

TARGET Instant Payment Settlement

User Detailed Functional Specifications

TIPS Contact Group #1

Summary

1. TIPS and other services' Scope Defining Documents
2. TIPS Scope Defining Documents
3. TIPS User Detailed Functional Specifications
 - Scope and structure
 - Table of contents
 - First draft
 - Schedule and content of next drafts

TIPS and other services' Scope Defining Documents

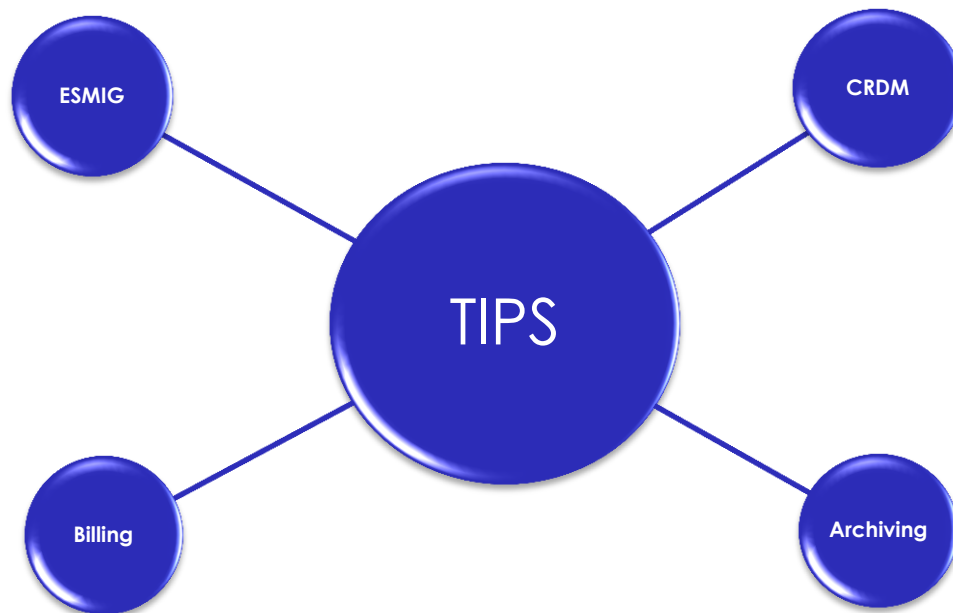
TIPS and other services' SDDs

- The T2-T2S Consolidation project envisions that in the long term all settlement services (including TIPS) will make use of a number of Shared Services such as:
 - Eurosystem Single Market Infrastructure Gateway (ESMIG)
 - Common Reference Data Management (CRDM)
 - Billing
 - Archiving
- Each (settlement and shared) service will have its own set of Scope Defining Documents (e.g. UDFS, UHB).
- This long term view will also apply, with specific reference to TIPS, already in 2018, when TIPS will go live.

TIPS and other services' SDDs

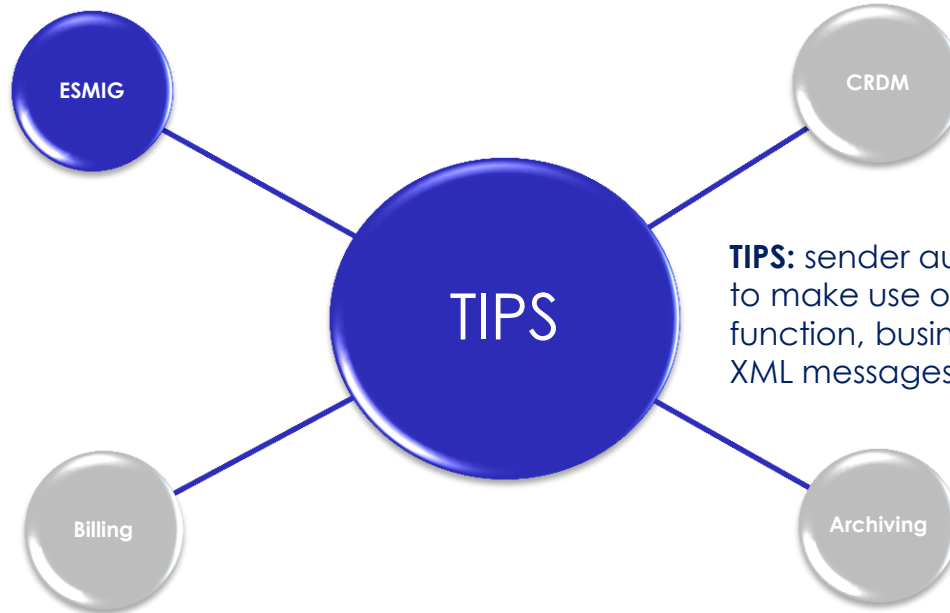
- The SDDs of the different services will have to be drafted in a way to:
 - focus on the service to be described;
 - decouple SDDs related to different services;
 - avoid information overlap and redundancy amongst SDDs of different services;
 - ease the overall understanding of business processes making use of multiple services.
- The SDDs of TIPS and of the (subset of) shared services required for the go-live of TIPS will be drafted along the above listed principles.

