



EUROPEAN CENTRAL BANK

EUROSYSTEM

<b>General Information (Origin of Request)</b>		
<input type="checkbox"/> User Requirements (URD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
<b>Request raised by:</b> Eurosystem	<b>Institute:</b> 4CB	<b>Date raised:</b> 28/02/2019
<b>Request title:</b> Common Reference Data Management for T2-T2S Consolidation – New Objects		<b>Request ref. no:</b> T2S-0696-SYS
<b>Request type:</b> Common	<b>Classification:</b> Maintenance	<b>Urgency:</b> Normal
<b>1. Legal/business importance parameter:</b> Medium		<b>2. Market implementation efforts parameter:</b> Low
<b>3. Operational/Technical risk parameter:</b> Medium		<b>4. Financial impact parameter:</b> No financial impact
<b>Requestor Category:</b> Eurosystem		<b>Status:</b> Implemented

This Change Request is one of the T2S Change Requests related to the T2-T2S Consolidation Project. The tentative distribution of these Change Requests per functional area and T2S release is summarised in the table below (as of 2 November 2020):

	R4.0 (Jun 2020)	R4.2 (Nov 2020)	R5.0 (Jun 2021)	R5.2 (Nov 2021)	R6.0 (Jun 2022)	R6.2 (Nov 2022)
					<b>T2S&gt;ESMIG</b>	
ESMIG (Connectivity)					<a href="#">CR-701</a>	
CRDM (Reference data)	<a href="#">CR-719</a>	<a href="#">CR-721</a>	<a href="#">CR-704</a> <a href="#">CR-696</a>		<a href="#">CR-705</a>	
BILL (Billing)				<a href="#">CR-697</a>	<a href="#">CR-706</a>	
BDM (Business day)		<a href="#">CR-698</a>			<a href="#">CR-707</a>	
DWH (Historical data)					<a href="#">CR-699</a>	
LEA (Legal archiving)					<a href="#">CR-700</a>	
T2-T2S communication		<a href="#">CR-702 (ICL)</a> <a href="#">CR-703 (camt.050)</a>	<a href="#">CR-729</a>			<a href="#">CR-734</a>
Liquidity management			<a href="#">CR-708 (Outbound LT)</a> <a href="#">CR-709 (Cash sweep)</a>			
Maintenance window			<a href="#">CR-710</a>			

**Reason for change and expected benefits/business motivation:**

The T2-T2S Consolidation project envisions that in 2021 the Common Reference Data Management (CRDM) common component shall provide features to setup, maintain and query all reference data used by the different Eurosystem Market Infrastructure services. A first version of the CRDM, named CRDM<sup>TIPS</sup>, was developed to support the maintenance of the reference data necessary for TIPS; CRDM<sup>TIPS</sup> was built as an enhancement of today's T2S Static Data Management (SDMG). The impact on T2S stemming from these changes is described in T2S Change Request 674. Additional changes are required in order to accommodate the reference data requirements for the Central Liquidity Management (CLM) and Real-Time Gross Settlement (RTGS) components of the future T2 Service, as well as for the new Billing and Business Day Management common components that will replace respectively the current T2S Billing and Scheduling modules.

This reference data will make use of the Service concept introduced with CRDM<sup>TIPS</sup>. This concept allows to partition and reuse data based on the Service and component it is relevant for; for example, a Party needs only to be defined once, and linked to CLM and RTGS in order to be available in both CLM and RTGS. In order to ensure backwards compatibility with T2S, no specific link to T2S is foreseen for the time being.

The implementation of the fully-fledged CRDM and its impact on T2S will take place over three successive steps, each introducing a new set of reference data objects with their related maintenance functions and business interfaces to CRDM. Reference data objects are assigned to a specific lot depending on the type of impact on the T2-T2S Consolidation project and on the T2S side, reflecting agreements with market participants based on the following theoretical scenarios:

- scenario 1: impact on T2S, reuse in CSLD;
- scenario 2: no impact on T2S, reuse in CSLD;
- scenario 3: impact on T2S, integration (direct change) in CSLD;
- scenario 4: no impact on T2S, integration (direct change) in CSLD;
- scenario 5: impact on T2S, integration (clone) in CSLD;
- scenario 6: no impact on T2S, integration (clone) in CSLD;
- scenario 7: new development in CSLD;
- scenario 8: new development in T2S;
- scenario 9: impact on T2S, not in scope for CSLD;

