

<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> Euroclear	<b>Institute:</b> CSD	<b>Date raised:</b> 28/06/2016
<b>Request title:</b> Multiple pending reason codes (combination of lack of securities and lack of cash)		<b>Request ref. no:</b> T2S 0621 SYS
<b>Request type:</b> Common		<b>Urgency:</b> Medium
<b>1. Legal/business importance parameter:</b> Low	<b>2. Market implementation efforts parameter:</b> Low	
<b>3. Operational/Technical risk parameter:</b> Low	<b>4. Financial impact parameter:</b> Medium	
<b>Requestor Category:</b> CSD	<b>Status:</b> Authorised at steering level	

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

T2S is checking the availability of both the securities and the cash when attempting a settlement. This behaviour is misleading and could create errors because if the securities provision is missing:

- T2S does not consider the possibility to resort to auto-collateralisation for the buyer. T2S will consider that this latter is lack of cash even though he has got securities available for auto-collateralisation
- T2S will still refresh the status and send status update messages each time the cash provision status is changing, even though securities provision is still missing

This CR requests that T2S should not do any further checks on the cash side when there are insufficient securities to settle the instruction.

**Description of requested change:**

T2S should modify the sending of the status messages in case of CLAC/ MONY and LACK/ CMON (for DvP and RvP instructions) and for LACK/ MONY and CLAC/ CMON (for DWP / RWP instructions).

T2S should check the securities leg first.

- If the securities position is available => T2S checks the cash leg and calls for auto-collateralisation if need be. The reporting to be sent to clients is either:
  - a sese.024 with the pending reason code MONY (Insufficient money in your account) + a sese.024 with the pending reason code CMON (Insufficient money in counterparty's account), or
  - a sese.025 of settlement reporting if the cash position is fine
- If the securities position is not available => T2S does not proceed to the check on the cash position. The reporting to be sent to clients is a sese.024 with the pending reason code LACK (Insufficient financial instruments in your account) + a sese.024 with the pending reason code CLAC (Counterparty Insufficient Securities).

T2S will then proceed to a reporting in 2 steps: first the securities side, and then the cash side.

Such behaviour will allow to:

- Decrease the number of messages received
- Avoid receiving status on cash positions while the issue is on the securities side

The amendment should only be done on the instruction types: DVP, RVP, DWP and RWP (FOP and PFOD to be excluded).

**Submitted annexes / related documents:**

**Proposed wording for the Change Request:**

The following UDFS sections should be modified:

**A. UDFS v2.3, Chapter 1.6.1.8.4 Provision check process page 357**

Provision check execution

T2S controls if the provision net flows previously calculated allow the settlement, i.e. if the resources available on the involved securities positions, cash balances and credit memorandum balance are sufficient.

This step checks (i) the securities provision net flow against the quantity available on the securities position, (ii) the cash provision net flow against the amount available on the cash balance and (iii) the CMB net flow against the amount available on the external guarantee headroom only when a client of a payment/settlement bank is involved in a Settlement Instruction.

When a lack of securities has been identified, for the instructions types DVP, RVP, DWP and RWP (FOP and PFOD are excluded), no further check of the cash provision net flow or CMB provision net flow is performed or reported.

**B. UDFS v2.3, Chapter 1.6.1.8.4 Provision check process page 365**

The calculation of the provision net flow for credit memorandum balance is not applicable as parties are 4 exclusively payment/settlement banks.

EXAMPLE xxx - FAILED PROVISION CHECK DUE TO A LACK OF SECURITIES (with lack of cash)

The following Settlement Instructions are received by T2S:

<u>OPE ID</u>	<u>SECURITIES ACCOUNT</u>	<u>ISIN CODE</u>	<u>IMPACTED BALANCE</u>	<u>SEC MVT TYPE</u>	<u>QTY</u>	<u>T2S DEDICATED CASH AC-COUNT</u>	<u>CUR.</u>	<u>CRED DEB INDIC</u>	<u>AMOUNT</u>
<u>SI1</u>	<u>SA1</u>	<u>ISIN X</u>	<u>AWAS</u>	<u>RECE</u>	<u>500</u>	<u>DCA1</u>	<u>EUR</u>	<u>DBIT</u>	<u>10,000.00</u>
<u>SI2</u>	<u>SA2</u>		<u>AWAS</u>	<u>DELI</u>	<u>500</u>	<u>DCA2</u>		<u>CRDT</u>	<u>10,000.00</u>

T2S calculates the provision net flows and, then, the provision check execution of each securities position (SecPos1 and SecPos2) and cash balance (CashBal1 and CashBal2) involved.

