

CSD DCP Workshops

Session IV
Testing, Migration and Declaration Procedures

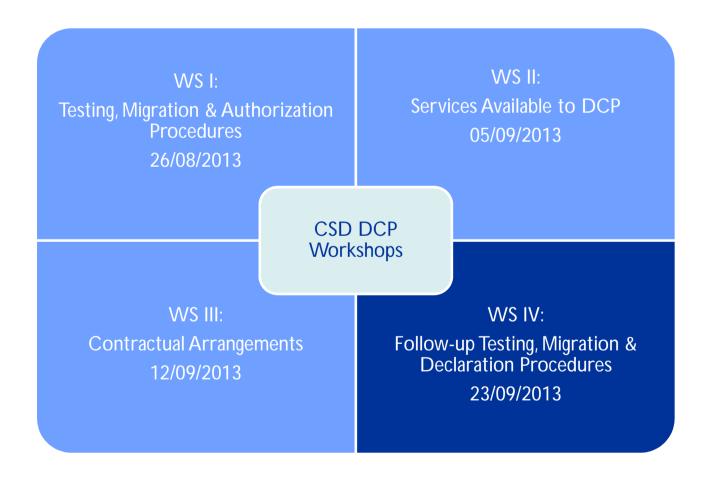
23rd September 2013





Workshop Overview & Timeline

Four workshops on DCP related topics are planned:





Objectives of today's Workshop



- § In connection with the informal DCP forum participating potential DCPs asked for workshops on DCP-related topics to increase transparency in areas of User Testing & Migration, offered DCP services and contractual arrangements
- § Four workshops have been set-up
- § End of May CSDs provided answers to a questionnaire sent by the DCP forum which already addressed several questions related contractual arrangements and declaration procedures
- § Three out of four workshops have been conducted Follow-up and clarification of open topics will be done in the 4th workshop



- § Overview of conducted workshops
- § Clarification of open topics coming from the conducted workshops
 - § Follow up on proposed non-binding declaration process
 - § Open topics on test organization and migration (special focus on wave 1 community testing)
 - § Discuss necessity of a common declaration form
- § Provide answers on open questions provided by the DCP Forum
- § Provide an outlook on future workshops



Overview of DCPs interests

DCPs are very interested in receiving further information on specific topics regarding the migration on T2S

The table below provides the number of interested DCP Forum members for each of the CSDs currently signed up for T2S. The level of interest is indicated by High/Medium/Low by each potential DCP.

		DCP Interest List				
		As o	f: 20/08/2013			
ID#	Wave	CSD Name	total	Н	M	L
1	1	CSD: Bank of Greece Securities Settlement System (BOGS)	5	0	3	2
2	1	CSD: Depozitarul Central S.A. (Romania)	5	0	2	3
3	1	CSD: Malta Stock Exchange	5	0	1	4
4	1	CSD: Monte Titoli S.p.A. (Italy)	10	9	1	0
5	1	CSD: SIX SIS (Ltd.) (Switzerland)	9	5	1	3
6	2	CSD: Euroclear ESES (BE)	10	9	1	0
7	2	CSD: Euroclear ESES (FR)	12	10	2	0
8	2	CSD: Euroclear ESES (NL)	10	9	1	0
9	2	CSD: Interbolsa (Portugal)	8	5	3	0
10	2	CSD: National Bank of Belgium Securities Settlement System (NBB-SSS)	7	5	1	1
11	3	CSD: Clearstream Banking AG (Germany)	11	9	2	0
12	3	CSD: Központi Elszámolóház és Értéktár Zrt KELER (Hungary)	5	0	3	2
13	3	CSD: LuxCSD S. A. (Luxembourg)	7	1	3	3
14	3	CSD: Oesterreichische Kontrollbank Aktiengesellschaft (Austria)	9	3	5	1
15	3	CSD: VP LUX S.á.r.I. (Luxembourg)	5	0	1	4
16	3	CSD: VP Securities A/S (Denmark)	7	0	4	3
17	4	CSD: AS Eesti Väärtpaberikeskus (Estonia)	5	1	0	4
18	4	CSD: Centrálny depozitár cenných papierov SR, a. s. (Slovakia)	5	0	2	3
19	4	CSD: Euroclear Finland Oy	8	2	5	1
20	4	CSD: Iberclear . BME Group (Spain)	9	8	1	0
21	4	CSD: KDD - Centralna klirinško depotna družba, d.d. (Slovenia)	5	0	1	4
22	4	CSD: Lietuvos centrinis vertybinių popierių depozitoriumas (Lithuania)	5	1	0	4
23	TBC	CSD: BNY Mellon CSD (Belgium)	5	0	1	4
rc.		CP Forum as of 20 Aug 2013	167	77	44	46

The majority of members are interested in the following topics:

	DCP-CSD Workshops		
		As of:	20/08/2013
	Workshop Title		total
a.	Services available and service levels		13
b.	Authorization procedures		13
C.	Testing & Migration procedures		12
d.	Contractual arrangements		12

CSG Steering Group



Agenda

- 1. Proposal of DCP declaration procedure and common form
- 2. Aspects of Testing and Migration Planning/ Organisation
- 3. Proposal DCP Readiness Status Reporting
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For discussion: Definition of a DCP

In February 2013 the T2S Programme Office provided a background note on the classification of DCPs

The Framework Agreement establishes that 'Directly Connected Party (DCP)' means a T2S User, which has been authorised by its Contracting CSD or Central Bank to access T2S directly to use T2S Services, i.e. without the need for the Contracting CSD or Central Bank to act as a technical interface (which would in this case be termed an "indirectly connected party") ...

