Common Reference Data Management set up for ESMIG interaction

Clarification Note

Objective

The aim of this clarification note is to describe the required changes to interact via A2A with the TARGET Services when the Eurosystem Market Infrastructure Gateway is implemented.

Current scenario

In this chapter, the current implementation of the interaction model between participants and settlement services is described.

TARGET2

A2A interaction is based on SWIFT Network which provides network connectivity services as well as security services.

Clients must access SWIFT Gateways via SWIFT Alliance applications to either instruct messages or receive messages and reports.

SWIFT Network allows for using Store And Forward and Realtime services depending on the type of interaction performed:

- Queries and related responses are sent via Realtime message service
- Instructing messages and reports rely on Store And Forward services

Authentication process is delegated to SWIFT Network security services offer and does not require specific configuration in TARGET2 Static Data.

T2S

T2S is the first settlement service allowing for multiple Network Service Providers to provide network related services in order to guarantee competition between vendors and to avoid single point of failure in network services.

As participants would have been able to choose between different providers for network services, additional flexibility and configuration had been introduced in the T2S Static Data Management Module.

Specific steps to achieve authorisation and routing have been implemented to provide participants the required flexibility to:

- Authorise Distinguished Names by definition as Party Technical Addresses for a Party interacting with T2S
- Link Party Technical Addresses to specific Network Services for different providers
- Define Default and Conditional Routings for Party Technical Addresses linked to specific Network Services belonging to different providers

This increased flexibility has been implemented as a multiple steps configuration to better fit participants need in terms of:

- Multiple Distinguished Names architecture
- Conditional routings depending on fixed parameters

TIPS

Required network configuration to interact with TIPS is based on the multiple step set up introduced with T2S Static Data Management Module.

The only difference is that required tasks are performed using a new Graphical User Interface which will be the basis for the Common Reference Data Management screen set implementation foreseen for the T2/T2S Consolidation phase.

Implementation of T2/T2S Consolidation

The T2/T2S Consolidation implementation introduces several fundamental components enhancing the basics of connection to TARGET services:

- A common gateway for accessing the market infrastructures (Eurosystem Single Market Infrastructure Gateway)
- A set of Shared Common Components providing services to participants and settlement modules

ESMIG and Common Components

ESMIG is a single service providing network connectivity and a messaging interface to the different market infrastructures of the Eurosystem:

- T2 (Former TARGET2)
- T2S
- TIPS
- ECMS

These services rely on a set of Common Components which can also be addressed by the participants through the specific settlement service entry point in ESMIG.

This requirement led to the creation of a component catalogue as described in the following picture:

TARGET Service	Specific Component	Common Component
T2	CLM	DWH
	RTGS	CRDM
	ECONS	BILL
		BDM
T2S	T2S	DWH
		CRDM
		BILL
		BDM
ECMS	ECMS	BILL
TIPS	TIPS	CRDM
		BILL

With this implementation choice, users are required a single transport protocol contract with the Network Service Provider to access all of the components, either specific and common, for a TARGET Service.

As a consequence, Network Service naming in Common Reference Data Management component have been introduced following the new architecture but with no impact to existing T2S and TIPS configurations.

The common structure of Network Service names is made of three elements separated by a dot.

These elements are:

- Component to be addressed (TARGET Service identifier concatenated to Specific or Common Component)
- Network Service Provider (SWIFT or SIA-COLT)
- Type of interaction (Message and File Store and Forward and Message Realtime)

According to the structure, valid examples of Network Service names are:

T2SCRDM.SWIFT.MSGSNF

- Identifies the CRDM component accessed via T2S service using the SWIFT network and Message Store and Forward interaction

T2BDM.SIA-COLT.MSGRT

- Identifies the Business Day Management component accessed via T2 service using the SIA-COLT network and Message Realtime interaction

T2CLM.SWIFT.FILESNF

- Identifies the Central Liquidity Management component accessed via T2 service using the SWIFT network and File Store and Forward interaction

Routing configuration

The new Network Service catalogue introduced by ESMIG implementation adds a higher degree of flexibility to the possible network and routing configuration that can be exploited by users requiring a complex Distinguished Names routing from the different TARGET Services.

For every component to be used and in accordance with the regular CRDM network configuration process, a party accessing via A2A must be configured by:

- Including the Distinguished Name as a valid Party Technical Address for the related Party entity
- Creating a specific Technical Address Network Service Link binding the Party Technical Address to the related Network Service
- Creating the default Routing entity based on the Technical Address Network Service Link

Users are given the possibility to route the traffic for every component to a specific Distinguished Name as well as using the same Distinguished Name for all of the TARGET Services and components.

Even if a single Distinguished Name is meant to be used for receiving messages from all of the TARGET Services' components, default Routing configurations are required for every component.

