

# CLEARSTREAM



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**E**ach time a company issues a dividend, makes an interest payment, or undertakes any one of a staggering variety of capital restructuring events, a wide range of market participants must know about it, quickly and accurately. And as the capital markets have increased in complexity and volume, market infrastructure providers have been challenged to meet the increased demand for corporate actions data, in a competitive environment that permits no margin for error.

The corporate actions challenge had been particularly acute for Luxembourg-based Clearstream. A division of Deutsche Börse, Clearstream provides comprehensive settlement and custody services to over 2,500 financial institutions across 100 countries in over 40 markets. In its capacity as an International Central Securities Depository (ICSD), Clearstream manages close to €11 trillion in assets under custody across 300,000 bonds, equities and investment funds.

# GOES FOR GOLD

*Efficient announcement capture helps Clearstream meet growing demand for corporate actions data*

## CLEANING AND SCRUBBING

In 2004, in anticipation of today's higher volumes, Clearstream embarked upon a substantial "Business Process Optimization" (BPO) initiative to optimize its internal business processes.

The overall objectives included:

- To increase service quality by lowering reversal rates and adhering to customer deadlines
- To maintain financial discipline by constraining headcount and reducing unit cost despite substantial increases in volumes and complexity
- To promote measurements of Key Performance Indicators (KPIs) to support market leadership in clearing and settlement

"Our target was to increase our efficiency and accuracy such that we could cope with increasing volumes without having to hire additional analysts," says Michael Jaeggi, Head of Product Management and Design, Core Products, Clearstream.

"Cleansing and scrubbing" poses the foremost operational challenge in corporate actions processing. As market data comes into the organization from different sources, Clearstream had to ensure that its own custody systems are updated with the most accurate and complete data, thereby assuring the highest levels of customer service.

The previous cleansing and scrubbing

solution required manual processes to create a "golden copy," a single data repository representing the latest and most accurate view of corporate actions information available in the market. In some instances, the custody system would receive updates directly from the golden copy, but in other cases, operators were required to update the custody system manually. While this manual approach was workable at a time when there were fewer market participants, lower trading volumes and lesser cross-border transactions, the emerging environment required a more scalable and extensible solution.

## TOWARDS A CLEANER SOLUTION

In 2006, Clearstream began to evaluate a wide range of market data providers along with their products. After a thorough analysis and a highly competitive bidding process, Clearstream signed a deal with TCS Financial Solutions at the end of 2006. Deutsche Börse, Clearstream's parent organization, was already familiar with Tata Consultancy Services through TCS' work with subsidiaries, Xetra (the electronic trading system of the German stock exchange) and Eurex (the leading derivatives exchange and clearing house) since 2004. As such, when TCS suggested that Clearstream consider TCS B@NCS, it was a contender straight from the start.



Michael Jaeggi,  
Head of Product  
Management  
and Design,  
Core Products,  
Clearstream

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The combination of capability, flexibility and reliability made the decision for TCS which “was selected for being the best candidate that fulfilled the majority of the key Clearstream criteria,” says Jaeggi. TCS BÖNCS Corporate Actions – Announcement Capture is a comprehensive workflow-based corporate actions announcement scrubbing solution that provides rule-based validation and enrichment of corporate actions announcements. The solution is based on a generic, web-based and service-oriented J2EE architecture that can seamlessly integrate with external components such as Clearstream’s existing clearing and custody systems.

#### CREATING THE GOLDEN COPY

TCS Financial Solutions provided two teams as a part of the implementation process: one working offshore, and another onshore providing Clearstream with direct inputs to the process. To foster clear lines of communication, the TCS Financial Solutions teams mirrored the organizational structure used at Clearstream Banking. “This brought tremendous results in terms of communication flow and issue resolution,” observes Jean-Marie Piquard, Head,

Custody and Reference Data Products. “The atmosphere between the two companies was extremely good, and the relationship developed into a partnership rather than into a more conventional client-provider relationship.”

Once signed, the actual implementation of TCS BÖNCS took only 11 months, and was completed in early December 2007. “The time-to-market of this project was particularly short,” says Piquard.

#### REAPING THE BENEFITS

Now, the TCS BÖNCS system maintains corporate actions data in a central repository, allowing business users to gain easy access to accurate information. The system pushes information to business users rather than requiring operators to pull data from disparate sources. As a result, operational staff can now focus on the difficult problems of tracking exceptions and improving workflow. “By deploying a flexible processing model based on adaptable business rules, with this project, we centralized all data from external sources into one single place,” says Jaeggi.

Clearstream also measures its own performance as measured by STP rates

and exception types. “With TCS BÖNCS, we have a flexible system,” says Jaeggi. “We can customize and configure the system, and change rules to increase STP rates.”

The new system has already proven beneficial to Clearstream’s customers. “In terms of quality, [TCS BÖNCS] has enabled us to systematically compare the information in an automated fashion, avoiding any manual errors,” observes Piquard. Customers have also benefitted from time-to-market improvements stemming from the new system, he adds, based on automated processes and increased transparency. “For any given event, we have an exceptional overview of the situation, which makes it very easy for an operator to quickly perform appropriate actions.”

With TCS BÖNCS Corporate Actions powering one of its critical operational processes, Clearstream has benefitted from increased confidence in its data quality, which represents the cornerstone of its leading market presence. “In our competitive world, reliability and quality are of the essence,” says Piquard. “There’s not one client visit where we don’t talk about quality.”

From left: Om Prakash Payasi, TCS Project Manager, TCS B@NCS; Jean-Marie Piquard, Director and Section Head, Custody & Reference Data Products, Clearstream; Michael Jaeggi, Head of Product Management and Design, Core Products, and member of the Clearstream International Executive Board

## AT A GLANCE

### Company

Clearstream Banking S.A. is the settlement and custody arm of Deutsche Börse AG. It is headquartered in Luxembourg and has close to €11 trillion in assets under custody)

### Lines of business

Post-trading services, safekeeping and securities administration

### Technology

TCS B@NCS Corporate Actions

### Challenge

Scrubbing and cleansing corporate actions data



## FAST FACTS

Processing volume: 75,000-80,000 announcements per day (as of Sept. '08)

Reference data processing: 140 transactions per second

SWIFT message processing: 25 to 30 transactions per second

Bulk file processing (DTCC, GFU, FTID): completed within a 30 minute window

GUI performance: response time under 3 seconds for most data-intensive requirements