The term "directly connected party" refers to the technical connection to the T2S platform:

• Direct Connectivity refers to the existence of a (direct) network connection between a T2S Actor and the T2S platform using a VAN Provider or Internet

From a T2S perspective, in order to become a DCP, a participant of a CSD or Central Bank needs to meet the following conditions:

• The DCP will have to adapt its technical communication interface to the T2S platform. For A2A access, it will have to comply with the T2S message format and use one of the T2S authorised communication channels (VAN-NSP providers SWIFT or SIA/Colt)

T2S Parties have the possibility to directly communicate with T2S in two ways:

 Application-to-Application (A2A) interaction i.e. using ISO20022 messaging via VA-NSP connections only (with SLAs) and/or User-to-Application (U2A) interaction

§ It may be useful to differentiate between 'normal' DCPs and 'full' DCPs, with a 'full' DCP being defined as a T2S User that, on top of being a DCP also sets a "Direct Connectivity"

§ Non-binding DCP-Declaration shall focus on the 'full' DCP as the 'full' DCP has the direct technical connectivity to T2S





CP Declaration Procedure – For discussion

- (1) Non-binding declaration to become a DCP by 15 October 2013¹⁾
- According to the T2S Programme Plan, it is expected that the DCPs on the securities side, would declare their interest to the T2S Programme Office by 15 October 2013 no matter which migration wave they intend to join
- **§** Customers who miss this deadline can only become a DCP after the end of the first T2S migration phase (i.e. in 2017)
- § DCP interested customers to provide a non-binding declaration by 15 October 2013
 - Workshop participants to discuss the necessity of a common generic templated for the non-binding declaration to become a DCP coming along with an agreement on the procedure of the non-binding declaration



(2) Confirmation DCP connectivity mode

- § An additional deadline ("DCP communication mode indication") will be defined by the Eurosystem after consultation within the User Testing Sub Group.
- It is suggested by the DCP Forum Members to provide a firm commitment some 12 months before the commencement of a particular wave community test period. The following dates can be derived:

	DCP Non-binding Commitment	DCP Firm Commitment	Community Test Commences
Wave I	Oct 15 2013	Mar-14	Mar-15
Wave II	Oct 15 2013	Sep-14	Sep-15
Wave III	Oct 15 2013	Feb-15	Feb-16
Wave IV	Oct 15 2013	Oct-15	Oct-16



Proposal for discussion: Non-binding declaration ('DCP Interest')

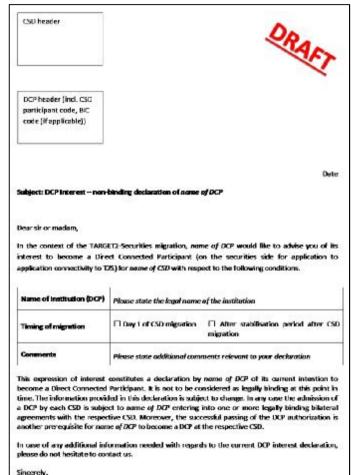
DCP's non-binding declaration could comprise the following

information¹⁾

- § Name of institution (legal entity) which intends to become a DCP
- § Name of CSD
- Provide an indication if migration is planned as of day one of CSD migration or afterwards
- Timing and conditions of DCP Go-Live is up to bilateral agreements between the CSD and the DCP

Participants to discuss with whom and how the non-binding declaration will be channelled:

- § Participant à CSD à Eurosystem vs. Participant à Eurosystem à CSD
- § Per market vs. one declaration for all markets







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Community Testing Recap of scope and approach

Scope	 S DCP connectivity set-up and testing starts two to three months before community testing (only for the first time when acting as a DCP) S The Community testing stage will consist of a limited number of test cycles (2-3) with each test cycle lasting several weeks S CSDs, Central Banks and their communities have to align their test cycles with each other in the Community testing stage S Testing Day Schedules will be applied based on the alignment with T2 Community¹⁾ S DCP community will be involved in tests of the relevant business continuity procedures as agreed between UTSG/PMG and OMG
Participants	 § T2S, NCBs, CSDs, DCPs and ICPs § Community Test stage is the phase where customers (ICPs and DCPs) are involved in testing
Approach	 § Community Test is mandatory for all DCPs § The test will be executed under "production-like" system entity and data configuration but with different timing and transactional data volumes (to be defined in the user testing calendar) § DCPs will receive pre-defined test cases to execute (certification and authorization) § This test phase is envisaged to start with an initial Pre-migration Migration Dress-Rehearsal and a Migration Weekend Rehearsal involving the customers (DCPs and ICPs)



Business Day Testing Recap of scope and approach

Scope	 In this stage the focus is to verify the correct functioning of T2S under production-like conditions This specifically includes the so-called "live timing", i.e. a production-like configuration and scheduling of all processes The system will be operated and configured as in production Business Day Test includes further testing of operational procedures, such as the testing of crisis/incident management and business continuity
Participants	 § T2S, NCBs, CSDs, DCPs and ICPs § The testing involves the security-maintaining entities and previously migrated CSDs and Central Banks with links to the migrating CSDs.
Approach	 § Business Day test execution begins with a load of transactional data through either a Migration Weekend Rehearsal or a Migration Weekend Dress Rehearsal depending on the migration volumes. § The Eurosystem, CSDs, Central Banks and their communities may further test operational procedures, such as the testing of business continuity process § Transition from Business Day Testing will be done by preparing input for the go-no-go decision to go live withT2S Participants



Community and Business Day Testing for Wave 1 Proposal provided by Wave 1

- § Wave 1 Community testing will run between March, 2nd 2015 and May, 18th 2015, this will bring a
 total of 52 working days of testing (excluding Easter Friday and Monday and Labour day).
- § W1 calendar has been announced long time ago and the T2S PO doesn't seem open to changes.

Wave 1 proposes the following:

- 1) Bring forward and optimize preparatory activities for community testing
 - Involve DCP in later phases of migration testing to start interacting with T2S before start of Community and hence start more effectively community testing execution
 - Execute initial pre-migration rehearsal (community test) by means of restore facility
 - Optimize initial Migration weekend rehearsal with the aim of creating a lean baseline of data for subsequent testing execution and avoid to start with full post-migration checks and volumes
- 2) Certification and Authorization testing
 - Certification and Authorization will not overlap but, instead should be considered synergic one to the other, hence reducing the total execution time
 - Authorization testing is meant to cover specific business processes including market and CSD specific requirements, as such authorization test cases are part of the business scenarios that would be tested anyway by any financial entity active on the concerned market

Suggestion: Detailed planning of the community testing phase should help to assess adequacy of the test duration.