Of the above, only scenarios 2, 4 and 7 occur in practice and are relevant for the purposes of this CR. Therefore, the set of CRDM reference data objects will be partitioned according to the following rationale:

1. Existing T2S objects that are modified in T2-T2S Consolidation (i.e. scenario 4, the subject CR719);
2. Existing T2S objects that are reused without any changes in T2-T2S Consolidation (i.e. scenario 2);
3. New objects developed specifically for T2-T2S Consolidation, not used by T2S (i.e. scenario 7, i.e. the subject of this CR).

In addition to this basic logic, each lot will also contain any additional reference data objects that are strictly necessary to allow the proper functioning of objects that are included in the lot.

As of the T2-T2S Consolidation go-live, objects that are specific to T2S and not used in T2-T2S Consolidation (notably the objects managed by CSDs and their participants) will still be exclusively available in T2S. The final step will entail the coverage of these objects in T2-T2S Consolidation and the decommissioning of the related interfaces from T2S.

To clarify the overall framework and the differences between the full scope of CRDM and the current T2S SDMG, this section first focuses on the scope of CRDM for the new Services/components, and then provides detailed information on the design and implementation approach that was adopted in order to identify all the detailed changes to be performed.

**1. CRDM reference data for T2-T2S Consolidation**

The new Services/components require a set of functions to setup, maintain and display their reference data. More in detail, users will need to setup, maintain and query the following reference data objects:

**Table 1 – T2-T2S Consolidation Reference Data Objects and Responsible Actors**

AREA	OBJECT	RESPONSIBLE ACTORS <sup>1</sup>
<b>Party</b>	Party	Operator, CB
	Party Service Link ( <i>non-T2S</i> )	Operator, CB
	Banking Group ( <i>non-T2S</i> )	CB
	Ancillary System Procedure ( <i>non-T2S</i> )	CB
	Ancillary System Bilateral Agreement ( <i>non-T2S</i> )	CB

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<sup>1</sup> "All" indicates that all types of T2S Actors (T2S Operator, CSDs, CBs, Payment Banks and CSD Participants) have the ability to manage the object type.

<b>Cash account</b>	Cash Account	CB
	Liquidity Transfer Order	CB, Payment Bank
	Limit	CB, Payment Bank
	Authorised Account User ( <i>non-T2S</i> )	CB, Payment Bank
	Account Monitoring Group ( <i>non-T2S</i> )	CB, Payment Bank
	Liquidity Transfer Group ( <i>non-T2S</i> )	CB
	Settlement Bank Account Group ( <i>non-T2S</i> )	CB
	Direct Debit Mandate ( <i>non-T2S</i> )	CB, Payment Bank
	Standing Order for Reservation ( <i>non-T2S</i> )	CB, Payment Bank
<b>Access rights management</b>	User	All
	Role	Operator, CB
	Privilege	Operator, CB (only granting)
	Certificate DN	All
	User-Certificate DN Link	All
<b>Message subscription configuration</b>	Message Subscription Rule	CB
	Message Subscription Rule Set	CB
<b>Network configuration</b>	Routing	CB
	Technical Address Network Service Link	CB
	DN-BIC Routing ( <i>non-T2S</i> )	CB, Payment Bank
<b>Report configuration</b>	Report Configuration	All
<b>Restriction type management</b>	Restriction Type	Operator, CB (only for T2S)
<b>Billing configuration</b>	Invoice Configuration ( <i>non-T2S</i> )	CB
	VAT ( <i>non-T2S</i> )	CB

CLM and RTGS will receive the relevant data from CRDM in a daily propagation. A functionality for the Operator shall also be available in order to trigger the daily propagation of reference data upon request in case of contingency.