OPERATION	SECURITY SIDE		CASH SIDE	
	SECPOS1	SECPOS2	CASHBAL1	CASHBAL2
	SA1 ISIN X AWAS	SA2 ISIN X AWAS	DCA1 DLVR	DCA2 DLVR
SI1	+500		-10,000.00	
SI2		-500		+10,000.00
Provision net flow	+500	-500	-10,000.00	+10,000.00
Availability	+250	+100	+7,000.00	+1,000.00
External guarantee headroom Provision check process [ ] [ ]				
Provision check execution	+750 OK	-400 LACK	-3,000.00 LACK	+11,000.00 Ok

As the provision check execution is negative (-400 due to a lack of securities on securities position SecPos2), the provision check failure occurs due to a lack of securities. No reporting occurs regarding the lack of cash on the cash balance CashBal1, only lack of securities is reported.

### C. UDFS v2.3, Chapter 3.3.8.5.3 The message in business context pages 1533 and 1534

#### Message usage: Provision Check Failure

This message usage relates to the usage of status advice message, sent by T2S, to advice about a failure provisioning check.

#### Specific message requirements

To inform about a pending status due to provisioning check failure, the *SecuritiesSettlementTransactionStatusAdviceV03* includes the following information:

- I Pending – status that corresponds to 'Pending' with one or more reason codes to inform about the unsuccessful provisioning check;

(...)

#### Message usage example 1:

sese.024.001.03\_T2S\_ProvisionFailureDueToALackOfSecuritiesWithLackOfCash\_Example1.xml

Firstly CSD Participant A (PRTAFRPPXXX) with a securities account "1000000123" in T2S has instructed the delivery of 100,000 securities ISIN000001 to its counterparty CSD Participant B (CSDPBICXXX) with cash account "2000000456", and its CSD B (CSDBBIC1XXX) versus a payment of 575,000 Euros, for settlement on the 21/2/2017. In this example, T2S first informs a failure in the provisioning check via a pending status providing the corresponding T2S Matching Reference (Supplementary Data). The T2S party delivering the securities, CSD Participant A, has insufficient securities to settle the Settlement Instruction and the auto-collateralisation process failed due to insufficient external guarantee headroom on the credit memorandum balance. As the provision check for the securities side is negative, a sese.024 is sent to CSD Participant A with ISO reason code LACK, and no further provision check is performed on the cash side.

#### Message usage example 2:

sese.024.001.03\_T2S\_ProvisionFailureDueToALackOfSecuritiesWithLackOfCash\_Example2.xml

Following Example1, CSD Participant A sends enough securities for the correct settlement of the transaction to securities account 1000000123. Then, the provision check is executed again. As no lack of securities is identified, T2S checks now the cash side provision, which has a negative result due to the insufficient external guarantee headroom on the CMB. A sese.024 is sent to CSD Participant A with ISO reason code CMON.

The following GFS sections should be modified:

**D. GFS v5.3, 3.5.6.3 Description of the functions of the module – Chapter 2 Common Limit and Provision Checking for the following functions and illustrations, pages 382/383 and 385-388**

Execution of the provision-checking

Reference Id	<b>SETT.VPB.CLP.6.1</b>
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The function checks in a first time:

- For each involved securities positions, if the related provisioning net flow can be settled with the available quantity **{T2S.07.272}**;

Then in a second time and only if the securities provisioning net flow is successful:

- For each involved cash balance if the related provisioning net flow can be settled with the available amount **{T2S.07.274}**;
- For each involved credit memorandum balance regarding a client of a payment/settlement bank if the related provisioning net flow can be settled with the available external guarantee headroom **{T2S.07.278}**.