TIPS and other services' SDDs



TIPS and other services' SDDs

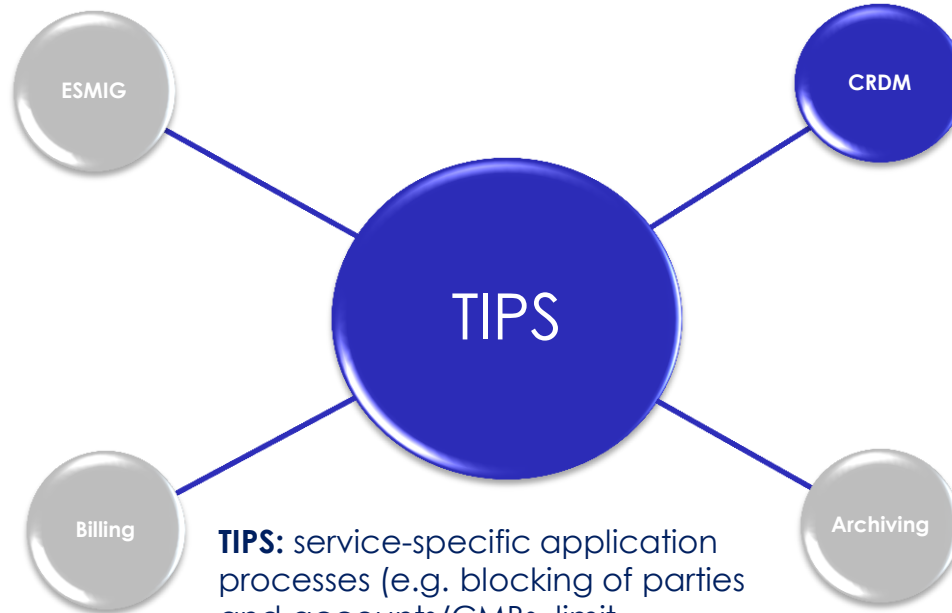
ESMIG: sender authentication process, sender authorisation process to access TIPS as a service, technical validation of XML messages.



TIPS: sender authorisation process to make use of a given TIPS function, business validation of XML messages.

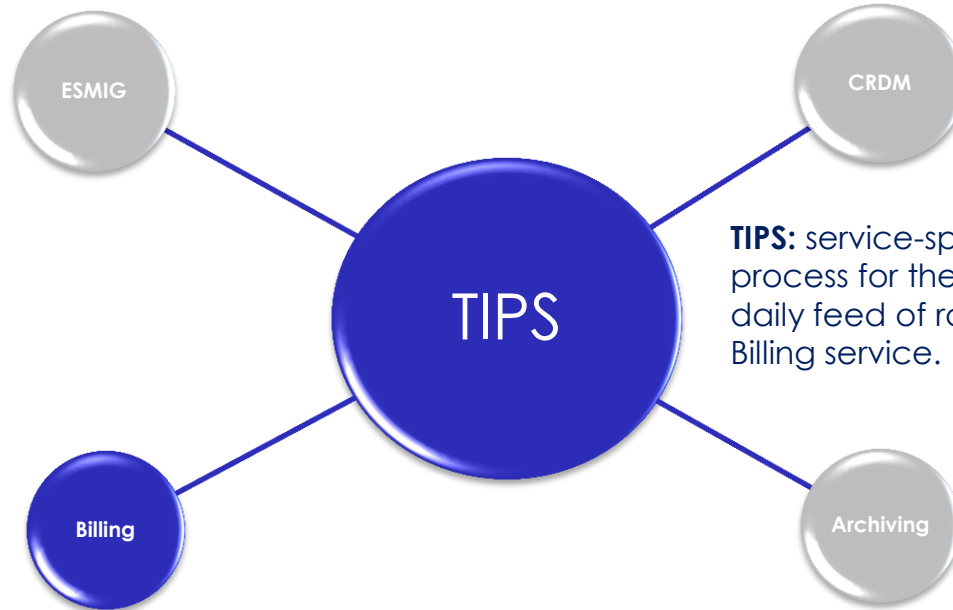
TIPS and other services' SDDs

CRDM: common application processes (e.g. maintenance, revision and status management, purging, etc.) valid for all reference data objects (e.g. parties, account, CMB).



TIPS: service-specific application processes (e.g. blocking of parties and accounts/CMBs, limit adjustment); description of TIPS reference data model (including both common and local reference data).

