

T2/T2S CONSOLIDATION

HIGH LEVEL BUSINESS CHANGES DOCUMENT

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1. Introduction

In the first and second quarter 2016 a Market Consultation on the future of RTGS services was conducted. On the basis of the results and other considerations from the Eurosystem perspective, the Governing Council gave the green light to start the investigation phase for the T2/T2S Consolidation on 21 September 2016, together with the green light for the investigation phase for TARGET Instant Payments Settlement (TIPS) and for Eurosystem Collateral Management System (ECMS) projects.

Within the investigation phase, measures are analysed to support the Eurosystem plans to consolidate and optimise the provision of the T2 and T2S services, with the aim to:

- provide the opportunity to consider the development of new services for market participants or to adapt the existing ones to the changing needs of the payments business allow TARGET2 to benefit from state-of-the-art approaches and technologies offered by T2S through technical consolidation
- noticeably decrease running costs for the Eurosystem through functional consolidation between TARGET2 and T2S (as far as possible), which could also mean removing unused or little used functionality
- improve usability

Following the thorough discussions with market participants and central banks, this document describes on a high level the cornerstones of the future RTGS services. These cornerstones take into account the wide range of requirements of the various users of the future RTGS services, ranging from small independent institutions to large and multinational banking groups.

The current version of this document only includes aspects that have been described on the basis of the discussions so far.

2. Modular Approach

2.1 Requirements

With the introduction of T2S and the planned future implementation of TIPS, the landscape and requirements concerning Future Eurosystem Payment and Settlement Services have been changing significantly.

In order to enable consolidation and to achieve the expected cost savings, functions for which there is a shared need in the various services will be provided once, centrally on a modular basis as far as possible and reasonable. A modular approach will be taken for the new requirements as well.

From a high level point of view, the following business domains were identified within the investigation phase:

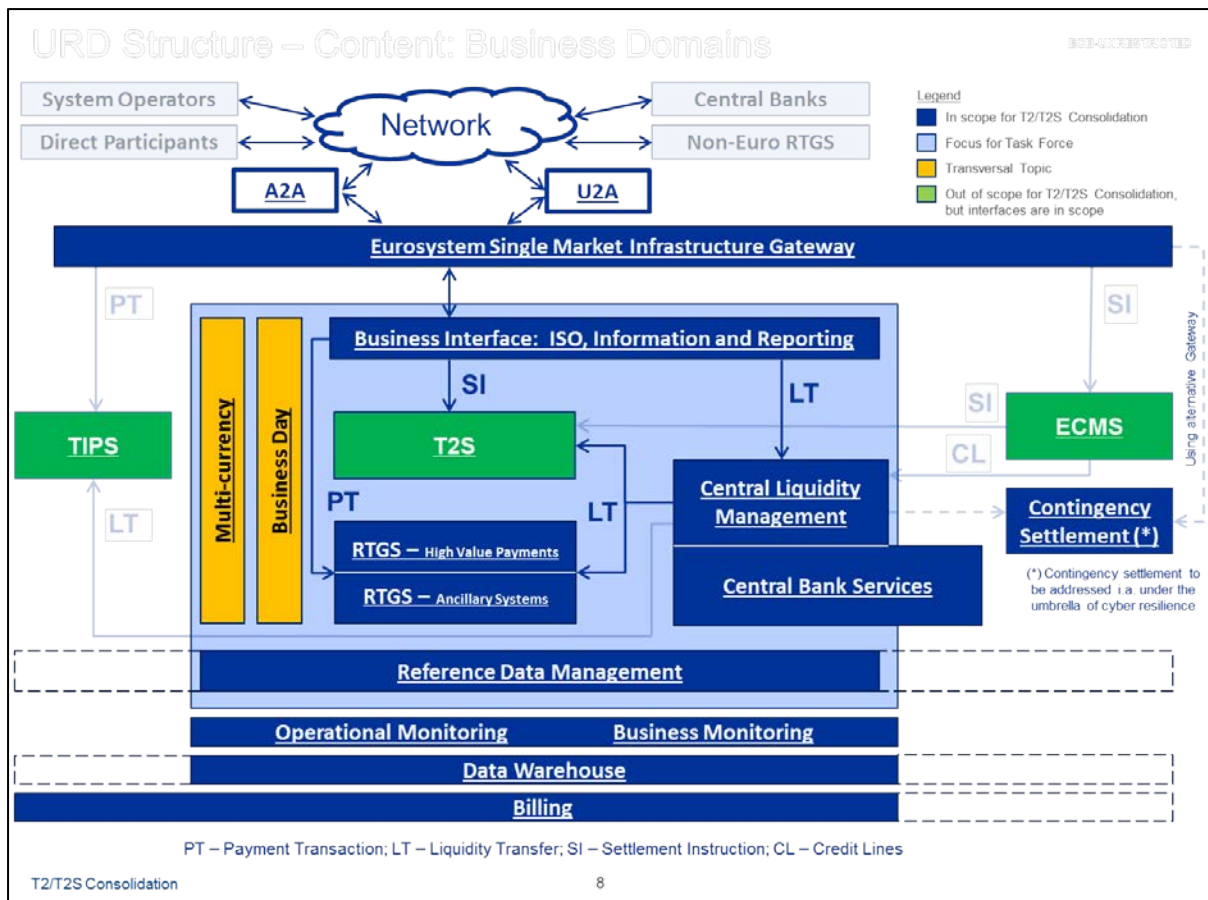


Figure 1: High Level Business Domains

The primary functional requirements identified during the first part of the investigation phase are:

- the Central Liquidity Management (CLM) function
- common Reference Data Management (RDM)

