



CON-WAY FREIGHT

NETEZZA IN ACTION

Leveraging Best-of-Breed Business Intelligence for Customer Satisfaction

Con-way Freight delivers highly efficient less-than-truckload (LTL) performance, comprehensive coverage and service excellence through its 291 service centers across North America, while also offering cross-border service to and from Canada, Mexico, Asia, Europe, the Caribbean and domestic offshore locations. Con-way Freight makes it easy for customers to eliminate supply chain waste by consolidating shipments and optimizing freight movement. The result: lower costs to transport materials which creates customer value and profitability. Also, by placing fewer trucks on the road — reducing fuel consumption, carbon emissions and traffic congestion — Con-way Freight is an environmentally friendly industry leader.

To keep service levels high over the long term, Con-way Freight continuously evaluates and improves its strategy and process management using business intelligence (BI) powered by MicroStrategy and Netezza. MicroStrategy equips Con-way Freight with a robust reporting front end, and Netezza provides a high-powered data warehouse and analytic engine. This best-of-breed business intelligence platform allows Con-way Freight to leverage vast amounts of transaction-level data for deep customer understanding and data-driven business decisions.

Before: A Company with a Vision

In the summer of 2007, Con-way Freight had no companywide business intelligence system in place. It was using an Oracle data warehouse that offered limited reporting on some aggregated customer relationship management and shipment data. In total, less than 10 percent of Con-way Freight's data was captured within the incumbent system. And even with the limited level of reporting offered by the warehouse, it suffered from performance issues. It was tedious to query more than three months of data at a time, and even simple queries took 20 to 30 minutes to return. Ad hoc reporting was simply impractical.



Company Profile:

- Con-way Freight: subsidiary of Con-way Inc. (NYSE: CNW); LTL provider across 291 service centers in North America; industry leader in reducing transportation waste

Business Challenges:

- Need to analyze transaction-level details on an ad hoc basis to optimize efficiencies based on outlier data
- Only 10% of data captured; wanted to capture data from more areas of the business
- Performance issues when querying more than 3 months of data

Application:

- Enterprise data warehouse for ad hoc analysis and operational reporting

Solution Benefits:

- Analysis on 50%+ of all business processes
- Enables ad hoc querying by hundreds of users across the enterprise
- In production within 3 weeks of purchase
- Less than 1 FTE managing data warehouse

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Sean Devine
Vice President, Pricing & Engineering
Con-way Freight



Con-way Freight realized that an investment in business intelligence would be essential to the company’s success, so it established a BI Vision to guide its business intelligence development initiatives. Con-way Freight’s BI Vision comprises five criteria that still hold strong today:

- 1) **Comprehensive platform:** a single data warehouse that captures data from all areas of the business
- 2) **Granular:** the capability to store and report on minute, transaction-level details
- 3) **High performance:** fast data loading and query processing for speed-of-thought analysis
- 4) **Ad hoc:** a flexible environment that facilitates asking any question, at any time
- 5) **Self-service:** an easy-to-use platform for users throughout the business to leverage

Due to its fit with Con-way Freight’s BI vision and its relational online analytical processing (ROLAP) architecture, the company first decided to deploy MicroStrategy as its front-end BI reporting application. Once MicroStrategy was deployed, in the fall of 2007, Con-way Freight could access its data. However, this further stressed the performance limitations of the incumbent data warehouse. Wanting to leverage the full potential of MicroStrategy, Con-way Freight started researching new data warehouse options, including those offered by Netezza, Teradata and Oracle.

Netezza: Performance, Value, Simplicity

Netezza and Oracle made the short list of data warehouse vendors, and Con-way Freight brought them both in for proofs of concept. Sean Devine, Vice President of Pricing and Engineering at Con-way Freight, stated, “Netezza’s promises of performance, value and simplicity seemed to align with Con-way Freight’s BI Vision. That attracted us to evaluate the appliance. Then, throughout the evaluation, we were impressed with Netezza’s consistency and transparency. They delivered on their claims of performance, value and simplicity.”

In terms of simplicity, Netezza’s initial set-up took less than 48 hours, and within the next two days data was loaded and users had access to the system. Next, Netezza’s performance advantage became clear. The data loading process took 300 seconds on Netezza, versus 3,000 seconds on the incumbent. When users began to run reports on the Netezza appliance, they were thrilled with the speed of the system — MicroStrategy reports could run, on average, 50 times faster on the Netezza system than the old data warehouse. The performance improvements came without adding overhead, yet offered these additional benefits: user self-service; ad hoc and data mining exploration; and scale to handle terabytes of data.

The evaluation revealed that Netezza offered the best value, and Con-way moved forward accordingly. Four days after signing the purchase order, the new BI project was made available to internal users at Con-way Freight. And three weeks from the purchase date, the Netezza-powered platform was running in full-scale production.

“Netezza delivered what they promised,” stated Devine. “Ad hoc query performance is incredibly fast, with less database administration.”

Netezza Delivered:

Performance
Value
Simplicity

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Sean Devine
Vice President, Pricing & Engineering
Con-way Freight

Ad hoc & exception analyses:

Which shipments
should we inspect?

How will internal/external
factors affect business activity?

How can we keep our
customers happy?

How can we appeal to
new customers?

