



# Monte Titoli Connectivity test

**v1.0 - February 2015**

To support T2S platform, Monte Titoli has prepared new dedicated environments:

- Production
- Starting (avviamento) and DR

they will coexist with the current environments until the migration to the new settlement system, scheduled for 22/06/2015 (Go-live dates)

In particular, the environment that will replace the current production is the one where we will perform the testing (Connectivity, Community and Business Day) until June 12, 2015

It is therefore necessary a reconfiguration of the existing connectivity that, by continuing to allow access to current environments, also allows to reach the new ones

This reconfiguration will also allow clients to reach temporarily (i.e. up to the Go-Live) from their test environment the new Monte Titoli's Production environment, thus allowing the execution of the tests described above

The test phase with clients has three parts:

- Connectivity test to Monte Titoli's environment: February 9 to February 20
- Community test: from March 2 to May 15, will allow clients to test the system Monte Titoli and / or T2S (depending on the role of the client - ICP or DCP)
- Business Day test: from 18 May to 12 June, will allow clients to continue to test the Monte Titoli's system and / or T2S with a schedule similar as much as possible to the production one

In addition, specific tests will be organized during some weekends:

- Volume test (Saturday, 09/05/2015)
- 3 Dress Rehearsal for Migration (one as backup) scheduled in May and early June 2015.

# Connectivity test scope

- When: from the 9<sup>th</sup> February to 20<sup>th</sup> February, 2015
- How: using the connections described in detail in the following slides
- What: the purpose of this test is to verify the reachability of Monte Titoli's environment dedicated to T2S testing.

As for the connectivity test on the new 'production' environment (remember: until June 12, 2015 it will be dedicated to T2S testing), please note that:

1. The communication channels defined for clients reflect the production environment configurations as of January 23, 2015.
2. As for connectivity platforms MT-X and X-TRM online, the purpose of the connectivity test is to reach the login screen.
3. Despite the simultaneous execution of other internal tests, and the fact that this phase is not dedicated to functional tests, is given the opportunity to the clients to try sending flows G52 (IVC) / G57 (request ACB). Given such messages, based on the data recorded in Monte Titoli's systems, the client may receive as answer G53 and G58 / G56. The corresponding flows can be also tested by the client through MT-A2A channel.

**The environment indicated becomes 'production' only after migration to T2S: June 22, 2015**

# Communication channels - Overview

The environment used for connectivity testing will be available for all clients, ICP and DCP, with regards to the services available only through Monte Titoli (eg. Market Execution), using the following channels:

- RNI
- MT-A2A
- MT-X / X-TRM on line

Will be made available a communication infrastructure, parallel to the current used in production environment, to be used during the test period and then post Go live T2S (22 June 2015) for the platform Custody, thus described:

## For Connectivity / Community testing:

- 1 EAS
  - List of logical addresses (ABId): **12930 <application code> 01**
- 1 FEMS cluster configured in "Active-Passive" (A-P) mode

## For Disaster Recovery testing:

- 1 EAS Disaster Recovery
  - List of logical addresses (ABId): **12930 <application code> 01**
- 1 FEMS (single), with an application (instance) to the Disaster Recovery.

Will be made available a communication infrastructure, parallel to the current used in production environment, to be used during the test period and then post Go live T2S (22 June 2015) for the platform Settlement, thus described:

## For Connectivity / Community Testing:

- 1 FAS
  - List of logical addresses (ABId): **89000 <application code> 01**
- 1 FEMSI cluster configured in "Active-Passive" (A-P) mode

## For Disaster Recovery Testing:

- 1 FAS Disaster Recovery
  - List of logical addresses (ABId): **89000 <application code> 01**
- 1 FEMSI (single), with an application (instance) dedicated to Disaster Recovery.

