. Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border transaction sent by the Originator and grouped by his country code of the BIC (TIPS.stat.12);
- Number of cross-border transaction received by the Beneficiary and grouped by his country code of the BIC (TIPS.stat.13).

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Table 30 – Number of cross-border IP transactions

Transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.12.[Country code]$_x$
Transactions per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.13.[Country code]$_x$

C.2.3.2. Number of cross-border IP transactions with an unsettled status

These indicators give the number of unsettled cross-border IP transaction of a selected time period. The data are divided by country code of the actors, and consequently the indicator shows, for each Country, the number of transactions with status different from "Settled": Furthermore, there is no specification between the final status of each transaction (i.e. 'rejected', 'failed' or 'expired').

Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border unsettled transaction sent by the Originator and grouped by its country code of the BIC (TIPS.stat.14);
- Number of cross-border unsettled transaction received by the Beneficiary and grouped by its country code of the BIC (TIPS.stat.15).

Table 31 – Number of cross-border Unsettled IP Transactions

Unsettled Transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.14.[Country code]$_x$
Unsettled Transactions per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.15.[Country code]$_x$

C.2.3.3. Number of cross-border Recall Requests

These indicators give the number of Recall Requests sent on a selected time period. The Indicators do not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. In addition, only the Recall Requests successfully sent to the Beneficiary are taken in consideration for the calculation of the indicator.

Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border Recall Request sent by the Originator and grouped by its country code of the BIC of (TIPS.stat.16);
- Number of cross-border Recall Request received by the Beneficiary and grouped by its country code of the BIC (TIPS.stat.17).

Table 32 – Number of cross-border Recall Requests

Recall Requests per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.16.[Country code]$_x$
Recall Requests per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.17.[Country code]$_x$

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C.2.3.4. Number of cross-border IP transactions with an unsettled status and grouped by reason code

These indicators give the number of unsettled IP transaction of a selected time period. The transactions taken into account are the same analysed in paragraph C.2.3.2, i.e. the number of transactions with status different from “Settled”, not looking at the final status of each transaction (i.e. ‘rejected’, ‘failed’ or ‘expired’). Moreover, in addition to the Country code of the BIC of the actors, all the transactions are grouped looking at the Reason Code for non-acceptance of the SCT^{Inst} Transaction.

The only Reason codes taken in consideration are those generated by TIPS (Internal Reason Code, see C.2.3). Therefore, all the IPs with status unsettled and with a Reason code not generated by TIPS, are grouped into a generic Code called “External Reason Code”.

Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border unsettled transaction sent by the Originator and grouped by his country code of the BIC and reason code (TIPS.stat.18);
- Number of cross-border unsettled transaction received by the Beneficiary grouped by his country code of the BIC and reason code (TIPS.stat.19).

Table 33 – Cross-border Unsettled Transaction per Reason Code

Transactions per Reason Code and Originator Country	Indicator’s reference
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.18.[Country code]$_x$.[Reason code]$_y$
Transactions per Reason Code and Beneficiary Country	**Indicator’s reference**
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.19.[Country code]$_x$.[Reason code]$_y$

C.2.3.5. Number of cross-border Recall Requests grouped by reason code

These indicators give the number of Recall Requests sent on a selected time period. The Recall requests taken into account are the same analysed in paragraph C.2.3.3, i.e. only those sent to the Beneficiary irrespective if the response message is negative or positive. Moreover, in addition to the country code of the BIC of the actors, all the Recall Requests are grouped looking at the Reason Code for non-acceptance of the SCT^{Inst} Transaction.

The Reason codes taken in consideration are the following:

- DUPL: Duplicate Sending
- FRAD: Fraudulent Origin
- TECH: Technical Problem

Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border Recall Request sent by the Originator and grouped by its country code of the BIC and Reason Code (TIPS.stat.20);
- Number of cross-border Recall Request received by the Beneficiary grouped by its country code of the BIC and Reason Code (TIPS.stat.21).

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Table 34 – Number of Cross-border Recall Requests per Reason code

Recall per Reason Code and Originator country	Indicator's reference
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.20.[Country code]$_x$
Recall per Reason Code and Beneficiary country	**Indicator's reference**
[Country code]$_x$;[Reason code]$_y$	TIPS.stat.21.[Country code]$_x$

C.2.3.6. Number of cross-border Request for Recall by Originator

These indicators give the number of Requests for Recall sent on a selected time period. The indicators do not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. The criteria to follow in order to distinguish a Recall Request from a Request for Recall are defined in paragraph C.2.2.6.

Depending on which country code of the actors is considered, there are two different indicators:

- Number of cross-border Request for Recall sent by the Originator and grouped by its country code of the BIC (TIPS.stat.22);
- Number of cross-border Request for Recall received by the Beneficiary and grouped by its country code of the BIC (TIPS.stat.23).

Table 35 – Cross-Border Requests for Recall

Requests for Recall per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.22.[Country code]$_x$
Requests for Recall per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.23.[Country code]$_x$

C.2.4. Overall monthly figures on payment transactions processed by TIPS

This category of indicators provides general information about volume and value of payment transactions[26] settled in TIPS. Two main sets of indicators belong to this category:

- Volume and value of national payment transactions settled;
- Volume and value of cross-border transactions settled.

For both categories, the statistical indicators will provide the breakdown by country code of the settled payment transactions. The relevant figures will be provided to the interested parties by means of an operational report generated on a monthly basis.

C.2.4.1. Volume of national payment transactions

This indicator provides the number of payment transactions settled grouped by the country code of the BIC of the Originator PSP.

Table 36 – Number of national settled payment transactions

Number of settled payment transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.24.[Country code]$_x$

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C.2.4.2. Value of national payment transactions

This indicator provides the total value of payment transactions settled grouped by the country code of the BIC of the Originator PSP.

Table 37 – Value of national settled payment transactions

Value of settled payment transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.25.[Country code]$_x$

C.2.4.3. Volume of cross-border payment transactions

This indicator provides the number of payment transactions settled grouped by the country code. The indicator will provide the figures from both the viewpoint (i) of country code of the BIC of the Originator PSP and (ii) of country code of the BIC of the Beneficiary PSP.

Table 38 – Number of Cross-Border settled payment transactions

Number of settled payment transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.26.[Country code]$_x$
Number of settled payment transactions per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.27.[Country code]$_x$

C.2.4.4. Value of cross-border payment transactions

This indicator provides the total value of payment transactions settled grouped by the country code. The indicator will provide the figures from both the viewpoint (i) of country code of the BIC of the Originator PSP and (ii) of country code of the BIC of the Beneficiary PSP.

Table 39 – Value of Cross-Border settled payment transactions

Value of settled payment transactions per Originator country	Indicator's reference
[Country code]$_x$	TIPS.stat.28.[Country code]$_x$
Value of settled payment transactions per Beneficiary country	**Indicator's reference**
[Country code]$_x$	TIPS.stat.29.[Country code]$_x$

C.3. Statistical Indicators for non-Euro currency

TIPS provides the TIPS Operator with the functionality for creating monthly and quarterly reports for statistical information on Instant Payment, Recall and Investigation transactions in non-Euro currency.