Note: Community testing will include <u>at least 1 weekend</u> where migration dress reharsals will be executed with the whole community of W1 participants + SMEs





Community Testing Volumes restrictions¹⁾

T2S operator communicated the thresholds for the number of messages and settlement instructions from which an E2E volume test/testing activity during the week would affect other test participants

Channel	Threshold per single CSD/CB		
Store & Forward channel	1.200 settlement instructions per hour		
Realtime Channel	50 query requests per hour		
Browsing Channel	100 U2A requests per hour		
SD Autocoll data	5.000 instructions per hour		
SD Maintenance instruction	300 instructions per hour		

Suggestions:

- **§** Quantify volumetric needs in light of Community and Business day testing plans.
- § T2S operator should be involved during the planning phase to evaluate impacts of testing activity.





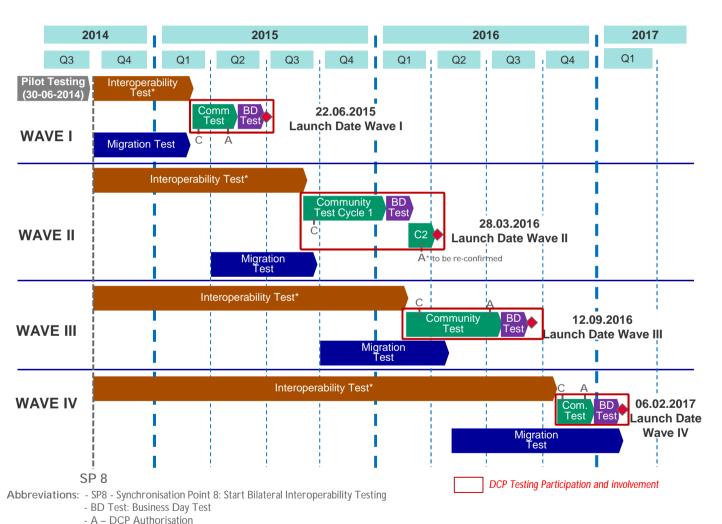
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Current T2S User Testing Timeline



- According to the T2S
 Framework Agreement
 and the 'User Testing
 Terms of Reference' the
 community testing stage
 represents the first
 opportunity of the DCPs
 to start test interaction
 with T2S
- Start of Community resp. Business Day Test Stage with weekend (dress) rehearsal involving also customers
- DCPs to plan their
 Eurosystem Certification testing during the first two (2) to four (4) weeks of the Community testing stage.
- DCP Authorization has to be passed during Community Testing stage for each wave where a DCP's CSD will migrate to T2S¹⁾

- C - DCP Certification

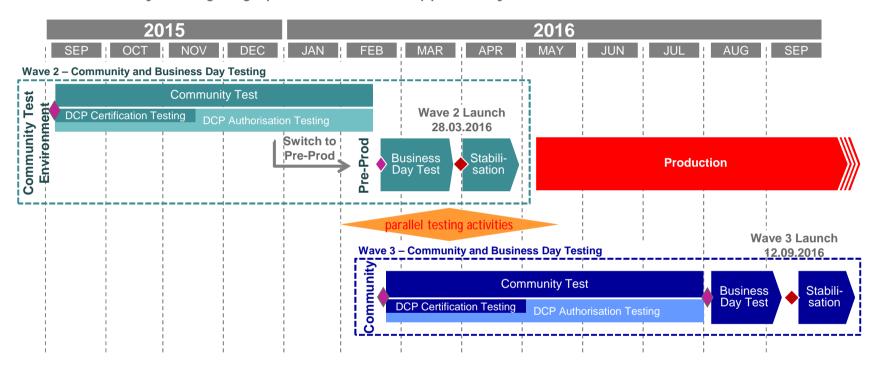
CSD Steering Group

^{*)} CSDs will have a maximum of six months to accept T2S from the start of the Bilateral Interoperability testing stage (SP8); exception for wave 1 three months after start of SP8



Community and Business Day Testing Approach Wave 2 & Wave 31)

The community testing stage provides the first opportunity of the DCPs to start test interaction with T2S



- § DCPs connecting to different CSDs in different migration waves have to establish parallel connectivity to multiple testing environments and will be faced with parallel testing activities during community and business day testing
- § The herein described approach to continue the Business Day Testing of Wave 2 on the Pre-Production environment has been agreed among the CSD participants of wave 2 and wave 3 and represents the current working assumption of the UTSG
- § This approach provides sufficient testing time for wave 2 and wave 3 without the need of an additional switch of user testing environments for wave 3 CSDs and their community





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Migration Organisation

3 Months¹⁾

1 Weekend

4 Weeks

Connectivity Phase

Pre-Migration Phase Migration Weekend



Stabilization Phase

CSDs and NCBs:

- § Registration of all actors involved in a particular migration wave
- § Business application configuration of T2S by the T2S Operator

CSDs and NCBs:

§ Successfully establish connectivity to production environment by all migrating actors after SP14 "Ready to connect" is reached

CSDs:

- § Actors to set up and maintain all relevant static data required for the successful migration to T2S
- § (Nearly) all static data should be set-up / uploaded during this phase
- § Initial static data upload during the pre-migration phase is to be maintained by the responsible entities until the migration weekend (and thereafter)
- § Setup of special user rights for DCPs

DCPs:

§ Start to set up own users sufficiently in advance of migr. weekend (pre-requisite: successful connectivity to production environment

CSDs and NCBs:

- § As one entry criteria T2S actors confirm the successful end of User Testing
- § All necessary static data is uploaded prior to the migration weekend
- § Confirm "readiness" including customers (DCPs / ICPs) to start migration activities
- § Set-up of initial securities positions and restrictions via FoP instructions
- § Upload of pending domestic and cross-border instructions; if needed
- § CSDs will guide customers (DCPs / ICPs) through the migration weekend to achieve a smooth Go-Live

All T2S-Actors:

- § Starts immediately after the migration weekend and will continue for – at least - 4 weeks
- § Monitoring stabilisation of T2S platform
- § Monitoring of the T2S platform for any business or technical issues
- § Ensuring close collaboration and successful handover between the migration and operational teams at all sides

¹⁾ Duration of 3 months in general. Up to 4,5 months for wave 3 envisaged



Migration Process Pre-Migration Phase Activities

Migration Wave Actor	High-Level Activities
Migrating CSD	Upload static data (roles & privileges, parties, sec. acc., etc.) Maintain static data Coordinate DCP activities of its CSD participants
Migrating CB	Upload static data (roles & privileges, parties, DCAs, etc.) Maintain static data Coordinate DCP activities of its payment banks
Already Migrated CSD & CB	CSDs to upload supplementary static data (e.g. new CSD links) CBs to upload supplementary static data (e.g. new DCA/sec. acc. links) Maintain static data Confirm DCP readiness of new DCP CSD & CB participants
CSD and CB Participant	Activities to be defined by concerned CSDs & CBs individually
T2S Operator Support processing of DMT (Data Migration Tool) files Maintain business application configuration (e.g. BIC director Provide "last level of intervention" support if applicable	
RTGS Operator	Support setup of standing order liquidity transfers to T2S in RTGS system
Network Service Provider	Ensure regular availability of network during the pre-migration

Source: T2S User Training – Basic Module

§ Quality Assurance Static Data

Potential DCP Activities

- § Send/ Receive Queries

prior to Go-Live:

§ DCP-internal preparation to adapt to new business processes and system environments (internally as well as towards T2S and the CSD





Schedule of Migration Weekend

Block 1: Set up of initial securities positions

FoP instructions upload

Reconciliation of the uploaded data after T2S feedback

Settlement of FoP Instructions (and restrictions)

Reconciliation of settlement feedback

Block 2: Migration of pending instructions

Upload of pending instructions

Reconciliation of the uploaded data after T2S feedback

Block 3: Migration of new and maintenance instructions

Upload of new instructions and maintenance instructions

Reconciliation of the uploaded data after the T2S feedback

Block 4: Night-time settlement (NTS)

First night-time settlement cycle

Second night-time settlement cycle

- The migration weekend timeline is not yet completed due to the fact that some activities and/or timings are still missing (e.g. some data savings, repair activities)
- DCP involvement latest with point of no return¹⁾ (i.e. first time DCPs can interact with T2S during the migration weekend)
- DCPs will be involved during pre-migration activities prior to the cut-over weekend (e.g. send queries; quality check on static data)
- During cut-over weekend DCP activities will focus on changing their connectivity and business processes towards the new/adapted CSD and T2S connectivity

Point of no return to be confirmed





T2S Migration Activities – Weekend Potential Customer Activities

Activities and dependencies between T2S Actors will be covered in the detailed migration storyline

Technical Launches on Customer Side	 In-house systems of the DCPs need to be updated over the migration weekend Provide technical connectivity to T2S and CSD system infrastructure
Migration of Positions	 S Different procedures among the CSDs for setting up the initial T2S positions might apply (e.g. pure 'mirroring' of the existing CSD positions) Some of the processing steps will be subject to customer reporting
	 § Prior to the migration weekend some organisational and / or technical measures may become necessary to reduce the number of pending instructions § The majority of instructions is expected to be migrated automatically by the CSD
Migration of Instructions	§ For some instruction types it may be required to execute a cancellation / re-instruct procedure (e.g. due to differences in the transaction life cycle models). This approach is applicable to all pending cross-border instructions with involvement of migrating CSDs (affecting also already migrated CSDs)
	§ Pending instructions with an intended settlement date before Go-Live and older than the initial set up date of the CSD entity in T2S will be treated in the same way as any other pending instruction (a possible solution has been agreed meanwhile and was described in a related change request1))
Messaging during	§ During the migration weekend customers may receive information arising from technical migration processes (e.g. position setup, migration of pending instructions)
Migration Weekend	§ Such messages, queries or reports cannot be processed by the customers "business as usual" - processes and require special treatment
	§ It was agreed that T2S will not suppress / filter out any messages to DCPs
Filtering of	§ DCPs to take appropriate measures to suppress / filter the relevant messages
instructions	§ Only a blocking of messages until a certain point of time will be supported by T2S
	§ The related change request ²⁾ is subject to a detailed assessment by 4CB





Migration of cross-CSD pending instructions

'2 BIC approach' will apply until the end of all migration phases

- § From a migrating CSD perspective the migration of cross-CSD pending instructions is very similar to the migration of intra-CSD pending instructions
- § During the migration weekend all cross-CSD pending instruction against migrating CSDs will need to be cancelled and re-instructed by already migrated CSDs
- § The same applies for cross-CSD pending instructions against migrating CSDs sent by already migrated DCPs prior to the migration weekend. Once the updated cross-CSD instructions are sent to T2S, they will be re-processed covering the full transaction lifecycle.
- § The MSG agreed that the same branch code ("MIG") will be used by all CSDs called artificial BIC
 - § Starting with wave 1 'SME-CSD' (CSD A) will use the production BIC
 - T2S Out-CSD for other linked CSDs will use the artificial BIC
 - § For cross-border transactions with CSD A, CSDs and DCPs migrating in the earlier waves will have to instruct with the 'SME-CSDs' artificial BIC

§ During wave 2 migration, CSD A will be defined as T2S In-CSD with its production BIC

As of wave 2 the already migrated CSDs and DCPs will have to instruct for cross-border transactions with the production BIC of CSD A

§ During a period from wave 2 launch until wave 3, all cross-border transactions with a wave 3 CSDs will have to be instructed with the related artificial BICs