For CSDs and NCBs parties the set-up of Party Technical Address and Technical Address Network Service Links is managed by the Operator with the parameters specified in the registration form for a specific TARGET Service and environment. The Routing configuration is created by the CSD or NCB directly, but the Operator can act on behalf of the requesting entity.

NCBs can create Routing configurations acting on behalf of their Participants. Payment Banks can create Routing configurations for their own Technical Addresses. CSDs can create Routing configurations acting on behalf of their Participants. CSD Participants can create Routing configurations for their own Technical Addresses.

Single DN Configuration business case

Business case description
A user wants to send and receive any message from T2 Central Liquidity Management, T2S Common Reference Data Management, T2S Business Day Management and TIPS Billing components using the same Distinguished Name.

Required Implementation
1. The Distinguished Name must be added to the Party Technical Addresses for the related Party
2. For every component the user must set up
    a. Technical Address Network Service Link binding the PTA to the related Network Service
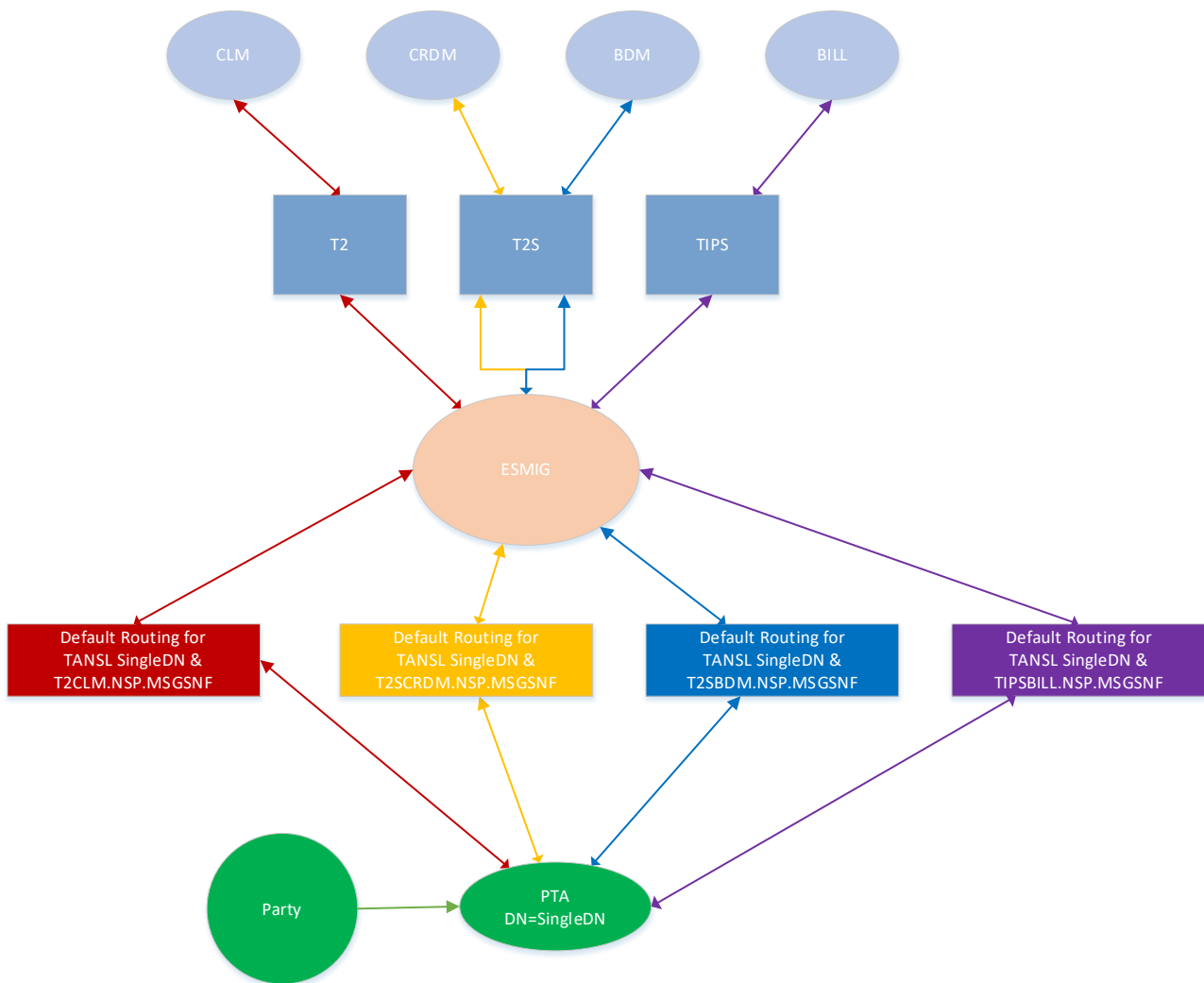   b. Default Routing for the TANSL created on point 2.a

Diagram 1 - Single Distinguished Name Configuration

Multiple DNs Configuration business case

Business case description

A user wants to send and receive messages coming from T2 Central Liquidity Management and T2S Common Reference Data Management using a specific Distinguished Name, namely DN1.