TIPS Operators are the only users allowed creating the reports. The TIPS operator, then, provides the generated report to the responsible CB.

The created reports remain available in the system for 12 months.

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This section describes the statistical indicators provided by TIPS giving useful information about Instant Payment transactions. All the indicators described below rely on a time frame of a quarter of year or of a month, despite the data are collected on a daily basis.

The indicators are generically divided into three main categories, even though some specificities[27] may be requested at non-Euro currency level:

1. General figures
2. National Transactions
3. Cross-border transactions

Each indicator is referenced with a unique code. The reader can refer to C.1.4 "List of general indicators for non-Euro currencies" for additional details.

C.3.1. General figures

This category of indicators provides general information about TIPS transactions denominated in a currency different from euro (e.g. SEK, DKK), not focusing on qualitative aspects (e.g. the country code of the BIC of either the Originator PSP or the Beneficiary PSP) of the operations, but only on quantitative measures. Fifteen indicators belong to this category:

- **Number** of IP transactions in non-Euro currency, *per amount*;
- **Number** of IP transactions in non-Euro currency, *per hour*;
- **Number** of positive confirmation messages, *per duration of the processing*;
- **Number** of negative confirmation messages, *per duration of the processing*;
- **Number** of Investigation Requests for IP transaction in non-Euro currency, processed by TIPS;
- **Number** of **settled** IP transactions in non-Euro currency, aggregated by *Originator PSP BIC* and *calendar day*;
- **Value** of **settled** IP transactions in non-Euro currency, aggregated by *Originator PSP BIC* and *calendar day*;
- **Number** of **settled** IP transactions in non-Euro currency per *calendar day* and *amount*;
- **Value** of **settled** IP transactions in non-Euro currency per *calendar day* and *amount*;
- **Number** of **unsettled** IP transactions in non-Euro currency per *calendar day* and *amount*;
- **Value** of **unsettled** IP transactions in non-Euro currency per *calendar day* and *amount*;
- **Number** of **settled** IP transactions in non-Euro currency per *calendar day* and *hour*;
- **Value** of **settled** IP transactions in non-Euro currency per *calendar day* and *hour*;
- **Number** of **unsettled** IP transactions in non-Euro currency per *calendar day* and *hour*;
- **Value** of **unsettled** IP transactions in non-Euro currency per *calendar day* and *hour*.

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C.3.1.1. Number of IP transactions in non-Euro currency per amount

This indicator (TIPS.stat.M1) gives the number of all the IP transactions in the period under analysis grouped by the currency amount (e.g. SEK, DKK), regardless of their final status (i.e. '*settled'*, '*rejected'*, '*failed'* or '*expired'*).

The ranges are currency-specific, hence, a different range of amounts may be defined for each non-Euro currency. In the table below the twelve ranges for the grouping of IP transactions in SEK are listed.

Table 40 – Number of transactions in SEK per amount

Amount	Code reference
< 100 SEK	TIPS.stat.M1.a$_{(SEK)}$
≥ 100 SEK and < 500 SEK	TIPS.stat.M1.b$_{(SEK)}$
≥ 500 SEK and < 1,000 SEK	TIPS.stat.M1.c$_{(SEK)}$
≥ 1,000 SEK and < 5,000 SEK	TIPS.stat.M1.d$_{(SEK)}$
≥ 5,000 SEK and < 10,000 SEK	TIPS.stat.M1.e$_{(SEK)}$
≥ 10,000 SEK and < 50,000 SEK	TIPS.stat.M1.f$_{(SEK)}$
≥ 50,000 SEK and < 100,000 SEK	TIPS.stat.M1.g$_{(SEK)}$
≥ 100,000 SEK and < 500,000 SEK	TIPS.stat.M1.h$_{(SEK)}$
≥ 500,000 SEK and < 1,000,000 SEK	TIPS.stat.M1.i$_{(SEK)}$
≥ 1,000,000 SEK and < 5,000,000 SEK	TIPS.stat.M1.j$_{(SEK)}$
≥ 5,000,000 SEK and < 10,000,000 SEK	TIPS.stat.M1.k$_{(SEK)}$
≥ 10,000,000 SEK	TIPS.stat.M1.l$_{(SEK)}$

Conversely, in the table below, the twenty-three ranges defined for the grouping of IP transactions in DKK are listed.

Table 41 - Number of transactions in DKK per amount

Amount	Code reference
< 50.00 DKK	TIPS.stat.M1.a$_{(DKK)}$
≥ 50 DKK and < 100 DKK	TIPS.stat.M1.b$_{(DKK)}$
≥ 100 DKK and < 500 DKK	TIPS.stat.M1.c$_{(DKK)}$
≥ 500 DKK and < 1,000 DKK	TIPS.stat.M1.d$_{(DKK)}$
≥ 1,000 DKK and < 2,500 DKK	TIPS.stat.M1.e$_{(DKK)}$
≥ 2,500 DKK and < 5,000 DKK	TIPS.stat.M1.f$_{(DKK)}$
≥ 5,000 DKK and < 7,500 DKK	TIPS.stat.M1.g$_{(DKK)}$
≥ 7,500 DKK and < 10,000 DKK	TIPS.stat.M1.h$_{(DKK)}$
≥ 10,000 DKK and < 20,000 DKK	TIPS.stat.M1.i$_{(DKK)}$
≥ 20,000 DKK and < 100,000 DKK	TIPS.stat.M1.j$_{(DKK)}$
≥ 100,000 DKK and < 200,000 DKK	TIPS.stat.M1.k$_{(DKK)}$
≥ 200,000 DKK and < 300,000 DKK	TIPS.stat.M1.l$_{(DKK)}$
≥ 300,000 DKK and < 400,000 DKK	TIPS.stat.M1.m$_{(DKK)}$

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Amount	Code reference
≥ 400,000 DKK and < 500,000 DKK	TIPS.stat.M1.n(DKK)
≥ 500,000 DKK and < 600,000 DKK	TIPS.stat.M1.o(DKK)
≥ 600,000 DKK and < 700,000 DKK	TIPS.stat.M1.p(DKK)
≥ 700,000 DKK and < 800,000 DKK	TIPS.stat.M1.q(DKK)
≥ 800,000 DKK and < 900,000 DKK	TIPS.stat.M1.r(DKK)
≥ 900,000 DKK and < 1,000,000 DKK	TIPS.stat.M1.s(DKK)
≥ 1,000,000 DKK and < 2,000,000 DKK	TIPS.stat.M1.t(DKK)
≥ 2,000,000 DKK and < 5,000,000 DKK	TIPS.stat.M1.u(DKK)
≥ 5,000,000 DKK and < 7,500,000 DKK	TIPS.stat.M1.v(DKK)
≥ 7,500,000 DKK	TIPS.stat.M1.w(DKK)

For each range only the left-side extremity is included in the range. Therefore, taking as an example an IP transaction whose amount is equal to 500 SEK, it will be part of the third range (i.e. 500 – 1,000 SEK), while an IP transaction whose amount is equal to 1,000 SEK is classified into the fourth range (i.e. 1,000 – 5,000 SEK).

