EUROPEAN CENTRAL BANK

EUROSYSTEM

Task Force on TARGET Instant Payments Settlement

Service Principles & Proposals

Agenda

1	**Introduction**
2	Principles
3	Proposals
4	Questions

Principles & Proposals

- In the investigation phase, TF-TIPS shall define and specify the functional and non-functional user requirements for the TIPS service
- Principles and proposals will be the basis for user requirements
- Principles
  - Define the nature and scope of the TIPS service
  - Provide the general framework in which the proposals should be reviewed and commented on
- Proposals
  - The Task Force members are expected to review the proposals and provide their comments on appropriateness, completeness and relevance during the meeting
  - Current wordings do not indicate the final state; they are intended to serve as a starting point for discussions within the Task Force
  - Proposals serve as an entry point for defining and drafting the user requirements of the TIPS service

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Principles

Principle 1: TARGET Instant Payments Settlement (TIPS) shall serve as a technical solution for providing instant payments settlement services to participants without the provision of clearing services

Principle 2: The primary objective of TIPS is to provide efficient settlement services in euro; however the service shall be technically capable of settling currencies other than the euro

Principles

Principle 3: TIPS shall settle exclusively in central bank money

Principle 4: The settlements performed by TIPS shall be final and irrevocable

Principle 5: TIPS shall allow operations up to 24/7/365 basis

Principles

Principle 6: TIPS shall be a lean, harmonised and standardised pan-European system with common functionality across different countries and jurisdictions

Principle 7: TIPS shall be open to participation from PSPs and ACHs which have access to TARGET2

Principle 8: Participation in TIPS shall not be mandatory

Principles

Principle 9: All eligible participants shall have equal access conditions to TIPS

Principle 10: TIPS shall be based on the current ISO message standards and aligned with the SCT Inst scheme

Principles

Principle 11: The Eurosystem shall take on the responsibility of developing and operating TIPS by assuming full ownership

Principle 12: TIPS shall operate on a full cost-recovery and not-for-profit basis

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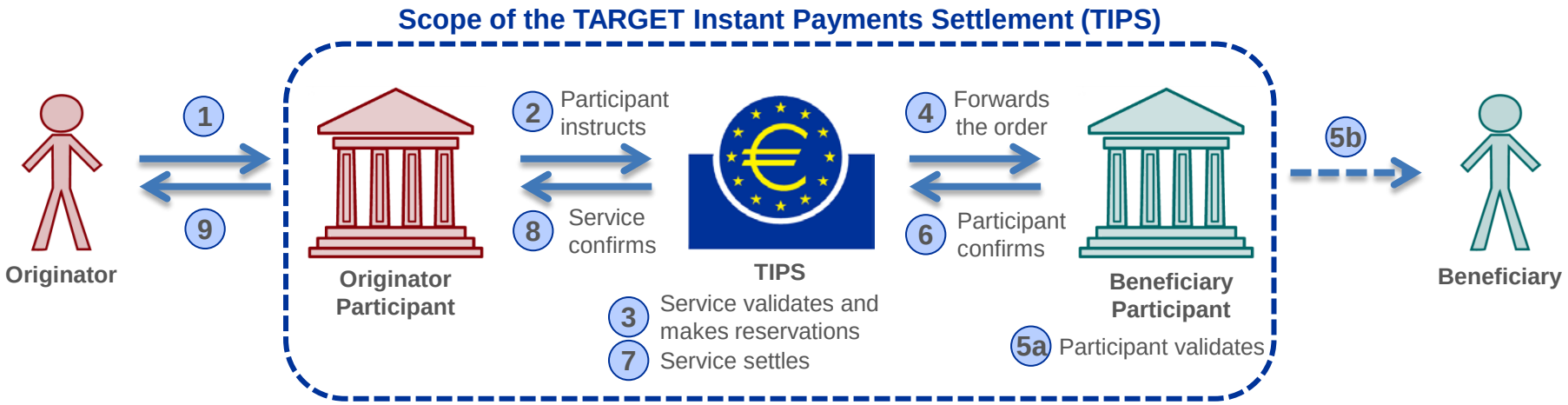
Alternative 1: Two PSPs Model



