Central bank deploys data warehouse to enhance reporting and analysis capabilities

CHALLENGE
In a rapidly changing macro-economic environment, central banks – like many other financial institutions – are increasingly keen to accelerate and improve their reporting and analysis processes. DNB sought to provide its analysts with greater access to historical data by implementing a bank-wide data warehouse.

To this end, the bank needs to extract time-series data from its WSS, both to conduct an evolving range of historical trend analyses and to produce detailed monthly and quarterly reports.

“We selected a database platform as the data warehouse’s storage facility and chose a front-end reporting tool, but did not have the required expertise in-house to obtain and use WSS data in accordance with our daily reporting schedules. Back-dated transactions caused particular time-lags,” explains DNB business intelligence analyst Robert Freund. In extreme cases, execution times of back-dated changes ran into weeks.

“SkySparc’s WSS experience and expertise was an integral part of our ability to devise and implement a solution that meets our current requirements and supports our future aims.”

Robert Freund,
Business Intelligence Analyst,
De Nederlandsche Bank

ABOUT DNB
De Nederlandsche Bank (DNB), the central bank of the Netherlands, is responsible for financial stability, monetary policy, payment systems and finance sector supervision. Under its domestic reserve management mandate, DNB handles over EUR 50 billion in investments across a wide range of asset classes.

As a member of the Eurosystem of euro-zone central banks, DNB also manages the European Central Bank’s Japanese yen reserves and the euro reserves of certain non-euro central banks. DNB uses Wallstreet Suite 7.4 (WSS) to run its reserve management operations.
SkySparc helped De Nederlandsche Bank to implement an adaptable, responsive data warehouse extraction solution to support enhanced business intelligence.

Uploading times for back-dated changes were improved significantly through SkySparc consultants’ expertise and flexible deployment of OmniFi.

DNB can now develop new extraction routines without further help from SkySparc, thus enabling staff to widen their analysis and reporting capabilities independently.

SOLUTION

The central bank reached out to SkySparc to gain a better understanding of WSS data extraction in order to develop a ‘smart’ solution. DNB was already a long-term client of SkySparc, having used OmniFi for risk reporting and business configuration tasks, and for test automation when upgrading to WSS 7.4.

When approached by DNB, SkySparc consultants developed a proof of concept and conducted a detailed scoping of the proposed solution, based on their expertise in extracting and formatting data from WSS. Once approved by DNB, SkySparc configured OmniFi accordingly and held workshops to help DNB devise a long-term, easy-to-use approach that met the bank’s requirements.

Two key changes were made. First, SkySparc implemented automated parallel running of multiple OmniFi interfaces to accelerate data extraction from WSS, thus enabling next-day use of data once uploaded to the data warehouse. This was needed both to handle the full range of data types extracted from WSS by OmniFi (performance data, valuations, transactions, cash flows, static data, limits and market data), and to account for multiple data extractions to support different scenarios, contexts and valuation currencies.

Second, to accelerate processing of back-dated changes, SkySparc developed routines which allow OmniFi to identify affected trades, leaving unaffected trades untouched. Any back-dated changes were separated out from the daily upload and an automated query analyzed the WSS logs to identify the affected trades. This reduced the processing time for some back-dated changes significantly (e.g. from 100+ hours to overnight).

“The implemented solution lets us incorporate new sources, which will enable us to undertake analyses that cross-reference data from different sources. We’ve proved the concept works and we’re now in an exploratory phase.”

Robert Freund,
Business Intelligence Analyst,
De Nederlandsche Bank

RESULTS

With the support of SkySparc’s consultants and the deployment of OmniFi, DNB is able to extract WSS data effectively, paving the way for improved analysis and reporting capabilities. Moreover, the solution provides DNB with an enhanced automated audit trail of all revisions to transactions and limits.

“SkySparc’s WSS experience and expertise was an integral part of our ability to devise and implement a solution that meets our current requirements and supports our future aims,” observes Freund.

The data warehouse went live in Q1 2016 and is already adapting quickly to DNB’s evolving requirements. For example, DNB business users can quickly develop new extraction routines, enabling them to independently adopt the solution over time. DNB intends to use the data warehouse to store data from multiple systems across departments, integrating it with the WSS data.

As well as OmniFi’s overall ease of use and flexibility as a multi-purpose data management tool, its position as middleware between WSS and the data warehouse platform means it will automatically take account of future WSS upgrades.

ABOUT SKYSPARC

SkySparc, an independent solutions provider trusted by banks, central banks, Fortune 100 corporate treasuries and asset managers, offers complementary software, outsourced support and a wide range of financial and technical consulting services. Outsourced support enables our customers to focus on their core business and benefit from attentive service from our financial and technical experts. SkySparc OmniFi delivers sustainable business value to customer through advanced management reporting, process automation, system integration and fully automated testing. SkySparc is a four-time winner of Dagens Industri’s Gazelle award for fast-growing companies, and has also won both Central Banking’s Consultancy and Advisory Award and Treasury Today’s Adam Smith Award for Best Risk Management Solution.

EUROPE

Birger Jarlsgatan 64A
114 29 Stockholm
Sweden
TEL +46 8 456 4000

AMERICAS

3 Columbus Circle
New York, NY 10019
USA
TEL +1 646 502 5281

EXPERT CENTER

EUROPE +46 8 456 4010
AMERICAS +1 646 502 5279
EMAIL expertcenter@skysparc.com

www.skysparc.com

info@skysparc.com

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