C.3.1.2. Number of IP transactions in non-Euro currency per hour

This indicator (TIPS.stat.M2) gives the number of all the IP transactions in the period under analysis grouped by the settlement timestamp, regardless of their final status (i.e. '*settled*', '*rejected*', '*failed*' or '*expired*').

In the table below there are the twenty-four time ranges in which each IP transaction can be classified:

Table 42 – Number of transactions in non-Euro currency per timestamp

Hour	Code reference
00h00 - 01h00 CET	TIPS.stat.M2.a
01h00 - 02h00 CET	TIPS.stat.M2.b
02h00 - 03h00 CET	TIPS.stat.M2.c
03h00 - 04h00 CET	TIPS.stat.M2.d
04h00 - 05h00 CET	TIPS.stat.M2.e
05h00 - 06h00 CET	TIPS.stat.M2.f
06h00 - 07h00 CET	TIPS.stat.M2.g
07h00 - 08h00 CET	TIPS.stat.M2.h
08h00 - 09h00 CET	TIPS.stat.M2.i
09h00 - 10h00 CET	TIPS.stat.M2.j
10h00 - 11h00 CET	TIPS.stat.M2.k
11h00 - 12h00 CET	TIPS.stat.M2.l
12h00 - 13h00 CET	TIPS.stat.M2.m

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Hour	Code reference
13h00 - 14h00 CET	TIPS.stat.M2.n
14h00 - 15h00 CET	TIPS.stat.M2.o
15h00 - 16h00 CET	TIPS.stat.M2.p
16h00 - 17h00 CET	TIPS.stat.M2.q
17h00 - 18h00 CET	TIPS.stat.M2.r
18h00 - 19h00 CET	TIPS.stat.M2.s
19h00 - 20h00 CET	TIPS.stat.M2.t
20h00 - 21h00 CET	TIPS.stat.M2.u
21h00 - 22h00 CET	TIPS.stat.M2.v
22h00 - 23h00 CET	TIPS.stat.M2.w
23h00 - 24h00 CET	TIPS.stat.M2.x

For every class, only the left-side extremity is included in the range; whereby, if an IP transaction is executed at 06h00 it will be part of the range (06h00 - 07h00 CET).

C.3.1.3. Number of positive confirmation messages per duration of the processing

This indicator (TIPS.stat.M3) provides the number of settled IP transactions divided by overall duration of the processing. In case of IP transaction with positive result, the duration of the processing is calculated as the time elapsed from acceptance timestamp to the settlement timestamp, i.e. with the reception of the positive confirmation messages.

In the table below there are the eleven time ranges in which an IP transaction can be classified:

Table 43 – Number of settled IP transactions in non-Euro currency per duration of processing

Receipt of confirmation message	Code reference
≤ 0,5 second	TIPS.stat.M3.a
> 0,5 second and ≤ 1 second	TIPS.stat.M3.b
> 1 second and ≤ 2 seconds	TIPS.stat.M3.c
> 2 seconds and ≤ 3 seconds	TIPS.stat.M3.d
> 3 seconds and ≤ 4 seconds	TIPS.stat.M3.e
> 4 seconds and ≤ 5 seconds	TIPS.stat.M3.f
> 5 seconds and ≤ 10 seconds	TIPS.stat.M3.g
> 10 seconds and ≤ 15 seconds	TIPS.stat.M3.h
> 15 seconds and ≤ 20 seconds	TIPS.stat.M3.i
> 20 seconds and ≤ 25 seconds	TIPS.stat.M3.j
> 25 seconds	TIPS.stat.M3.k

For every class the upper extremity is included in the range; whereby, if a message is received after exactly 10 seconds it will be part of the seventh class (i.e. > 5 seconds and ≤ 10 seconds).

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C.3.1.4. Number of negative confirmation messages per duration of the processing

This indicator (TIPS.stat.M4) gives the number of unsettled IP Transaction (i.e. 'rejected', 'failed' or 'expired') divided by duration of the processing. In case of an IP transaction with negative result, the duration of the processing is calculated as the time elapsed from the acceptance timestamp and the timestamp by when the transaction reached its final status, e.g. with the reception of the negative confirmation message. Furthermore, if, neither positive nor negative confirmation message is received, the transaction is considered unsettled and counted in a specific time range (i.e. "no confirmation after 25 sec.").

In the table below there are the seven ranges in which each IP transaction shall be classified:

Table 44 – Number of unsettled IP transactions in non-Euro currency per duration of processing

Receipt of confirmation message	Code reference
≤ 5 seconds	TIPS.stat.M4.a
> 5 seconds and ≤ 10 seconds	TIPS.stat.M4.b
> 10 seconds and ≤ 15 seconds	TIPS.stat.M4.c
> 15 seconds and ≤ 20 seconds	TIPS.stat.M4.d
> 20 seconds and ≤ 25 seconds	TIPS.stat.M4.e
> 25 seconds	TIPS.stat.M4.f
no confirmation after 25 sec	TIPS.stat.M4.g

For every class the upper extremity is included in the range; whereby, if a message is received after exactly 5 seconds it will be part of the first class.

C.3.1.5. Number of Investigation Requests processed by TIPS

This indicator (TIPS.stat.M5) gives the total amount of investigations requested in TIPS. In this case, contrarily from the previous indicators, classes are not foreseen. This occurs because the information provided refers to all investigations processed by TIPS, regardless the time of the request and the type of actor who requested it.

Table 45 – Number of investigation requests relevant to IP transactions in non-Euro currency

Number of Investigations	Code reference
Investigations	TIPS.stat.M5.a

C.3.1.6. Number of settled IP transactions in non-Euro currency, aggregated by originator PSP BIC

The indicator (TIPS.stat.M14) provides the number of settled IP transactions in non-Euro currency, for each calendar day of the period under analysis, grouped by the Originator PSP BIC.

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Table 46 – Number of settled IP transactions in DKK, by Originator PSP BIC and calendar day

Number of settled IPs per Originator PSP BIC and calendar day	Code reference
$[BIC]_x.[Calendar\ day]_y.[IP]_z$	$TIPS.stat.M14_{(DKK)}$

C.3.1.7. Value of settled IP transactions in non-Euro currency, aggregated by originator PSP BIC

The indicator (TIPS.stat.M15) provides the value of settled IP transactions in non-Euro currency, for each calendar day of the period under analysis, grouped by the Originator PSP BIC.

Table 47 – Value of settled IP transactions in DKK, by Originator PSP BIC and calendar day

Value of settled IPs per Originator PSP BIC and calendar day	Code reference
$[BIC]_x\ [Calendar\ day]_y.[Total\ amount]_z$	$TIPS.stat.M15_{(DKK)}$

C.3.1.8. Number of settled IP transactions in non-Euro currency, per amount

The indicator (TIPS.stat.M16) provides, for each calendar day of the period under analysis, the number of settled IP transactions in non-Euro currency grouped by amount.