This provision-checking does not apply to accounts which are allowed to have a negative balance (i.e. T2S CB cash account, RTGS transit accounts and Issuer CSD balance accounts **{T2S.07.274}**).

When the provision-checking is executed:

- If the provision-checking is successful, the function sends the collection to the Pre-empting function **{T2S.07.220}**;
- Else, if the provision-checking detects a lack of cash, a lack of securities or insufficient external guarantee headroom the function sends the collection to the lack and insufficient headroom management or partial settlement management sub-function.

Partial settlement of settlement transaction related to settlement instruction

Reference Id	<b>SETT.VPB.CLP.7.4</b>
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If a solution is found, the function sends the collection to the Pre-empting function. Otherwise, the function sends the collection to the Failure Management and Settlement Outcome function with the reason for settlement failure for the settlement transaction<sup>140</sup> **{T2S.07.260}**.

<sup>140</sup> ~~If a Settlement Transaction is involved in a lack of securities and in a lack of cash, the function fills in the reason code with the code corresponding to the reason "Lack of cash and securities".~~

**Illustrations of the provision-checking concepts and processes**

Reference Id	<b>SETT.VPB.CLP.8.1</b>
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The following illustrations are independent of each other and have increasing complexity.

They describe the different cases of provision-checking:

- | ~~Provision-checking limited to securities side involving cash balance and CB collateralisation;~~
- | Provision-checking involving credit memorandum balance, client-collateralisation and use of unsecured credit;
- | Provision-checking involving use of securities restriction and CB collateralisation;
- | Provision-checking involving cash restriction, CB collateralisation and client-collateralisation.

Each case contains one or two tables that illustrate the provision-checking concepts and processes according to the possible contents of collection and provision-checking result.

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Illustration 1 : Provision-checking limited to the securities side involving cash balance and CB collateralisation

Reference Id

**SETT.VPB.CLP.8.2**

The following table presents an illustration of the provision-checking concepts and processing:

COLLECTION	SECURITIES SIDE				CASH SIDE		
	SA1	SA2	SA3	SA4	DCA1	DCA2	DCA3
	SP1	SP2	SP3	SP4	CB1	CB2	CB3
ST1	+10		-10		-22	+22	
ST2		+14	-14			-30	+30
ST3	-30			+30	+43		-43
ST4	-18		+18		+30	-30	
ST5			+50	-50		+64	-64
ST6	+8			-8			
<b>NET FLOWS</b>	-30	+14	+44	-28	+51	+26	-77
Available	+12	+2	0	+50	+21	0	0
External Guarantee Headroom							
<b>PROVISION CHECK RESULT</b>	-18 <b>LACK</b>	+16 <b>OK</b>	+44 <b>OK</b>	+22 <b>OK</b>	+72 <b>OK</b> <u>N/A<sup>x</sup></u>	+26 <b>OK</b> <u>N/A<sup>x</sup></u>	-77 <b>LACK</b> <u>N/A<sup>x</sup></u>
Unsecured Credit Headroom							
Collateralisation Headroom							
<b>CALL TO COLLATERALI SATION</b>							

Based on a collection C1 of six settlement transactions, for which the parties are exclusively payment/settlement banks, the *Common Limit and Provision Checking* function calculates the provisioning net flows of each deliverable securities positions (SP1 to SP4) and cash balances (CB1 to CB3) involved in the collection.

For each securities position ~~one~~, the function executes the provision-checking by subtracting from the available quantity ~~or amount available~~ in the relevant securities positions ~~and cash balances~~ the provisioning net flows.

If the provision-checking is positive (here SP2, SP3 and SP4), the provisioning net flows can be settled during the booking.

