T2-T2S consolidation (CSLD)

12/02/2019 and 26/02/2019

CLSD Workshop - Agenda

► Introduction and high level overview
► Planning
► Network Service Provider and ESMIG
► Central Liquidity Management (CLM)
► RTGS
► Big Bang migration
► Client/customer readiness
► Consultation UDFS

► Contacts and Documentation
High level Overview

Eurosystem Single Market Infrastructure Gateway (ESMIG)

Central Liquidity Management
- Credit line
- RM

Future RTGS Services
- RM

TIPS
- Instant Payments

Shared Billing

Data Warehouse
- GUI

Common Reference Data

High level overview - Modules

Central Liquidity Management
- T2S
  - Securities Settlement
  - Auto-Collat
- Service-related Reference Data

Future RTGS Services
- HVP, AS
- Service-related Reference Data

TIPS
- Instant Payments
- Service-related Reference Data

Common Reference Data

Shared Billing

Data Warehouse
- GUI

Eurosystem Single Market Infrastructure Gateway

Legend
- A2A
- U2A
- System Operators
- Non-Euro RTGS
- Direct Participants
- Central Banks
- Network
- RTGS Settlement
- High Value Payments and Ancillary Systems
- Reference Data Management
- Data Warehouse
- Service Interface: Technical Validation, Information and Reporting
- Central Liquidity Management
- Central Bank Services

PT – Payment Transaction; LT – Liquidity Transfer; SI – Settlement Instruction; CL – Credit Lines
(*) Contingency settlement to be addressed i.a. under the umbrella of cyber resilience
High level Overview - Accounts

CB 1

Party A

Intraday credit
Marginal lending / overnight deposit
CB operations

Main Cash Account

T2S DCA
Securities settlement

RTGS DCA
Payment to third parties
Ancillary systems

TIPS DCA
TIPS settlement

Legal framework

► New legal documentation
  ● Under development
  ● Based on current TARGET2 guideline
  ● Harmonized terms and conditions
  ● Same access criteria in all services
    ● Same access criteria as today in TARGET2
  ● Participants will be informed in due course
Planning – Go-live November 2021
Big Bang approach

- Overall T2-T2S Consolidation realisation phase
- Specification phase
- Development and internal testing
- Eurosystem Acceptance and CB Testing
- User Testing
- Migration implementation
- Stabilisation and closing

Connection
NSP & ESMIG
Network Service Provider (NSP)

NSP selection process by 4CB

- **Publishing of awarded providers** is planned in **July 2019**
  - The Market participants can start their own selection process
- Concession contract will be **signed**, after administrative checks, in **September 2019**
- **Eurosystem Network acceptance tests** process will be completed in **March 2020**

### NSP - Planning

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<th>Description</th>
<th>2018</th>
<th>2019</th>
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<td>NSPs tender</td>
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<td>Publishing of awarded providers</td>
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<tr>
<td>Market participants start their own selection process among the awarded providers</td>
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<tr>
<td>Signing concession contract</td>
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<tr>
<td>Eurosystem Network acceptance tests</td>
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<tr>
<td>Awarding confirmation</td>
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<td>CB Connectivity testing</td>
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<td>CB Test execution</td>
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<td>UT Connectivity testing</td>
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<td>UT Test execution</td>
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</tbody>
</table>

Previous
NSP
Tender
Expiry
CSLD
Go Live
NSP - planning

- CSLD go live in Nov 2021
- ECMS go live in Nov 2022
- T2S current License Agreement will expire in June 2022
- TIPS will use NSP concession contract starting from Nov 2021

* The timing as of when the TIPS and T2S will use the NSP concession contract remains to be decided by the MIB.