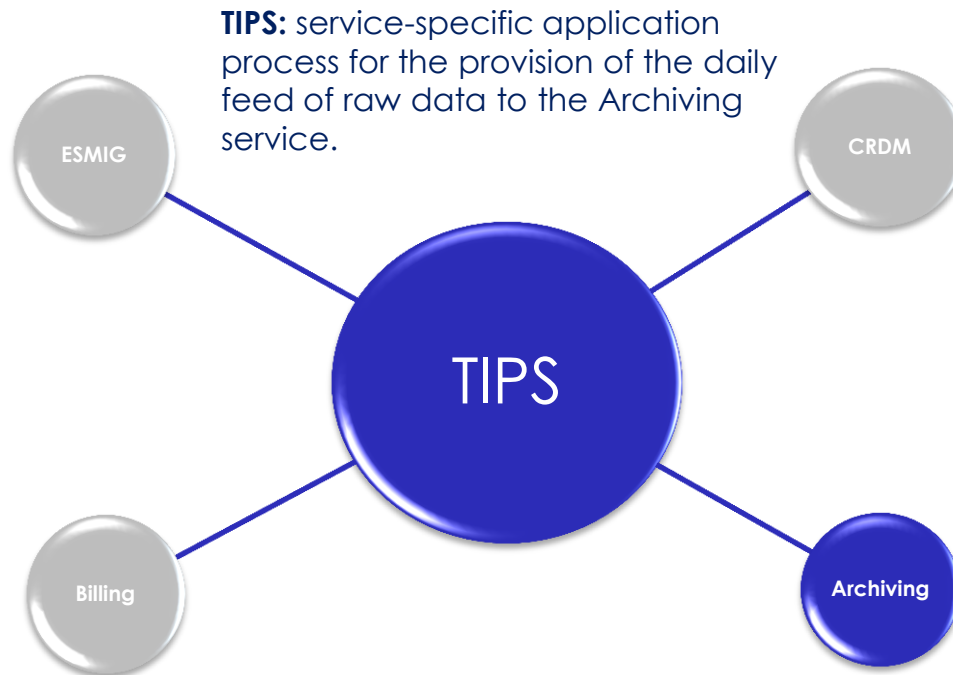
TIPS and other services' SDDs



TIPS: service-specific application process for the provision of the daily feed of raw data for the Billing service.

Billing: common application processes (e.g. aggregation of raw data, production of consumption files, etc.) valid for all services (including TIPS).

TIPS and other services' SDDs



TIPS: service-specific application process for the provision of the daily feed of raw data to the Archiving service.

Archiving: common application processes used to handle and store data related to all services (including TIPS).

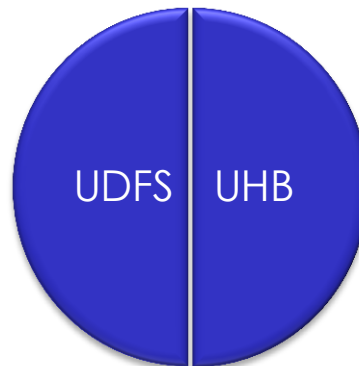
TIPS Scope Defining Documents

TIPS Scope Defining Documents

The UDFS and the UHB cover together the full scope of TIPS. More into detail:

- The UDFS describe all TIPS features, regardless whether they may be used in Application-to-Application mode, User-to-Application mode or both. Moreover, it provides a full description of all A2A interactions with TIPS.
- The UHB provides a full description of the U2A interactions.

TIPS application processes
A2A mode flows
XML messages specifications



U2A mode interactions
Screens description and behaviour

TIPS UDFS scope and structure

TIPS UDFS scope

- From a TIPS Actor viewpoint, the UDFS are addressed to two different types of readers:
 - business analysts, who will find in the UDFS a description of the application processes and the information flows between their own business applications and the TIPS service;
 - developers, who will find in the UDFS the necessary information to design and build the interface of the TIPS Actors' business applications with TIPS.
- In this respect, the UDFS are drafted in a way to allow different reading patterns, depending on the type of reader.