If the provision-checking is negative (here SP1 and CB3), the provisioning net flows cannot be settled during the booking. Then the function tries to fill in the lacks by:

- | ~~Sending a request to Intraday Credit Provider functions for Settlement Transactions associated to Settlement Instructions if all the lacks of cash are smaller than the CB collateralisation headroom associated to the T2S Dedicated Cash Account via a relevant credit memorandum balance;~~
- | **Sending a request to Lack Security Manager function for Settlement Transactions associated to Settlement Instructions for the lack of securities**
- | ~~Searching involved Settlement Transactions which can be partially executed (i.e. only for the settlement restriction: reservation, earmarking and immediate Liquidity Transfer with the Partial Execution set to "Yes");~~
- | During the partial window, calling the *Partial Settlement Preparation* function if necessary.

**Foot note x: Cash Side provided for completeness. In the case of a lack of securities the cash provision check is not performed.**

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#### High level description of Impact:

##### Outcome/Decisions:

- \* CRG meeting on 6/7 July 2016: The CRG decided to put the Change Request on hold.
- \* CRG meeting on 6 September 2016: The CRG indicated that after the Change Request is updated, it can be considered mature from a content point of view and therefore, it is ready for its preliminary assessment.
- \* CRG on 17 October 2016: During the written procedure from 10 - 17 October 2016, the CRG recommended to launch the preliminary assessment on the Change Request from 24 October 2016 to 15 November 2016 (batch 2).
- \* OMG on 08 November 2016: During a written procedure from 28 October - 08 November 2016, the Operations Managers Group did not identify any blocking operational impact of the Change Request.
- \* CRG telco on 16 November 2016: The CRG took note of the T2S functionalities/modules impacted by the Change Request following the 4CB preliminary assessment.
- \* CRG meeting on 24 January 2017: The CRG recommended to launch the detailed assessment of the Change Request and asked the 4CB to check the feasibility to deliver the Change Request in the T2S Release 2.0.
- \* Advisory Group on 02 February 2017: In a written procedure from 26 January 2017 to 02 February 2017, the Advisory Group was in favour of launching the detailed assessment on the Change Request.
- \* CSD Steering Group on 03 February 2017: In a written procedure from 26 January 2017 to 03 February 2017, the CSD Steering Group was in favour of launching the detailed assessment on the Change Request.
- \* CRG meeting on 24 April 2017: The CRG recommended the Change Request for approval and its inclusion in the T2S Release 2.0.
- \* RMSG meeting on 28 April 2017: The Release Management sub-group was of the view that the Change Request is not feasible within the T2S Release 2.0 from a planning perspective given the current envisaged deployment dates in the interoperability and production environments on 6 April and 9 June 2018 respectively.
- \* Operational Managers Group on 4 May 2017: Following a written procedure from 26 April - 4 May 2017, the Operations Managers Group reconfirmed that the Change Request does not have any blocking operational impact and was in favour of adding the Change Request to the T2S Release 2.0.
- \* CRG Telco on 5 May 2017: The CRG was of the view that the Change Request 621 is mandatory from a functional perspective and asked the RMSG to check all possible solutions to deliver it as part of the T2S Release 2.0.
- \* RMSG on 12 May 2017: The RMSG did not raise any objection on the delivery planning for Change Request 621 within T2S Release 2.0.
- \* Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo) on 8 June 2017: Following a written procedure from 02 to 08 June 2017, the AMI-SeCo was in favour of approving the Change Request and its inclusion in T2S Release 2.0.
- \* CSD Steering Group on 9 June 2017: Following a written procedure from 02 to 09 June 2017, the CSG adopted the resolution to approve the Change Request and its inclusion in T2S Release 2.0.

**Preliminary assessment:**

- **Impacted functionality / module:** SETT, LCMM
- **Financial impact parameter:** Medium (preliminary assessed)
- ~~**Following issues have to be clarified before the start of detailed assessment:**~~
  - ~~What would be the reason for failure that should be provided if securities have been pledged and there is not enough cash to reimburse and no other securities to substitute: Lack of cash? If yes, is there a need to evaluate a potential lack of cash?~~
  - ~~Update CR of last sentence in the Description Section to include RWP: "The amendment should be done on instruction types DVP; RVP, DWP AND RWP".~~

No further functional, technical and risk related issues have been identified beyond the elements already described in the Change Request.

