

# T2S PROGRAMME

## CERTIFICATION TESTING

### TEST CASES

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# 1 CERTIFICATION TEST CASES LIST

This document contains the description of detailed test cases for the certification testing of the CSDs, security DCPs, Central Banks and Directly Connected DCA Holders.

## 1.1 PRINCIPLES

Depending on the connectivity mode, the communication mode and functionalities that the T2S actors will use in production, the scope of the certification tests that have to be executed could vary:

- If the T2S Actor will be connected only in U2A mode in production, the certification will be based on U2A test cases only.
- If the T2S Actor will use only the single message mode in production, the test cases based on the file mode are not relevant and vice versa.
- If the T2S Actor chooses to receive the reports in push mode only in production, testing the reception of a report in pull mode is not relevant.
- If a Central Bank or a Directly Connected DCA Holder will not offer collateralisation services, test cases related to collateral management are not relevant.
- If a CSD or a security DCP will not use linking of settlement instructions (AFTER, WITH, BEFORE), or will not set-up new Market-specific Attribute or Restriction type, the corresponding test cases are not relevant.

Furthermore, the T2S Actors can execute their certification tests in steps depending on the evolution of their role in T2S. For example, a CSD, starting as a SME in T2S and completing its full role with a later migration wave, can obtain a first certification for a SME CSD role with the migration wave it will go live with this role and a certification for its full CSD role at a later stage with its migration wave. Alternatively, the CSD can obtain directly a certification for its full role. In the same way, a Central Bank, starting as a liquidity provider in T2S can obtain a first certification as a liquidity provider and extend the certification at a later stage for its collateral manager role. Still, the Central Bank can obtain directly a certification for its full role. The following tables indicate for the security and cash sides which test cases the T2S Actor has to execute depending on its role in T2S and its connectivity modes with T2S.

**Note:** the CSDs, Central Banks, security DCPs and Directly Connected DCA Holders define their own test data that they want to use when executing the certification test cases (e.g. party, ISIN, securities quantity, Intended Settlement Date, cash amount, etc.).

## 1.2 CSD AND SECURITY DCP CERTIFICATION

*M: Mandatory/ O: Optional depending on whether the T2S Actor will use the functionality in production/ '-': not applicable*

Test ID	Connectivity mode	Test case name	Relevant for		
			SME CSD	CSD (full role)	Security DCP
CERT_01	A2A	Send a request to create a Security (file and/or single message)	M	M	-
CERT_02	A2A	Send a request to create a Party (file and/or single message)	-	M	-
CERT_03	A2A	Send a DVP Settlement Instruction (file and/or single message)	-	M	M
CERT_04	A2A	Send a FOP Settlement Instruction (file and/or single message)	-	M	M
CERT_05	A2A	Send two DVP linked Settlement Instructions (file and/or single messages)	-	O	O
CERT_06	A2A	Send a Settlement Restriction (file and/or single message)	-	O	O
CERT_07	A2A	Receive a report (in push mode and/or pull mode)	M	M	M
CERT_08	U2A	Create a Security	M	M	-
CERT_09	U2A	Create a Market-Specific Attribute	-	O	-
CERT_10	U2A	Create a Restriction Type	-	O	-
CERT_11	U2A	Enter a DVP Settlement Instruction	-	M	M
CERT_12	U2A	Display a report	M	M	M

### 1.3 CENTRAL BANK AND DIRECTLY CONNECTED DCA HOLDER CERTIFICATION

*M: Mandatory/ O: Optional depending on whether the T2S Actor will use the functionality in production/ '-': not applicable*

Test ID	Connectivity mode	Test case name	Relevant for		
			Central Bank liquidity provider	Central Bank collateral manager	Directly Connected DCA Holder
CERT_02	A2A	Send a request to create a Party (file and/or single message)	M	M	-
CERT_13	A2A	Send a request for an Immediate Outbound Liquidity Transfer (file and/or single message)	M	M	M
CERT_14	A2A	Send a request for defining a Security as eligible for collateralisation (file and/or single message)	-	M	O
CERT_15	A2A	Send a Security Valuation Creation	-	M	O
CERT_07	A2A	Receive a report (in push mode and/or pull mode)	M	M	M
CERT_16	U2A	Create an External RTGS Account	M	M	-
CERT_17	U2A	Enter an Immediate Outbound Liquidity Transfer	M	M	M
CERT_12	U2A	Display a report	M	M	M