TIPS UDFS structure

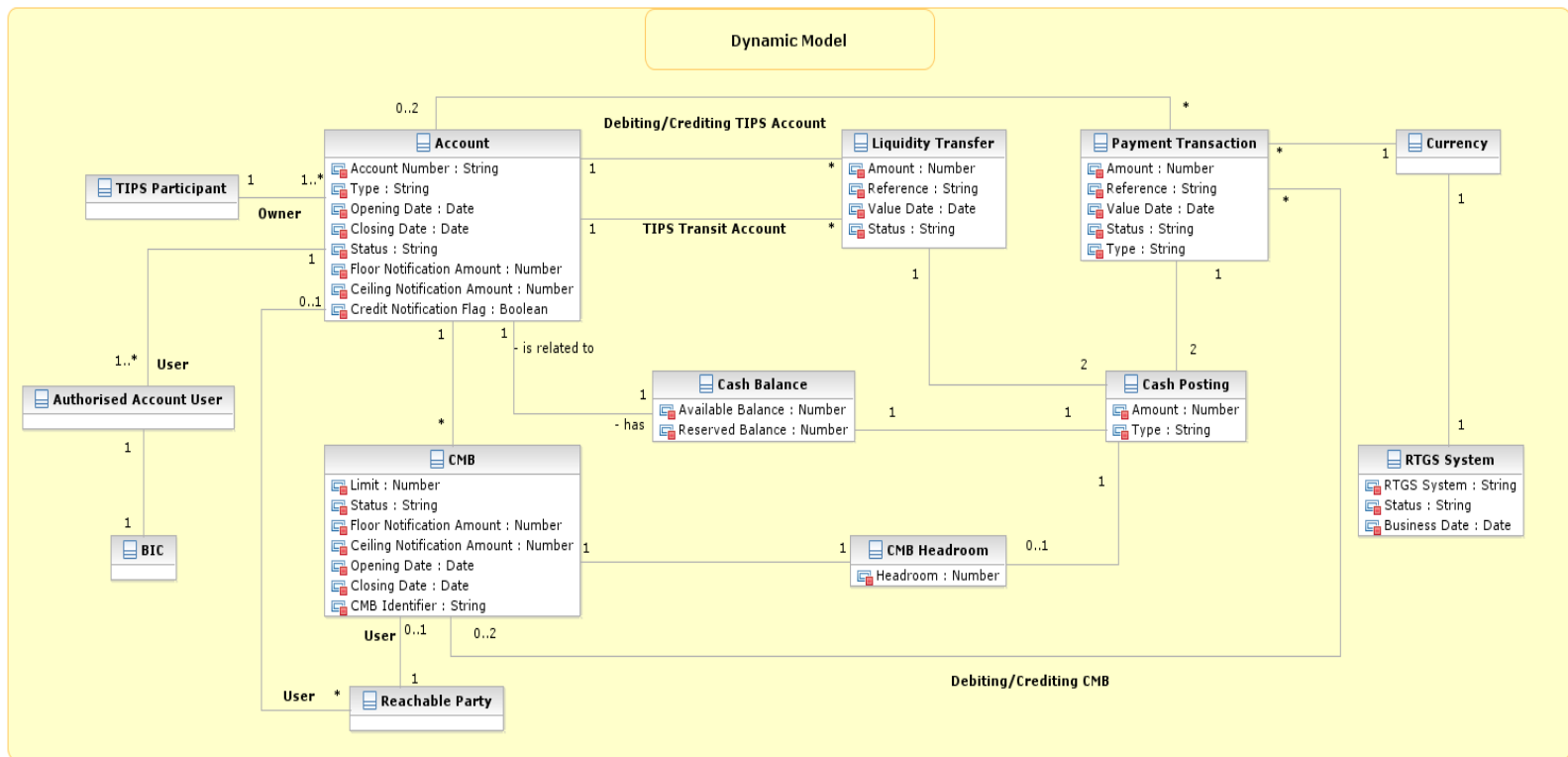
The structure of the UDFS is based on three main parts (chapters):

- **Chapter 1** provides a full description of all TIPS features and of its reference and transactional data model. It also provides non-technical details concerning connectivity and access to TIPS. Dependencies and interactions with other services (e.g. TARGET2 and other RTGS system, ESMIG, CRDM, etc.) are also in the scope of this chapter. Each TIPS feature is described in this chapter, regardless its availability mode (A2A, U2A or both).
- **Chapter 2** provides a formalized description of all A2A communication patterns, which allow TIPS Actors' applications interacting with TIPS. It includes an exhaustive description of the different (successful and unsuccessful) scenarios TIPS Actors may face in the usage of the different TIPS features.
- **Chapter 3** provides a detailed description of all XML messages TIPS Actors may use to interact with TIPS in A2A mode. It also includes detailed explanations on the message fields and their business meaning.

The following slides show some examples of the type of information each chapter will include.

TIPS UDFS chapter 1: some examples

Logical data models:



TIPS UDFS chapter 1: some examples

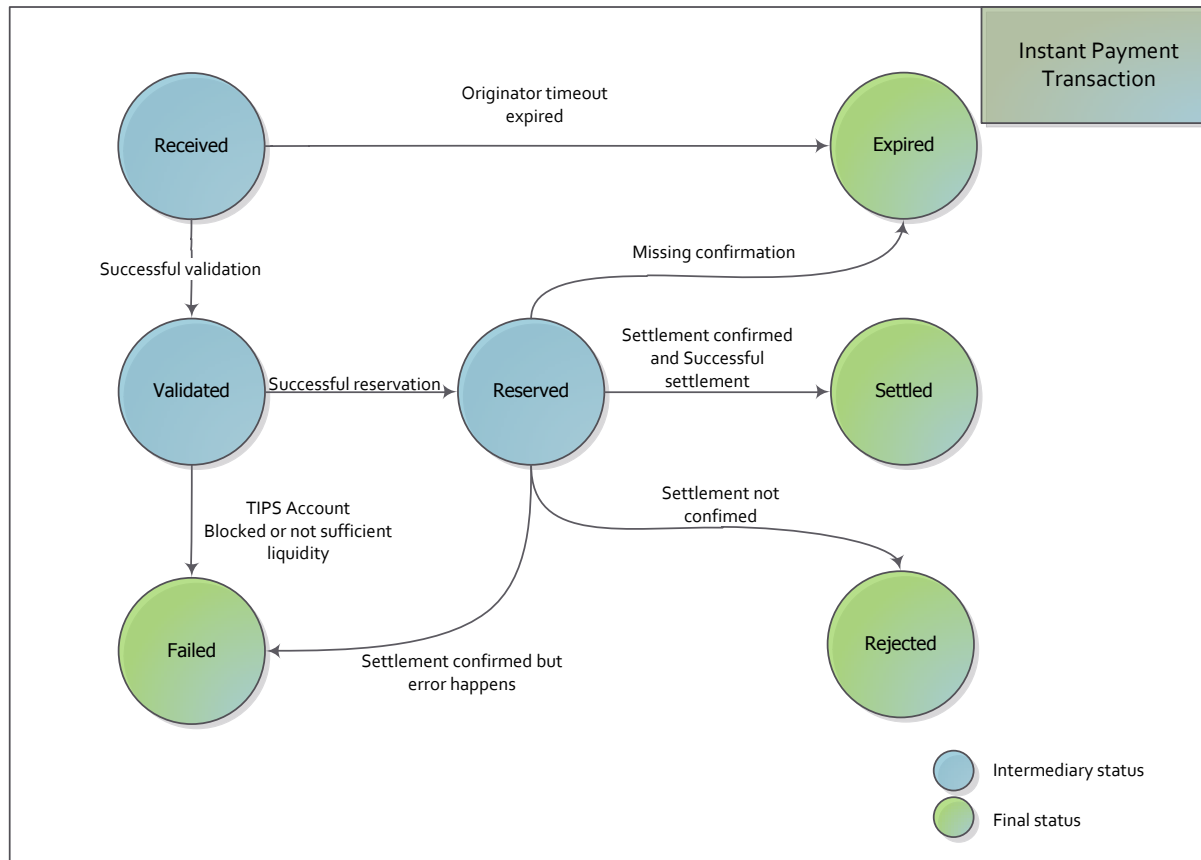
Data object definitions:

Table 1 - 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: <ul style="list-style-type: none">• TIPS 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.
Ceiling Notification Amount	It specifies the upper threshold for notifying the Account owner.
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.

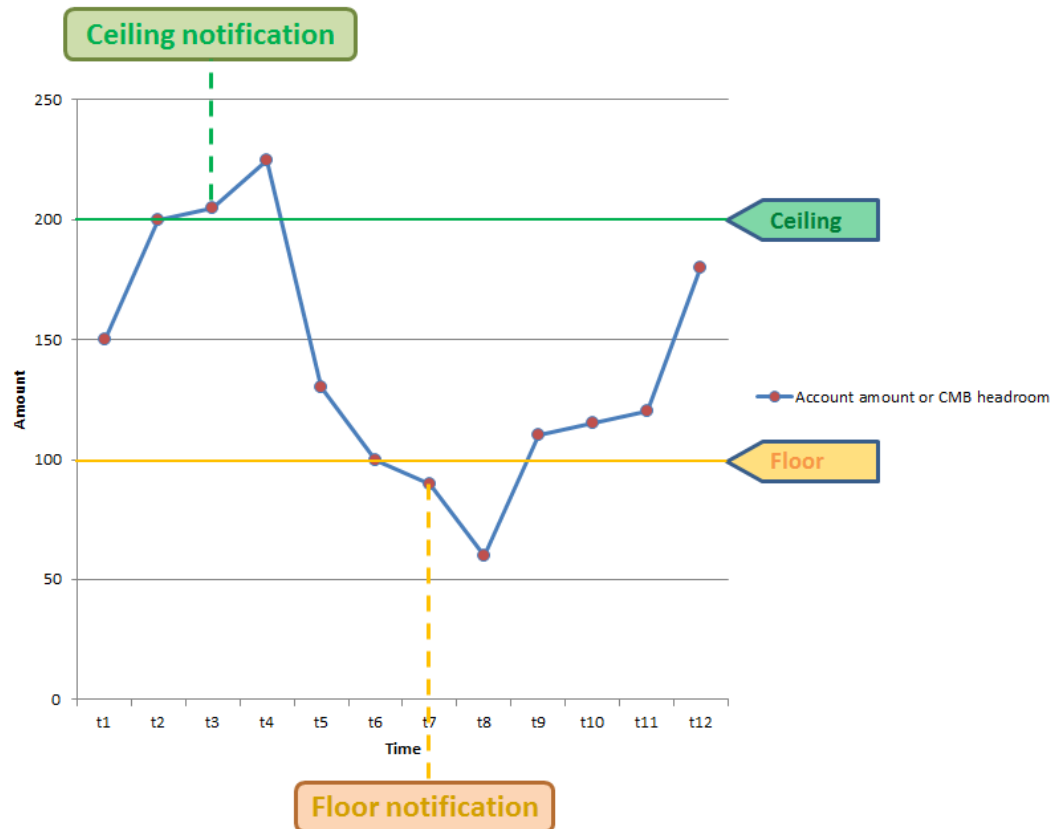
TIPS UDFS chapter 1: some examples

Status transition diagrams:

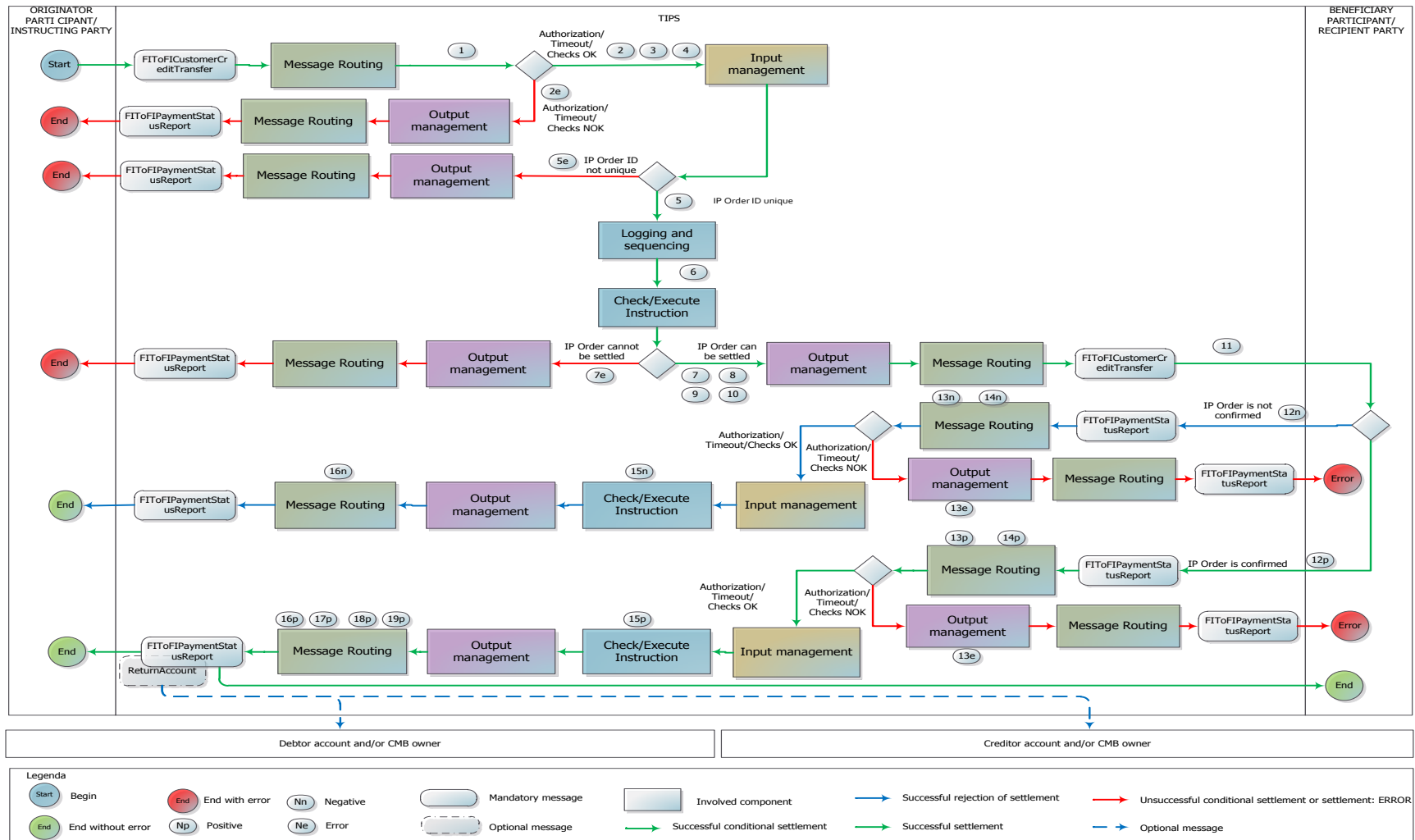


TIPS UDFS chapter 1: some examples

Graphical process descriptions:

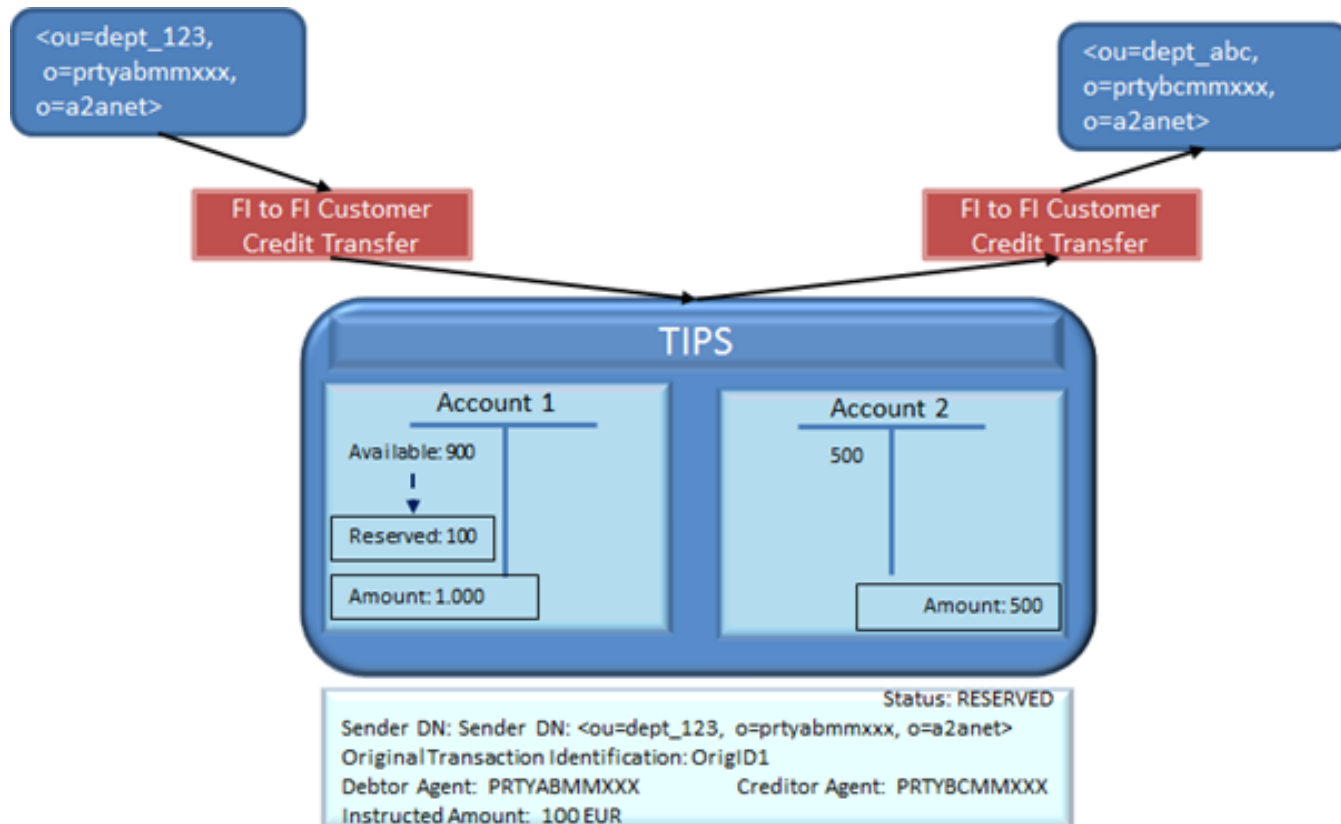


TIPS UDFS chapter 2: some examples



TIPS UDFS chapter 2: some examples

Detailed example scenarios:



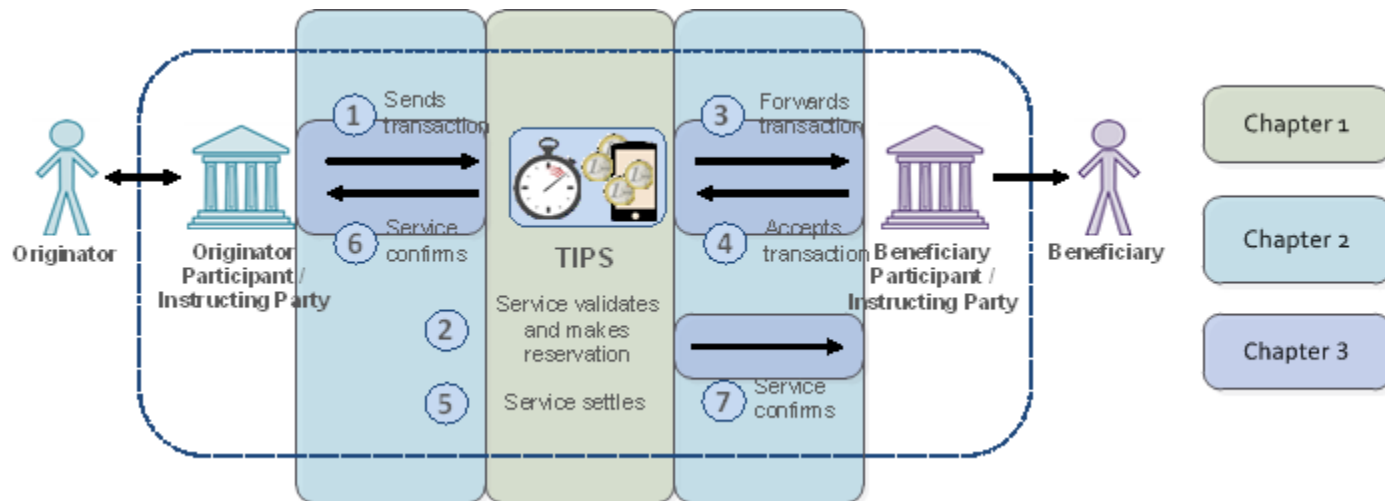
TIPS UDFS chapter 3: some examples

Message fields' descriptions:

EPC Reference	Reference Name	EPC Description	XML path	Mandatory	TIPS Usage
AT-01	Originator IBAN	The IBAN of the account of the Originator	FIToFICstmrCdtTrf/CdtTrfTxlnf/DbtrAcct/Id/IBAN	Yes	Not used in TIPS
AT-02	Originator Name	The name of the Originator	FIToFICstmrCdtTrf/CdtTrfTxlnf/Dbtr/Nm	Yes	Not used in TIPS
AT-03	Originator Address	The address of the Originator	FIToFICstmrCdtTrf/CdtTrfTxlnf/Dbtr/PstlAdr	No	Not used in TIPS
AT-04	Settlement Amount	The amount of SCT Inst in euro	FIToFICstmrCdtTrf/CdtTrfTxlnf/IntrBkSttlmAmt	Yes	The currency of the Settlement Amount must be the same of the Creditor and Debtor Accounts
AT-05	Remittance Information	The Remittance Information	FIToFICstmrCdtTrf/CdtTrfTxlnf/RmtInf	No	Not used in TIPS
AT-06	Originator BIC	The BIC code of the Originator Bank	FIToFICstmrCdtTrf/CdtTrfTxlnf/DbtrAgt/FinInstnId/BIC	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-08	Originator Reference Party Name	The name of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxlnf/UltmtDbtr/Nm	No	Not used in TIPS
AT-09	Originator Reference Party Identification Code	The identification code of the Originator Reference Party	FIToFICstmrCdtTrf/CdtTrfTxlnf/UltmtDbtr/Id	No	Not used in TIPS
AT-10	Originator Identification Code	The Originator identification code	FIToFICstmrCdtTrf/CdtTrfTxlnf/Dbtr/Id	No	Not used in TIPS
AT-20	Beneficiary IBAN	The IBAN of the account of the beneficiary	FIToFICstmrCdtTrf/CdtTrfTxlnf/CdtrAcct/Id/IBAN	Yes	Not used in TIPS

TIPS UDFS structure: in a nutshell

The following diagram shows how the different UDFS chapters map on a given business process (concerning the settlement of an instant payment transaction):



TIPS UDFS Table of Contents

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
3. Transactional data
4. TIPS features
5. Interactions with other services
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
 - Connectivity modes
 - Authentication and authorization
 - Security
 - Graphical User Interface
2. TIPS actors and account structure
3. Transactional data
4. TIPS features
5. Interactions with other services
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
 - TIPS participants, reachable parties, instructing parties
 - TIPS accounts, transit accounts, CMBs, limits
 - Reference data model
3. Transactional data
4. TIPS features
5. Interactions with other services
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
3. Transactional data
 - Payments, liquidity transfers, balances
 - Transactional data model
4. TIPS features
5. Interactions with other services
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
3. Transactional data
4. TIPS features
 - Settlement of instant payments
 - Liquidity management
 - Reference data management
 - Change of RTGS business date
 - Queries and reports
 - Data extraction
5. Interactions with other services
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
3. Transactional data
4. TIPS features
5. Interactions with other services
 - TARGET2 and other RTGS systems
 - Eurosystem Market Infrastructure Gateway
 - Common Reference Data Management
 - Archiving
 - Billing
6. Operations and support

TIPS UDFS ToC – Chapter 1

1. Access to TIPS
2. TIPS actors and account structure
3. Transactional data
4. TIPS features
5. Interactions with other services
6. Operations and support
 - Service parameters
 - Business and operations monitoring
 - Trouble management

TIPS UDFS ToC – Chapter 2

1. General communication processes
2. Business processes

TIPS UDFS ToC – Chapter 2

1. General communication processes
 - Access rights check
 - Duplicate check
2. Business processes

TIPS UDFS ToC – Chapter 2

1. General communication processes
2. Business processes
 - Instant payment transaction
 - Recall
 - Investigation
 - Inbound/outbound liquidity transfers
 - Floor/ceiling notification
 - Queries
 - Reports
 - Reference data maintenance

TIPS UDFS ToC – Chapter 3

1. General information
2. Message usage

TIPS UDFS ToC – Chapter 3

1. General information

- Message signing
- Message enveloping
- Schema validation
- Message validation
- Supported character set

2. Message usage

UDFS – Chapter 3

1. General information
2. Message usage
 - Payments Clearing and Settlement
 - Cash Management
 - Account Management
 - Reference Data

TIPS UDFS first draft

TIPS UDFS first draft

Chapter 1

- Access to TIPS
 - connectivity modes, authentication and authorisation, graphical user interface
- Dynamic data
 - instant payment transactions, liquidity transfers, cash postings, cash balances, CMB headroom
- TIPS features
 - settlement, queries
- Operations and support
 - service configuration, business and operations monitoring, archiving

TIPS UDFS first draft

Chapter 2

- settlement of instant payments
- floor and ceiling notifications
- queries

Chapter 3

- set of messages used in the scenarios included in chapter 2.

TIPS UDFS

Schedule and content of the next drafts

TIPS UDFS – Schedule and content of drafts

UDFS draft	Content	TIPS-CG meeting dates
First	<ul style="list-style-type: none"> • Chapter 1: access to TIPS, dynamic data model, TIPS features (settlement, queries), operations and support. • Chapter 2 and 3: settlement of instant payments, floor and ceiling notifications, queries. 	28/09/2017
Second	<ul style="list-style-type: none"> • Chapter 1: reference data model, TIPS features (liquidity management, local reference data management). • Chapter 2 and 3: recall, investigation, settlement of liquidity transfers, maintenance of local reference data. 	07/11/2017
Third	<ul style="list-style-type: none"> • Chapter 1: management of RTGS business date, data extraction, interactions with other services. • Chapter 2 and 3: general communication processes, reports. 	13/12/2017
Fourth	<ul style="list-style-type: none"> • Full scope 	15/01/2018 (market consultation)