

BEZPlus Helps FedEx Deliver Greater Profitability

Delivery Service Industry

FedEx Facts

- World leader in delivery services
- \$22 billion in annual revenue
- More than 5.3 million shipments each business day
- Services 210 countries
- 219,000 employees and contractors worldwide

Technical Environment

- Teradata data warehouse
- 40+ nodes; <256 AMPS
- More than 1,000 transactions per day
- More than 1,200 users

Challenges

- Quickly and accurately provide real-time pricing based on unique customer variables
- Integrate new pricing system with data warehouse
- Monitor system performance; track user needs and trends

FedEx Relies on BEZ Every Day

- Ensure seamless synthesis between data system and pricing application
- Optimal performance to meet growing business demands
- Critical component of capacity planning and application sizing activities

FedEx sales representatives used to provide customer quotes that were calculated by static formulas and published price lists. The problem: variability in costs led to some quotes being too high, and customers seeking other vendors, while others were too low, resulting in low profitability. FedEx needed a way to provide real-time quotes driven by specifications for each customer, including location, destination and many other factors, which are all stored in the company's data warehouse. Moreover, they needed to support this application along with all the other users of their enterprise data warehouse.

The solution: Implementing a Teradata active data warehouse (ADW) application that provides fast, accurate, real-time quotes. To help ensure the ADW would exhibit OLTP-like characteristics of availability, scalability and throughput, FedEx turned to BEZ Systems. BEZ's flagship product, BEZPlus, allows FedEx to keep the ADW running at optimum performance.

Finding the Right Balance

A mixed ADW/DSS environment presents distinct challenges, such as balancing the needs of the ADW's reliability, availability and scalability requirements with less critical decision support (DSS) applications. FedEx needs to balance these requirements within a single data warehousing framework.

The key to FedEx's successful management is a full understanding how various workloads impact the system. Being able to validate how workloads are running before and after applying Teradata's priority scheduler is important to the company's overall performance management strategy. BEZPlus gives FedEx the ability to quantify the benefits of implementing specific performance strategies and validates their outcomes, which not only supports Teradata, but optimizes its performance.



Staying One Step Ahead By Predicting Performance

The number of FedEx users in the enterprise data warehouse is growing. With more than 1,000 transactions per day and the current number of users exceeding 1,200—including internet-based users—FedEx needed a comprehensive solution to evaluate database platforms and upgrades, propose and justify informal service level agreements, and assess stringent performance objectives that mandate published and expected response times. BEZ does all this and more for FedEx with sophisticated closed queuing network modeling techniques.

FedEx managers use BEZPlus daily to gain insight into how the system is performing, who is using the system, how data is being consumed and if the right lines of business are receiving the appropriate level of service. They also use BEZPlus to closely monitor usage trends which ensures they stay one step ahead the user community needs.

Identifying and Troubleshooting Roadblocks

When problems do occur, FedEx uses BEZPlus to focus on the issue at hand, identifying problematic or unpredictable queries or user activity that negatively affects performance of the ADW applications. The FedEx team leverages the power of BEZPlus to study workloads and separate trends from exceptions. How do they do it? BEZPlus keeps historical performance profiles and uses Statistical Process Control (SPC) capabilities to distinguish exceptions from trends. BEZPlus also generates key reports that keep users and management informed on how the system is responding to the needs of their business.

The Road Ahead: Predicting Capacity, Planning for the Future

FedEx handles its upgrade strategies as carefully and efficiently as it handles its packages. Because BEZPlus provides FedEx with a historical and current view of resource usage and correlates it back to their lines of business, management is able to proactively make decisions about future capacity requirements.

In addition, the overwhelming success of its real-time pricing application has led to additional strategic ADW application planning. Because these new applications will consume additional resources, BEZPlus' predictive capabilities have been the cornerstone of the planning process. BEZPlus enables FedEx strategists to perform a series of 'what-if' scenarios that ease the decision-making processes for executive management to upgrade their systems. Planning for next week, next month and the next few years has never been easier—or more reliable.

Just as FedEx prides itself on delivery and trackability of its packages, BEZPlus gives FedEx managers the confidence to present substantiated information throughout the organization so they can improve their systems and keep FedEx ahead of the pack in the delivery service arena.

Pickup Locations Transit Time International Tools

FedEx for corporate history or the il-down menu to open an account or

FedEx Ground Choose a Topic: Small-package business-to-business shipping, plus business-

FedEx Freight Choose a Topic: Regional less-than-truckload (LTL) freight services for shipments over

BEZPlus is the cornerstone of FedEx's application sizing process

About BEZ Systems

For over ten years, BEZ Systems has been the leading provider of Predictive Performance Management solutions for IBM DB2 UDB and Teradata applications. Companies around the world rely on BEZ software, services and consulting to achieve a high level of responsiveness and scalability for their critical, growing business applications. BEZ is a privately held company headquartered in Boston, MA. For more information, go to www.bez.com.



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www.bez.com
info@bez.com