T2/T2S Consolidation

Ancillary Systems Settlement Services

Task Force on Future RTGS Services

2nd TF meeting, 25-26 January 2017
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URD Structure – Content: Business Domains

Network

System Operators

Direct Participants

Central Banks

Non-Euro RTGS

A2A

U2A

Eurosysten Single Market Infrastructure Gateway

Business Interface: ISO, Information and Reporting

SI

LT

PT

TIPS

Multi-currency

Business Day

RTGS – High Value Payments

RTGS – Ancillary Systems

T2S

Central Liquidity Management

Central Bank Services

Reference Data Management

Operational Monitoring

Business Monitoring

Data Warehouse

Billing

Legend

- In scope for T2/T2S Consolidation
- Focus for Task Force
- Transversal Topic
- Out of scope for T2/T2S Consolidation, but interfaces are in scope

ECMS

SI

CL

Contingency
Settlement (*)

(*) Contingency settlement to be addressed i.a. under the umbrella of cyber resilience

ECB-UNRESTRICTED

Focus for Task Force

In scope for T2/T2S Consolidation

Transversal Topic

Out of scope for T2/T2S Consolidation, but interfaces are in scope

Legend

- In scope for T2/T2S Consolidation
- Focus for Task Force
- Transversal Topic
- Out of scope for T2/T2S Consolidation, but interfaces are in scope

PT – Payment Transaction; LT – Liquidity Transfer; SI – Settlement Instruction; CL – Credit Lines

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The new context for future AS related services

In the future environment, AS settlement will face the following changes:

• Driven by external requests:
  • Migration to T2S of most CSDs
  • CR-767 “Instant Payment Settlement in TARGET2 - adaptation of ASI procedure 6 integrated“ has been fully implemented and ASI procedure 6 integrated is now replaced by “procedure 6-realtime”

• Driven by internal T2/T2S consolidation project work stream:
  • Streamlined core settlement procedures for all payment transactions
  • A new Central Liquidity Management
  • For AS directly settling in PM/using ICM: New global Messaging standard – ISO20022
  • (For AS using ASI: Potential impact by new Messaging standard – ISO20022 with general platform-wide usage of XML)
The reassessment of AS settlement in the T2/T2S consolidation project – a fact finding exercise

1. **Identify current needs:**
   - Understand the business needs behind the current ASI procedure implementation

2. **Validate future needs:**
   - Reassess the validity of current business needs in the future liquidity management environment

3. **Identify Requirements:**
   - Consolidate different AS related requirements identified above with the various consolidated T2/T2S services
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Overview of AS Settlement

Use cases and examples

- **Directly in PM in own account**
  - e.g., Management of transactions for foreign exchange transactions
- **ASI Real-Time Settlement and Bilateral Settlement**
  - Unconditional gross-mode-Settlement of independent balances, submitted and settled one by one / submitted in one file and settled in a “batch”
  - e.g. secured money market transactions
- **ASI Standard and Simultaneous Multilateral Settlement**
  - Conditional gross-mode-Settlement of linked balances submitted in one file and settled in a batch / “one shot” including a possibility to manage a cash guarantee
  - e.g. Settlement of Multilateral Net Balances (e.g. of ACHs)
- **ASI Dedicated liquidity and cross-system settlement (interfaced)**
  - Settlement of transactions with guaranteed funds available/blocked
  - e.g. DvP for securities settlement
- **ASI Dedicated liquidity and cross-system settlement (real-time)**
  - Settlement of cross-AS transactions
  - Retail Payment Business
Usage statistics (w/o SSSs/MMSs migrating to T2S) – as of 2016-Dec-22

AS types - totals

AS models - totals

→ Since 2016-Sep-12, the ASI procedures 1 and 6 integrated are not used anymore
→ 6 real-time might be used by ACHs from 2017-Nov-13 onwards with R11.0 go-live
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The different ASI procedures in detail – ASI models 2 & 3

Business needs behind the implementation of ASI real-time and bilateral settlement

• Liquidity:
  ▪ Liquidity controlled by AS participants

• Transactions:
  ▪ Independent payments between several RTGS accounts

• Settlement:
  ▪ (Correlated) transactions settled unconditionally one by one (model 2) / in batch-mode (model 3)
  ▪ HU priority payments settlement. Other priorities desirable?
  ▪ Additional controls: Set execution times “from” and “till”. Any additional need?

• Monitoring:
  ▪ Model 3: One common screen to trace the various statuses of all transactions in the same file
  ▪ Advanced monitoring features
The different ASI procedures in detail – ASI models 4 & 5

Business needs behind the implementation of ASI standard and simultaneous multilateral settlement

- **Liquidity:**
  - Liquidity controlled by AS participants
  - Additional liquidity on guarantee funds available owned & controlled by guarantor. Is the guarantee funds mechanism still needed, or can it be managed at the level of the AS?