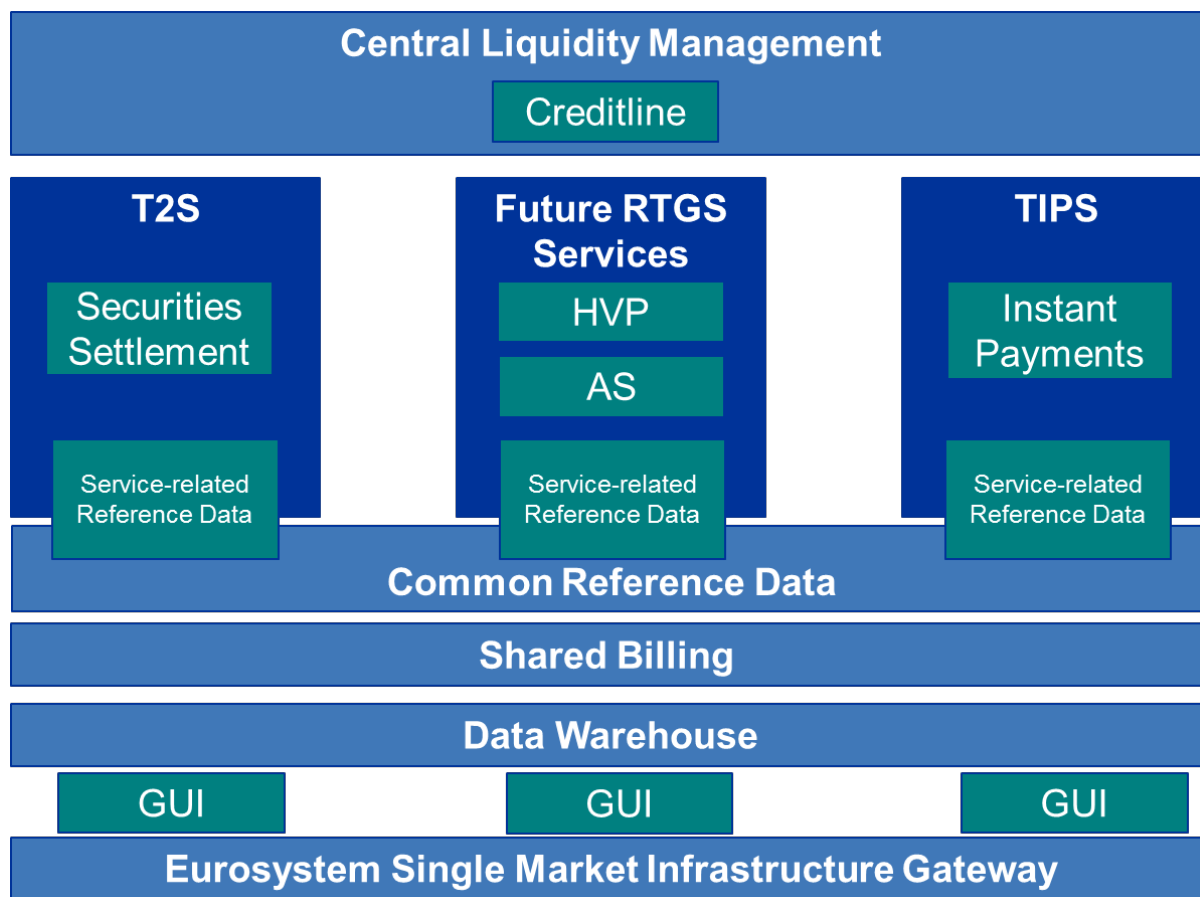


Figure 2 Shared Functional Modules

Further aspects are still under discussion.

2.2 SHARED MODULES

2.2.1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

TARGET2 was initially developed in order to serve for the settlement of monetary policy operations, (high-value) urgent payments and ancillary system settlement in Central Bank Money only, and the embedded liquidity provisioning was mainly for these purposes. However, with the introduction of T2S and the planned introduction of TIPS, other settlement services are complementing these functions. Future RTGS Services will be one part of the Eurosystem's settlement services family. The CLM will ensure the efficient liquidity provisioning for the different services T2S, RTGS Services (i. e. High Value Payments and Ancillary Systems Settlement), TIPS as well as the management of liquidity across those different services in a harmonised, generic way. The CLM will optimise the efficient usage of liquidity for the different services and the transfers between them.

Responding to the participants' needs, the users will always have a consolidated overall view of their liquidity within one currency, be able to dedicate liquidity for one single service and special purposes and be able to re-allocate liquidity easily from one service to another. Depending on the needs of a participant, such re-allocations could either be done manually (based on individual liquidity transfers) or automatically (based on time-based or event-based standing orders).

One single Main Account as part of the CLM will be the central source of liquidity for the different services. The full payment capacity will be provided by using the CLM, taking into account the participant's credit line. The settlement services T2S, TIPS and the Future RTGS Services will use dedicated cash accounts for settling their specific transactions. All RTGS Services can be settled on one RTGS DCA; optionally for the AS Settlement DCAs can be used. The high level of automation offered by the CLM will ensure fast and reliable liquidity provisioning and fulfil as far as possible the requirements of those participants who preferred a fully automatic usage of the payment capacity, especially for the RTGS services. Each participant will be able to parameterise the triggers (i.e. floor/ceiling amounts, business events, queued payments, time events) and the resulting actions (i.e. notification only, transfer of liquidity) for each of its accounts. After a one-off and customised configuration of the automation, the participant gets an automated liquidity management without the need to initiate manually liquidity transfers.