The propagation of reference data from CRDM to CLM/RTGS (and never vice versa) is the only operational link between the two services. This link is not expected to create any issue for either service. In fact:

- From a T2S viewpoint, the propagation process will be fully decoupled from all other processes and events of the T2S Settlement Day. Therefore, any possible issue concerning this process will not cause any stop or delay of T2S operations. Also, even in case of unavailability of CLM/RTGS, the propagation process on the CRDM side will complete successfully and without any impact on T2S operations.
- From a CLM/RTGS viewpoint, the unavailability of CRDM would prevent the possibility to propagate reference data to CLM/RTGS or may cause a delay in such propagation. In this scenario, there would be an operational impact on CLM/RTGS, consisting in the need to continue operations without new reference data or reference data changes that were supposed to become active in CLM/RTGS with the new business day.

## 2. Design and implementation approach

The design and the implementation of CRDM for T2-T2S Consolidation follows the same approach that was adopted for CRDM for TIPS.

In short, for each reference data object/function considered, one of the following implementation approaches is applied:

- Reuse: the *as-is* object/function can be fully reused to get to the *to-be* object/function (no software change is needed).
- Integration: the *as-is* object/function has to be enhanced to get to the *to-be* object/function.
- New development: the *to-be* object/function has to be developed from scratch.

**Description of requested change:**

As documented in section 1.6.3.3.1 – *Static data objects* of the UDFS, the functional scope of SDMG can be conceptually partitioned into the following areas:

- Party
- Securities
- Securities Account
- T2S Dedicated Cash Account
- Access Rights Management
- Message Subscription Configuration
- Network Configuration
- Report Configuration
- Attribute Domain Management
- Scheduling Configuration
- Market-Specific Attribute Configuration
- Restriction Type Management
- Conditional Securities Delivery Configuration
- Billing Configuration
- Configuration Parameters

According to the above described high-level functional gap analysis and technical implementation analysis, CLM/RTGS require CRDM to cover the following subset of SDMG/CRDM areas:

- Party
- Cash Account
- Access Rights Management
- Message Subscription Configuration
- Network Configuration
- Report Configuration
- Restriction Type Management

Focusing on this limited subset of SDMG/CRDM areas and with specific reference to the static data objects falling in the scope of CRDM, the following table (see also *table 142* in section 1.6.3.3.1 – *Static data objects* of the UDFS) provides the exhaustive list of relevant static data objects and the type of impact each of them will undergo:

**Table 2 – T2-T2S Consolidation Reference Data Objects and impact relative to T2S**

AREA	OBJECT	SCENARIO	TYPE OF IMPACT
<b>Party</b>	Party	4	Integration (Direct Change)
	Party Service Link ( <i>non-T2S</i> )	4	Integration (Direct Change)
	Banking Group ( <i>non-T2S</i> )	7	New
	Ancillary System Procedure ( <i>non-T2S</i> )	7	New
	Ancillary System Bilateral Agreement ( <i>non-T2S</i> )	7	New
<b>Cash account</b>	Cash Account	4	Integration (Direct Change)
	Liquidity Transfer Order	4	Integration (Direct Change)
	Limit	4	Integration (Direct Change)
	Authorised Account User ( <i>non-T2S</i> )	4	Integration (Direct Change)
	Account Monitoring Group ( <i>non-T2S</i> )	7	New

	Liquidity Transfer Group ( <i>non-T2S</i> )	7	New
	Settlement Bank Account Group ( <i>non-T2S</i> )	7	New
	Direct Debit Mandate ( <i>non-T2S</i> )	7	New
	Standing Order for Reservation ( <i>non-T2S</i> )	7	New
<b>Access rights management</b>	User	2	Reuse
	Role	2	Reuse
	Privilege	4	Integration (Direct Change)
	Certificate DN	2	Reuse
	User-Certificate DN Link	4	Integration (Direct Change)
<b>Message subscription configuration</b>	Message Subscription Rule	4	Integration (Direct Change)
	Message Subscription Rule Set	4	Integration (Direct Change)
<b>Network configuration</b>	Routing	4	Reuse2
	Technical Address Network Service Link	2	Reuse
	DN-BIC Routing ( <i>non-T2S</i> )	4	Integration (Direct Change)
<b>Report configuration</b>	Report Configuration	4	Integration (Direct Change)
<b>Restriction type management</b>	Restriction Type	4	Reuse3
<b>Billing configuration</b>	Invoice Configuration ( <i>non-T2S</i> )	7	New4
	VAT ( <i>non-T2S</i> )	7	New5

### 3. Reference Data Objects coverage

Based on the above analysis, this Change Request aims at listing the new objects introduced by the T2-T2S Consolidation project to cover the needs of CLM and RTGS that will not be used by T2S.