Table 48 – Number of settled IP transactions in DKK per amount and calendar day

Amount and calendar day	Code reference
$[< 50.00\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.a_{(DKK)}$
$[\geq 50\ DKK\ and < 100\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.b_{(DKK)}$
$[\geq 100\ DKK\ and < 500\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.c_{(DKK)}$
$[\geq 500\ DKK\ and < 1{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.d_{(DKK)}$
$[\geq 1{,}000\ DKK\ and < 2{,}500\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.e_{(DKK)}$
$[\geq 2{,}500\ DKK\ and < 5{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.f_{(DKK)}$
$[\geq 5{,}000\ DKK\ and < 7{,}500\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.g_{(DKK)}$
$[\geq 7{,}500\ DKK\ and < 10{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.h_{(DKK)}$
$[\geq 10{,}000\ DKK\ and < 20{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.i_{(DKK)}$
$[\geq 20{,}000\ DKK\ and < 100{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.j_{(DKK)}$
$[\geq 100{,}000\ DKK\ and < 200{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.k_{(DKK)}$
$[\geq 200{,}000\ DKK\ and < 300{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.l_{(DKK)}$
$[\geq 300{,}000\ DKK\ and < 400{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.m_{(DKK)}$
$[\geq 400{,}000\ DKK\ and < 500{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.n_{(DKK)}$
$[\geq 500{,}000\ DKK\ and < 600{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.o_{(DKK)}$
$[\geq 600{,}000\ DKK\ and < 700{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.p_{(DKK)}$
$[\geq 700{,}000\ DKK\ and < 800{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.q_{(DKK)}$
$[\geq 800{,}000\ DKK\ and < 900{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.r_{(DKK)}$
$[\geq 900{,}000\ DKK\ and < 1{,}000{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.s_{(DKK)}$
$[\geq 1{,}000{,}000\ DKK\ and < 2{,}000{,}000\ DKK].[Calendar\ day]_x$	$TIPS.stat.M16.t_{(DKK)}$

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Amount and calendar day	Code reference
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Calendar day]$_x$	TIPS.stat.M16.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Calendar day]$_x$	TIPS.stat.M16.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Calendar day]$_x$	TIPS.stat.M16.w$_{(DKK)}$

C.3.1.9. Value of settled IP transactions in non-Euro currency, per amount

The indicator (TIPS.stat.M17) provides, for each calendar day of the period under analysis, the value of settled IP transactions in non-Euro currency grouped by amount.

Table 49 – Value of settled transactions in DKK per amount and calendar day

Amount and calendar day	Code reference
[< 50.00 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.a$_{(DKK)}$
[≥ 50 DKK and < 100 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.f$_{(DKK)}$
[≥ 5,000 DKK and < 7,500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.o$_{(DKK)}$
[≥ 600,000 DKK and < 700,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M17.w$_{(DKK)}$

C.3.1.10. Number of unsettled IP transactions in non-Euro currency, per amount

The indicator (TIPS.stat.M18) provides, for each calendar day of the period under analysis, the value of unsettled IP transactions in non-Euro currency grouped by amount.

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Table 50 – Number of unsettled IP transactions in DKK per amount and calendar day

Amount and calendar day	Code reference
[< 50.00 DKK].[Calendar day]$_x$	TIPS.stat.M18.a$_{(DKK)}$
[≥ 50 DKK and < 100 DKK].[Calendar day]$_x$	TIPS.stat.M18.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Calendar day]$_x$	TIPS.stat.M18.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Calendar day]$_x$	TIPS.stat.M18.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.f$_{(DKK)}$
[≥ 5,000 DKK and < 7,500 DKK].[Calendar day]$_x$	TIPS.stat.M18.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.o$_{(DKK)}$
[≥ 600,000 DKK and < 700,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Calendar day]$_x$	TIPS.stat.M18.w$_{(DKK)}$

C.3.1.11. Value of unsettled IP transactions in non-Euro currency, per amount

The indicator (TIPS.stat.M19) provides, for each calendar day of the period under analysis, the value of unsettled IP transactions in non-Euro currency grouped by amount.

Table 51 – Value of unsettled IP transactions in DKK per amount and calendar day

Amount and calendar day	Code reference
[< 50.00 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.a$_{(DKK)}$
[≥ 50 DKK and < 100 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.b$_{(DKK)}$
[≥ 100 DKK and < 500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.c$_{(DKK)}$
[≥ 500 DKK and < 1,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.d$_{(DKK)}$
[≥ 1,000 DKK and < 2,500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.e$_{(DKK)}$
[≥ 2,500 DKK and < 5,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.f$_{(DKK)}$

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Amount and calendar day	Code reference
[≥ 5,000 DKK and < 7,500 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.g$_{(DKK)}$
[≥ 7,500 DKK and < 10,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.h$_{(DKK)}$
[≥ 10,000 DKK and < 20,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.i$_{(DKK)}$
[≥ 20,000 DKK and < 100,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.j$_{(DKK)}$
[≥ 100,000 DKK and < 200,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.k$_{(DKK)}$
[≥ 200,000 DKK and < 300,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.l$_{(DKK)}$
[≥ 300,000 DKK and < 400,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.m$_{(DKK)}$
[≥ 400,000 DKK and < 500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.n$_{(DKK)}$
[≥ 500,000 DKK and < 600,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.o$_{(DKK)}$
[≥ 600,000 DKK and < 700,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.p$_{(DKK)}$
[≥ 700,000 DKK and < 800,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.q$_{(DKK)}$
[≥ 800,000 DKK and < 900,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.r$_{(DKK)}$
[≥ 900,000 DKK and < 1,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.s$_{(DKK)}$
[≥ 1,000,000 DKK and < 2,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.t$_{(DKK)}$
[≥ 2,000,000 DKK and < 5,000,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.u$_{(DKK)}$
[≥ 5,000,000 DKK and < 7,500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.v$_{(DKK)}$
[≥ 7,500,000 DKK].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M19.w$_{(DKK)}$

C.3.1.12. Number of settled IP transactions in non-Euro currency, per hour

The indicator (TIPS.stat.M20) provides, for each calendar day of the period under analysis, the number of settled IP transactions in non-Euro currency grouped by the hour of the settlement timestamp.