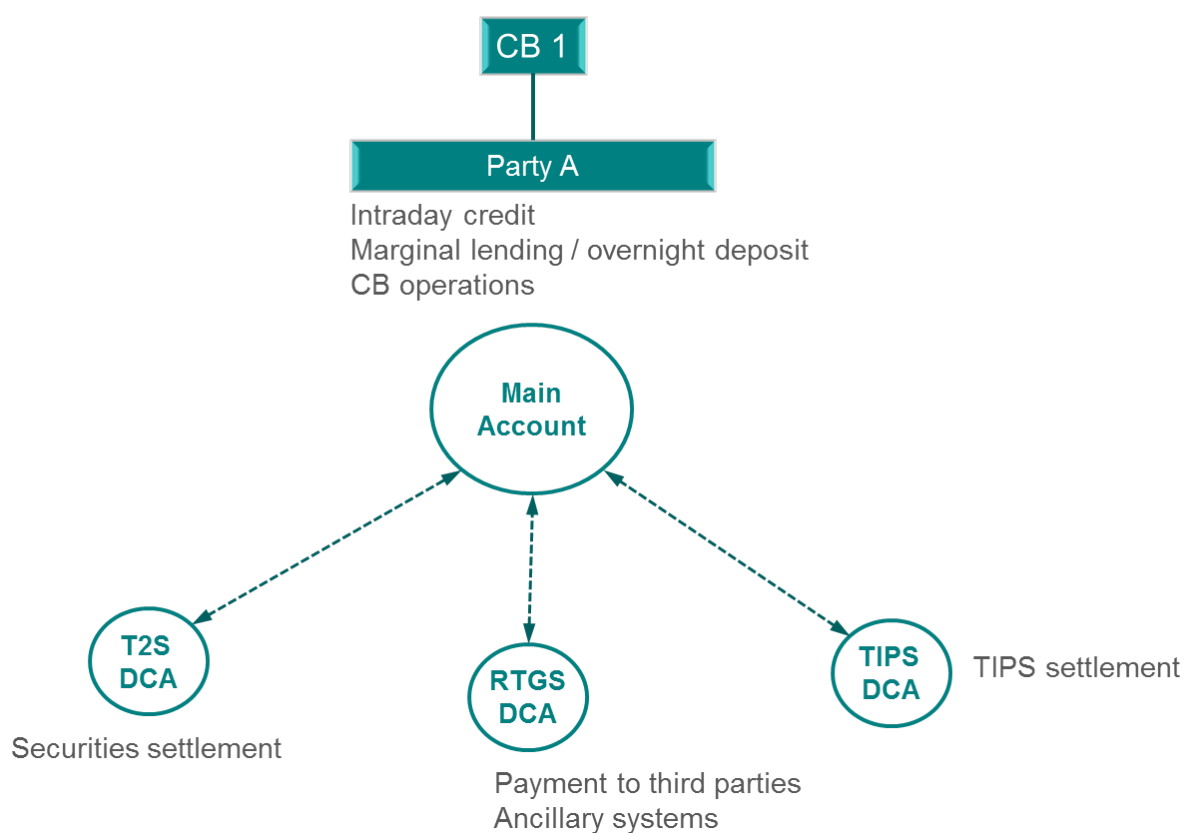


Figure 3 Basic Model for the CLM with Main Account

The main attributes of the CLM are:

- Credit line and marginal lending facilities are managed centrally through the Main Account. Liquidity generated via the credit line can therefore be used in any service that is connected to the CLM, even if the service does not handle credit lines as such.
- A high level of automation is offered for optional use: Optionally, rules for the completely automated allocation of the full payment capacity to the settlement services can be used. Left to the discretion of the participants, the handling can be performed automatically by the system. On the basis of the automation, there will be no need to initiate liquidity transfers between the different accounts. E. g. the liquidity management can be customised in a way, that the liquidity on the main account and the RTGS account are managed virtually like one liquidity pool.
- Payments and Ancillary System transactions are performed on the RTGS DCA
- Liquidity for the processing of AS transactions can either be reserved for all AS together on the RTGS DCA that serves for HVP settlement as well or on dedicated AS DCAs for specific Ancillary Systems
- Interactions with the central bank that fall outside of the normal payment business (i. e. Central Bank Operations, such as deposits/withdrawals of cash) would be performed on the Main Account and could draw liquidity from the connected DCAs automatically, if required by the participant.
- The requirements being raised by ECMS will be taken into account already during the investigation phase.

This model should provide the wide range of flexibility that is required to cover the needs of the different participants.

For banks wanting to have an account for fulfilling their minimum reserve obligations without the need for having direct access towards settlement functions, having only a main account should be sufficient. For these participants it is not necessary to hold e. g. an RTGS DCA. This may serve as a cost-effective option for smaller banks which are required to have an account with their Central Bank for Minimum Reserve requirements only.

Banks with a Main Account and at least one DCA, who prefer a high level of automation for the Central Liquidity Management, have the option to define floors and ceilings for the automation of liquidity transfer mechanisms between the Main Accounts and the DCAs. An account owner can define a minimum (“floor”) or maximum (“ceiling”) balance for its account. In case the balance falls below the defined amount, additional liquidity is pulled from a defined account (floor balance order). When the balance exceeds the defined amount, liquidity is pushed to a defined account (ceiling balance order). Additionally, a liquidity pull can be defined by event, e. g. if there's a payment in the queue which could be processed by the usage of the liquidity on another account.