CSG CSD Steering Group



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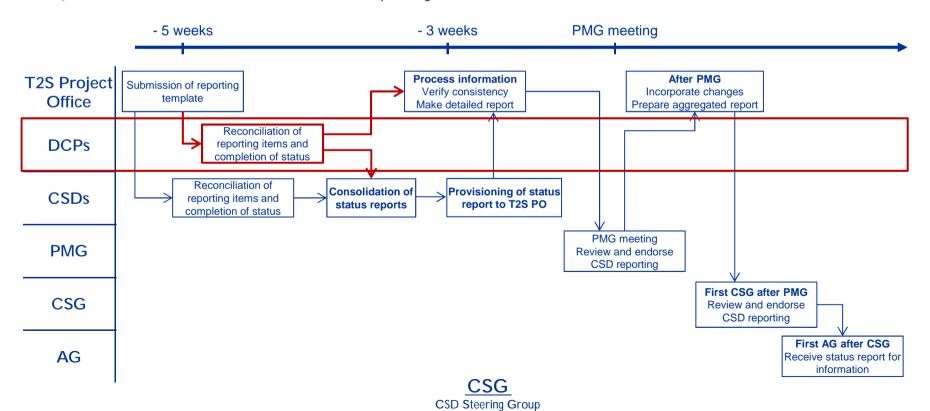




Proposed DCP readiness status reporting procedure

As initially presented during DCP Forum in Madrid on 22 May 2013

- q Currently CSDs report on the steps they take to provide their community / DCPs the possibility to be ready
- q Interested DCP entities initiated the request to report to the ECB on their internal readiness
- Although the exact scope of the status report is still to be defined, it is suggested that the DCPs report directly to the CSDs, where they intend to have a direct connectivity
- **q** CSDs will afterwards incorporate the status provided by the DCPs within their report
- q For discussion: Start of DCP readiness reporting





Proposed DCP readiness status reporting

As initially presented during DCP Forum in Madrid on 22 May 2013

- **q** The Client Readiness Implementation Guide specifies that the CSDs are responsible for the monitoring of the readiness of their community*:
 - "...The Clients are responsible for monitoring the readiness of their communities. The DCPs fall under the responsibility of the CSD or the Central Bank they have contracted with. Clients should keep their Client Relationship Manager informed about any relevant information regarding their own adaptation as well as the adaptation of their community to T2S. Each DCP has to prepare and align its own internal T2S readiness plan in close cooperation with its CSD or its Central Bank in accordance with the general T2S Programme Plan and more specifically with the DCP Certification process..."
- **q** DCPs have to provide a separate status report to each individual CSD via which they will connect directly
- **q** Exact content and format of reporting template is still to be defined but, to a certain degree, it will depend on the T2S Programme Plan and the CSD internal adaptation plan

^{*} Source: T2S Client Readiness Implementation Guide, Roles and Responsibilities of the Clients



Proposed DCP readiness status reporting

As initially presented during DCP Forum in Madrid on 22 May 2013

DCP

DCPs provide detailed status report status of their DCPs towards each CSD via which they will connect directly

CSD/NCB

CSDs include the in their status reporting

T2S PO

T2S PO processes the status report and creates a detailed and CSD status report aggregated status report

PMG

PMG reviews and endorses the detailed each containing one status on the DCP readiness

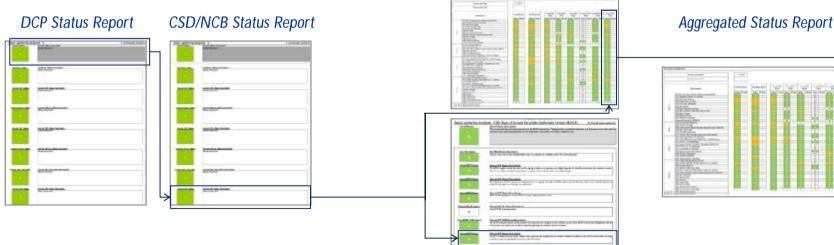
CSG

After approval of the status report by the PMG the T2S PO provides an aggregated status report towards the CSG for information and endorsement

AG

After approval of the status report by the CSG, the AG receives the aggregated status report for information

Detailed Status Report





CSG CSD Steering Group



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Follow-up Questions by DCP Forum (1/5)

1. Non-binding declaration of interest to become a DCP

- 1. Timing by Oct 15 or Oct 31 2013 this date is to be confirmed and possibly to be extended to December 2013 (to be re-confirmed by ECB).
 - è Slides 6-8 addressed proposed procedures of non-binding DCP declaration
- 2. The "form" of the DCP non-binding declaration is still to be discussed and finalized. Need to review both legal/contractual aspects and required business/technical information to be provided in the declaration.
 - **EXECUTE:** Slides 6-8 addressed proposed procedures of non-binding DCP declaration
- 3. Additional point to be confirmed is the exact nature of a "firm/binding" commitment: what would be the consequences of a firm giving a commitment to become a DCP and then opting for ICP connectivity instead? To be discussed further, possibly at another workshop on Contractual Arrangements.
 - è Topic to be addressed in follow-up workshop





Follow-up Questions by DCP Forum (2/5)

2. Testing and Migration: Planning

- 1. User Testing Timeline: discussion about Wave 1 and the fact that the Community Testing window is only 3 months, compared to Waves 2 & 3 where the time available for Community Testing is almost doubled. Follow-up needed for possible revision of plans, e.g. inclusion of DCPs in Interoperability/Acceptance Testing.
 - Slides 10-12 are providing the proposed approach of wave 1
- 2. Test environments will have limited capacity, so potential problems when CSDs, NCBs, ICPs, DCPs, CCPs and trading venues all test together, resulting in possible insufficient test capacity. Measures to address this.
 - **EXECUTE:** See slides 13 and 36 provide an overview of T2S Test Environment Capacities
- 3. DCPs involvement will be required for various pre-migration activities, including static data validation before the actual "point of no return" and various reconciliation tasks for the migrated positions and pending transactions. Need to confirm the level of DCPs involvement in these activities and in the final "gono go" decision, prior to the point of no return.
 - è Slides 18-22 are addressing pre-migration and migration activities of DCPs/ CSD participants
- 4. Reporting to the ECB about DCP readiness, it was agreed that this should be effected in strict cooperation with the DCP Forum. Review of DCP Readiness Status Reporting Process.
 - **➢** Slides 24-26 provide overview of proposed approach of incorporation of DCP Readiness Status Reporting into existing CSD Client Readiness Reporting