Table 52 – Number of settled IP transactions in DKK, per timestamp and calendar day

Hour and calendar day	Code reference
[00h00 - 01h00 CET].[Calendar day]$_x$	TIPS.stat.M20.a$_{(DKK)}$
[01h00 - 02h00 CET].[Calendar day]$_x$	TIPS.stat.M20.b$_{(DKK)}$
[02h00 - 03h00 CET].[Calendar day]$_x$	TIPS.stat.M20.c$_{(DKK)}$
[03h00 - 04h00 CET].[Calendar day]$_x$	TIPS.stat.M20.d$_{(DKK)}$
[04h00 - 05h00 CET].[Calendar day]$_x$	TIPS.stat.M20.e$_{(DKK)}$
[05h00 - 06h00 CET].[Calendar day]$_x$	TIPS.stat.M20.f$_{(DKK)}$
[06h00 - 07h00 CET].[Calendar day]$_x$	TIPS.stat.M20.g$_{(DKK)}$
[07h00 - 08h00 CET].[Calendar day]$_x$	TIPS.stat.M20.h$_{(DKK)}$
[08h00 - 09h00 CET].[Calendar day]$_x$	TIPS.stat.M20.i$_{(DKK)}$
[09h00 - 10h00 CET].[Calendar day]$_x$	TIPS.stat.M20.j$_{(DKK)}$
[10h00 - 11h00 CET].[Calendar day]$_x$	TIPS.stat.M20.k$_{(DKK)}$
[11h00 - 12h00 CET].[Calendar day]$_x$	TIPS.stat.M20.l$_{(DKK)}$
[12h00 - 13h00 CET].[Calendar day]$_x$	TIPS.stat.M20.m$_{(DKK)}$

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Hour and calendar day	Code reference
[13h00 - 14h00 CET].[Calendar day]$_x$	TIPS.stat.M20.n$_{(DKK)}$
[14h00 - 15h00 CET].[Calendar day]$_x$	TIPS.stat.M20.o$_{(DKK)}$
[15h00 - 16h00 CET].[Calendar day]$_x$	TIPS.stat.M20.p$_{(DKK)}$
[16h00 - 17h00 CET].[Calendar day]$_x$	TIPS.stat.M20.q$_{(DKK)}$
[17h00 - 18h00 CET].[Calendar day]$_x$	TIPS.stat.M20.r$_{(DKK)}$
[18h00 - 19h00 CET].[Calendar day]$_x$	TIPS.stat.M20.s$_{(DKK)}$
[19h00 - 20h00 CET].[Calendar day]$_x$	TIPS.stat.M20.t$_{(DKK)}$
[20h00 - 21h00 CET].[Calendar day]$_x$	TIPS.stat.M20.u$_{(DKK)}$
[21h00 - 22h00 CET].[Calendar day]$_x$	TIPS.stat.M20.v$_{(DKK)}$
[22h00 - 23h00 CET].[Calendar day]$_x$	TIPS.stat.M20.w$_{(DKK)}$
[23h00 - 24h00 CET].[Calendar day]$_x$	TIPS.stat.M20.x$_{(DKK)}$

For every class, only the left-side extremity is included in the range; whereby, if an IP transaction is executed at 06h00 it will be part of the range (06h00 - 07h00 CET).

C.3.1.13. Value of settled IP transactions in non-Euro currency, per hour

The indicator (TIPS.stat.M21) provides, for each calendar day of the period under analysis, the value of settled IP transactions in non-Euro currency grouped by the hour of the settlement timestamp.

Table 53 – Value of settled IP transactions in DKK, per timestamp and calendar day

Hour and calendar day	Code reference
[00h00 - 01h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.a$_{(DKK)}$
[01h00 - 02h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.b$_{(DKK)}$
[02h00 - 03h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.c$_{(DKK)}$
[03h00 - 04h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.d$_{(DKK)}$
[04h00 - 05h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.e$_{(DKK)}$
[05h00 - 06h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.f$_{(DKK)}$
[06h00 - 07h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.g$_{(DKK)}$
[07h00 - 08h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.h$_{(DKK)}$
[08h00 - 09h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.i$_{(DKK)}$
[09h00 - 10h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.j$_{(DKK)}$
[10h00 - 11h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.k$_{(DKK)}$
[11h00 - 12h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.l$_{(DKK)}$
[12h00 - 13h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.m$_{(DKK)}$
[13h00 - 14h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.n$_{(DKK)}$
[14h00 - 15h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.o$_{(DKK)}$
[15h00 - 16h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.p$_{(DKK)}$
[16h00 - 17h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.q$_{(DKK)}$
[17h00 - 18h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.r$_{(DKK)}$

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Hour and calendar day	Code reference
[18h00 - 19h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.s$_{(DKK)}$
[19h00 - 20h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.t$_{(DKK)}$
[20h00 - 21h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.u$_{(DKK)}$
[21h00 - 22h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.v$_{(DKK)}$
[22h00 - 23h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.w$_{(DKK)}$
[23h00 - 24h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M21.x$_{(DKK)}$

For every class, only the left-side extremity is included in the range; whereby, if an IP transaction is executed at 06h00 it will be part of the range (06h00 - 07h00 CET).

C.3.1.14. Number of unsettled IP transactions in non-Euro currency, per hour

The indicator (TIPS.stat.M22) provides, for each calendar day in the period under analysis, the number of unsettled IP transactions in non-Euro currency grouped by the hour of the settlement timestamp.

Table 54 – Number of unsettled IP transactions in DKK, per timestamp and calendar day

Hour and calendar day	Code reference
[00h00 - 01h00 CET].[Calendar day]$_x$	TIPS.stat.M22.a$_{(DKK)}$
[01h00 - 02h00 CET].[Calendar day]$_x$	TIPS.stat.M22.b$_{(DKK)}$
[02h00 - 03h00 CET].[Calendar day]$_x$	TIPS.stat.M22.c$_{(DKK)}$
[03h00 - 04h00 CET].[Calendar day]$_x$	TIPS.stat.M22.d$_{(DKK)}$
[04h00 - 05h00 CET].[Calendar day]$_x$	TIPS.stat.M22.e$_{(DKK)}$
[05h00 - 06h00 CET].[Calendar day]$_x$	TIPS.stat.M22.f$_{(DKK)}$
[06h00 - 07h00 CET].[Calendar day]$_x$	TIPS.stat.M22.g$_{(DKK)}$
[07h00 - 08h00 CET].[Calendar day]$_x$	TIPS.stat.M22.h$_{(DKK)}$
[08h00 - 09h00 CET].[Calendar day]$_x$	TIPS.stat.M22.i$_{(DKK)}$
[09h00 - 10h00 CET].[Calendar day]$_x$	TIPS.stat.M22.j$_{(DKK)}$
[10h00 - 11h00 CET].[Calendar day]$_x$	TIPS.stat.M22.k$_{(DKK)}$
[11h00 - 12h00 CET].[Calendar day]$_x$	TIPS.stat.M22.l$_{(DKK)}$
[12h00 - 13h00 CET].[Calendar day]$_x$	TIPS.stat.M22.m$_{(DKK)}$
[13h00 - 14h00 CET].[Calendar day]$_x$	TIPS.stat.M22.n$_{(DKK)}$
[14h00 - 15h00 CET].[Calendar day]$_x$	TIPS.stat.M22.o$_{(DKK)}$
[15h00 - 16h00 CET].[Calendar day]$_x$	TIPS.stat.M22.p$_{(DKK)}$
[16h00 - 17h00 CET].[Calendar day]$_x$	TIPS.stat.M22.q$_{(DKK)}$
[17h00 - 18h00 CET].[Calendar day]$_x$	TIPS.stat.M22.r$_{(DKK)}$
[18h00 - 19h00 CET].[Calendar day]$_x$	TIPS.stat.M22.s$_{(DKK)}$
[19h00 - 20h00 CET].[Calendar day]$_x$	TIPS.stat.M22.t$_{(DKK)}$
[20h00 - 21h00 CET].[Calendar day]$_x$	TIPS.stat.M22.u$_{(DKK)}$
[21h00 - 22h00 CET].[Calendar day]$_x$	TIPS.stat.M22.v$_{(DKK)}$
[22h00 - 23h00 CET].[Calendar day]$_x$	TIPS.stat.M22.w$_{(DKK)}$
[23h00 - 24h00 CET].[Calendar day]$_x$	TIPS.stat.M22.x$_{(DKK)}$

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For every class, only the left-side extremity is included in the range; whereby, if an IP transaction is executed at 06h00 it will be part of the range (06h00 - 07h00 CET).