NSP – U2A and A2A

- NSP
  - Fully fledged U2A and A2A connection
  - Cost-effective access for low payment volume participants via U2A
    - Same service level as full U2A
  - Low volume access, provided by an alternate NSP, could be used as a contingency solution
  - A participant could have two contracts in place:
    - a main contract with NSP-1, providing U2A only (small institutions) or both A2A/U2A;
    - a low volume access contract (U2A only) with NSP-2 for contingency
NSP - certificates

▶ Strong authentication has been implemented in T2S by a two factor authentication:
  ● something the user knows (PIN)
  ● something the user owns (smart card or USB token)
▶ This solution implies the usage of a USB port either for the USB Token or for the Smart card reader and specific drivers will have to be installed on the client.
▶ The possibility to adopt remote HSM, as an alternative to USB token/SmartCard, will be encompassed among the technical requirements.
ESMIG

▶ Single point of contact with external networks
  ● Authentication:
    ■ NSP identifies actor
    ■ Provides certificates both for A2A & U2A access
    ■ Forwards identity of the actor
  ● Authorization against Closed Group of Users
    ■ Different CUG’s for both A2A & U2A
  ● Message management: technical validation and forwarding
  ● Access portal for U2A users for all underlying business applications

▶ After the logon a landing page is displayed offering all market infrastructure services
Reference data

CRDM
Target2 access rights: current behaviour

- Access rights managed outside Target2:
  - SWIFT e-ordering to register for service
  - CB approves e-ordering based on profile ordering entity:
    - U2A mode
    - A2A mode
    - Ancillary system,…
  - Local SWIFT security officer:
    - Creates certificates/users
    - Assigns roles to each certificate
  - Log-in: SWIFT forwards roles certificate to Target2
- Link certificate – entity stored in Target2 static data

T2-T2S consolidation: CRDM (1/2)

- Use of the Common Reference Data Management component (CRDM)
  - Based on the T2S static data management
  - Already in production to support reference data set-up TIPS
  - Access via ESMIG portal
- E-ordering via site NSP
  - Register for services to be part of CUG:
    - ESMIG portal
    - CRDM
    - GUI (RTGS, CLM, TIPS,…)
    - A2A messages,…
  - Central Bank to confirm e-ordering
T2-T2S consolidation: CRDM (2/2)

- Registration forms to CB
- CB as a system entity will set-up in CRDM
  - Party
  - Accounts
  - Party administrator user
  - Grant requested roles to party and administrator user
- Party administrator user to set-up
  - Certificates (NSP)
  - Users
  - Link user to certificate
  - Grant appropriate privileges to user

CRDM GUI
Central Liquidity Management

CLM: Central Liquidity Management

- CBO operations
- Liquidity management
- Reserve management
- Standing facilities
Structure

- Mandatory
- 1 or more MCA (designation of Default MCA)
- BIC 11 (unique in CLM) + Account ID (unique cross service)

Central Bank Operations

- Update of credit line
- Marginal lending and Overnight deposit (SF)
- Cash withdrawals (under discussion)
- Monetary policy operations
- Debit of invoiced amounts
- Interest payments (on marginal lending, OD, MR, excess on MR)
- Other transactions as NCB
Central Bank Operations

► Payment type
  ● Credit transfers (pacs.009)
  ● Direct debits (pacs.010)
  ● Connected payments (impact on the credit line)
    □ Pacs.009 or pacs.010

► NB: no direct debit mandate needed for CB

Credit Transfer

1. CB: credit transfer order: pacs.009
2. Verification and booking in CLM
3. Optional confirmat° to participant: camt.054
4. Optional confirmat° to CB: pacs.002

ESMIG = Eurosystem Single Market Infrastructure Gateway
Direct Debit

1. CB: Direct debit instruction: pacs.010
2. Verification and booking in CLM
3. Optional confirmat° to participant: camt.054
4. Optional confirmat° to CB: pacs.002

ESMIG = Eurosystem Single Market Infrastructure Gateway

Execution Time

- During whole business day
- Earliest/Latest debit time indicator
- Warehoused transactions: up to 10 calendar days in advance
LT Possibilities

1. MCA to MCA
2. MCA to DCA
3. DCA to DCA
4. DCA to DCA via CLM

Central Liquidity Management

TIPS | T2S | RTGS

LT from CLM MCA to RTGS DCA

1. camt.050 sent from CLM participant
2. Booking on CLM MCA (from MCA to Technical Account RTGS)
3. Camt.050 forwarded to RTGS service
4. Booking on RTGS DCA (from Technical Account CLM to RTGS DCA)
5. Camt.054 sent to RTGS participant (optional)
6. Camt.025 sent to CLM service
7. Camt.025 transferred to the CLM participant