**EUROSYSTEM ANALYSIS – GENERAL INFORMATION**

<b>Impact On T2S</b>	<b>Static data management</b>		<b>Interface</b>	
		Party data management		Communication
		Securities data management		Outbound processing
		T2S Dedicated Cash account data management		Inbound processing
		Securities account data management		
		Rules and parameters data management		
	<b>Settlement</b>		<b>Liquidity management</b>	
		Standardisation and preparation to settlement		Outbound Information Management
	X	Night-time Settlement		NCB Business Procedures
		Daytime Recycling and optimisation		Liquidity Operations
	X	Daytime Validation, provisioning & booking	<b>LCMM</b>	
		Auto-collateralisation		Instructions validation
			X	Status management
	<b>Operational services</b>			Instruction matching
		Data Migration		Instructions maintenance
		Scheduling	<b>Statistics, queries reports and archive</b>	
		Billing		Report management
		Operational monitoring		Query management
				Statistical information
				Legal archiving
		All modules (Infrastructure request)		
		No modules (infrastructure request)		
		Business operational activities		
		Technical operational activities		

<b>Impact on major documentation</b>		
<b>Document</b>	<b>Chapter</b>	<b>Change</b>
Impacted GFS chapter	§3.5.6.3 Description of the functions of the module - 2 Common Limit and Provision Checking , pages 382-383 and 385-388	Update of the Execution of the provision-checking and illustrations
Impacted UDFS chapter	§1.6.1.8.4 Provision check process page 357	Addition of footnotes describing absence of cash provision check when lack of securities and the inclusion of an example for lack of securities and lack of cash.
	§3.3.8.5.3 The message in business	Update the provision check failure message usage and example description. Inclusion of new



	context	example.		
Additional deliveries for Message Specification				
UHB				
External training materials				
Other documentations				
Links with other requests: CR-0515				
Links	Reference		Title	
<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>Currently T2S executes the provision check in any case on both the securities side and the cash side. So T2S may report a lack of cash on a settlement instruction for which the counterpart is also in lack of securities even if there are securities available for auto-collateralisation.</p> <p>In order to avoid any misleading information about the cash side, T2S needs to be changed to execute the cash provision check only if the security provision check is positive.</p> <p>On the other hand, T2S should not report any more a lack of securities if the expected quantity of securities is available using dynamic reimbursement functionality.</p> <p>First of all, T2S system checks if the required securities are available even resorting to reimbursement of reverse of collateral</p> <ul style="list-style-type: none"> <li>⇒ If no, do not proceed to the cash provision check and report             <ul style="list-style-type: none"> <li>○ the pending reason code LACK associated to the BR B-SETT-ALL-ALL-0014</li> <li>○ and for the counterpart, the pending reason code CLAC associated to the BR B-SETT-ALL-ALL-0015</li> </ul> </li> </ul> <p>Else check the cash leg with the help of auto-collateralisation and External Guarantee Headroom if needed</p> <p>If the provision check is OK, send a settlement confirmation to the customer</p> <p>Else report, as currently, for an insufficiency of External Guarantee Headroom and/or a lack of cash:</p> <ul style="list-style-type: none"> <li>▪ the pending reason code MONY associated to the BR B-SETT-ALL-ALL-0014 and/or BR B-SETT-ALL-ALL-0012</li> <li>▪ and for the counterpart, the pending reason code CMON associated to the BR B-SETT-ALL-ALL-0015 and/or B-SETT-ALL-ALL-0013</li> </ul>				
Summary of project risk				
Security analysis				
No potentially adverse effect was identified during the security assessment.				



07 April 2017

## Cost assessment on Change Requests

T2S-621-SYS – Multiple pending reason codes (combination of lack of securities and lack of cash)			
One-off	Assessment cost*		
	- Preliminary	2,000.00	Euro
	- Detailed	10,000.00	Euro
One-off	Project phase costs	320,481.35	Euro
Annual	Operational costs	34,610.73	Euro

\*The relevant assessment costs will be charged regardless of whether the CR is implemented (Cf. T2S Framework Agreement, Schedule 7, par. 5.2.3).