Multinational banks with various branches or entities can open the required accounts and use the CLM function to steer, manage and monitor the liquidity across all services within a single currency.

Example

A bank holding a main account and a RTGS DCA only with an automated liquidity management will be provided automatically with the necessary liquidity for the payment processing. This works according to configured caps and ceilings. If a payment order occurs within the queue that needs some liquidity for coverage, additional liquidity injections could be triggered automatically taking into account the available liquidity.

All accounts mentioned above can be managed on an optional basis, i. e. there's no obligation to hold the Main Account and/or all DCAs. If a participant wants to use one of the dedicated services, the corresponding DCA is needed. If a participant has a DCA and wants to use e. g. a credit line or other central bank operations for the liquidity management of this DCA, the DCA has to be connected with at least one Main Account. The connected Main Account can be owned by the same or another participant, and it can be managed with the same or another Central Bank like the DCA.

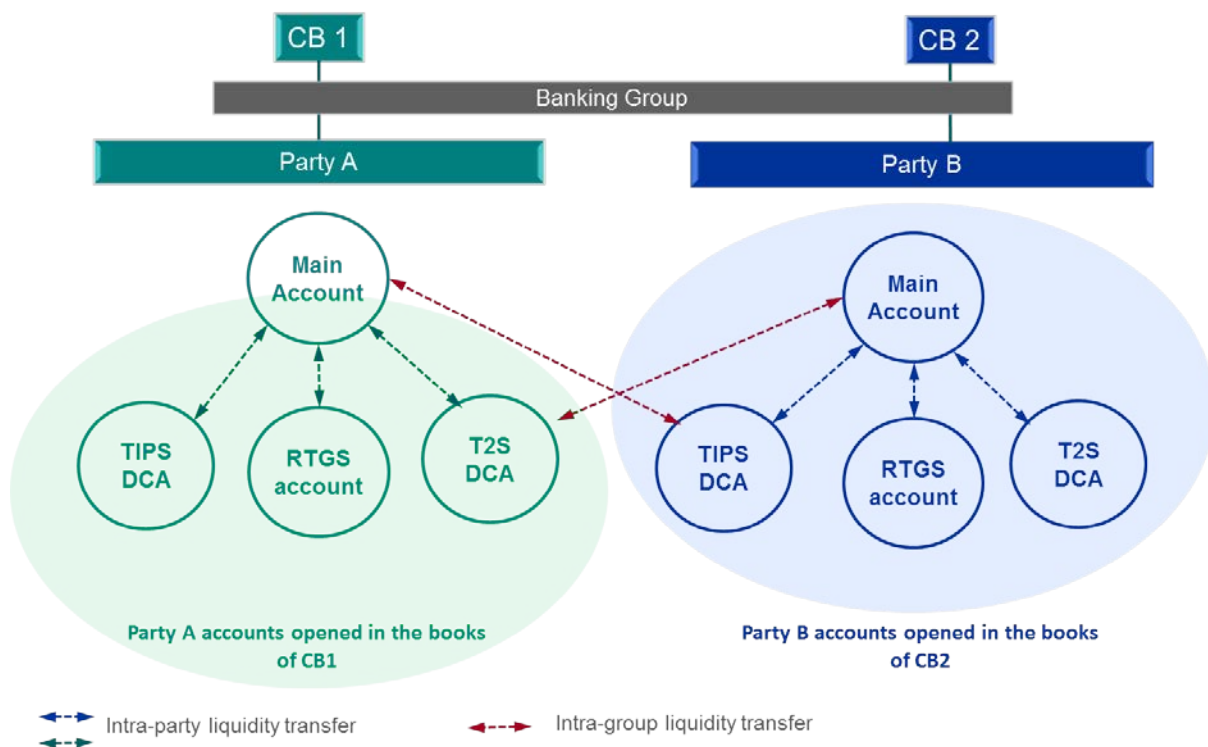


Figure 4 Example for the usage of the CLM for a multinational bank with a branch or entity abroad

Also groups of banks, which have for instance concentrated their payment and/or settlement business into a single entity, can establish a corresponding account structure.