4 types of Liquidity Transfers

► Immediate LT
  ● A2A or U2A
  ● **Rejected** if not enough liquidity

► Standing order LT
  ● **Recurring order** triggered by Business Day Event
  ● **Partially settled** if not enough liquidity
    ■ No further attempt
    ■ Pro rata for all orders based on the same event
4 types of Liquidity Transfers

- **Rule-based LT**
  - Breach of floor or ceiling threshold
  - **Partially settled** if not enough liquidity
    - not further attempt

- **Automated LT**
  - In case of **insufficient liquidity** on MCA for a **CBO**
  - Pull liquidity from **RTGS DCA**
  - **Partially settled** if not enough liquidity
  - Remaining amount **queued**

Breach of floor / ceiling

- **Notification** *(camt.004)* or **LT** *(camt.050)*

![Diagram showing liquiditiy breaches and automated transfers]
**Liquidity Transfer Group**

- For intra-service liquidity transfers
- CLM check: both account in the same LT Group?
  - Yes: LT processed
  - No: LT rejected
- Not applicable for Central Bank accounts
- Set-up by NCB in CRDM

**Account Monitoring Group**

- Liquidity monitoring purposes
- Not for liquidity transfer or payment orders
- Set-up by CLM Account Holders
- Possible for accounts opened within different CBs
Reserve management

► Aggregate amount of EOD balances via CLM

CLM + RTGS + T2S + TIPS

Minimum Reserve Amount

► Verification of fulfilment
► Calculation of interest and penalties
► No minimum reserve account

Overnight deposit

► Only possible to transfer liquidity from MCA to overnight deposit account

RTGS/TIPS/T2S
CLM
OD Account

► Calculation of interests

► Conditions:
  ● Dedicated Deposit Account
1. CB sends **camt.050** to CLM
2. OD account of CB debited and MCA of participant credited
3. Optional **camt.054** sent to CLM participant
4. Acknowledgement sent to CB via **pacs.002**

5. CB calculates interests (+ or -) and sends **camt.050**
6. CLM debits/credits MCA of CB and credits/debits MCA of participant
7. **camt.054** sent to participant
8. **pacs.002** sent to CB
Credit Line Management

► Update credit line via ModifyCreditLine

► Connected payment
  ● Payment initiated by CB
  ● Triggers change in Credit Line
    ➢ Immediate debit/credit of the account to compensate
    ➢ Participant needs an MCA

1. Pacs.009 sent by CB
2. Debit CB account, credit participant MCA, decrease credit line
3. Optional pac.002 to CB
4. Camt.0054 by CLM to participant via ESMIG
Future RTGS

RTGS

- General principles
- Parties & Accounts
- Liquidity Management
- Payments
- Ancillary system settlement
- Business day
- Queries
Future RTGS general principles

- Migration to ISO 20022 compliant formats
- Network agnostic: communication via V-shape instead of Y-copy
- Service will not support 2 versions in parallel: migration via big-bang approach
- RTGS provides dedicated cash accounts (DCA) for the settlement of real-time interbank and customer payments and transactions with ancillary system
- Possibility to consider liquidity EOD for minimum reserve calculation
- Multi-currency without offering conversion features
RTGS Communication

► U2A
  ● Graphical User Interface (GUI)

► A2A
  ● Technical address:
    1. a technical receiver name which is represented by a DN;
    2. an NSP;
    3. a channel. Possible values for a channel are:
       • store-n-forward message-based;
       • store-n-forward file-based;
       • real-time message-based;
       • real-time file-based.

<table>
<thead>
<tr>
<th>RTGS business data exchanges</th>
<th>Inbound communication</th>
<th>Outbound communication</th>
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<tbody>
<tr>
<td>Instructions</td>
<td>Store-n-forward message-based,</td>
<td>Store-n-forward message-based, store-n-forward file-based</td>
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<td></td>
<td>store-n-forward file-based</td>
<td></td>
</tr>
<tr>
<td>Queries</td>
<td>Real-time message-based, real-time file-based</td>
<td>Real-time message-based, real-time file-based</td>
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<tr>
<td></td>
<td></td>
<td>In case of timeout and oversize store-n-forward message-based (see chapter Outbound traffic exceeding given size limitations [465]), store-n-forward file-based</td>
</tr>
<tr>
<td>Reports</td>
<td>N/A</td>
<td>Store-n-forward message-based, store-n-forward file-based</td>
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<tr>
<td>Notifications</td>
<td>N/A</td>
<td>Store-n-forward message-based, store-n-forward file-based</td>
</tr>
</tbody>
</table>
Parties