Scorecarding:

Financial performance reports
Linehaul reports
Sales dashboards
Operational scorecards
Accident & injury statistics

Now: Best-of-Breed Business Intelligence

Con-way Freight’s enterprise data warehouse today provides ad hoc business intelligence and some operational reporting for more than 50 percent of processes throughout the organization. Most access to Netezza happens through MicroStrategy, but some direct connections are made via Tableau and other reporting and analysis tools. The BI platform offers Con-way Freight ad hoc performance and self-service access to the data that can be used on demand in meetings. As Devine described, “Con-way Freight’s vision was to achieve what we like to call ‘Meeting Time BI.’ That vision has definitely become a reality with the ad hoc capabilities provided by our analytic environment.”

Con-way Freight uses its BI platform for two general applications: ad hoc analyses and scorecarding. The analyses include identifying which shipments to inspect, forecasting the effects of internal and external factors on business activity, and segmenting customers for targeted customer relationship management (CRM) programs and marketing initiatives. With its Netezza-powered environment, Con-way Freight does not summarize or aggregate any of its data — this is beneficial when running exception analyses to determine which areas of the business could be improved. Personnel can drill down to find specific information about any customer, percentages of on-time deliveries, measurements of how often freight is damaged or misplaced and more.

Scorecarding allows Con-way Freight to measure financial performance and improve overall corporate performance management by comparing performance against set goals. Users can render linehaul reports, sales dashboards and operational scorecards with ease, providing operations personnel with a weekly view of how they’re doing across many metrics. The metrics are based on measuring the efficiency and effectiveness of operational processes, and, again, each report is based off of detailed data without any summaries or aggregations. Con-way Freight is continuously improving its BI platform and plans to add more metrics, such as accident and injury statistics, to the scorecards moving forward.

The Value of BI: Priceless

The business intelligence environment powered by MicroStrategy and Netezza is transforming the way Con-way Freight does business. In a matter of seconds, Con-way Freight can run ad hoc reports to look at shipments delivered on a specific day to a specific region, state or customer. Every report is calculated on granular data with highly reliable accuracy. And Con-way Freight’s users are happy because administration of the system is much easier than the incumbent data warehouse.


Moving Forward: Ongoing Optimization

Con-way Freight is not done fulfilling the BI Vision. As the company continues to embrace BI and find success, demands on the system grow, data volumes multiply and new challenges inevitably arise. As Devine commented, “It’s hard to achieve all five objectives, because once you achieve them the demand increases. Our work is never done.”

Con-way Freight is focused on staying ahead of that demand by constantly trying to improve and innovate across the enterprise, and by encouraging more employees to use business intelligence. Con-way Freight’s Lean Six Sigma and Operations Research teams are also beginning to use Netezza as a platform to facilitate continuous improvement. The teams already rely on data and metrics sourced directly from the data warehouse for their models, and they hope to deploy statistical and operations models directly in the database in the future.

“For us, business intelligence is completely essential to the operations of our business, which is why we’ve continued to invest in BI during the economic slow-down. The combination of our single data model, MicroStrategy application layer and Netezza data warehouse is fundamental to who we are.”

Sean Devine
Vice President, Pricing & Engineering
Con-way Freight

By embracing the strategy and use of business intelligence throughout the business, Con-way Freight is well positioned for continued long-term success. “BI is viewed within the organization as a core capability enabling the business,” said Devine. “For us, business intelligence is completely essential to the operations of our business, which is why we’ve continued to invest in BI during the economic slow-down. The combination of our single data model, MicroStrategy application layer and Netezza data warehouse is fundamental to who we are.” 

About Con-way Freight

Con-way Freight is the industry’s leading less-than-truckload (LTL) freight transportation company, providing guaranteed, day-definite regional and transcontinental service with exception-free delivery, on-time service performance and faster transit times through a single, unified network of more than 300 service centers in the United States, Canada, Mexico and Puerto Rico. Con-way Freight offers LTL freight transportation across North America and through Global LTLTM delivery in the United States from around the world. Global solutions include international less-than-container (LCL) ocean shipments from Asia through its OceanGuaranteed® service; expedited U.S. delivery for inbound international cargoes from Europe through an exclusive alliance with TNT; direct service to more than 30 Bahamian and Caribbean ports through TropicalDirectSM; and domestic offshore transportation to Alaska, Hawaii and Puerto Rico. Based in Ann Arbor, Mich., Con-way Freight is a certified FAST highway carrier and is C-TPAT/PIP, ACE- and CSA-certified.

Con-way Freight is a subsidiary of Con-way Inc. (NYSE: CNW), a \$4.3 billion diversified freight transportation and logistics services company. For more information, visit www.con-way.com/en/freight.



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About Netezza

Netezza (NYSE: NZ) is the global leader in data warehouse and analytic appliances that dramatically simplify high-performance analytics across an extended enterprise. Netezza’s technology enables organizations to process enormous amounts of captured data at exceptional speed, providing a significant competitive and operational advantage in today’s data-intensive industries including digital media, energy, financial services, government, health and life sciences, retail and telecommunications. Netezza is headquartered in Marlborough, Massachusetts and has offices in North America, Europe and the Asia Pacific region.

For more information about Netezza, please visit www.netezza.com.