Step 1: Originator sends an Instant Payment order

Step 2: Originator participant sends instruction to TIPS

Step 3: TIPS validates and reserves the payment

Step 4: TIPS forwards the instruction to the beneficiary participant

Step 5a: The beneficiary participant validates the order

Step 5b: The beneficiary participant informs the beneficiary about the transaction

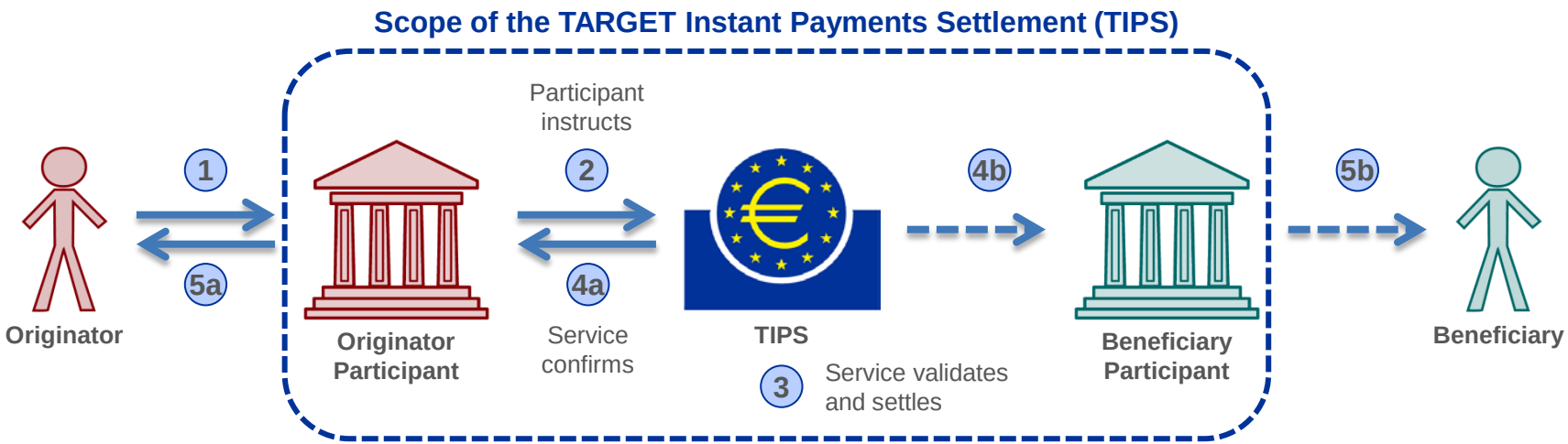
Step 6: The beneficiary participant sends a positive confirmation to TIPS

Step 7: TIPS settles the payment

Step 8: TIPS confirms the settlement to the originator participant

Step 9: The originator participant informs the originator about the transaction

Alternative 2: Single PSP Model



Step 1: Originator sends an Instant Payment order

Step 2: Originator participant sends instruction to TIPS

Step 3: TIPS validates and settles the instruction

Step 4a: TIPS confirms the settlement to the originator participant

Step 4b: TIPS informs the beneficiary participant about the settled transaction

Step 5a: The originator participant informs the originator about the executed transaction

Step 5b: The beneficiary participant informs the beneficiary about the settled transaction

Payment Initiations

TIPS shall support credit transfers (push payments)

- The SCT^{inst} scheme supports credit transfers
- Push payments are more secure as the originator initiates the transaction
- Functionality for pull payments (direct debits) already exists by way of external solutions that are capable of making beneficiary account information available to originators; they can then initiate push transfers

1. Could it be a viable approach to support credit transfers only? Is there a business case which cannot be covered by credit transfers?
2. What are the issues with direct debits?
3. What will be the key attributes to authenticate a direct debit transaction?
4. Is it appropriate to have a different benchmark for the time required for settlement completion of direct debits?

