

## RETAIL: LOWE'S COMPANIES



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“MICROSTRATEGY UNIVERSAL EDITION GIVES US THE CONFIDENCE WE CAN CONTINUE TO GROW OUR BI APPLICATIONS WITHOUT BOUNDARIES. WE ARE ABLE TO SUPPORT MORE DATA, MORE USERS, AND MORE FUNCTIONALITY, AND RAPIDLY REACT TO CHANGES IN CUSTOMER BEHAVIOR AND MARKET OPPORTUNITIES.”

— STAN CARMAN, SOLUTIONS PROJECT MANAGER,  
LOWE'S COMPANIES, INC.

### SUPPORTING THE RICHEST AND MOST DEMANDING BI APPLICATIONS WITH MICROSTRATEGY UNIVERSAL EDITION

#### COMPANY OVERVIEW

Founded in 1946, Lowe's has grown from a small hardware store in North Carolina to become the second largest home improvement retailer worldwide with nearly 1,400 stores, over 13 million customers per week, and \$46.9 billion in sales during fiscal year 2006.

Lowe's is constantly expanding its operations, opening a new store every three days on average. It offers hundreds of thousands of home improvement products while delivering exceptional customer service.

#### BUSINESS INTELLIGENCE STRATEGY

Early on, Lowe's realized the importance of providing relevant information to all of its employees across the organization as a means to maintain efficient operations and improve business performance. “Our continuous growth and dedication to improving our customers' shopping experience drove us to become early adopters of information technologies,” said Stan Carman, Solutions Project Manager at Lowe's. In 1998, Lowe's chose MicroStrategy as its business intelligence standard.

Today, Lowe's operations are supported by some of the most robust and demanding business intelligence (BI) applications in the industry. More than 13 MicroStrategy BI applications in areas such as merchandising, marketing, inventory, and sales analysis provide critical insight to improve margins, manage inventory, and identify sales opportunities.

#### OVERVIEW

Lowe's Companies is the second largest home improvement retailer in the world. With more than 3,000 users, its 32-bit BI applications could no longer scale to support the increasing sophistication required by its ever growing user base. Therefore, Lowe's decided to upgrade their system to 64-bit BI through MicroStrategy Universal Edition

#### BEFORE

5 MicroStrategy Intelligence Server clusters running on 13 Windows 32-bit servers.

#### AFTER

5 MicroStrategy Intelligence Server clusters running on 4 AIX IBM 64-bit servers.

#### BENEFITS

- Overall improvements in performance and stability across BI applications
- Server consolidation to reduce maintenance costs
- Extended use of functionality for larger reports and faster exports
- Increased return on RDBMS investment
- Increased capacity to accommodate future growth

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The system has grown to accommodate more than 3,500 users running 180,000 reports per week on average, including enterprise reporting, executive dashboards, query and reporting analysis, and personalized alerts. Previously, thirteen 32-bit Windows based servers configured into five MicroStrategy Intelligence Server clusters supported Lowe's BI implementation.

As Lowe's requirements continued to grow in size and sophistication, they quickly approached the limits imposed by 32-bit applications, preventing them from scaling in a cost-effective way. "Many of our BI applications were already reaching the three gigabyte memory limit imposed by 32-bit processing," explained Carman. "Our system was becoming slow and unstable, especially at peak load on Monday mornings when most users login to the system to check updated information. To make things challenging, there was no more room to grow. We needed a long-term solution and 64-bit technology seemed to be the answer."

Therefore, Lowe's decided to upgrade its BI applications to MicroStrategy Universal Edition, one of the very few business intelligence technologies fully compiled to take advantage of 64-bit processing.

### MIGRATING TO MICROSTRATEGY UNIVERSAL EDITION

At Lowe's, thousands of employees and suppliers rely on MicroStrategy to make important decisions every day. Any service disruption can have a negative impact on daily operations. Therefore, it was critical to avoid interruptions altogether during the upgrade process. Additionally, Lowe's needed new UNIX servers to provide the same functionality with which users were already familiar.

MicroStrategy's unique architecture allowed Lowe's to seamlessly upgrade to MicroStrategy Universal Edition at a rate of one MicroStrategy Intelligence Server cluster per week. MicroStrategy BI software shares a single code base across all supported platforms. This ensures functional equivalence and 100% metadata compatibility for all supported operating systems and hardware. Since all application information is stored in the metadata, administrators can enjoy a trouble-free migration by simply connecting the new server to an existing application metadata. As a result, Lowe's upgraded to MicroStrategy Universal in a very short time with no application changes and zero impact to the user community. "We would prepare our new servers during the week and perform the upgrades over the weekend," added Carman. "Business users arriving on Monday noted faster performance, and that was it."

### BENEFITS WITH MICROSTRATEGY UNIVERSAL

MicroStrategy Universal Edition allowed Lowe's to reduce hardware overhead costs. Lowe's replaced the thirteen 32-bit Windows based servers with only four 64-bit high-end IBM AIX servers running their MicroStrategy BI applications with MicroStrategy Intelligence Server Universal Edition. Lowe's also cites a higher return on their database investment. After the upgrade, Lowe's increased the number of database connections to make better use of their 88 node Teradata database, improving overall system performance.

Today, the new system provides Lowe's with greater stability and faster performance to support their current business intelligence applications. More importantly, MicroStrategy Universal Edition allows more BI capacity to cover Lowe's future BI needs.

As a result, Lowe's is scaling up the use of key functionality, and will implement MicroStrategy OLAP Services for in memory analysis and report exports. Also, users can now run more and larger reports in less time. "The enormous increase in addressable memory, provided by 64-bit business intelligence gives us the ability to expand the use of existing applications, add more functionality, and develop new applications in other areas of the business," continued Carman.

MicroStrategy Universal opened the door to a whole new level of service for Lowe's BI applications. "We rely on MicroStrategy to support all of our business intelligence applications. These applications provide vital information, which translates into millions of dollars in cost-savings and revenue-generating opportunities. MicroStrategy Universal Edition gives us the confidence we can continue to grow our BI applications without boundaries. We are able to support more data, more users, and more functionality, and rapidly react to changes in customer behavior and market opportunities," said Carman.