C.3.1.15. Value of unsettled IP transactions in non-Euro currency, per hour

The indicator (TIPS.stat.M23) provides, for each calendar day in the period under analysis, the value of unsettled IP transactions in non-Euro currency grouped by the hour of the settlement timestamp.

Table 55 – Value of unsettled IP transactions in DKK, per timestamp and calendar day

Hour and calendar day	Code reference
[00h00 - 01h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.a$_{(DKK)}$
[01h00 - 02h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.b$_{(DKK)}$
[02h00 - 03h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.c$_{(DKK)}$
[03h00 - 04h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.d$_{(DKK)}$
[04h00 - 05h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.e$_{(DKK)}$
[05h00 - 06h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.f$_{(DKK)}$
[06h00 - 07h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.g$_{(DKK)}$
[07h00 - 08h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.h$_{(DKK)}$
[08h00 - 09h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.i$_{(DKK)}$
[09h00 - 10h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.j$_{(DKK)}$
[10h00 - 11h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.k$_{(DKK)}$
[11h00 - 12h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.l$_{(DKK)}$
[12h00 - 13h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.m$_{(DKK)}$
[13h00 - 14h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.n$_{(DKK)}$
[14h00 - 15h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.o$_{(DKK)}$
[15h00 - 16h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.p$_{(DKK)}$
[16h00 - 17h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.q$_{(DKK)}$
[17h00 - 18h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.r$_{(DKK)}$
[18h00 - 19h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.s$_{(DKK)}$
[19h00 - 20h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.t$_{(DKK)}$
[20h00 - 21h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.u$_{(DKK)}$
[21h00 - 22h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.v$_{(DKK)}$
[22h00 - 23h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.w$_{(DKK)}$
[23h00 - 24h00 CET].[Calendar day]$_x$.[Total amount]$_y$	TIPS.stat.M23.x$_{(DKK)}$

For every class, only the left-side extremity is included in the range; whereby, if an IP transaction is executed at 06h00 it will be part of the range (06h00 - 07h00 CET).

C.3.2. National transactions

This category of indicators provides information about IP transactions, recall requests and request for recall by the originator executed in a national context in a given quarter/month of the year. Consequently, the transactions taken into consideration refer to an Originator Bank and a Beneficiary Bank both

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belonging to the same country and therefore holding the same country code within their BIC. Eleven indicators belong to this category:

- **Number** of national IP transactions;
- **Number** of **settled** national IP transactions;
- **Value** of **settled** national IP transactions;
- **Number** of **settled** national payment transactions[28];
- **Value** of **settled** national payment transactions;
- **Number** of **unsettled** national IP transactions;
- **Value** of **unsettled** national IP transactions;
- **Number** of national Recall Requests;
- **Number** of **unsettled** national IP transactions, grouped by reason code;
- **Number** of national Recall Requests grouped by reason code;
- **Number** of national Request for Recall by Originator.

Each indicator provides the number of operations grouped by the country code of the actors. In other words, TIPS provides the exact number of transaction/recall carried out when an IP transaction or a Recall is operated by two PSPs of the same country.

Besides, TIPS analyses the unsettled IPs and the Recall Requests grouped by reason code. TIPS distinguishes the Reason codes into three categories:

- Internal Reason Code: Error code generated by TIPS;
- External Reason Code: Error code generated by other systems outside TIPS;
- TIPS reason code: Error code generated and defined only in TIPS.

The only reason codes by which the indicators can be grouped are those generated by TIPS. All the other operations are grouped inside the category “External Reason Code”.

For the list of error code generated by TIPS the reader can refer to section 4.2.1 “List of ISO Error codes”.

C.3.2.1. Number of national IP transactions

This indicator (TIPS.stat.M6) gives the number of all the national IP transactions in the period under analysis grouped by the common country code of the BIC of the actors (Originator Bank and Beneficiary Bank). The final status of the transaction is irrelevant, therefore not only the settled, but also the unsettled transactions (‘rejected’, ‘failed’ or ‘expired’), are taken into account for the calculation of this indicator.

Table 56 – Number of national IP transactions in non-Euro currency

Transactions Per country	Code reference
[Country code]$_x$	TIPS.stat.M6.[Country code] $_x$

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The indicator returns a value for the country code (e.g. SE, if currency is SEK) related to the given currency whose BIC has executed a transaction in the period under analysis.

C.3.2.2. Number of national settled IP transactions in non-Euro currency

The indicator (TIPS.stat.M12) counts the number of all the domestic settled IP transactions denominated in a given non-Euro currency during a selected period of analysis.

Table 57 – Number of national settled IP transactions in DKK

Number of settled transactions per country	Code reference
[Country code]	TIPS.stat.M12.[Country code](DKK)

C.3.2.3. Value of national settled IP transactions in non-Euro currency

The indicator (TIPS.stat.M13) counts the overall value of all the domestic settled IP transactions denominated in a given non-Euro currency over a selected period of analysis.

Table 58 – Value of national settled IP transactions in DKK

Value of settled transactions per country	Code reference
[Country code]. [Total amount]	TIPS.stat.M13.[Country code](DKK)

C.3.2.4. Number of national IP transactions with status unsettled

This indicator (TIPS.stat.M7) gives the number of unsettled IP transaction in the period under analysis grouped by the common country code of the BIC of the actors (Originator Bank and Beneficiary Bank). As mentioned above (see C.3.1.6 "Number of settled IP transactions in non-Euro currency, aggregated by originator PSP BIC"), the data are divided by country code of the actors, and consequently the indicator shows, for the country code (e.g. SE, if currency is SEK) related to the given currency, the number of IP transactions with status different from "*settled*". Furthermore, there is no differentiation across the final status of each transaction (i.e. '*rejected*', '*failed*' or '*expired*').

Table 59 – Number of national unsettled IP transactions in non-Euro currency

Unsettled Transactions per country	Code reference
[Country code]	TIPS.stat.M7.[Country code]

C.3.2.5. Value of national IP transactions with status unsettled

The indicator (TIPS.stat.M26) counts the overall value of all the national unsettled IP transactions in a given non-Euro currency over a selected period of analysis, The transactions are grouped by the common country code resulting from the BICs of the two counterparts (i.e. Originator PSP and Beneficiary PSP).

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Table 60 – Value of national unsettled IP transactions in DKK

Value of unsettled transactions per country	Code reference
[Country code]	TIPS.stat.M26.[Country code]$_{(DKK)}$

C.3.2.6. Number of national Recall Requests

This indicator (TIPS.stat.M8) gives the number of Recall Requests sent on a selected period and grouped by the common country code of the BIC of the actors (Originator Bank and Beneficiary Bank). The Indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the answer message is negative or positive. In addition, only the Recall Requests successfully sent to the Beneficiary are taken in consideration for the calculation of the indicator.