Follow-up Questions by DCP Forum (3/5)

3. Testing and Migration: Organization

- 1. Potentially CSDs will consider measures to reduce number of pending transactions to be migrated into T2S (e.g. automatic cancellation of stale pending (unmatched) instructions and/or of failing transactions. To be discussed further.
 - è Slide 22 describes ,2 BIC Approach' for migration of pending cross-CSD Instructions
- Additional information required about specific testing plans for cross-CSD activities, as current
 analysis and documentation seems to be mostly focused on adaptation and testing requirements of
 domestic CSD communities in isolation.
 - è Planned to be addressed during T2S Testing Planning and environment usage
- 3. End-to-end testing (including migration procedures) with other parties, such as CCPs and trading venues, should also be considered.
 - è Planned to be addressed during T2S testing planning and environment usage
- 4. Coordination of test cases for each CSD and across multiple CSDs (cross-CSD settlements and multilisted securities).
 - è Planned to be addressed during T2S testing planning and environment usage





Follow-up Questions by DCP Forum (4/5)

- 4. Additional questions related to Testing, Migration and Authorization Procedures
 - 1. During TMAP workshop #1 it was mentioned that the vast majority of test cases will be common between DCP and ICP users. For the 10% that will remain different, what specific services will be available to DCPs to accommodate their testing needs?
 - **EXECUTE:** See slide 41 for further clarification on T2S Authorization and Certification procedures
 - 2. Account operator/Sponsored access for DCPs: if technical sender is different from the business sender, who is the party that needs to obtain DCP certification and authorization? Need for a harmonized/consistent approach across CSDs.
 - **EXECUTE:** See slide 6; further clarification on access options and DCP definition planned
 - Contingency arrangements: will it be possible to switch between VAN SPs? Will it be possible to switch between DCP mode and ICP mode? Please consider both questions in relation to testing/migration period as well as for production.
 - *▶* In case a T2S Actor will switch its Network Service Provider it has to be communicated to the Eurosystem 6 months in advance. The way of tackling this in the above described scenario of having two providers for backup/contingency reasons needs to be further investigated.



Follow-up Questions by DCP Forum (5/5)

5. Other Questions

- 1. CSD authorization criteria: common understanding that most of the authorization criteria can be standardized across CSDs and others will differ due to market specificities. CSDs currently assume 60 to 70% of the criteria being standardized and the remaining 30 to 40% will be market specific.

 DCPs would prefer a higher harmonization rate to be discussed
- 1. Duplication of test cases: According to DCPs test cases should not be repeated, i.e. if a DCP successfully passed the standard test cases with one CSD, they should also be valid for the next CSD in which the DCP seeks to be certified. The CSDs are of the opinion that even standard test cases should be performed by the DCP in each CSD.

Following discussion in Workshop #3, this matter appears resolved in favour of no/minimal repetition, to be confirmed

- 3. CSD authorization criteria/ DCP service levels: DCPs require whitepapers of the CSDs to take a decision re Direct connectivity. CSDs agreed to provide them at the beginning of September as a living document.
 - First draft needed by October deadline for non-binding commitment; an updated and stable version is needed prior to date when firm commitment is to be given.
- 4. DCP end-to-end volume tests: CSDs only agreed to conduct volume tests based on estimated DCP volumes. This is not sufficient for DCPs; DCPs need to perform their own end-to-end volume tests during their testing activities.
 - Issue already discussed at UTSG at end of August. DCPs want to better understand how the ECB will execute their internal volume tests to judge whether the CSDs can process extremely high/ peak volumes.



Outlook: Next DCP Workshop

An additional DCP-Workshop beginning/mid of October¹⁾ is deemed as useful in order to cover aspects such as

- § Analysis of the arrangements for DCA holders and payment banks
- § Review of high-level technical and legal aspects of the DCP status
- **§** Potential follow-up topics stemming from the 4th DCP workshop



Agenda

- 1. Proposal of DCP declaration procedure and common form
- 2. Aspects of Testing and Migration Planning/ Organisation
- 3. Proposal DCP Readiness Status Reporting
- 4. Recap & Follow-up Questions by DCP Forum
- 5. Appendix





Proposed procedure for non-binding declaration of 'DCP Interest'

Proposal for process to submit non-binding declaration via CSD

- § After an agreement on the template has been reached, the following procedure could be applied to gather the non-binding declarations and to submit it to the ECB
- § The commitment on a common template for the non-binding declaration is independent of the declaration date
 - 1. Circulate the blank declaration form (sender/receiver tbd)
 - 2. Potential DCPs send filled out form to respective CSDs (each CSD to indicate how they want to receive the form)
 - 3. CSDs forward forms to CSG Chair Office
 - 4. CSG Chair Office consolidates forms
 - CSG Chair Office sends consolidated declarations to ECB in the name of CSDs





Processing Capacity T2S User Testing Environment

The overall processing capacity of all T2S test environments is up to 10% of the production capacity, based on the following metric