## 2 DETAILED TEST CASES

Test ID	CERT_01
Test case name	Send a request to create a Security
Applicable to	SME, CSD
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or a message to create a new security in T2S ( <i>SecurityCreationRequestV01 - reda.006.001.01</i> )
Prerequisite	The Security does not yet exist in T2S
Expected results	The T2S Actor receives and (technically) acknowledges the status advice message indicating the processing result of the request ( <i>SecurityCreationStatusAdviceV01 - reda.008.001.01</i> )
Test evidence	The ISIN of the created security and the message ID of the received XML message

Test ID	CERT_02
Test case name	Send a request to create a Party
Applicable to	CSD, Central Bank (liquidity provider), Central Bank (collateral manager)
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or a message to create a new party (a CSD participant or a Payment Bank) in T2S  <i>(PartyCreationRequestV01-reda.014.001.01)</i>
Prerequisite	The Party does not yet exist in T2S
Expected results	The T2S Actor receives and (technically) acknowledges the status advice message indicating the processing result of the request  <i>(PartyStatusAdviceV01- reda.016.001.01)</i>
Test evidence	The BIC (and parent BIC) of the party created and the message ID of the received XML message

Test ID	CERT_03
Test case name	Send a DVP Settlement Instruction
Applicable to	CSD, Security DCP
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or single messages with two matching but unmatched DVP Settlement Instructions that are to be matched in T2S  <i>(SecuritiesSettlementTransactionInstructionV03 - sese.023.001.03)</i>
Prerequisite	Static data needed for the execution of the test case are already set up in T2S: <ul style="list-style-type: none"> <li>- The delivering and receiving Parties</li> <li>- The Securities Accounts and Dedicated Cash Accounts for both Parties</li> <li>- The Security</li> </ul>
Expected results	T2S accepts and matches the two Settlement Instructions.  The T2S Actor receives and (technically) acknowledges the status advice confirming a successful matching.  <i>(SecuritiesSettlementTransactionStatusAdviceV03 - sese.024.001.03)</i>
Test evidence	The instructing parties, instruction references and message IDs of the received XML messages



Test ID	CERT_04
Test case name	Send a FOP Settlement Instruction
Applicable to	CSD, Security DCP
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or single messages with two matching but unmatched FOP Settlement Instructions that are to be matched in T2S  <i>(SecuritiesSettlementTransactionInstructionV03 - sese.023.001.03)</i>
Prerequisite	Static data needed for the execution of the test case are already set up in T2S: <ul style="list-style-type: none"> <li>- The delivering and receiving Parties</li> <li>- The Securities Accounts for both Parties</li> <li>- The Security</li> </ul>
Expected results	T2S accepts and matches the pair of Settlement Instructions.  The T2S Actor receives and (technically) acknowledges the status advice confirming a successful matching.  <i>(SecuritiesSettlementTransactionStatusAdviceV03 - sese.024.001.03)</i>
Test evidence	The instructing parties, instruction references and message IDs of the XML messages received

Test ID	CERT_05
Test case name	Send two DVP linked Settlement Instructions
Applicable to	CSD, Security DCP
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or single messages with unmatched DVP Settlement Instructions linked together by using a position code: BEFORE, AFTER or WITH  ( <i>SecuritiesSettlementTransactionInstructionV03 - sese.023.001.03</i> )
Prerequisite	Static data needed for the execution of the test case are already set up in T2S: <ul style="list-style-type: none"> <li>- The delivering and receiving Parties</li> <li>- The Securities Accounts and Dedicated Cash Accounts for both Parties</li> <li>- The Security</li> </ul>
Expected results	T2S accepts and matches the two pairs of Settlement Instructions.  The T2S Actor receives and (technically) acknowledges the status advice confirming a successful matching.  ( <i>SecuritiesSettlementTransactionStatusAdviceV03 - sese.024.001.03</i> )
Test evidence	The instructing parties, instruction references and message IDs of the XML messages received

Test ID	CERT_06
Test case name	Send a Settlement Restriction
Applicable to	CSD, Security DCP
Connectivity mode	A2A
Description	The T2S Actor sends a file and/or single message with a Settlement Restriction (block, earmark, reserve, unblock, unreserve or unearmark)  <i>(IntraPositionMovementInstructionV03-semt.013.001.03)</i>
Prerequisite	Static data needed for the execution of the test case are already set up in T2S: <ul style="list-style-type: none"> <li>- The Party</li> <li>- The Securities Account</li> <li>- The Security</li> </ul>
Expected results	T2S accepts the Settlement Restriction.  The T2S Actor receives and (technically) acknowledges the status advice confirming that the Settlement Restriction on the security position is valid and accepted by T2S.  <i>(IntraPositionMovementStatusAdviceV03- semt.014.001.03)</i>  <i>(status AcknowledgedAccepted)</i>
Test evidence	The instructing party, instruction references, securities account, restriction type and message ID of the received XML message