OPERATOR

Central Bank
- Payment bank
- Payment bank
- Payment bank
- Ancillary System

Control Bank
- Payment bank
- Payment bank
- Payment bank
- Payment bank

Participation Types RTGS Directory

<table>
<thead>
<tr>
<th>Feature</th>
<th>Direct participant</th>
<th>Indirect Participant/addressable BIC</th>
<th>Multi-addressee access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sending and receiving cash transfer orders</td>
<td>Directly</td>
<td>Via Direct Participant</td>
<td>Directly</td>
</tr>
<tr>
<td>Own cash account in RTGS</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Liquidity provisioning</td>
<td>On its cash account in RTGS</td>
<td>By Direct Participant</td>
<td>By Direct Participant</td>
</tr>
<tr>
<td>Liquidity control</td>
<td>By itself</td>
<td>By Direct Participant</td>
<td>By Direct Participant</td>
</tr>
<tr>
<td>Addressability</td>
<td>Directly</td>
<td>By Direct Participant</td>
<td>Directly</td>
</tr>
<tr>
<td>Publication in RTGS directory</td>
<td>As Direct Participant</td>
<td>As Indirect Participant/addressable BIC</td>
<td>As multi-addressee access</td>
</tr>
</tbody>
</table>
General principles of RTGS and its DCA

RTGS is for settlement of real-time interbank and customer payments and transactions with ancillary systems.
- RTGS operates on cash-only basis.
- The balance of the RTGS DCA cannot be negative.
- Each RTGS DCA must be assigned with a BIC11, which is unique within RTGS.

The RTGS account holder may have several RTGS DCAs, e.g.
- an RTGS DCA for settlement of its own payments
- an RTGS DCA for settlement with a dedicated or several ancillary systems

The RTGS account holder may open an RTGS DCA sub-account dedicated to one ancillary system that uses the AS settlement procedure C.

Account types

► RTGS DCA
- Party can have one or more DCAs.
- Owned by payment bank or AS (only for AS business cases).
- Each identified by BIC11.
- A party holding at least one MCA and at least one RTGS DCA must establish a one to one link between their default MCA and one RTGS DCA. (= condition for rule-based and automated liquidity transfers).

- Can have one or more sub-accounts.

► RTGS Sub-account
- Linked to one RTGS DCA.
- Identified by account number.
- For AS settlement.
Account types

► AS Technical account
  ● Owned by CB or AS
  ● Liquidity bridge for transferring funds from the RTGS DCA into the ancillary system and vice versa
  ● Intermediary account for the collection of debits/credits resulting from the settlement of balances

► AS guarantee funds account
  ● for maintaining funds allocated to the settlement of balances of an ancillary system in case of failure of settlement bank
  ● Procedure A and B only

Account types

► RTGS CB account
  ● Identified by BIC11
  ● Can have negative balance

► RTGS dedicated transit account
  ● For inter-service liquidity transfers
  ● For € managed by ECB
  ● For other currencies managed by CB of issue of the currency
### Account functionalities

- **Direct debit mandate**
  - Debit functionality
  - Upon authorisation by RTGS account holder A another RTGS account holder can issue a direct debit
  - Only valid for specified DCAs
  - Possible to configure maximum amounts (counterpart/payment/day)

- **Floor/Ceiling**
  - a minimum ("floor") and/or a maximum ("ceiling") amount in CRDM that shall remain on the respective account
  - Reaction from RTGS: notification to account holder or rule-based inter-service liquidity transfer (pull for floor and push for ceiling breach)

- **Rule-based liquidity transfers due to pending payment orders or AS transfer orders**
  - Pull from linked MCA in case liquidity shortage for execution of payment.