Eligible Participants

RTGS rules for direct and indirect participation shall apply

- TIPS shall be open to participation from PSPs and ACHs which have access to RTGS
- The service shall allow Third Party Payment Service Providers (TPP) to initiate payments on behalf of RTGS participants

Does the Task Force agree with this proposal?

TIPS Accounts

Every participant may hold either one account or many accounts for the settlement of instant payments

- Depending on its business and operational model, each PSP may choose to hold only one omnibus account for the settlement of all its instant payments, or to segregate its settlement activity amongst many accounts (potentially one for each individual customer)
- TIPS shall update the balance of the two involved accounts after every successfully settled instant payment
- TIPS shall support IBAN for the identification of the accounts.

1. Does the Task Force believe that one of the two models (omnibus vs segregated structure) shows some advantages or disadvantages compared to the other?
2. Is there any business or operational reason to exclude one of the two models?
3. Does the Task Force see any other potential model that may need to be provided by TIPS?

Queuing & Prioritisation

TIPS shall validate and settle payment instructions as soon as they are received; there will be no queuing or prioritisation

Queuing would counteract the philosophy of instant final settlement confirmation or rejection

Does the Task Force agree with this proposal?

Full Settlement

TIPS shall settle fully, the beneficiary will receive the full amount in the originator instruction

The instructions are always settled for the full amount. The service shall not offer partial settlement functionality

Does the Task Force agree with this proposal?

Multi-Currency Support

While TIPS shall be technically capable of settling currencies other than the euro, the amounts debited from or credited to the end-user accounts shall be expressed in the same currency

The service will not perform any currency conversions when settlement is supported in multiple currencies

Does the Task Force agree with this proposal?

Messaging Standards

TIPS shall use ISO 20022 standards in payments processing and other interactions with its participants

Whenever relevant, ISO 20022 will be the only supported messaging standard for interactions between TIPS and its participants, for e.g.

- payment instructions processing
- status messages

Does the Task Force agree with this proposal?

User Interface

TIPS interfaces shall allow only for application-to-application (A2A) interaction

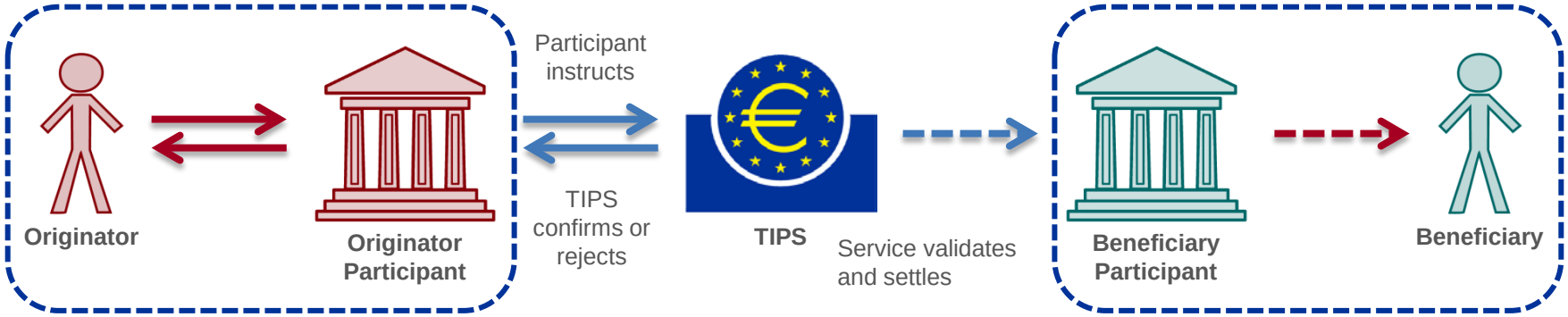
- TIPS shall provide A2A interfaces to participants to input payment instructions, perform queries and update reference data
- The service shall not provide a graphical user interface (GUI). The assumption is that the participants will re-use their own GUIs for end users (including T2, which would provide balances of TIPS accounts as it already does today for T2S dedicated cash accounts)