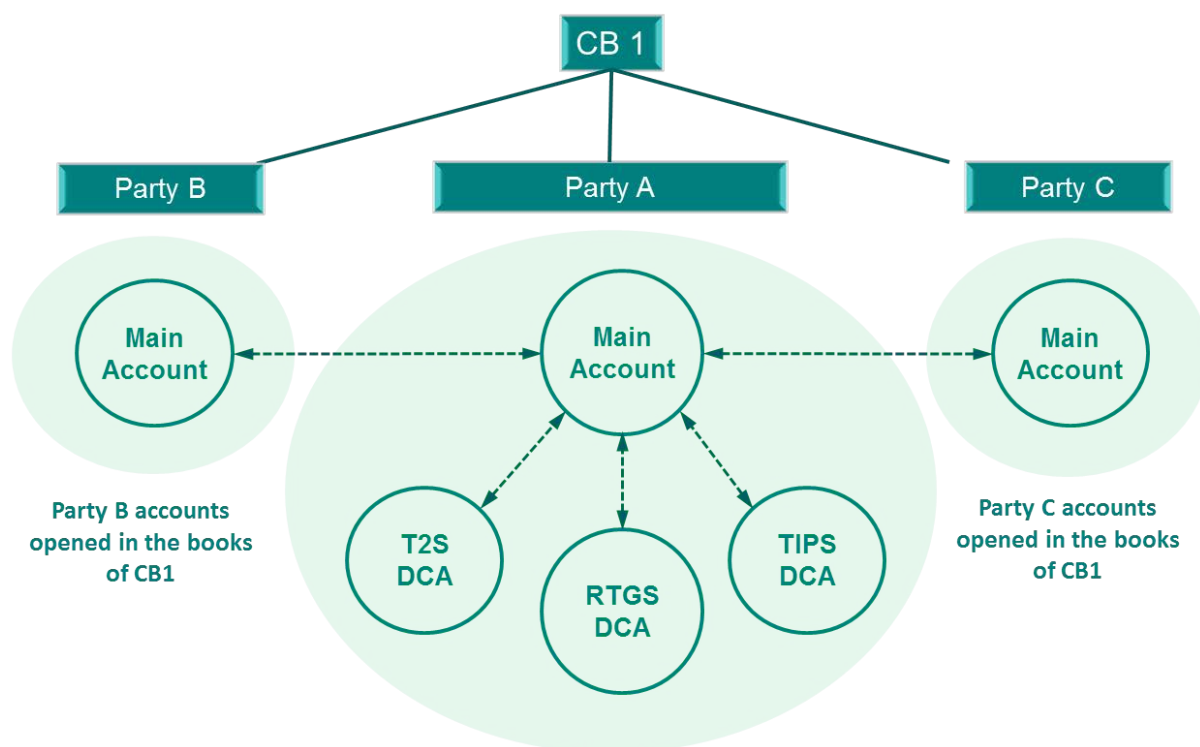


Figure 5 CLM for a group of banks

Monitoring functions will support the control of liquidity between the CLM and the settlement services via U2A and A2A (see section 3.1).

All CLM functionalities will be accessible in User-to-Application (U2A) and in Application-to-Application (A2A) mode, so that smaller participants do not require back-office integration. The U2A mode will offer a dashboard for monitoring purposes.

2.2.2 REFERENCE DATA

Reference Data will be divided into common reference data and service related reference data.

Common Reference Data will be used by and valid for more than one of the services. A common repository for this data will avoid duplication of effort in maintaining the same information in different services (e.g. users) and avoid inconsistencies (e.g. due to wrong account numbers). Participants and accounts will be set up in a consistent way and can be addressed consistently throughout the different modules. Examples for common reference data are country codes, currency codes and the service availability calendar.

In general, service-related data will be used by and valid for only one particular service. Examples for service-related reference data are message types and message routing.

Even if the internal handling of common reference data and service-related reference data is different, they might still be maintained by the same interface.

Intraday modifications shall be applied on a real-time basis when necessary, e. g. for the blocking of an account or a participant.

2.2.3 EUROSYSTEM SINGLE MARKET INFRASTRUCTURE GATEWAY (ESMIG)

The Eurosystem Single Market Infrastructure Gateway (ESMIG) will be the common entrance for all interaction with the Eurosystem Market Infrastructures. Participants will therefore be able to use communication infrastructures established for different services that they want to use or access. Taking into account the current planning, the user will have access to T2, T2S and TIPS via the ESMIG.

