John Hancock Financial Services

John Hancock Turns to Windows 2000 for Business-Critical, Enterprise Applications

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When John Hancock Financial Services wanted to upgrade its SmartStream accounting suite, it also chose to migrate from a UNIX platform to the Microsoft® Windows® 2000 Server platform. The project was a test of the viability of moving company-wide, business-critical applications to Windows – and the Microsoft platform passed with flying colors. John Hancock saw significant performance enhancements and lower TCO, with the company spending less on hardware, software and ongoing maintenance on Windows. Processes and reports now run so much faster that system contention is down and productivity is up. Best of all, says second vice president Bob Horne, the project demonstrates the benefits of running other business-critical applications on the Windows platform.

Situation

John Hancock Financial Services, Inc. (NYSE: JHF) and its affiliated companies, including John Hancock Life Insurance Company, provide a broad array of insurance and investment products and services to retail and institutional customers. As of December 31, 2000, John Hancock and its subsidiaries had total assets under management of $125 billion.

One of the business-critical solutions used by John Hancock is the SmartStream application suite by Geac Enterprise Solutions, which supports corporate purchasing, corporate accounts payable, and fixed assets/depreciation. The company began using the application suite in 1995 and, by last year, was running SmartStream release 6.0.03 on a Sun hardware platform with Solaris 2.6 and Sybase 11.5.1 database.

John Hancock wanted to upgrade this solution to the current version, SmartStream 6.5, in order to maintain vendor support. That in turn necessitated an upgrade of the underlying infrastructure. The company's choices were to upgrade their existing Sun servers/Sybase combination or migrate to Microsoft® Windows® 2000 Server and Microsoft SQL Server™ 7.0. Windows was already one of the company's strategic platforms and standardizing SmartStream on Windows would reduce costs and minimize the number of technologies needing support. On the other hand, the migration would represent Hancock's first migration of an application from UNIX to Windows, and its first attempt to migrate a business-critical application spanning multiple Hancock companies to the Windows operating system and database environment.

Solution Overview

Customer Profile
John Hancock Financial Services, Inc. (NYSE: JHF) and its affiliated companies provide a broad array of insurance and investment products and services to retail and institutional customers. As of December 31, 2000, John Hancock and its subsidiaries had total assets under management of $125 billion.

Business Situation
To upgrade its SmartStream accounting software, the company also chose to migrate the application to Windows 2000. The move would represent the first time the company migrated a company-wide business-critical application from UNIX to Microsoft® Windows.

Solution
Benefits
TCO was lower and business processes, batch jobs and reports ran so much faster that contention problems declined and productivity climbed.

Software and Services
Windows® 2000 Server
Windows 2000 Professional
SQL Server™ 7.0
Microsoft Office 2000

Partners
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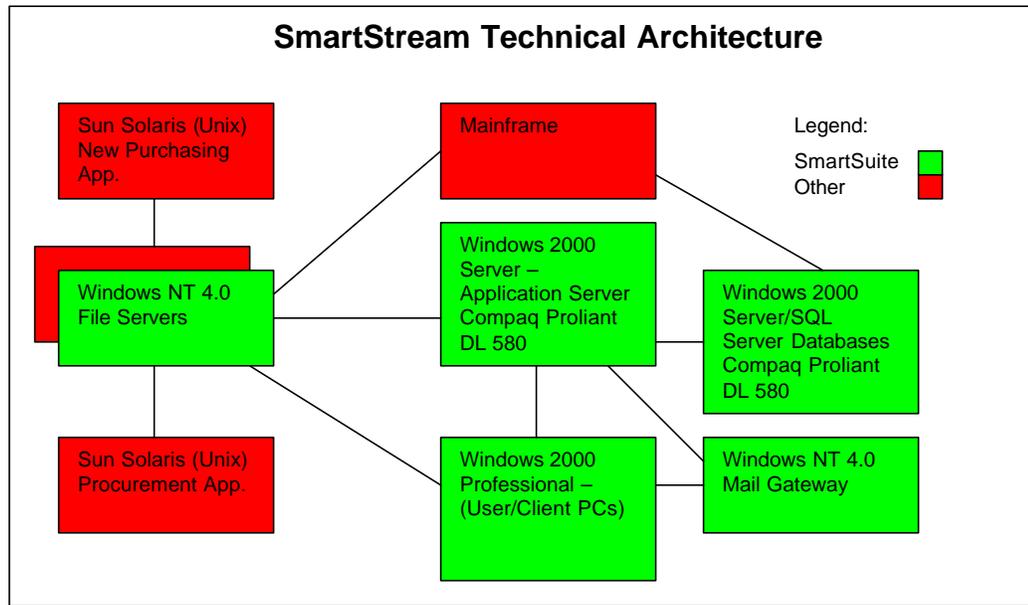Marlborough, MA 01752
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Scenario
Purchasing/Accounting LOB

"We were moving into uncharted waters," says Bob Horne, second vice president of Infrastructure Support Services for John Hancock.