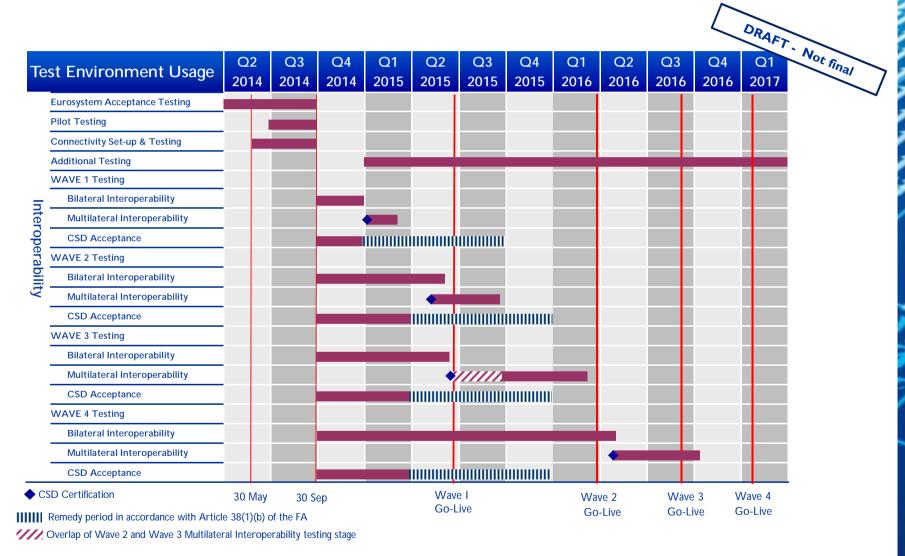
Description	Metric	Total Processing Volume for all environments (10% of Production Processing Capacity)
Peak night time work load	Messages	1,500,000
	Settlement Instructions	720,000
	Settlement Transactions	390,000
Peak day time daily work load	Messages	600,000
	Settlement Instructions	270,000
	Settlement Transactions	135,000
Night time peak hour work load	Messages	150,000
	Settlement Instructions	72,000
	Settlement Transactions	39,000
Day time peak hour work load	Messages	60,000
(assuming an 12 hour work day)	Settlement Instructions	22,000
	Settlement Transactions	11,000
Maximum U2A browsing requests per hour	HTTP requests	2,500
Maximum A2A queries per hour	Query requests	1,000

- § The Eurosystem will provide sufficient resources for migration weekend dress-rehearsals and CSDs and Central Banks volume testing
- The Eurosystem will assure the additional processing capacity depending on the scope of the planned testing (e.g. concentration of 20% for migration weekend dress rehearsal)



SETTLING WITHOUT BORDERS

Usage of T2S – Test Environments (1/2)

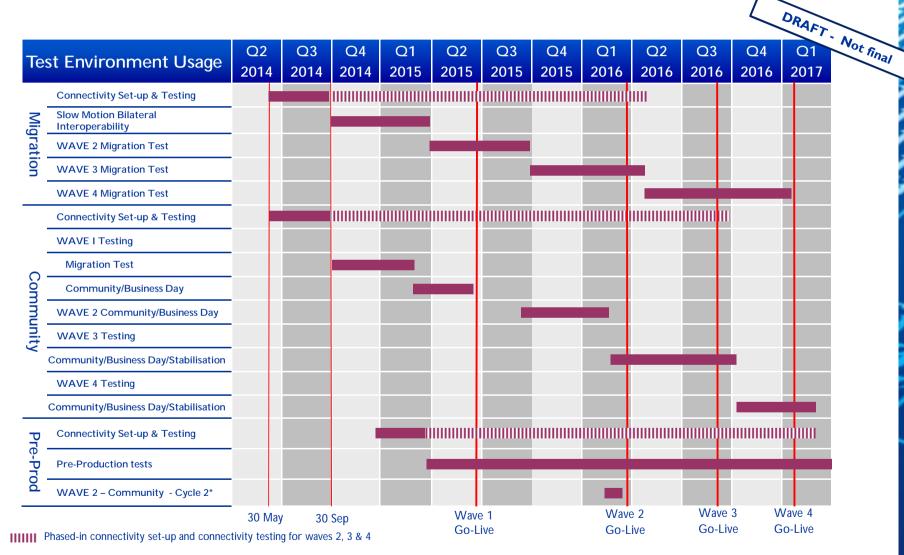


1) Source Terms of Reference - not final yet

CSD Steering Group



Usage of T2S – Test Environments (2/2)

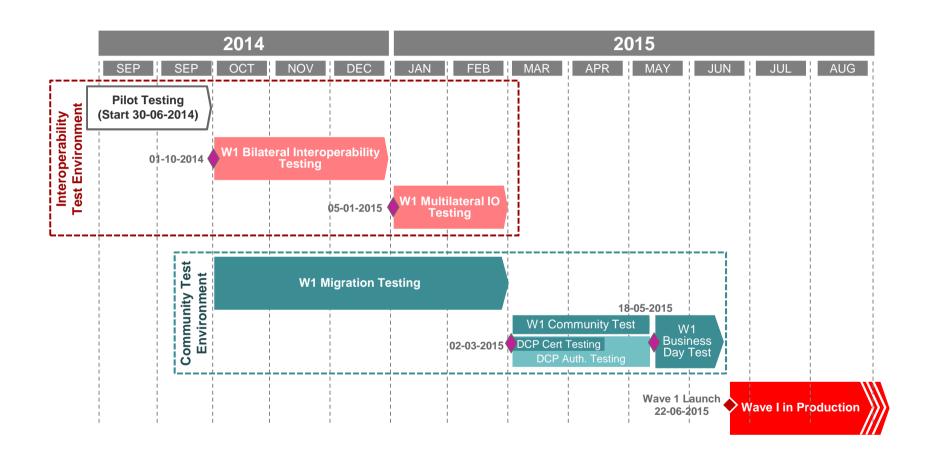


1) Source Terms of Reference - not final yet

CSD Steering Group



T2S User Testing Phases Wave 1





T2S Test Schedules

NUGs¹⁾ agreed on alignment of TARGET2 and T2S daily schedules

T2S Daily Schedule ²⁾	T2S Standard Day	T2S Synchronised Standard Day	T2S Release Day (every Friday) ³⁾	T2S Live Timing
Start of Testing	7:00	7:00	7:00	7:00
Real-time Settlemen	t			
FoP Cut-off ⁴⁾	17:00	15:30	15:30	18:00
End of Day / Start of	Day			
Start of Night-time Settlement	18:30	17:00	17:00	19:30
Night-time Settlemer	nt			
End of Testing	19:00	19:00	17:30	~22:30

- From October 2014 onwards the TARGET2 and T2S schedules will be aligned
- For TARGET2 users the "interbank cut-off time" will be the same throughout the week
- The agreement was reached that the T2S Release Day schedule will be applied on every Friday (instead of on Release Days only)
- T2S Live Timing is planned to be applied only during the Business Day testing stage
- The User Test
 Calendar will define in
 detail when which test
 environment will be
 operated with which
 daily schedule

¹⁾ NUG - National User Group

²⁾ T2 daily schedule for Monday till Thursday will be adapted on November 18, 2013. The T2 schedule for Fridays will be adapted on July 1, 2014

⁾ It must be noted that the T2S Release Day schedule will also be applied on other week days where an extraordinary software roll-out takes place

¹⁾ DvP Cut-off time has not been determined yet



DCP Certification and Authorisation

DCPs need to pass two steps which are very different to each other with regard to their objectives and comprehensiveness.