Table 3 – New Reference Data Objects for T2-T2S Consolidation

EA	JECT
<b>Party</b>	Banking Group ( <i>non-T2S</i> ) Ancillary System Procedure ( <i>non-T2S</i> ) Ancillary System Bilateral Agreement ( <i>non-T2S</i> )
<b>Cash account</b>	Account Monitoring Group ( <i>non-T2S</i> ) Liquidity Transfer Group ( <i>non-T2S</i> ) Settlement Bank Account Group ( <i>non-T2S</i> ) Direct Debit Mandate ( <i>non-T2S</i> ) Standing Order for Reservation ( <i>non-T2S</i> )
<b>Billing configuration</b>	Invoice Configuration ( <i>non-T2S</i> ) VAT ( <i>non-T2S</i> )

### 4. Detailed Reference Data object changes

The design and the implementation of CRDM for T2-T2S Consolidation follows the same approach that was adopted for CRDM for TIPS.

The following sections describe in detail the type of impact and any potential implication on the concerned T2S Actors.

#### Party reference data

<sup>2</sup> Initially flagged as a scenario 4 object, following detailed analysis no changes are necessary for Routing given those already implemented for CRDM-TIPS

<sup>3</sup> Initially flagged as a scenario 4 object, following detailed analysis no changes are necessary for Restriction Type given those already implemented for CRDM-TIPS

<sup>4</sup> New object introduced with T2-T2S Consolidation CR0016 (Billing common component).

<sup>5</sup> New object introduced with T2-T2S Consolidation CR0016 (Billing common component).

New objects will be introduced to manage the grouping of Parties and specific settings for Ancillary System procedures.

### Banking Group

<b>Type of Impact</b>	<b>New</b>
<b>Impact on the software</b>	The Banking Group object will be developed specifically for CLM/RTGS. It will contain references to multiple Parties to be viewed collectively for certain business purposes, such as oversight and regulation.
<b>Impact on the data</b>	No impact on T2S data.
<b>Concerned T2S Actors</b>	<b>None</b>
<b>Implications for T2S Actors</b>	The Banking Group object will not be visible in T2S.

### Ancillary System Procedure

<b>Type of Impact</b>	<b>New</b>
<b>Impact on the software</b>	The Ancillary System Procedure object will be developed specifically for CLM/RTGS. It will define, for each Ancillary System Party, the relevant settlement procedures.
<b>Impact on the data</b>	No impact on T2S data.
<b>Concerned T2S Actors</b>	<b>None</b>
<b>Implications for T2S Actors</b>	The Ancillary System Procedure object will not be visible in T2S.

### Ancillary System Bilateral Agreement

<b>Type of Impact</b>	<b>New</b>
<b>Impact on the software</b>	The Ancillary System Bilateral Agreement object will be developed specifically for CLM/RTGS. It will define bilateral links between Ancillary System Parties agreeing to have cross-party liquidity transfers enabled between their cash accounts.
<b>Impact on the data</b>	No impact on T2S data.
<b>Concerned T2S Actors</b>	<b>None</b>
<b>Implications for T2S Actors</b>	The Ancillary System Bilateral Agreement object will not be visible in T2S.

### Cash Account reference data

New objects will be introduced to group Cash Accounts as well as define Direct Debit and Reservation configurations.

### Account Monitoring Group

<b>Type of Impact</b>	<b>New</b>
<b>Impact on the software</b>	The Account Monitoring Group object will be developed specifically for CLM/RTGS. It will define clusters of Cash Accounts to be viewed collectively for liquidity management purposes.
<b>Impact on the data</b>	No impact on T2S data.

<b>Concerned Actors</b>	<b>T2S</b>	<b>None</b>
<b>Implications for T2S Actors</b>	<b>for</b>	The Account Monitoring Group object will not be visible in T2S.

