TARGET Instant Payment Settlement
User Detailed Functional Specifications

TIPS Contact Group #1

Frankfurt am Main, 28.09.2017
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
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:

- Eurosistema 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.
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

- ESMIG
- CRDM
- Billing
- Archiving
**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).
Part 2

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 UDFS scope and structure
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.
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.
Logical data models:
## TIPS UDFS chapter 1: some examples

### Data object definitions:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Number</td>
<td>It specifies the unique number of the Account.</td>
</tr>
<tr>
<td>Account Type</td>
<td>Type of account. The exhaustive list of account types is as follows:</td>
</tr>
<tr>
<td></td>
<td>- TIPS Account</td>
</tr>
<tr>
<td></td>
<td>- Transit Account</td>
</tr>
<tr>
<td>Currency</td>
<td>It specifies the currency of the Account.</td>
</tr>
<tr>
<td>Opening Date</td>
<td>Opening date of the Account.</td>
</tr>
<tr>
<td>Closing Date</td>
<td>Closing date of the Account.</td>
</tr>
<tr>
<td>Floor Notification Amount</td>
<td>It specifies the lower threshold for notifying the Account owner.</td>
</tr>
<tr>
<td>Ceiling Notification Amount</td>
<td>It specifies the upper threshold for notifying the Account owner.</td>
</tr>
<tr>
<td>Credit Notification Flag</td>
<td>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.</td>
</tr>
</tbody>
</table>
TIPS UDFS chapter 1: some examples

Status transition diagrams:

![Status transition diagram](image)
Graphical process descriptions:
TIPS UDFS chapter 2: some examples
Detailed example scenarios:
TIPS UDFS chapter 3: some examples

Message fields’ descriptions:

<table>
<thead>
<tr>
<th>EPC Reference</th>
<th>Reference Name</th>
<th>EPC Description</th>
<th>XML path</th>
<th>Mandatory</th>
<th>TIPS Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-01</td>
<td>Originator IBAN</td>
<td>The IBAN of the account of the Originator</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/DbtrAcct/Id/IBAN</td>
<td>Yes</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-02</td>
<td>Originator Name</td>
<td>The name of the Originator</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/Dbtr/Nm</td>
<td>Yes</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-03</td>
<td>Originator Address</td>
<td>The address of the Originator</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/Dbtr/PstlAdr</td>
<td>No</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-04</td>
<td>Settlement Amount</td>
<td>The amount of SCT Inst in euro</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/IntrBkSttlmAmt</td>
<td>Yes</td>
<td>The currency of the Settlement Amount must be the same of the Creditor and Debtor Accounts</td>
</tr>
<tr>
<td>AT-05</td>
<td>Remittance Information</td>
<td>The Remittance Information</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/RmtInf</td>
<td>No</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-06</td>
<td>Originator BIC</td>
<td>The BIC code of the Originator Bank</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/DbtrAgt/FinInstnId/BIC</td>
<td>Yes</td>
<td>The Distinguished Name of the Sender must be authorised to instruct for the Originator BIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The Originator BIC must be stored as an Account Authorised BIC or CMB user</td>
</tr>
<tr>
<td>AT-08</td>
<td>Originator Reference Party Name</td>
<td>The name of the Originator Reference Party</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/UltmtDbtr/Nm</td>
<td>No</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-09</td>
<td>Originator Reference Party ID</td>
<td>The identification code of the Originator Reference Party</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/UltmtDbtr/Id</td>
<td>No</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-10</td>
<td>Originator Identification Code</td>
<td>The identification code</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/Dbtr/Id</td>
<td>No</td>
<td>Not used in TIPS</td>
</tr>
<tr>
<td>AT-20</td>
<td>Beneficiary IBAN</td>
<td>The IBAN of the account of the beneficiary</td>
<td>FIToFICstmrCdtTrf/CdtTrfT xInf/CdtrAcct/Id/IBAN</td>
<td>Yes</td>
<td>Not used in TIPS</td>
</tr>
</tbody>
</table>
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
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
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
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
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
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
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
   • Eurosysten Market Infrastructure Gateway
   • Common Reference Data Management
   • Archiving
   • Billing
6. Operations and support
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
1. General communication processes
2. Business processes
1. General communication processes
   • Access rights check
   • Duplicate check

2. Business processes
1. General communication processes
2. Business processes
   • Instant payment transaction
   • Recall
   • Investigation
   • Inbound/outbound liquidity transfers
   • Floor/ceiling notification
   • Queries
   • Reports
   • Reference data maintenance
1. General information
2. Message usage
1. General information
   • Message signing
   • Message enveloping
   • Schema validation
   • Message validation
   • Supported character set

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

<table>
<thead>
<tr>
<th>UDFS draft</th>
<th>Content</th>
<th>TIPS-CG meeting dates</th>
</tr>
</thead>
</table>
| First      | • 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     | • 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      | • 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     | • Full scope                                                             | 15/01/2018 (market consultation)    |