Based on common technical specifications, the ESMIG will be network agnostic and therefore allow connectivity through Multiple Service Providers for both A2A and U2A traffic. The ESMIG will offer a cost-effective access to the various entities and will take the wide range of interests and expectations towards the connectivity into account, i. e. participants with only a low volume of payments will have a cost-effective access as well.

3. Envisaged Business Changes

3.1 Improved Management and Control of the Payment Capacity

The CLM, including improved monitoring and control facilities taking into account all corresponding DCAs, will enable the users to monitor and manage their complete payment capacity more efficiently.

3.2 Minimum Reserve Calculation

The balance of the TIPS DCA has to be taken automatically into account for the minimum reserve calculation of the respective participant. The 24/7 approach of TIPS would not allow a cash sweep from the TIPS DCA towards the main account, as TIPS cannot settle without any liquidity.

The minimum reserve calculation will in the future not require a cash sweep from the DCAs to the main account during the end of day procedures. Following from this, it is also foreseen for the other services to take their balance into account; a cash sweep will be optional, no longer mandatory.

Nevertheless, the different services will foresee options for participants to configure a transfer of remaining liquidity at the end of day. This enables the usage of the full payment capacity even during the downtime of the one or other service.

The calculation will ensure that all respective balances are taken into account completely and correctly for the daily balance calculation of each participant. All corresponding accounts of one common minimum reserve calculation have to be opened with the same NCBs.

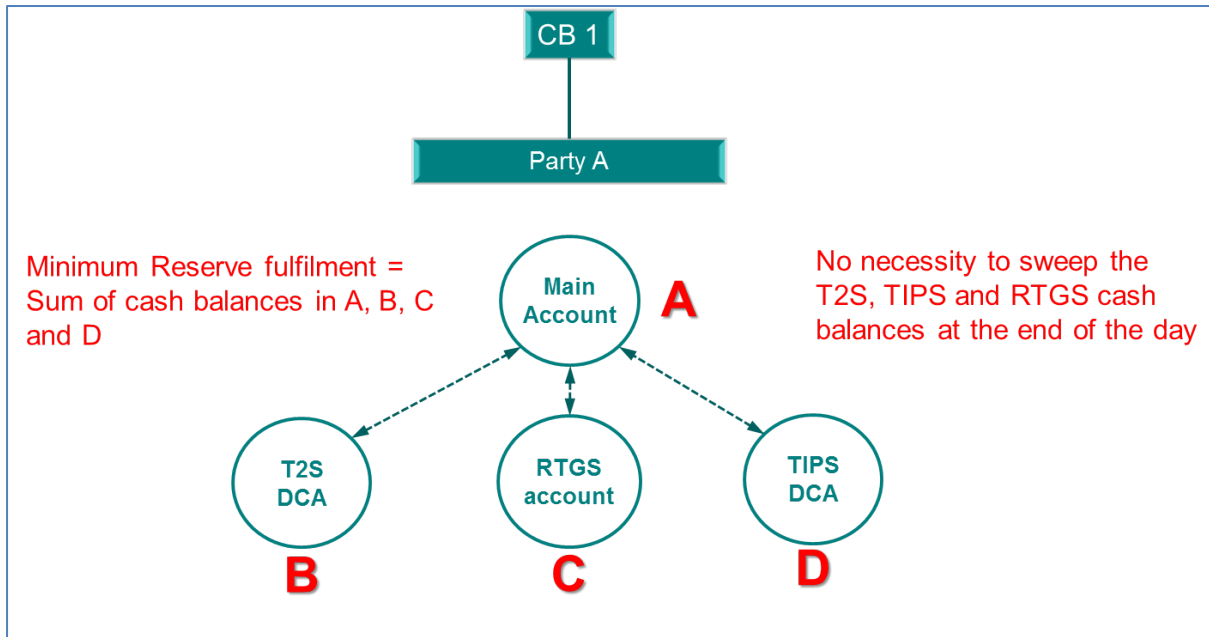


Figure 6 Minimum reserve management calculation