Test ID	CERT_07
Test case name	Receive a report (in push mode and/or pull mode)
Applicable to	CSD, Security DCP, Central Bank, Directly Connected DCA Holder
Connectivity mode	A2A
Description	<p>The T2S Actor either receives and acknowledges the report via A2A directly after creation of a report (push mode) or retrieves the generated report at a later point in time using an A2A report query (pull mode)</p> <p><i>(ReportQueryRequestV01 - admi.005.001.0).</i></p> <p>Depending on the data volume expected on production, the T2S Actor shall receive a report via a message and/or via a file.</p>
Prerequisite	<p>The configuration of the report is set-up in a pull mode or in a push mode.</p> <p>Depending on the predefined report that is chosen for executing the test, the reported business data shall already exist in T2S. (e.g. for <i>the Statement of Pending Transactions</i>, some pending transactions already exist in T2S; for <i>the Statement of Accounts</i>, some cash positions already exist in T2S).</p>
Expected results	<p>The T2S Actor receives the report directly after its generation (push mode).</p> <p>The T2S Actor retrieves the report by sending a report query (pull mode).</p>
Test evidence	The type of report, the mode (push or pull) and the message ID and/or file ID of the received report.

Test ID	CERT_08
Test case name	Create a Security
Applicable to	SME, CSD
Connectivity mode	U2A
Description	The T2S Actor creates a new Security using the T2S GUI
Prerequisite	The Security does not yet exist in T2S
Expected results	T2S confirms the creation of the new Security in T2S
Test evidence	The ISIN of the created security and a screenshot of the screen confirming the successful creation of the Security

Test ID	CERT_09
Test case name	Create a Market-Specific Attribute
Applicable to	CSD
Connectivity mode	U2A
Description	<p>The T2S Actor creates a new Market-Specific Attribute to complement the T2S standard set of static data for Securities, Parties or Securities Accounts depending on the T2S Actor's business needs for production.</p> <p>The T2S Actor defines the new Market-Specific Attribute (i.e. Attribute Name, Attribute type) and specifies the previously defined attribute domain against which T2S has to validate the input values.</p>
Prerequisite	<p>Before creating a new Market-Specific Attribute as such, the CSD:</p> <ul style="list-style-type: none"> <li>- creates a new Attribute Domain defining the format rules that apply to all values of the Attribute Domain.</li> <li>- create the values assigned to the Attribute Domain.</li> </ul>
Expected results	T2S confirms the creation of the new Market-Specific Attribute in T2S
Test evidence	The name of the Market-Specific Attribute and the static data entity to which it is attached (e.g. Security, Party, etc.), as well as a screenshot of the screen confirming the successful creation of the Market-Specific Attribute

Test ID	CERT_10
Test case name	Create a Restriction Type
Applicable to	CSD
Connectivity mode	U2A
Description	<p>The T2S Actor creates a new Restriction Type to prevent certain types of settlement in T2S. The T2S Actor can define a new Restriction Type to block settlement</p> <ul style="list-style-type: none"> <li>• of specific Securities,</li> <li>• on specific Securities Accounts or Dedicated Cash Accounts,</li> <li>• on accounts linked to specific External RTGS Accounts,</li> <li>• on accounts owned by a specific Party.</li> </ul> <p>The T2S Actor defines via U2A the characteristics of the Restriction Type in a way that the CSD can still settle, while instructions from other actors will be blocked.</p>
Prerequisite	The business data needed to define the set of rules are already defined in T2S
Expected results	T2S confirms the creation of the new Restriction Type in T2S
Test evidence	The name of the configured restriction, the identification (e.g. BIC) used for the exemption and a screenshot of the screen confirming the successful creation of the Restriction Type.