# Communication channels – MT-A2A (1/2)

Access to MT-A2A service for those who use the LAN to LAN mode involves the use of two IPSEC tunnels, configured as indicated in the following tables:

Tunnel 1						
Client Peer IP	Client Source IP	Destination				MT's Peer IP
		Service / System	"T1" environment	IP	Port	
X.X.X.X	10.108.114.X/24	MT-X / X-TRM on line	Connectivity, Community e Business Day and later, T2S Production *	10.150.101.10 /24	80	193.203.230.65
		A2A		10.150.101.11 /24	80	

Tunnel 2						
Client Peer IP	Client Source IP	Destination				MT's Peer IP
		Service / System	"T2" environment	IP	Port	
X.X.X.X	10.108.115.X/24	MT-X / X-TRM on line	Starting (avviamento) T2S	10.150.102.10 /24	80	193.203.229.59
		A2A		10.150.102.11 /24	80	

**\* The environment indicated becomes 'production' only after migration to T2S: June 22, 2015**



# Communication channels – MT-A2A (2/2)

Regarding the other two connectivity modes (BITNET and SIAnet.NG) please refer to the two NSP (Network Service Provider) - Borsa Italiana and SIA - for the reachability plan directives.

# Communication channels – MT-X X-TRM on line

To access MT-X / X-TRM on line services during the connectivity test please use the following URL:

<https://mtservices.montetitoli.it/prod>

# Tunnel 1 – MT-A2A via LAN TO LAN

- The tunnel is configured to point to SIA's SDC peer IP (193.203.230.65), providing access to the test environment Connectivity / Community / Business Days and then T2S Production \*
- The client Source IP is assigned by MT / SIA
- After configuring the tunnel, in order to access MT- A2A services in T2S Production environment, the clients must use the two addresses listed in the table regarding Tunnel 1 configuration
- In case of "disaster event" (after 22/06/2015), that will require the delivery of MT-A2A services through SIA's SDC, the tunnel must be reconfigured to point to the SIA's SDC peer IP (193.203.229.59) and be able to reach T2S DR environment; in this case the services will be reachable using the same two valid Production environment addresses, listed in the table regarding Tunnel 1 configuration

\* the environment indicated becomes 'production' only after migration to T2S: June 22, 2015