Interaction set-up with T2S Business Day Management and TIPS Billing components should be using another Distinguished Name, namely DN2.

Required Implementation

1. Both Distinguished Names must be added to the Party Technical Addresses for the related Party
2. For T2 CLM and T2S CRDM interaction the user must set up
   a. Technical Address Network Service Link binding DN1 to the related Network Services
   b. Default Routing for the TANSL entities created on point 2.a
3. For T2S BDM and TIPS BILL interaction the user must set up
   a. Technical Address Network Service Link binding DN2 to the related Network Services
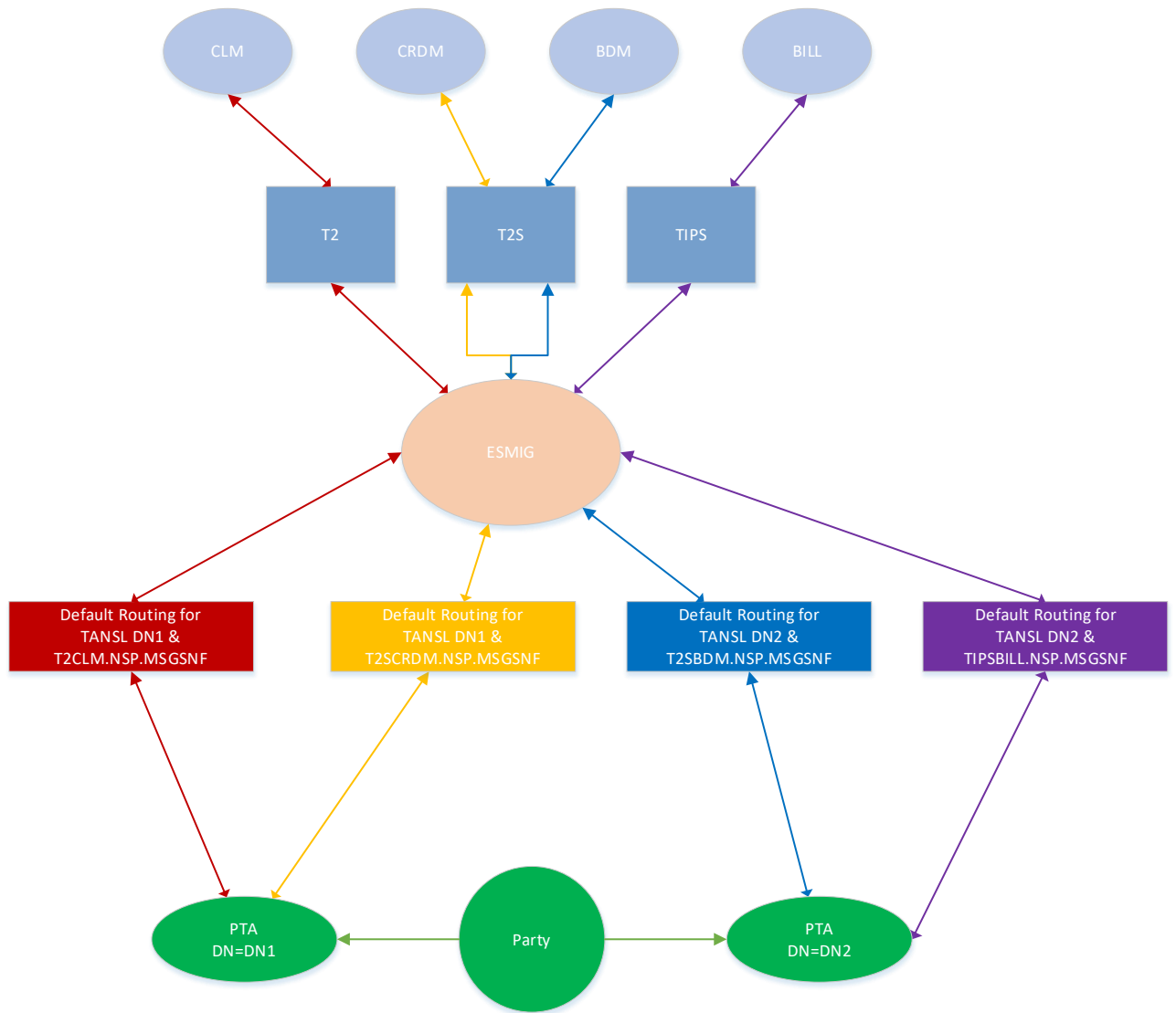   b. Default Routing for the TANSL entities created on point 3.a

Diagram 2 - Multiple Distinguished Names configuration