T2S Access
SIA-Colt value proposition
2014
A strategic partnership

- SIA-Colt have combined their industry-leading capabilities and in so doing demonstrate their unwavering commitment and highly experienced resources.
- Both companies have a strong track record in delivering mission critical network and application services for the European financial community.

**SIA-Colt Value Added Network Service Provider for T2S**

- Fully complementary capabilities without overlap

**colt**

**network connectivity**
- Network traffic and associated security

**secure messaging**
- Data handling and associated security

**SIA**

- Business relationship for many years
- Consortium for T2S (7 to 9 years as from 2015)
- Broader scope joint venture
- Governance: Team alignment at all levels up to CEO level

**Strong relationship**
A viable provider

- Nearly 2 Billion Euro combined turnover
- 7,500 combined staff
- Owned by financial sector:
  - SIA is banks owned
  - COLT is 65% owned by FIDELITY
- SIA is under Central Bank oversight

A relevant provider

- Unparalleled physical connectivity in Europe
  - 43,000 Km of proprietary fiber optic
  - 22 EU Countries and 39 Metropolitan rings
- Leader in File Transfer system in Europe
  - 40,5 Millions files exchanged in 2012
- A leading footprint in Europe Financial Sector
  - 10,000 Finance Customers
  - 30 Top Financial Institutions
  - 25 Top Trading Venues
  - 24 Central Banks
  - 800 SWIFT users
- Long experience in managing mission critical infrastructures
4 Central Banks Network (4CBNet)

- Successful bid for 4CBNet issued by Deutsche Bundesbank on behalf of the Eurosystem

- New network infrastructure live since September 2013
  - High-speed backbone (10 Gigabits)
  - Data traffic constantly monitored and managed in a fully automated way, avoiding any single point of failure

- 4CBNet supports the geographical distribution of vital applications for the European financial system
  - TARGET2
  - TARGET2-Securities
MTS requirements

- Scalable architecture provided with high availability
- High volumes, low response time
- Flexible architecture to quickly and efficiently add new functionalities to existing markets

Service provided:
- 3 technological platforms
- 17 national markets supported
- > 300 members, > 5,000 instruments

Performance
- Volumes: 280 Mio/day
- 13,000 tps
- Avg. response time: < 0.5 ms
- Availability: close to 100%
SIA success reference 2 – EBA
the Pan-European-ACH for SEPA processing

EBA-Clearing requirements
- SEPA SCT & SDD standards
- Multi network
- Additional Optional Services
- Systems upgrade for SEPA migration

NOW
- Benchmarked for 3.6 million trx/h
- Currently at peak 7 million trx/d
- Benchmark for 100 million trx/d
- Service Availability 2012: 100%
- 1st Release in 2003 in a 9 months timeframe project
SIA-Colt, T2S Value Added Network Services Provider

**22-23 November 2014**
Migration Weekend Dress Rehearsal: 600,000 messages managed, performing 75 msg/sec peak

**October 2014**
Pilot Testing phase completed / User testing phase started

**June 2014**
Pilot Users completed successfully the Registration & Connectivity Tests to T2S, using SIA-Colt infrastructure

**October 2013**
SIA-Colt completed successfully the Eurosystem Network Acceptance Test (ENAT), demonstrating that its VAN solution fulfils all the technical requirements to deliver T2S connectivity

**August 2012**
SIA-Colt completed successfully the Proof of Concept (PoC) phase of development of its Value-Added Network solution for T2S

**January 2012**
SIA-Colt have been awarded a licence as a Value-Added Network Service Provider (VANSP) for T2S

**July 2011**
Banca d’Italia, on behalf of the European Central Bank and the Eurosystem, started an open procedure to assign two licenses for the design, creation and management of the new network messaging infrastructure to connect to T2S
SIA-Colt T2S VANSP value proposition

**Business model**
- **Ownership of all the components**
  - All components provided and installed by SIA-Colt
  - One stop shop turn-key solution

**Technology**
- **End-to-end technological solution**
  - Real End-to-end SLA
  - Full proactive scalability under SIA-Colt responsibility

**Price**
- **Lower TCO**
  - One all inclusive agreement
  - Competitive prices
  - Flexible and transparent pricing schemes

**Integration**
- Full set of integration functionalities
- Consultancy program for a smooth migration to T2S
- Ability to customize solutions
- For T2S and further secure messaging needs
SIA-Colt perimeter

- SIA-Colt performs the complete service management of software & hardware infrastructure components
- Real end-to-end contractual SLA
SIA-Colt provides and performs the housing at its own data centres of the Smart Integrator infrastructure.

SIA-Colt performs the complete service management components.