DCP Certification

§ According to the Framework Agreement, the DCP Certification aims to provide evidence that the adapted IT platforms of a DCP does not harm T2S as the result of inappropriate technical communication or procedures.

- § As this is a ECB requirement, ECB will define the test cases which need to be successfully executed (test cases will be available 6 months before the community testing stage for wave 1).
- § The DCP Certification needs to be passed at an early stage of Community Testing.
- § The DCP Certification is less comprehensive than the DCP Authorization.
- § The DCP Certification has only to be passed once by a DCP, also when the DCP plans to connect to multiple CSDs.

DCP Authorization

- § The CSDs are responsible for the authorization and therefore define the test cases that a DCP needs to successfully execute to show its compliance with CSD's processing according to market and legal specific requirements.
- § The test cases will cover specific business processes including market and CSD specific requirements (e.g. domestic settlement, crossborder scenarios with In-CSD and Out-CSD). CSDs will individually provide the test cases in adequate time.
- § DCP Authorization needs to be successfully passed by the DCP for each its CSDs prior to the end of the Community Test stage.
- § The CSDs aim to achieve a high degree of standardization. However, the degree of standardization depends on market and legal specific characteristics.

Note: Specific test cases can be subject to both, DCP Certification and DCP Authorization. If a test case has been already passed in the DCP Certification it serves as a proof for the DCP Authorization.



Proposal: Pre-requisites and conditions for becoming a DCP in T2S (High-Level)

To successfully become a DCP several analysis and evaluation activities related to bilateral agreements need to be taken into account

Evaluation and Analysis phase

- Strategic analysis and evaluation on how to approach T2S
- § Communication and provisioning of non-binding declaration to become a DCP
- § Set-up of bilateral contractual arrangements with CSD related to T2S¹⁾
- Provide firm commitment to become a DCP
- **§** Contractual arrangements with Network Service Providers
- **§** Evaluate testing and migration strategy to T2S

Testing and
PreMigration
Phase

- § Assess potential DCP migration scenarios
- § Execute internal system tests and T2S Community/ Business Day Tests (incl. Migration Testing)
- § DCP must pass certification of ECB and successful establish connectivity to T2S
- § DCP must pass authorization criteria determined by the CSD

Go-Live Phase/ DCP Migration to T2S

- S CSD to successfully finish community and business day testing phase and ready to migrate to T2S
- § DCP to receive access from CSD to different parts of T2S services
- § Set-up account-structure, define privileges and configuration, grant access rights (done by CSDs)
- § T2S Migration based on agreed migration scenario



CSDs survey on offering of DCP services

\ Sta	Eus			
	CSD	Offering of DCP Services Decided to provide Decided not to provide Decision open	Timing of service offering description If the decision has been made to provide DCP services please indicate by when a description of the service offering will be communicated	Timing If the decision has been made to provide DCP services please indicate by when these services will be provided
	BOGS, Greece	Decided to provide	Still open	Still open
-	Monte Titoli, Italy	Decided to provide	Already agreed and communicated to participants through the User Requirements document	Since the T2S go-live date
Wave	MSE, Malta	Decided to provide	Service Offering description will be communicated at a future date	DCP Service Offering commencement will be duly announced
>	Depozitarul Central, Romania	Decided to provide	By the end of 2013	T2S go-live (June 2015)
	SIX SIS Ltd, Switzerland	Decided to provide	By the end 2013	Wave 1
	Euroclear, Belgium	Decided to provide	Early 2014	Wave 2 launch
2	NBB SSS, Belgium	Decided to provide	Mid 2014	Wave 2 launch
Wave	Euroclear France	Decided to provide	Early 2014	Wave 2 launch
>	Euroclear, Netherlands	Decided to provide	Early 2014	Wave 2 launch
	Interbolsa, Portugal	Decided to provide	By Q4 2013	Wave 2 launch



CSDs survey on offering of DCP services

\ Stat	Status						
	CSD	Offering of DCP	Timing of service offering	Timing			
		Services Decided to provide Decided not to provide Decision open	description If the decision has been made to provide DCP services please indicate by when a description of the service offering will be communicated	If the decision has been made to provide DCP services please indicate by when these services will be provided			
	OeKB, Austria	Decided to provide	March 2014	As of migration T2S (3rd wave)			
	CBF, Germany	Decided to provide	Service scope published via homepage, task forces, workshops and on bilateral meetings. Technical specification by the end of 2013	As of migration T2S (3rd wave)			
Wave 3	VP Securities, Denmark	Decided to provide	Pending on the ongoing discussion on possible (partly) T2S harmonization of CSD DCP services	With migration of local currency to T2S (expected for 2018)			
Wa	Keler Ltd, Hungary	Decided to provide	By the end of 2013	As of migration (3rd wave)			
	LuxCSD, Luxembourg	Decision to provide	LuxCSD service is based on the Clearstream infrastructure and hence the same timeline applies as for CBF	As of migration (3rd wave)			
	VPLux, Luxembourg	Decided to provide	Pending on the on-going discussion on possible (partly) T2S harmonization of CSD DCP services	2016			
	Estonia CSD	Decision open	Tbd	Tbd			
	Iberclear, Spain	Decided to provide	Communicated to the interested DCPs on bilateral meetings	Depends on each of the services. Communicated to interested DCPs			
e 4	Euroclear Finland Ltd	Decided to provide	Tbd	As of migration (4th wave)			
Wave 4	Lithuania CSD plc.	Decision open, finalize questioning of participants	Tbd	Wave 4			
	KDD, Slovenia	Decided to provide	By mid 2014	At the time of KDD's migration to T2S			
	CDCP, Slovakia	Decision open	Tbd	Decision on provision of DCP services will be made after migration to T2S			