**Liquidity Transfer Group**

<b>Type of Impact</b>	<b>New</b>	
<b>Impact on the software</b>	The Liquidity Transfer Group object will be developed specifically for CLM/RTGS. It will define groups of Cash Accounts for the purpose of arranging intra-CLM/intra-RTGS liquidity transfers between the respective accounts.	
<b>Impact on the data</b>	No impact on T2S data.	
<b>Concerned Actors</b>	<b>T2S</b>	<b>None</b>
<b>Implications for T2S Actors</b>	<b>for</b>	The Liquidity Transfer Group object will not be visible in T2S.

**Settlement Bank Account Group**

<b>Type of Impact</b>	<b>New</b>	
<b>Impact on the software</b>	The Settlement Bank Account Group object will be developed specifically for CLM/RTGS. It will define groupings of Cash Accounts that reference the same Ancillary System Party.	
<b>Impact on the data</b>	No impact on T2S data.	
<b>Concerned Actors</b>	<b>T2S</b>	<b>None</b>
<b>Implications for T2S Actors</b>	<b>for</b>	The Settlement Bank Account Group object will not be visible in T2S.

**Direct Debit Mandate**

<b>Type of Impact</b>	<b>New</b>	
<b>Impact on the software</b>	The Direct Debit Mandate object will be developed specifically for CLM/RTGS. It will detail a mandate to allow a payee Party to submit payment requests for payments by direct debit from the account of a payer Party.	
<b>Impact on the data</b>	No impact on T2S data.	
<b>Concerned Actors</b>	<b>T2S</b>	<b>None</b>
<b>Implications for T2S Actors</b>	<b>for</b>	The Direct Debit Mandate object will not be visible in T2S.

**Standing Order for Reservation**

<b>Type of Impact</b>	<b>New</b>	
<b>Impact on the software</b>	The Standing Order for Reservation object will be developed specifically for CLM/RTGS. It will define repeatable orders to create reservations on Cash Accounts automatically based on specific triggers.	
<b>Impact on the data</b>	No impact on T2S data.	
<b>Concerned Actors</b>	<b>T2S</b>	<b>None</b>

<b>Actors</b>	
<b>Implications for T2S Actors</b>	The Standing Order for Reservation object will not be visible in T2S.

**Billing configuration**

New objects will be introduced to support the configuration of Parties for the new Billing common component to be introduced with T2-T2S Consolidation CR0016

**Invoice Configuration**

<b>Type of Impact</b>	<b>New</b>
<b>Impact on the software</b>	Invoice configuration will be developed specifically for the new Billing Common component and not used by T2S.
<b>Impact on the data</b>	No impact on T2S data.
<b>Concerned T2S Actors</b>	<b>None</b>
<b>Implications for T2S Actors</b>	The Invoice Configuration object will not be visible in T2S.

**VAT**

<b>Type of Impact</b>	<b>Reuse</b>
<b>Impact on the software</b>	VAT will be developed specifically for the new Billing Common component and not used by T2S.
<b>Impact on the data</b>	No impact on T2S data.
<b>Concerned T2S Actors</b>	<b>None</b>
<b>Implications for T2S Actors</b>	The VAT object will not be visible in T2S.

**Submitted annexes / related documents:**

**Proposed wording for the Change request:**

All objects stated above are specific to T2 and have no relevance for T2S.

**High level description of Impact:**

The CRDM common component will be enriched with additional objects and functions to manage data relevant for T2 in the T2-T2S Consolidation framework. None of the objects or functions listed in this CR are relevant for T2S, although given the nature of CRDM as an enhancement of the T2S Static Data Management domain the changes will coexist in the same application. In any case, no impact on T2S users is foreseen due to these objects being specific to T2 and not accessible from/used by T2S.

**Outcome/Decisions:**

- \* CRG on the 20 March 2019: The CRG agreed to launch the preliminary assessment of CR-696.
- \* CRG on the 8 October 2019: The CRG agreed to recommend the CR for authorisation at the T2S Steering Level.
- \* AMI-SeCo on 16 October 2019: The AMI-SeCo agreed with the recommendation of the CRG.