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### Account functionalities

- **Standing liquidity transfer order**
  - Event or AS procedure related
  - Defined amount
  - Inter- or intra service

- **Standing order for reservation**
  - Reservation of a fixed amount on a DCA for urgent or high payments

- **Standing order for limit**
  - Bilateral or multilateral limits vis-à-vis respectively one or all other RTGS DCAs

- **Current order for reservation**
  - Effective immediately for one business day

- **Current limit**
  - Effective immediately for one business day
  - Bilateral or multilateral
Groups

► Banking Monitoring Group
► Liquidity Transfer Group
  ● RTGS DCAs need to belong to the same Liquidity Transfer Group in order to execute intra-service liquidity transfers.
  ● Can be cross-border
► Account Monitoring Group
  ● clustering of accounts (MCA(s) and DCA(s)) for liquidity monitoring purposes

Liquidity Transfers

► Camt.050 Liquidity Transfer Order Message
► Possible within RTGS only if:
  ● All accounts in same liquidity transfer group
  ● With CB account
  ● Accounts belong to same party
  ● To sub-accounts
► Principle: never queued, settled immediately (full or partial) or rejected.
  ● Exc. when MCA has insufficient liquidity for CB operation
**Liquidity Transfers RTGS**

- RTGS DCA ↔ RTGS DCA (intra-service)
- RTGS DCA ↔ TIPS/T2S DCA* (inter-service)
- RTGS DCA ↔ CLM MCA (inter-service)

*Dependant on approval CR by T2S Governance

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**Liquidity Transfer Types**

- Immediate LT
  - Directly after initiation
- Event based
  - Non-recurring LT of all liquidity or a certain amount at a pre-defined event
- Standing Order
  - Recurring LT of all liquidity or a certain amount at a certain point in time or event
Initiation of Liquidity Transfers

► By who?
  ● RTGS participant (direct or multi-addressee access)
  ● Ancillary System on behalf
  ● CB on behalf
► How?
  ● A2A or U2A

LT between two DCAs of the RTGS

[Diagram showing the process of LT between two DCAs of the RTGS]
LT from RTGS to CLM

LT from RTGS to other service (T2S/TIPS)
Validations

► Technical validations
  ● Syntax/Schema checks
  ● Duplicate checks
  ● If failed: admi.007 with error code

► Business validations
  ● Duplicate check
  ● Authorisation checks
  ● Liquidity transfer group
  ● Field and reference data checks
  ● Subsequent processes and checks (available liquidity/floor/ceiling/…)
  ● If failed: camt.025 with error code

Payment types

► Timed payments:
  ● Earliest debit time indicator: /FROTIME/
  ● Latest debit time indicator: /REJTIME/-/TILTIME/

► Warehouse functionality:
  ● Up to 10 calendar days in advance
  ● Warehoused payments can be managed in queue

► Priorities Urgent-High-Normal

► Backup contingency payments via GUI (pacs.009):
  ● CLS;
  ● Euro1;
  ● Liquidity redistribution payments
  ● Codeword BACP
### Settlement of payments

- A payment can be submitted/received by:
  - Direct RTGS participant;
  - Central bank;
  - Indirect participant/addressable BIC via DP;
  - Multi-addressee

#### Main messages used:

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<tr>
<th>XML message</th>
<th>Message name</th>
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<td>pacs.008</td>
<td>Customer payment</td>
<td>MT103</td>
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<tr>
<td>pacs.009</td>
<td>Bank to bank payment</td>
<td>MT202</td>
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<tr>
<td>pacs.010</td>
<td>Direct debit</td>
<td>MT204</td>
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<td>pacs.002</td>
<td>FIToFPaymentStatusReport</td>
<td>MT019/MT012</td>
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<td>cmt.054</td>
<td>BankToCustomerDebitCreditNotification</td>
<td>MT900/MT910</td>
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<td>BankToCustomerStatement</td>
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<td>cmt.056</td>
<td>FIToFPaymentCancellationRequest</td>
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<tr>
<td>pacs.004</td>
<td>PaymentReturn</td>
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</table>

### MyStandards ISO20022

- [http://www.swift.com/mystandards/](http://www.swift.com/mystandards/)
  - Register to EMIP Group
  - Examples of messages
Sending pacs.008/009 – Direct participant A to direct participant B