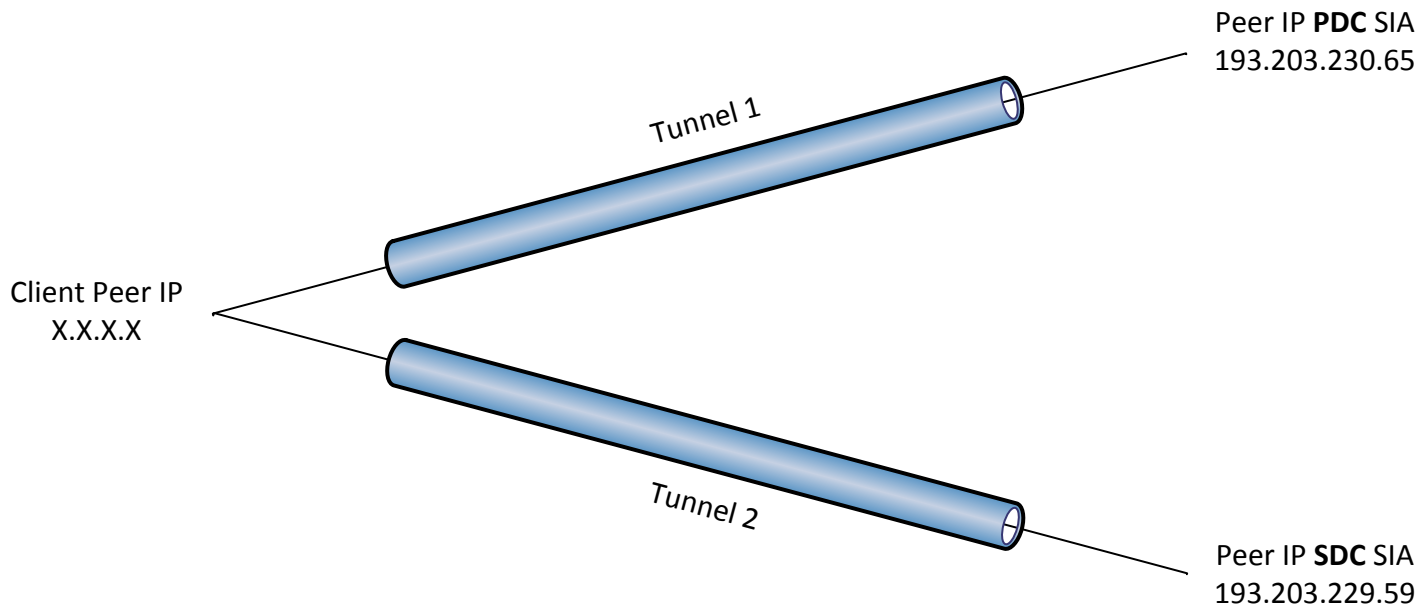
# Tunnel 2 – MT-A2A via LAN TO LAN

- At full capacity the tunnel is configured to point to SIA's SDC peer IP (193.203.229.59), allowing to reach the T2S Starting (avviamento) environment \*
- The client Source IP is assigned by MT / SIA
- After configuring the tunnel, in order to access MT-A2A services in T2S Starting (avviamento) environment, the clients must use the two addresses listed in the table regarding Tunnel 2 configuration
- In case of “disaster event” that will require the delivery of MT-A2A services through SIA's SDC, Tunnel 2 must be disconnected to allow the configuration of Tunnel 1 to the SIA's SDC

\* the environment indicated becomes 'starting' (avviamento) only after migration to T2S: June 22, 2015

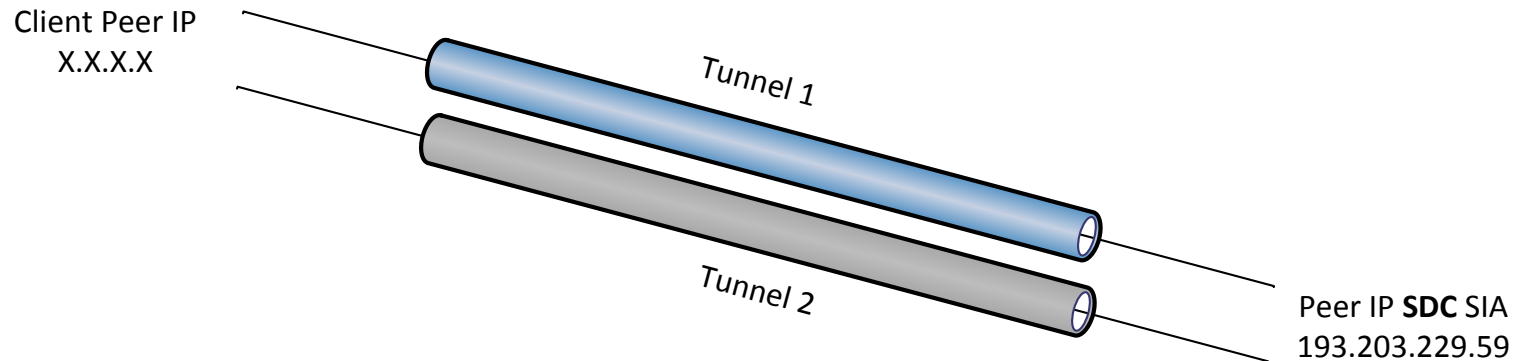
# Tunnels configuration in normal mode – MT-A2A via LAN TO LAN

The following figure shows the configuration of the tunnel system, when the T2S Production environment is delivered from the PDC and the T2S Starter (avviamento) environment by SDC:



# Tunnels configuration in DR mode – MT-A2A via LAN TO LAN

The following figure shows the reconfiguration of the tunnels in case of “disaster event”, when the T2S Production environment is delivered by SDC (and T2S Starter (avviamento) is disabled):





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