Table 61 – Number of national Recall Requests

Recall Requests per country	Code reference
[Country code]	TIPS.stat.M8.[Country code]

C.3.2.7. Number of national unsettled IP transactions grouped by reason code

This indicator (TIPS.stat.M9) gives the number of unsettled IP transaction of a selected period and grouped by (i) the common country code of the BIC of the actors and (ii) by Reason Code. The transactions taken into account are the same analysed in paragraph C.3.2.4, i.e. the number of transactions with status different from “Settled”, regardless of the final status of each transaction (i.e. ‘rejected’, ‘failed’ or ‘expired’). Moreover, in addition to the country code of the BIC of the actors, all the transactions are classified based on the rejection Reason Code. Consequently, the total number of transactions counted by this indicator and the indicator from paragraph C.3.2.4 shall be the same. The only Reason Codes taken in consideration are those generated by TIPS (Internal Reason Code, see C.3.1.6). Therefore, all the IPs with status unsettled and with a Reason code not generated by TIPS, are grouped into a generic category, namely “External Reason Code”.

Table 62 – National unsettled IP transactions in non-Euro currency per reason code

Transactions per reason code	Code reference
[Country code].[Reason code]$_y$	TIPS.stat.M9.[Country code].[Reason code]$_y$

C.3.2.8. Number of national Recall Requests grouped by reason code

This indicator (TIPS.stat.M10) gives the number of Recall Requests sent on a selected period and grouped by the common country code of the BIC of the actors and by Reason Code. The Recall Requests taken into account are the same analysed in paragraph C.3.2.6, i.e. only those sent to the Beneficiary irrespective if the answer message is negative or positive. Moreover, in addition to the country code of the BIC of the actors, all the Recall Requests are divided by Reason Code.

The Reason codes taken in consideration are the following:

- DUPL: Duplicate Sending

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- FRAD: Fraudulent Origin
- TECH: Technical Problem

Table 63 – National Recall Requests per Reason Code

Recall per Reason Code	Code reference
[Country code].[Reason code]$_y$	TIPS.stat.M10.[Country code].[Reason code]$_y$

C.3.2.9. Number of national Request for Recall by Originator

This indicator (TIPS.stat.M11) gives the number of Requests for Recall sent on a selected period and grouped by the common country code of the BIC of the banks of the users. The Indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the answer message is negative or positive. In addition, only the Recall Requests successfully sent to the Beneficiary are taken in consideration for the calculation of the indicator. In order to distinguish a Recall Request from a Request for Recall, the latter shall be defined by the following parameters:

- Index 4.18 'Originator' shall be populated with AT-02 "The name of the Originator".
- Index 4.20 'Reason Code' shall be populated with ISO code **"CUST"** (Requested by Customer).
- Index 4.21 'Reason Proprietary' shall be populated with the proprietary codes **"AM09"** (Wrong amount) and **"AC03"** (Wrong IBAN).

Table 64 – National Requests for Recall

Requests for Recall per country	Code reference
[Country code]$_x$	TIPS.stat.M11.[Country code]$_x$

C.3.2.10. Overall monthly figures on payment transactions processed by TIPS

This category of indicators provides general information about volume and value of payment transactions[29] settled in TIPS for non-Euro currencies:

- Volume and value of national payment transactions settled.

The statistical indicators will provide, for the country code related to the given currency, the settled payment transactions. The relevant figures will be provided to the interested parties by means of an operational report generated on a monthly basis.

C.3.2.11. Volume of national payment transactions

This indicator provides the number of payment transactions settled grouped by the country code of the BIC of the Originator Bank.

Table 65 – Number of national settled payment transactions for non-Euro currencies

Number of settled payment transactions per Originator country	Code reference
[Country code]	TIPS.stat.M24.[Country code]

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C.3.2.12. Value of national payment transactions

This indicator provides the total value of payment transactions settled grouped by the country code of the BIC of the Originator Bank.

Table 66 – Value of national settled payment transactions for non-Euro currencies

Value of settled payment transactions per Originator country	Code reference
[Country code] [Currency code]	TIPS.stat.M25.[Country code]

C.3.3. Cross-border transactions

This category of statistical indicators provides information about non-Euro currency cross-border[30] Instant Payments, Recall Requests and Requests for Recall by Originator in a given month/quarter of the year.

Consequently, the transactions taken into consideration refer to Originator PSPs and Beneficiary PSPs that, despite they are operating in the same non-Euro currency, belong to different countries and therefore are identified by BICs whose country code is different. Furthermore, every indicator is calculated from the perspective of either the Originator PSP or the Beneficiary PSP[31].

Sixteen statistical indicators belong to this category, according to the list below:

- **Number** of **settled** cross-border IP transactions in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Value** of **settled** cross-border IP transactions in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Number** of **unsettled** cross-border IP transactions in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Value** of **unsettled** cross-border IP transactions in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Number** of cross-border Recall Requests in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Number** of **unsettled** cross-border IP transactions in non-Euro currency grouped by reason code:
  - Sent by the Originator PSP and grouped by the country code of its BIC

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- Received by the Beneficiary PSP and grouped by the country code of its BIC

- **Number** of cross-border Recall Requests in non-Euro currency grouped by reason code:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC
- **Number** of cross-border Request for Recall by Originator in non-Euro currency:
  - Sent by the Originator PSP and grouped by the country code of its BIC
  - Received by the Beneficiary PSP and grouped by the country code of its BIC

Similarly to the domestic indicators, TIPS classifies the reason codes into three categories:

- Internal Reason Code: error codes generated by TIPS;
- External Reason Code: error codes generated by other systems or counterparts outside TIPS;
- TIPS reason code: proprietary error codes generated by TIPS.

The reason codes by which the indicators are grouped are those generated by TIPS. All the remaining reason codes are collected in the “External Reason Code” (EXTR) category.

C.3.3.1. Number of settled cross-border IP transactions in non-Euro currency

The indicator is calculated by counting the settled cross-border IP transactions in non-Euro currency over a selected time period. Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Number of settled cross-border IP transactions sent by the Originator PSP and grouped by the country code resulting from its BIC (TIPS.stat.M27);
- Number of settled cross-border IP transactions received by the Beneficiary PSP and grouped by the country code resulting from its BIC (TIPS.stat.M28).

Table 67 – Number of settled cross-border IP transactions in DKK

Transaction per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M27.[Country code]$_{x.(DKK)}$
Transaction per Beneficiary PSP country	**Code reference**
[Country code]$_x$	TIPS.stat.M28.[Country code]$_{x.(DKK)}$

C.3.3.2. Value of settled cross-border IP transactions in non-Euro currency

The indicator is calculated by counting the overall value of the settled cross-border IP transactions in non-Euro currency over a selected time period. Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Value of settled cross-border IP transactions sent by the Originator PSP and grouped by the country code resulting from its BIC (TIPS.stat.M29);
- Value of settled cross-border IP transactions received by the Beneficiary PSP and grouped by the country code resulting from its BIC (TIPS.stat.M30).