- **Transactions:**
  - Dependent payments between several RTGS accounts

- **Settlement:**
  - Linked transactions settled conditionally in a batch (model 4) / in “one shot” (model 5). Is it still needed to have two models (debits first, and all or nothing)?
  - HU priority payments settlement. Other priorities desirable?
  - Additional controls: Set execution times “till”, Set Information period (including revocation). Any additional need?

- **Monitoring:**
  - One common screen to trace all linked transactions
  - Advanced monitoring features
Business needs behind the implementation of ASI
Dedicated liquidity and cross-system settlement (interfaced)

• Liquidity:
  ▪ Prefunded (blocked) liquidity on the dedicated sub-accounts owned by the settlement banks and guaranteed by the CBs
  ▪ Possibility for the AS to adjust the prefunded amount in case of need
  ▪ In some cases, refunding is done on the sub-accounts following Auto-Collateralisation/coupon payments/redemption within the AS. *Is this still needed?*

• Transactions:
  ▪ Settlement of net positions on the sub-accounts
  ▪ Liquidity adjustments
  ▪ Cross-AS-transactions

• Monitoring:
  ▪ Advanced monitoring features

• Business day:
  ▪ Settlement also during night-time
Business needs behind the implementation of ASI
Dedicated liquidity and cross-system settlement
(real-time)

• Liquidity:
  ▪ Prefunded (transferred) liquidity on dedicated technical accounts assigned
to the AS (or the NCB on behalf of the AS)
  ▪ Possibility for the AS to adjust the prefunded amount in case of need

• Transactions:
  ▪ Liquidity adjustments
  ▪ Cross-AS-transactions

• Monitoring:
  ▪ Advanced monitoring features

• Business day:
  ▪ Settlement also during night-time. What are, apart from the extended
availability, other needs regarding night-time?
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**ASI procedures – technical settlement features**

- ASs using ASI can use the ASI procedures with their technical settlement features listed below

<table>
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<tr>
<th>Settlement feature</th>
<th>Description</th>
<th>Usage in ASI procedures</th>
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<td>ASI advanced mechanisms</td>
<td>Reservation and blocking of liquidity during settlement execution</td>
<td>5</td>
</tr>
<tr>
<td>ASI advanced mechanisms</td>
<td>Entry Disposition, Express algorithm</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td>ASI advanced mechanisms</td>
<td>Optimisation Algorithms 4, 5</td>
<td>5, 6</td>
</tr>
<tr>
<td>ASI advanced mechanisms</td>
<td>Queuing in case of insufficient liquidity</td>
<td>2, 3, 4, 5</td>
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<tr>
<td>ASI advanced mechanisms</td>
<td>Automated reversing procedure in case of ultimate lack of liquidity (All or Nothing)</td>
<td>4</td>
</tr>
<tr>
<td>Messaging</td>
<td>XML based</td>
<td>2, 3, 4, 5, 6</td>
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<tr>
<td>Opening hours</td>
<td>Night Time hours</td>
<td>6</td>
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## ASI procedures – T2 account features

<table>
<thead>
<tr>
<th>Typology</th>
<th>Procedure</th>
<th>Use</th>
<th>Balance</th>
<th>Holder</th>
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</thead>
</table>
| Technical account | 1, 2, 3, 4, 5, 6 | • liquidity transfers processed through direct debit/credit transfer (procedure 2)  
• direct debit and credit transfer settlement (procedure 3)  
• debits and credits posted during the settlement process (procedures 4 and 5)  
• cash balances processed through direct debit/credit transfer (procedure 6)  
• settlement of specific transactions (all procedures)  
• increase of the dedicated liquidity triggered by specific transactions (procedure 6) | In theory all technical accounts can have funds at the EoD. For the ASI procedure 6 real-time, the technical account will have funds 24/7. It is a business requirement for the other procedures to square them once a day. | AS                           |
| Guarantee funds   | 4, 5      | • debits and credits posted during the settlement process (procedures 4 and 5) | Positive or equal to zero.                                               | CB, AS, Guarantor           |
| Sub-account 6F    |           | • liquidity transfer from/to the RTGS account to set aside liquidity for the subsequent settlement of procedures 6F | Equal to 0 when the whole AS’s settlement procedure is closed. At most positive during the settlement process. | Settlement bank             |
ASI Liquidity transfer (procedure 1)

Main features

- **T2 Account Types:** Mirror accounts
- **Transaction Types:**
  - credit transfers from AS’ mirror account to settlement banks’ PM accounts
  - credit transfers from settlement banks’ PM accounts to AS’ mirror account
- **Priority Types:** Highly urgent payments
- **Advanced mechanisms:**
  - Scheduled times “till” and “from”
- **Not in use anymore**
APPENDIX – ASI models 2 & 3

