Insights on connecting to T2S

Guides through the T2S documentation

T2S Programme Office
European Central Bank

The purpose of this presentation is to put in perspective the different elements needed to get the T2S connection started. It is based on the experience gained with the connectivity set-up performed for the EAT (Eurosystem Acceptance Test).

Agenda

- **Introduction**
- **References**
- **Registration process**
- **Static data set-up for CSD & CB**
- **Signature for A2A messages**
- **Tip and references**
- **Creation of a DCP**

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INTRODUCTION

T2S will use two ways to communicate

➢ **A2A (application-to-application) communication is for large volumes treatments fully automated.**

➢ **U2A (user-to-application) communication mode is needed in two cases:**

- Some database set up not accessible through the A2A mode

- Quick alternative to a A2A inquiry for low volumes data

REFERENCES

Four documents must be used to get a complete view on the subject:

1) **For the functional part: UDFS (User Detailed Functional Specifications) chapter 2 and 3.**
2) **For the communication part: the T2S Connectivity Guide.**
3) **For the network part: the Licence Agreement**
4) **The physical connection to the T2S platform being performed through one of the two VANSPs (Value Added Network Service Providers) SIA/Colt or SWIFT. The reader will also refer to the documentation provided be two providers.**

The 3 first documents can be found at the below link (under the caption Technical/Functional key documents on the T2S website): http://www.ecb.europa.eu/paym/t2s/about/keydocs/html/index.en.html#technical

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REGISTRATION PROCESS FOR CSDs AND CENTRAL BANKS (1)

Many interactions => A strict process is needed

➢ **CSDs and Central Banks first need to enter in contractual relation with their Network Service Provider (NSP), specifying the connectivity services and communication channel (please refer to the respective official NSP documentation).**

➢ **Based on these requirements, CSD and Central Banks with the help or not of the NSP will install the hardware and software required to communicate with T2S on the CSD or Central Bank site.**

➢ **The creation of the Central Bank or CSD entity itself with its first two admin users is the responsibility of the T2S Operator.**

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REGISTRATION PROCESS FOR CSDs AND CENTRAL BANKS (2)

➢ **CSD and Central Bank will register the DNs (Distinguished Name) they intend to use for their technical address or attached to the certificates used for authentication and signature.**

➢ **CSD or Central Bank has to fill in the registration form and submit it to the T2S Service Desk and, in parallel, complete the registration, via the NSP related forms and processes, to the Closed Group of User(CGU) for T2S**

➢ **Each CSD or Central Bank has to request the setup of 2 administrator users for their system entity in T2S.**

➢ **These two Users can in turn set up more users for the system entity and its clients. (Each entity will manage the creation of its User ids).**

References:

Details can be found in the User Testing documentation (T2S Registration Guide for User Testing). The same process has to be used for both production and test environments.

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STATIC DATA SET UP FOR CSDs AND CENTRAL BANKS (I)

AREA	WHAT	WHO
Network configuration	Creation of the Network service	T2S Operator based on the registration form
System Entity	Creation of the System Entity (Including its DN, Party Technical Address and the link between the party technical address and the network service)	T2S Operator based on registration form
Access rights	Creation of admin users for the system entity (system user references and their links with the DN).	T2S Operator based on registration form
Access rights	Creation of other User-ids for the System Entity (idem).	System Entity admin user

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STATIC DATA SET UP FOR CSDs AND CENTRAL BANKS (2)

➢ **The admin user is responsible for the creation and administration of other users**

➢ **Admin user grant access rights to allow the other users to perform actions in T2S**

➢ **Set-up of routing conditions and messages subscriptions for the entity.**

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SIGNATURES OF A2A MESSAGES (1)

➢ **A2A messages need to be signed both at network and application level.**

➢ **The signature at network level is performed by means of digital certificates issued by the NSP PKI.**

➢ **At the application level, the user will have to generate a message or a file bundling several messages, a business application header or a file header and a signature that will be inserted in the business application header (BAH) or in the file header.**

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SIGNATURES OF A2A MESSAGES (2)

➢ **For the signature calculation the user has the choice between developing its own solution and using an application provided by the NSP. The signature has to be performed with a certificate provided by or for the NSP transporting the message/file.**

➢ **For the creation of the digital signature please refer to the UDFS T2S User Detailed Functional Specifications document section 4.4.**

➢ **This section provides details about calculation of the 'digest values' through the application of the hash algorithm before generation of the signature through the signature algorithm.**

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TIP AND REFERENCE

➢ **Link to document: http://www.ecb.europa.eu/paym/t2s/pdf/draft_udfs_v2-0.pdf??aee4dfc691ef066f3c65aa366a035d7e**

➢ **It is good to note that the Business Application Header digest value is calculate with an empty signature tag <Sgntr></Sgntr> and that the canonicalization process excludes from the calculation the usual CR-LF carriage return line feed added to ease the message presentation.**

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CREATION OF A DCP (CSD Participant or DCA holder)

1) **Refer to the CSDs and/or Central Banks responsible for creating them in T2S.**

2) **Register with the NSP of his choice and follow the process described above for CSDs and Central Banks.**

3) **CSDs and Central Banks will create two admin users for each of their directly connected parties.**

4) **Creation of their static data is the same as before.**

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FOR MORE INFORMATION

➢ **On the technical connectivity, please refer to the documentation provided by VANSP that has been selected by your company.**

➢ **On T2S functionalities, please revert to your usual contact point at the T2S Programme Office.**

➢ **For any question on technical and operational matters as well as on the usage of the T2S functions please call the T2S Service Desk.**

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