1. Can all functionalities be achieved by using A2A messages only?
2. If not, which functionalities need a graphical user interface which is provided by the Eurosystem? Why can they not be covered by A2A? Are these critical?
3. Does it make sense to build a GUI from the perspectives of
   - Business cases that cannot be covered by A2A interfaces
   - Risk and security
   - User experience
   - Timeline for the go-live of the service
   - Cost of building the service

Connectivity between Participants and End-Users

Participants shall be responsible for providing tools for end-users to connect to TIPS

- Participants shall be responsible for providing the end-users with web/mobile interfaces or apps/tools to initiate payment instructions
- Participants shall convert such payment instructions to ISO 20022 format (SCT^{Inst}) before sending them to TIPS



Does the Task Force agree with this proposal?

Authentication and Authorisation

TIPS shall perform the authentication and authorisation of users

The solution developed for TIPS shall be current from a design and technological point of view

Does the Task Force agree with this proposal?

End-User Identification

TIPS shall identify end-user accounts using IBAN

The inbound payment instructions should contain the IBANs for identifying the originator and beneficiary. Participants shall be responsible for mapping any different internal addressing schemes to IBAN

Does the Task Force agree with this proposal?

Network Connectivity

The technical connectivity to TIPS shall be network service provider agnostic with low latency and foresee that the connectivity could be established via different network providers

- One of the main pillars for building a consolidated and harmonised connectivity solution is the provision of a network service provider agnostic technical connectivity solution
- Agnosticism in this context means that what is specified are just the technical and operational requirements for the needed network services and technical connectivity features. Based on these requirements, different accredited network service providers may provide different licensed networks to market participants, so as to avoid monopoly situations and foster competition

Does the Task Force agree with this proposal?

Limits Management

TIPS shall store maximum allowed amounts for each settlement currency as configurable parameters

The participants may perform additional validations at their end, before transmitting payment instructions to the instant settlement service

1. What level of granularity is required for validations?
2. Should there be different value limits for different times of the day? E.g. should the limits be different for overnight or weekend settlements?

Links with RTGS Accounts

Every participant will provide liquidity to its TIPS account (or accounts) from an account (or from different accounts) opened in an RTGS system and not necessarily belonging to the same participant

- PSPs may transfer cash from RTGS accounts to their TIPS accounts (and vice versa) by means of immediate liquidity transfer orders or standing/predefined liquidity transfer orders
- These RTGS accounts may belong to a financial institution different from the PSP
- For the provision of liquidity to their TIPS accounts, PSPs shall take into account the operating hours of their RTGS system

1. Does the Task Force see the need for establishing an obligation for each PSP to open at least one account in the RTGS system?
2. Does the Task Force see the need for the RTGS system to provide any specific account type (e.g. sub-account) or functionality for the management of liquidity dedicated to the settlement of instant payments?
3. Can it be assumed that transfers of liquidity from/to an RTGS system to/from TIPS will take place by means of transit accounts (one per currency)?

Queries

TIPS shall provide queries allowing participants to extract

- **the status of the instant payment orders they submitted;**
- **the cash balances in their accounts; and**
- **the status of the service**

- TIPS should provide participants with a basic set of queries that are required to make use of the settlement service
- Queries will be ISO 20022 compliant, when applicable

1. Does the Task Force see any need for additional queries?
2. If yes, what data would be extracted by these queries and for which purpose?