Payment management

- Payments can be modified
  - Priority (high ⇔ normal)
  - Re-ordering in queue
  - Change of execution time

- Payment order revocation and payment recall
  - Via a FIToFIPaymentCancellationRequest (camt.056)
  - to revoke a pending payment order;
  - to recall a settled payment order.
ASI future procedures

- Procedure A: Standard multilateral settlement
  - Current procedure 4 (EBA Clearing, …)
  - AS sends multilateral balances:
    - Debits settled first
    - Pay-outs only when debits are settled
- Procedure B: Simultaneous multilateral settlement
  - Current procedure 5 (CEC, …)
  - AS sends multilateral balances:
    - Debits and credits settled simultaneously
- Procedure C: Settlement on dedicated sub-accounts
  - Current procedure 6 interfaced
  - Settlement Bank dedicates liquidity on sub-account to a specific AS

- Procedure D: Funding/de-funding on technical account
  - Current procedure ASI 6 real-time (CEC Instant Payments, …)
  - Technical account mirrored in AS to fund position accounts
  - Balance remains on the technical account overnight
  - Funding:
    - Setting-up standing liquidity transfer order in reference data
    - Immediate liquidity transfer order via RTGS GUI
    - Sending of pac.s.009
    - Initiation via AS (funding & de-funding)
- Procedure E: Bilateral settlement
  - Procedure model 3 (LCH Clearnet, …)
  - AS sends batch with debit and credit transactions
  - Payments processed independently
Business day

As described in UDFS v1.1

Current proposal
Business day

- Closing days: New Year’s Day (1 January); Good Friday; Easter Monday; Labour Day (1 May); Christmas Day (25 December); Boxing Day (26 December).
- Last business day of reserve maintenance period: EoD +15 min.
- First business day of new reserve maintenance period: SoD +15 min.

Queries

<table>
<thead>
<tr>
<th>Query type</th>
<th>Initiation via GUI (U2A mode)</th>
<th>Initiation via XML message (A2A mode)</th>
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<tbody>
<tr>
<td>Account balance query</td>
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<td>Account statement query</td>
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<td>AS batch message query</td>
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<td>Audit trail for RT335 query</td>
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</tbody>
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Contingency Module

Enhanced contingency solution- ECONS

1. Target2 Contingency Module
2. Task force on long lasting incidents
3. ECONS 1 – release November 2019
4. ECONS 2 – T2/T2S consolidation
Target2 Contingency module

► Current situation:
  ● Processing (very) critical payments
  ● Possibly combined with delay closing

► Limitations current Contingency Module:
  ● Payments with same business date only
  ● No settlement of ancillary system files
  ● Access limited to Central Banks
  ● No effective response to new challenging scenarios (e.g. cyber attack resulting in the corruption of data)
  ● Not appropriate to meet new oversight requirements

Task force on long lasting incidents (1/2)

► Scope
  ● Work based on existing set-up
  ● Solution future oriented

► Definition of long lasting incident
  ● No scenario- based approach
  ● ‘An event preventing the timely start of the day trade phase of the following business day’

► Impact
  ● TARGET2 considered unusable by crisis managers
  ● Maximum duration: 5 business days
  ● Network service provider not impacted
Task force on long lasting incidents (2/2)

- Concept of very critical and critical payments (as defined in the Information Guide For TARGET2 users) remains unchanged
  - Challenge: to set-up objective criteria for categorizing interbank and customer payments
  - Response (to this challenge): Banks are best positioned to assess criticality of payments
- Ancillary systems
  - Importance/criticality increases the longer TARGET2 is unusable
  - Generally to be supported

ECONS 1

- Increase the preparedness of TARGET2 to cope with a long lasting incident
**ECONS 1 – Main Features (1/2)**

► Non-functional
  - Based on existing Contingency Module
  - Business day can be closed / changed

► Functional
  - Starting with zero balances
  - Banks access to ECONS I via the GUI (U2A mode)
    - Inclusion of TARGET2 participants in a new SWIFT closed user group dedicated to ECONS I
    - Adding RBAC role for ECONS I
    - Work on these topics is in progress and details will be provided in due course
    - Central Banks can manage payment queue
  - End of the session : balances back to PM
  - Export function to obtain account balances/details