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Table 68 – Value of settled cross-border IP transactions in DKK

Value per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M29.[Country code]$_{x.(DKK)}$
Value per Beneficiary PSP country	**Code reference**
[Country code]$_x$	TIPS.stat.M30.[Country code]$_{x.(DKK)}$

C.3.3.3. Number of unsettled cross-border IP transactions in non-Euro currency

The indicator is calculated by counting the unsettled cross-border IP transactions in non-Euro currency over a selected time period. However, no breakdown of the final status of each transaction (i.e. '*rejected*', '*failed*' or '*expired*') is envisaged.

Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Number of unsettled cross-border IP transactions sent by the Originator PSP and grouped by the country code resulting from its BIC (TIPS.stat.M31);
- Number of unsettled cross-border IP transactions received by the Beneficiary PSP and grouped by the country code resulting from its BIC (TIPS.stat.M32).

Table 69 – Number of unsettled cross-border IP transactions in DKK

Number of unsettled transactions per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M31.[Country code]$_{x.(DKK)}$
Number of unsettled transactions per Beneficiary PSP country	**Code reference**
[Country code]$_x$	TIPS.stat.M32.[Country code]$_{x.(DKK)}$

C.3.3.4. Value of unsettled cross-border IP transactions in non-Euro currency

The indicator is calculated by counting the overall value of unsettled cross-border IP transactions in non-Euro currency over a selected time period. However, no breakdown of the final status of each transaction (i.e. '*rejected*', '*failed*' or '*expired*') is envisaged.

Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Value of unsettled cross-border IP transactions sent by the Originator PSP and grouped by the country code resulting from its BIC (TIPS.stat.M33);
- Value of unsettled cross-border IP transactions received by the Beneficiary PSP and grouped by the country code resulting from its BIC (TIPS.stat.M34).

Table 70 – Value of unsettled cross-border IP transactions in DKK

Value of unsettled transactions per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M33.[Country code]$_{x.(DKK)}$
Value of unsettled transactions per Beneficiary PSP country	**Code reference**

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Value of unsettled transactions per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M34.[Country code]$_{x.(DKK)}$

C.3.3.5. Number of cross-border Recall Requests in non-Euro currency

The indicator is calculated by counting the Recall Requests in non-Euro currency sent over a selected time period. The Indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. Furthermore, only the Recall Requests (i) validated by TIPS and (ii) forwarded by TIPS to the Beneficiary PSP are taken into account.

Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Number of cross-border Recall Request in non-Euro currency sent by the Originator PSP and grouped by the country code resulting from its BIC (TIPS.stat.M35);
- Number of cross-border Recall Request in non-Euro currency received by the Beneficiary PSP and grouped by the country code resulting from its BIC (TIPS.stat.M36).

Table 71 – Number of cross-border Recall Requests in DKK

Recall Requests per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M35.[Country code]$_{x.(DKK)}$
Recall Requests per Beneficiary PSP country	**Code reference**
[Country code]$_x$	TIPS.stat.M36.[Country code]$_{x.(DKK)}$

C.3.3.6. Number of unsettled cross-border IP transactions in non-Euro currency grouped by reason code

The indicator is calculated by counting the unsettled IP transactions in non-Euro currency over a given period of time. Only Instant Payments whose status is different from '*settled*' are taken into account. Moreover, in addition to the country code of the BIC of the actors, the transactions are grouped by the reason code resulting from the specific rejection.

Only reason codes generated by TIPS are taken into consideration. Therefore, the IP transactions with status unsettled having a reason code not being generated by TIPS, are grouped into the generic bucket of "External Reason Codes".

Depending on the country code of the actors, there are two different indicators:

- Number of unsettled cross-border transaction sent by the Originator PSP, grouped by the country code resulting from its BIC and reason code (TIPS.stat.M37);
- Number of unsettled cross-border transaction received by the Beneficiary PSP, grouped by the country code resulting from its BIC and reason code (TIPS.stat.M38).

Table 72 – Unsettled cross-border IP transactions in DKK per reason code

Transactions per reason code and Originator PSP Country	Code reference
[Country code]$_x$.[Reason code]$_y$	TIPS.stat.M37.[Country code]$_x$.[Reason code]$_{y.(DKK)}$

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Transactions per reason code and Originator PSP Country	Code reference
Transactions per reason code and Beneficiary PSP Country	**Code reference**
[Country code]$_{x.}$[Reason code]$_{y}$	TIPS.stat.M38.[Country code]$_{x.}$[Reason code]$_{y.(DKK)}$

C.3.3.7. Number of cross-border Recall Requests in non-Euro currency grouped by reason code

The indicator is calculated by counting the Recall Requests sent over a given period of time. The Recall Requests taken into consideration are those (i) validated by TIPS and (ii) forwarded by TIPS to the Beneficiary PSP irrespective if the response message is negative or positive. Moreover, in addition to the country code resulting from the counterpart BIC, each Recall Request is grouped by the corresponding reason code.

The reason codes taken in consideration are the following:

- DUPL: Duplicate Sending
- FRAD: Fraudulent Origin
- TECH: Technical Problem

Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Number of cross-border Recall Request sent by the Originator PSP, grouped by the country code resulting from its BIC and by reason code (TIPS.stat.M39);
- Number of cross-border Recall Request received by the Beneficiary PSP, grouped by the country code resulting from its BIC and by reason code (TIPS.stat.M40).

Table 73 – Number of cross-border Recall Requests in DKK, per reason code

Recall Request per reason code and Originator PSP country	Code reference
[Country code]$_{x.}$[Reason code]$_{y}$	TIPS.stat.M39.[Country code]$_{x.(DKK)}$
Recall Request per reason code and Beneficiary PSP country	**Code reference**
[Country code]$_{x.}$[Reason code]$_{y}$	TIPS.stat.M40.[Country code]$_{x.(DKK)}$

C.3.3.8. Number of cross-border Request for Recall by Originator in non-Euro currency

The indicator is calculated by counting the Requests for Recall by Originator received by TIPS over a given period of time. The indicator does not take into consideration the outcome of the Recall, therefore is irrelevant if the response message is negative or positive. The criteria to follow in order to distinguish a Recall Request from a Request for Recall by Originator are defined in paragraph **C**.2.2.6.

Taking into consideration the view of both the Originator and Beneficiary PSPs, the statistical indicator is segregated into two distinct figures:

- Number of cross-border Request for Recall by Originator in non-Euro currency sent by the Originator PSP, grouped by the country code resulting from its BIC (TIPS.stat.M41);

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- Number of cross-border Request for Recall by Originator in non-Euro currency received by the Beneficiary PSP, grouped by the country code resulting from its BIC (TIPS.stat.M42).

Table 74 – Cross-border Requests for Recall by Originator in DKK

Request for Recall by Originator per Originator PSP country	Code reference
[Country code]$_x$	TIPS.stat.M41.[Country code]$_{x.(DKK)}$
Request for Recall by Originator per Beneficiary PSP country	**Code reference**
[Country code]$_x$	TIPS.stat.M42.[Country code]$_{x.(DKK)}$

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