The FFM service functionalities include:
- full solution proactive monitoring
- real end-to-end contractual SLA
- project of implementation, deployment and configuration of the standard solution
DiCoA access point

- Different flavors available
  - SLA depending on DiCoA access point configuration and technical provisioning
    - Multiple sites
    - Connectivity layer components
    - Application layer components

Typical configuration for main site (production) envisages full redundancy for all components.

Configuration with no local redundancy is possible for secondary (DR) site.
PKI services

- PKI services
  - PKI service with associated ETSI 101 456-compliant Certification Authority (OpenTrust)
  - PKI service based on
    - electronic workflow, with customized forms per role and function
    - web portal to upload the forms to keep traceability and auditability

- U2A Provisioning
  - Two digital certificates on USB tokens for each Actors user
    - one certificate for identification/authentication on the T2S web platform
    - one certificate for signature
  - USB tokens provided by the NSP together with the certificates

- A2A Provisioning
  - Two digital certificates for each Actors user
    - one for signing the messages and files exchanged with T2S platform (end-to-end non repudiation) [business layer digital signature]
    - one for authentication purposes (and for non repudiation) in the scope of NSP messaging solution [network level digital signature]
PKI services – Roles & Responsibilities

- VANSP Registration and Certification Authority
  - accountable for issuing and managing the certificates lifecycle (fulfilled by OpenTrust)

- VANSP DRA Central Operator
  - accountable for authorizing the DiCoA certificate (fulfilled by VANSP security officer)

- T2S Actor (DiCoA) roles
  - accountable for issuing and managing the certificate requests
    - Register and enrol their own users
    - Collect, validate and transmit supporting documents (photo ID scans for instance)
    - Deliver (in a face to face meeting) the corresponding token to its final holder
Service Delivery and Governance

- **Service Delivery**
  - SIA-Colt install and maintain all components at DiCoA’s sites
    - Network links and equipment (routers, switches, firewalls)
    - Network Gateways
    - HSM
  - In case of fault, SIA-Colt provides on-site intervention to replace the failed component

- **Service Governance**
  - SIA-Colt Network Operation Center (NOC) provides
    - advanced Customer support and governance features to connectivity and messaging infrastructure
    - monitoring and management for the entire service up to T2S Actor sites, delivering
      - first level support and single point of contact
      - incident and problem management and escalation activation
      - capacity monitoring of nodes and related access plants
      - switching of active nodes within sites or across sites to support T2S Actor business continuity
      - implementation/removal of logical paths within relevant circuits
    - business continuity from a dedicated secondary sites
Help Desk

✔ Single point of contact for managing incidents, trouble ticket (TT) creation and follow-up

✔ T2S Actors reactively log TT via web portal, email or by phone available on a 24x365 basis

✔ 3 levels of fault management expertise:
  • 1st Level Support: provides services 24/365, incident ownership, 1st level of customer diagnostic, escalation management
  • 2nd Level Support: rectifies the incident through diagnostics, tests and corrective actions
  • 3rd Level Support: manages all technical escalations
Archiving

- Archival for data exchanged and all related security information supporting the non repudiation feature

Logging

- Log Management System (LMS) compliant with NIST 800-92 (log integrity and confidentiality)
- LMS collects all logs generated by the network infrastructure (e.g. encryption/network devices, security devices, DEP gateways), supporting audit processes and dispute resolution

T2S Actor support

- On site training about operations management and application interfaces
- Remote assistance during the entire pilot period
- All relevant manuals (Installation, Operations, User Guides) via dedicated web portal with restricted access
- On-site support at T2S Actor request

Reporting

- Annual ISAE 3402
- Monthly Service status report
  - Availability
  - Incident
  - Traffic statistic
  - Changes / Requests
SIA-Colt Implementation steps

- Tailored on Customer needs and timeline

1. Project Set Up
   - A. Project governance framework agreement
   - B. Roles and responsibilities and team definition
   - C. Project plan

2. Assessment & Implementation Design
   - A. Information gathering
   - B. Requirement consolidation
   - C. High Level Design
   - D. Requirements freezing
   - E. Detailed Design

3. Delivery
   - A. Customer Environment Set-up
   - B. SIA-Colt HW&SW Provisioning
   - C. Installation & commissioning
   - D. Unit and System test
   - E. Solution configuration and actor enrollment

4. Test
   - A. Testing plan
   - B. Testing execution
   - C. Testing reporting

5. Acceptance Test
   - A. Tests results analysis
   - B. Formal acceptance
   - C. User Connectivity Testing preparation
   - D. Support for User Connectivity Testing

SIA-Colt ad hoc Consultancy Services, Training & Project Management
T2S Access
SIA-Colt value proposition
2014

In partnership with