**ECONS 1 – Main Features (2/2)**

► Capacity
  - Up to 40,000 transactions per day
  - Clean payments
  - Ancillary systems
    - ASI procedure resembling procedure ASI 4000
    - AS files must be uploaded by CB’s
    - No night-time settlement

► Implementation
  - TARGET2 release 13.0 in November 2019
  - Users will be invited to test ECONS I in test environment prior to its go-live
ECOS 2

- **ECOS II:**
  - Enhancements ECOS 1 in context T2/T2S consolidation project
    - Case CLM and RTGS unusable
    - Link with future ECMS foreseen to inject liquidity on contingency accounts
    - Provide the financial data needed for the preparation of Eurosystem daily publications
  - Delivered with go-live consolidation (Nov 2021)

**Migration Strategy: Client Readiness**
What are the consequences of not being ready?

A participant who is not ready to go-live will:

- Not be able to fulfil its minimum reserve requirements
- Not be able to settle CB monetary policy operations
- Not be able to pay or to be paid in central bank money
- Be cut from ancillary system settlement in central bank money
- Need to access payment services through another counterparty
### WHAT are the main challenges for each T2 service participant?

<table>
<thead>
<tr>
<th>Technical readiness</th>
<th>Business and operational readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Assess required adaptations of IT infrastructure (software and hardware)</td>
<td>▪ Assess business impact</td>
</tr>
<tr>
<td>▪ Update interfaces</td>
<td>▪ Align business model and processes</td>
</tr>
<tr>
<td>▪ Implement ISO20022 for messaging</td>
<td>▪ Define operational procedures</td>
</tr>
<tr>
<td>▪ Set-up connectivity</td>
<td>▪ Prepare legal arrangements</td>
</tr>
<tr>
<td>▪ Perform internal testing</td>
<td>▪ Procure Network Service Provider</td>
</tr>
<tr>
<td>▪</td>
<td>▪ Train staff for testing, migration and operations</td>
</tr>
<tr>
<td>▪</td>
<td>▪ Perform connectivity and user testing</td>
</tr>
<tr>
<td>▪</td>
<td>▪ Prepare for and participate to migration rehearsals</td>
</tr>
</tbody>
</table>

### How do we monitor progress?

- Milestones defined by the Eurosystem
- Regular questionnaires on milestones
Next steps

► Each participant designates a project manager
  ● Name, e-mail and tel to be communicated to migration.target2@nbb.be
  ● Main point of contact for all matters related to project

► Declare your expected type of participation:
  ● Direct participant
  ● Only managing minimum reserves
  ● Managing minimum reserve and indirect participation in RTGS
  ● Ancillary System

► Depending on your participation type, you shall receive a tailored follow-up by the NBB

Next Steps: Analysis of specifications

► UDFS v1.1
  ● For Central Liquidity Management (CLM) and RTGS
  ● Participants are advised to read those sections that are applicable on their case
  ● Comments may be provided to NBB via amipaybensg@nbb.be by April 2nd.
    ● Participants are strongly advised to comment as this is an opportunity to share your views with the Eurosystem.

► Additional market consultations will follow the coming months.
Documentation & Contacts

Documentation

► ECB website Consolidation Project
  - UDFS
  - Testing
  - ESMIG
  - ...

► NBB website Consolidation Project
**Documentation**

- NBB website Consolidation Project
  - General documentation
  - Presentations
  - Link to dedicated Sharepoint
    - Still under development

**Contacts**

- Central mailbox
  - migration.target2@nbb.be

- Coordination Project: Patrick Heyvaert
  - patrick.heyvaert@nbb.be or 02/221 38 98

- Operational aspects: Thomas Lambrecht
  - Procedures, Registration, Migration, …
  - thomas.lambrecht@nbb.be or 02/221 28 37
Contacts

► Technical aspects: Rudi Verschaeren
  ● ISO20022
  ● Access rights
  ● Testing
  ● Rudolf.verschaeren@nbb.be or 02/221 37 36

► DWH and Billing: Guillaume Poncin
  ● Statistical datawarehouse
  ● Invoicing CLM, RTGS, T2S and TIPS
  ● Guillaume.poncin@nbb.be or 02/221 45 08

Questions?