<b>Test ID</b>	<b>CERT_11</b>
Test case name	Enter a DVP Settlement Instruction
Applicable to	CSD, Security DCP
Connectivity mode	U2A
Description	The CSD or the Security DCP creates a DVP Settlement Instruction using the T2S GUI
Prerequisite	Static data needed for the execution of the test case are already set up in T2S: <ul style="list-style-type: none"> <li>- The delivering and receiving Parties</li> <li>- The Securities Accounts and Dedicated Cash Accounts for the both Parties</li> <li>- The Security</li> </ul>
Expected results	T2S accepts the entered Settlement Instruction
Test evidence	The instructing parties, instruction references and a screenshot of the screen confirming the acceptance of the Settlement Instruction



Test ID	CERT_12
Test case name	Display a report
Applicable to	SME, CSD, Security DCP, Central Bank (liquidity provider), Central Bank (collateral manager), Directly Connected DCA Holder
Connectivity mode	U2A
Description	The T2S Actor downloads a generated report via the T2S GUI.
Prerequisite	<p>The configuration of the report is set-up in T2S.</p> <p>Depending on the predefined report chosen to execute the test, the reported business data shall already exist in T2S. (e.g. for <i>the Statement of Pending Transactions</i>, some pending transactions already exist in T2S; for <i>the Statement of Account</i>, some cash positions already exist in T2S)</p>
Expected results	The T2S Actor can download a generated report
Test evidence	The type of report and a screenshot of the retrieved report that has been downloaded via U2A

Test ID	CERT_13
Test case name	Send a request for an Immediate Outbound Liquidity Transfer
Applicable to	Central Bank (liquidity provider), Central Bank (collateral manager), Directly Connected DCA Holder
Connectivity mode	A2A
Description	The T2S Actor generates and sends the Immediate Outbound Liquidity Transfer <i>(LiquidityCreditTransferV03 - camt.050.001.03)</i>
Prerequisite	A cash position exists in the involved T2S Dedicated Cash Account.  The target external RTGS account is known and active in T2S.  The cash position is sufficient in the T2S Dedicated Cash Account to allow a full settlement of the Immediate Outbound Liquidity Transfer.
Expected results	The T2S Actor receives and (technically) acknowledges the “Information to T2S Actor - Liquidity Transfer Status” indicating the full execution of the Liquidity Transfer.  <i>(ReceiptV03 - camt.025.001.03)</i>
Test evidence	The instructing party, instruction reference, DCA and message ID of the received XML message

Test ID	CERT_14
Test case	Send a request for defining a Security as eligible for auto-collateralisation
Applicable to	Central Bank (collateral manager), Directly Connected DCA Holder
Connectivity mode	A2A
Prerequisite	The Security exists in T2S.
Description	The T2S Actor generates and sends a request for defining a Security as eligible for auto-collateralisation/client collateralisation.  <i>(EligibleSecuritiesCreationRequestV01 – reda.025.001.01)</i>
Expected results	The T2S Actor receives and (technically) acknowledges a collateral data status advice indicating that the Security eligibility update has been completed.  <i>(CollateralDataStatusAdviceV01 – reda.028.001.01)</i>
Test evidence	The message ID of the request, the ISIN now defined as eligible and the message ID of the received XML message.

Test ID	CERT_15
Test case	Send a Security Valuation Creation
Applicable to	Central Bank (collateral manager), Directly Connected DCA Holder
Connectivity mode	A2A
Description	The T2S Actor generates and sends a Security Valuation Creation for a Security via a file.  <i>(CollateralValueCreationRequestV01 – reda.024.001.01)</i>
Pre-requisite	The Security exists in T2S
Expected results	The T2S Actor receives and (technically) acknowledges a Collateral Data Status Advice indicating that the Security Valuation Creation has been completed.  <i>(CollateralDataStatusAdviceV01 - reda.028.001.01)</i>
Test evidence	The message ID of the request, the ISIN for which a price is defined and the message ID of the received XML message

Test ID	CERT_16
Test case name	Create an External RTGS Account
Applicable to	Central Bank (liquidity provider), Central Bank (collateral manager)
Connectivity mode	U2A
Description	The T2S Actor creates via U2A the External RTGS Account.
Prerequisite	none
Expected results	T2S confirms the creation of the new External RTGS Account in T2S
Test evidence	RTGS system, account number and a screenshot of the screen confirming the successful creation of the new External RTGS Account

Test ID	CERT_17
Test case name	Enter an Immediate Outbound Liquidity Transfer
Applicable to	Central Bank (liquidity provider), Central Bank (collateral manager), Directly Connected DCA Holder
Connectivity mode	U2A
Description	The T2S Actor enters the Immediate Outbound Liquidity Transfer using the T2S GUI
Prerequisite	<p>A cash position exists in the involved T2S Dedicated Cash Account.</p> <p>The target RTGS account is known and active in T2S.</p> <p>The cash position is sufficient in the T2S Dedicated Cash Account to allow a full settlement of the Immediate Outbound Liquidity Transfer.</p>
Expected results	The Liquidity Transfer is executed in T2S
Test evidence	The instructing party, instruction reference, DCA and a screenshot of the screen confirming the execution of the Liquidity Transfer