

Lehman Brothers

Lehman Brothers Reduces Cost and Improves Performance by Migrating Trading Desk Application from Sun Solaris to Microsoft Windows.

The Government Decision Support System (GDSS) serves as the Lehman Brothers' Trading Desk backbone. Eager to replace the Sun workstations that GDSS ran on with more powerful and cost-effective workstations running Microsoft Windows, Lehman turned for help to Microsoft, Dell, and UNIX-to-Windows migration expert MKS, and got up and running on its new Wintel platform in less than four days. Today, the Lehman Brothers Trading Desk is running GDSS an estimated four times faster.

Background

Lehman Brothers is a global investment bank serving corporations, institutions, governments and high-net-worth investors. In order to support its extensive government trading operations, including treasury and agency securities, the IT department deployed a team of 10 business and software developers for 20 specialized government traders and 150 sales executives on the Lehman Brothers Trading Desk. Over time, Lehman's IT department realized that its existing UNIX-based infrastructure in this area had become cost-prohibitive to maintain. Lehman IT embarked on a pilot to port its mission-critical Government Decision Support System (GDSS), an in-house software application that served as the Trading Desk backbone, from UNIX to Windows NT Workstations. If this pilot proved successful, IT planned to evaluate a more extensive migration of mission-critical applications serving Lehman's 10,000+ US-based employees, the vast majority of whom work in the New York City area.

Solution Overview

Microsoft Industry Solutions Partner

Dell

Industry

Financial Services

Company Profile

Lehman Brothers is a global investment bank serving corporations, institutions, governments and high-net-worth investors.

Situation

In the past, Lehman Brothers had supported its Government Decision Support System (GDSS) trading platform across a number of Sun workstations running UNIX. The cost of maintaining GDSS on Sun workstations, however, was high and the development staff needed more power and flexibility. Lehman Brothers decided to port the application from UNIX to Microsoft Windows NT via UNIX compatibility libraries and UNIX utilities from Mortice Kern Systems, Inc. (MKS) that are available on Windows NT and 2000.

Business Solution

Through a partnership with Dell, Microsoft and MKS—with equipment from Dell and consulting services from all three companies—Lehman Brothers set out to develop a UNIX-to-Windows NT migration pilot for the Trading Desk. Supported by a Dell Precision Workstation 420 with dual 733 MHz processors, Lehman conducted the porting using MKS's Toolkit for Enterprise Developer (formerly NuTCRACKER), a selection based on previous successes with the software in similar enterprise environments.

Benefits

Lehman Brothers Trading Desk is now running GDSS an estimated four times faster than on Sun's UNIX workstations. Working in conjunction with Microsoft, Dell, and MKS, Lehman Brothers was up and running on its new Wintel platform in less than four days—and the application porting required only two to three weeks to beta delivery, with 70 percent of the traders at Lehman Brothers participating in the migration. Lehman IT anticipated saving approximately \$36,000 annually on workstation administration costs by removing the first 20 Sun workstations. Lehman expects to replace another 100 Sun workstations in the near future.

Challenge

In the past, Lehman Brothers had supported the GDSS trading platform across a number of Sun workstations running UNIX. The cost of maintaining GDSS on Sun workstations, however, was high and the development staff needed more power and flexibility in order to take advantage of new Web development models. Their options were clear: they could rewrite the entire 8-year-old application natively to the Microsoft Windows API (WIN32) and attempt to add functionality to a system that was virtually obsolete. However, this option would require the full-time efforts of three people over six months. Or they could port the application from UNIX to Microsoft Windows NT via UNIX compatibility libraries and UNIX utilities from Mortice Kern Systems, Inc. (MKS) that are available on Windows NT and 2000. Lehman Brothers soon concluded that the latter route would be the fastest and most economical way to migrate its software from UNIX to Windows NT and quickly leave their Sun workstations behind.

Solution

Through a partnership with Dell, Microsoft and MKS—with equipment from Dell and consulting services from all three companies—Lehman Brothers set out to develop a UNIX-to-Windows NT migration pilot for the Trading Desk. The migration pilot would achieve dual purposes by 1) serving as the proof of concept that the IT department needed to justify a larger migration effort for the company; and 2) creating a methodology that could eventually be replicated to the entire organization. Working together, the companies developed a migration methodology for the porting and testing of the GDSS from UNIX-to-NT SP4. Supported by a Dell Precision Workstation 420 with dual 733 MHz processors, Lehman would conduct the porting using MKS's Toolkit for Enterprise Developer (formerly NuTCRACKER), a selection based on previous successes with the software in similar enterprise environments.

“Through the UNIX-to-Windows NT migration initiative, we'll not only be able to support GDSS at a much lower cost, but we will also improve overall performance, manageability and reliability, providing the tools to allow our traders to operate at maximum efficiency,” said Mercado.

Pat Higbie, MKS Chief Technology Officer, added, “Lehman partnered with Dell, Microsoft and MKS to develop a total solution for the migration and ongoing evolution of GDSS. The result was a migration that took a fraction of the time required to do a rewrite, and just as important, Lehman is positioned to leverage the Internet through Microsoft.NET technology and to integrate GDSS with native Windows applications like Excel to further enhance the productivity of Lehman users.

Results

Lehman Brothers Trading Desk is now running GDSS an estimated four times faster than on Sun's UNIX workstations. Working in conjunction with Microsoft, Dell, and MKS, Lehman Brothers was up and running on its new Wintel platform in less than four days—and the application porting required only two to three weeks to beta delivery,

with 70 percent of the traders at Lehman Brothers participating in the migration. Lehman IT anticipated saving approximately \$36,000 annually on workstation administration costs by removing the first 20 Sun workstations. Lehman expects to replace another 100 Sun workstations in the near future.

As a result of the success of GDSS, two additional groups at Lehman have begun the migration of their UNIX applications to Windows utilizing the consulting resources of MKS and Microsoft and hardware provided by Dell.

“The rollout of the migration pilot has been extremely successful, and as a result of the effective partnering between Lehman, Dell, MKS and Microsoft, the speed of implementation was unbelievable!” said Mercado. “Word of the program is spreading to other areas and we can barely keep up with the demand from within the organization.”

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