Accounts for ASI Real-Time and Bilateral Settlement

[Diagram showing the flow of accounts between RTGS accounts and a technical account, indicating the consolidation process.]
# Main features

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<th>Real-time settlement</th>
<th>Bilateral settlement</th>
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<td>Technical accounts for the AS</td>
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<tr>
<td><strong>Transaction Types</strong></td>
<td>credit transfer from AS’ technical account to settlement banks’ PM accounts</td>
<td>direct debits towards AS’ technical account from settlement banks’ PM accounts</td>
</tr>
<tr>
<td></td>
<td>direct debits towards AS’ technical account from settlement banks’ PM accounts</td>
<td>mandated payments from settlement banks’ PM accounts to other settlement banks’ PM accounts</td>
</tr>
<tr>
<td><strong>Priority Types</strong></td>
<td>Highly urgent payments</td>
<td></td>
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<td></td>
<td>Scheduled times “from” and “till”</td>
<td>Scheduled times “till” only, i.e. no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scheduled times “from”</td>
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<tr>
<td><strong>Advanced mechanisms</strong></td>
<td></td>
<td>Information period – time window within which the settlement bank may express disagreement with an transaction in order to avoid the settlement</td>
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<tr>
<td></td>
<td>“real-time mode”- only one instruction at a time can be sent which will be processed immediately</td>
<td>“Batch mode” – several instructions at a time can be sent in one file which will then be processed individually</td>
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APPENDIX – ASI models 4 & 5

Accounts for ASI Standard and Simultaneous Multilateral Settlement

[Diagram showing the flow of accounts and systems, including RTGS accounts, Guarantee funds account, and Techn account, all linked to the Ancillary System.]
## Main features

<table>
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<th>T2 Account Types</th>
<th>Standard multilateral settlement</th>
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<td>Guarantee funds accounts</td>
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<td>Transaction Types</td>
<td>credit transfer from AS technical account to settlement banks’ PM accounts</td>
<td>direct debits towards AS technical account from settlement banks’ PM accounts</td>
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<tr>
<td>Priority Types</td>
<td>Highly urgent payments</td>
<td></td>
</tr>
<tr>
<td>Advanced mechanisms</td>
<td>Scheduled times “till”</td>
<td>Information period – time window within which the settlement bank may express disagreement with a transaction in order to avoid the settlement</td>
</tr>
<tr>
<td></td>
<td>Links between transactions: Debits first</td>
<td>Links between transactions: All or nothing (“One shot settlement”)</td>
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<tr>
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<td>Guarantee funds mechanism</td>
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APPENDIX – ASI models 6 interfaced

Accounts for ASI Dedicated Liquidity and cross-system settlement (interfaced)
Accounts for ASI Dedicated liquidity and cross-system settlement (real-time)
ASl Dedicated liquidity and cross-system settlement (interfaced) – Procedures and Cycles

Setting of standing orders → Start of procedure → Liquidity adjustments → Cycles → Liquidity adjustments → Cycles → End of procedure

Standing orders execution

6 interfaced – Backtransfer of liquidity

Start of cycle → Blocking of funds → Automatic increase of blocked liquidity → AS Settlement → End of cycle → Release of funds
## Main features

| T2 Account Types | Dedicated liquidity and cross-system settlement (interfaced) | -||- (real-time) |
|------------------|-------------------------------------------------------------|-----------------|
|                  | Technical accounts for the AS                              |                 |
|                  | Settlement banks’ specific sub-accounts                    |                 |
| Transaction Types| Liquiditiy adjustments - direct debits/credits from/to settlements banks’ main/sub-account from/to AS Technical Account |                 |
|                  | Settlement on dedicated accounts - debiting the main/sub-accounts towards the AS Technical Account and then debiting the AS Technical Account towards the participants’ main/sub-accounts |                 |
|                  | mandated payments debited from AS auto-collateral account and to credit sub-accounts |                 |
|                  | connected payment on SSP account to increase the credit line of a settlement bank then to transfer funds to a sub-account |                 |
|                  | debit from CB’s RTGS account to credit RTGS dedicated sub-accounts (repo countries) |                 |
|                  | transfer funds (credit lines from local home account) from CB account to the sub-account |                 |
| Priority Types   | Highly urgent payments only during day-time                |                 |
| Advanced mechanisms| Prefunding including reservation and blocking of liquidity before settlement | Prefunding |
|                  | Payments will be immediately credited if a cycle is running only during day-time | Payments will always be immediately executed as cycles are not in use |
|                  | Automatic increase of liquidity through ACO, redemption and coupon payments |                 |