- \* CSG on 25 October 2019: The CSG authorised the CR for allocation to a T2S release.
  - \* NECSG on 28 October 2019: The NECSG authorised the CR for allocation to a T2S release.
  - \* MIB on 8 November 2019: The MIB agreed to authorise CR-696.
  - \* PMG on 28 November 2019: The PMG agreed to propose the allocation of CR-696 to T2S release 5.0.
  - \* CRG on 22 January 2020: The CRG took note of the detailed assessment results of CR-696 and agreed to recommend its implementation in R5.0 to the PMG.
  - \* PMG on 23 January 2020: The PMG recommended the CR for approval by the T2S Steering Level and its inclusion in R5.0.
  - \* OMG on 31 January 2020: The OMG identified no operational impact in the operational assessment of this CR.
  - \* CSG on 5 February 2020: The CSG approved the inclusion of CR-696 in R5.0.
  - \* NECSG on 10 February 2020: The NECSG approved the inclusion of CR-696 in T2S R5.0.
  - \* MIB on 13 February 2020: The MIB approved the inclusion of CR-696 in the scope of R5.0.
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**Preliminary Assessment:**

- **Impacted modules:** SDMG
- **Findings:** no specific issues
- **Release Allocation:**  
Targeted T2S R5.0 has been confirmed, might be subject to change with result of CR Detailed Assessment
- **Open issues/questions to be clarified by the originator:** none

## EUROSYSTEM ANALYSIS – GENERAL INFORMATION

T2S Specific Components		Common Components	
<b>LCMM</b>			
	Instructions validation		
	Status management		
	Instruction matching		
	Instructions maintenance		
	Penalty Mechanism		
<b>Settlement</b>			
	Standardisation and preparation to settlement		
	Night-time Settlement		
	Daytime Recycling and optimisation		
	Daytime Validation, provisioning & booking		
	Auto-collateralisation		
<b>Liquidity Management</b>			
	Outbound Information Management		
	NCB Business Procedures		
	Liquidity Operations		
<b>T2S Interface</b> (as of June 2022 without Static Data Management, Communication for SDMG, Scheduler, Billing)			
	Communication		
	Outbound Processing		
	Inbound Processing		
<b>Static Data Management</b> (until Nov 2021)		<b>Common Reference Data Management</b> (from PROD R5.2 Nov 2021)	
	Party data management	X	Party data management
	Securities data management		Securities data management
	Cash account data management	X	Cash account data management
	Securities account data management		Securities account data management
	Rules and parameters data management	X	Rules and parameters data management
<b>Statistics and archive</b>		<b>Statistics and archive</b>	
	Statistical information (until Nov 2021)		Short term statistical information
	Legal archiving (until Nov 2021)		Legal archiving (from PROD R5.2)
			Data Warehouse (from PROD R5.2)
<b>Information</b> (until June 2022 containing reference data)		<b>CRDM business interface</b> (from PROD R6.0 June 2022)	
	Report management		Report management
	Query management		Query management
			Communication
		X	Outbound Processing
		X	Inbound Processing
<b>Operational Services</b>			
	Data Migration (T2S DMT)		Data Migration (CRDM DMT, from PROD R5.2)
	Scheduling (until Nov 2021)		Business Day Management (from PROD R5.2)
			Business Day Management business interface (from PROD R6.0)
	Billing (until June 2022)		Billing (from PROD R5.2)
			Billing business interface (from PROD R6.0)
	Operational Monitoring		Operational and Business Monitoring

<b>Impact on major documentation</b>		
<b>Document</b>	<b>Chapter</b>	<b>Change</b>
Impacted GFS chapter		
Impacted UDFS chapter		
Additional deliveries for Message Specification		
UHB		
Links with other requests		
T2S-0719-SYS, T2S-0721-SYS, T2S-0704-SYS, T2S-0705-SYS		
<b>OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2S SYSTEM AND ON THE PROJECT</b>		
Summary of functional, development, infrastructure and migration impacts		
<p>The changes delivered for these new objects are only relevant for T2 and while they will coexist in the same application as T2S Static Data Management, no impact is expected on T2S side. T2S interfaces will not access the new objects, nor will they be used in any T2S process. In line with this, no change to the T2S scope-defining documentation is foreseen. The changes have also no impact on ECMS.</p>		
Summary of project risk		
Security analysis		
No adverse effect has been identified during security assessment.		