Reports

TIPS shall provide daily reports for

- **data on all instant payment orders settled during the operating day of the corresponding RTGS system; and**
- **data on all accounts where settlement took place during the operating day of the corresponding RTGS system**

- TIPS should provide participants with a basic set of reports that are required to make use of the settlement service
- In TIPS, the settlement will be as of a timestamp
- Reports will be run after end of day in the corresponding RTGS system
- Reports will contain all data from the time the previous report was created

1. Does the Task Force see any need for additional reports?
2. If yes, what would be such reports?

Reference Data Setup

TIPS reference data shall comply with the relevant ISO standards, where applicable

Potential standards TIPS should adhere to are for

- currency codes
- IBANs
- timestamps

Does the Task Force agree with this proposal?

Billing

TIPS shall provide detailed billable items raw data required for billing to the RTGS billing module

TIPS shall use the RTGS module for billing and invoicing during the early stages

Does the Task Force agree with this proposal?

TIPS Recovery Times – RPO

TIPS shall ensure a value for RPO equal to zero

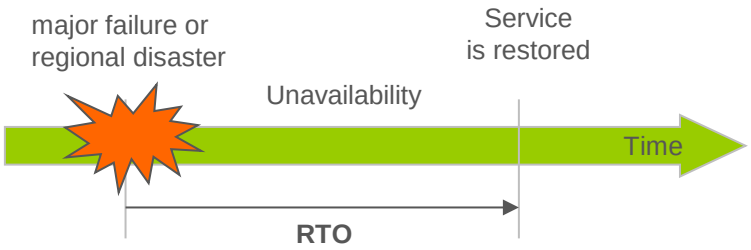
- The Recovery Point Objective (RPO) is a point of consistency to which a user wants to recover or restart
- It is measured as the amount of time between the moment when the point of consistency was created or captured and that when the failure occurred
- TIPS shall ensure synchronous point of consistency creations and, consequently, no data loss in case of failures

Does the Task Force agree with this proposal?

TIPS Recovery Times – RTO

TIPS shall ensure a value for RTO equal to 15 minutes

- The Recovery Time Objective (RTO) is the maximum amount of time required for recovery or restart to a specified point of consistency
- TIPS shall ensure 15 minutes as maximum time of unavailability in case of a major failure or regional disaster



Does the Task Force agree with this proposal?

Archiving Functionalities

TIPS shall provide an archiving facility for audit and law or regulatory requirements which stores the relevant settlement and reference data for a given period of time and allows TIPS participants to retrieve previously archived data upon request

- The set of data subject to archiving will include transaction records and authentication and security information
- The archiving period will be configurable and set to (i) ten years for payment transaction records and (ii) three months for authentication and security information
- The service operator will have direct access to archived data and will be responsible for providing archived data to participants upon request

Does the Task Force agree with this proposal?

Non-Repudiation of Payment Instructions

TIPS shall not offer non-repudiation for low-value payments

- The service will not offer non-repudiation services to provide proof of the integrity and origin of data for payments below a minimum value
- The authentication and security information stored shall be available for three months after an instruction is sent

1. Is there a business case for non-repudiation services for low-value payments?
2. What should be the cut-off transaction value for non-repudiation services?

Message Bundling

TIPS shall support incoming payment instructions both as single messages and as bundles of messages

- When there are multiple payment instructions in a file, the service shall be able to unpack bulk payment instructions into individual messages
- Time required for settlement of bulk transactions may be different from that of individual transactions

Does the Task Force agree with this proposal?

Data Extraction

TIPS provides raw data files on a daily basis

- Raw data files provided on a daily basis may be used by participants, common Eurosystem services and RTGS services for different purposes such as archiving, billing, advanced queries and reports or statistics
- The file will be generated after end of day in the corresponding RTGS system

1. What data should be there in the file?
2. What should be the data format?

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Annex

Out of Scope (Non-Exhaustive List)

- Provision of clearing services
- Settlement in commercial bank money
- Provision of any specific end-user services and applications (utilizing e.g. mobile applications etc.)