Solution

SmartStream Technical Architecture

Sun Solaris (Unix) New Purchasing App.

Mainframe

Legend:
SmartSuite
Other

Windows NT 4.0 File Servers

Windows 2000 Server – Application Server Compaq Proliant DL 580

Windows 2000 Server/SQL Server Databases Compaq Proliant DL 580

Sun Solaris (Unix) Procurement App.

Windows 2000 Professional – (User/Client PCs)

Windows NT 4.0 Mail Gateway

Hancock turned to its own in-house IT staff, to Microsoft, and to solution provider Trinity Consulting Inc. to implement the new platform and to migrate SmartStream to it. The company installed six new servers: three Windows 2000 application servers and three Windows 2000/SQL Server 7.0 database servers, enabling it to support separate pairs of application and database servers for development, staging (pre-production) and production. The Windows 2000 Servers integrate into the existing infrastructure, communicating with the mainframe and existing UNIX systems elsewhere in the environment. Batch jobs – e.g., processing of purchase orders – from those systems are processed through an existing Windows NT® 4.0 File Server.

The Windows 2000 servers are Compaq Proliant DL 580s with dual 700MHz Xeon processors. To support the Microsoft Access 2000 clients that SmartStream users would use for reporting and analysis, the company added 80 Windows 2000 Professional desktops of various configurations, with a minimum Pentium 233 processor and 128MG RAM.

The 44 databases and stored procedures that make up the SmartStream application suite were migrated using the migration tool provided by GEAC. To migrate the two John Hancock reporting databases supporting SmartStream, the team used the Sybase bulk copy utility to move all data from the tables in Sybase, moved the files from UNIX to Windows, then used the Microsoft SQL Server bulk-copy utility to import the data into SQL Server tables. Stored procedures and views in the John Hancock reporting databases – the application has more than 200 – were converted using a script, with some manual corrections used to adjust for the differences in syntax between the two databases.

"Trinity Consulting had the expertise we needed and was very effective in helping us with this part of the migration," says Louise Corcoran, general director of Financial Systems for John Hancock. "Trinity's in-depth knowledge of the Microsoft technologies and its attention to detail enabled a smooth porting of the reporting databases."

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To migrate the workstations, the team identified all approved client applications, tested those applications individually on Windows 2000, then tested the full application profile to ensure compatibility with Windows 2000.

Benefits

Faster Performance for Higher Productivity

"One of the key benefits we realized from this project was a tremendous performance improvement," says Horne. "Frankly, the magnitude of the performance improvement was a surprise to us."

For example, in various comparative performance tests, which simulated concurrent users entering purchase orders, invoices and requesting reports:

- P.O. processing time was cut by 50 percent or more
- An invoicing batch job that formerly took 23 minutes was cut by more than 90 percent, to two minutes
- A backup operation that had taken seven hours was completed in 20 minutes
- An accounts payable report that had taken 20 minutes ran in five seconds.

With some batch operations being replicated 20 or more times per day, the performance enhancements added up to a significant reduction in bandwidth problems or "contention" among competing uses of the application. With users able to process information more quickly, that led to maximum productivity, even in areas such as accounts payable during the peak end-of-year period – a period that frequently saw system contention problems in the past, according to Louise Corcoran, general director of financial systems.

Lower Costs for Greater Return on Investment

The greater performance that John Hancock sees on the Windows platform comes at no additional cost – in fact, it comes at lower total cost of ownership, or TCO.

"The Windows and Intel platform has cost advantages over the UNIX platform we'd otherwise be using," says Horne. "The up-front costs of hardware and software are lower, but so are the ongoing costs that add up to total cost of ownership. For example, we don't need specialized UNIX experts to manage the environment; more people have the relevant expertise or can be trained more easily to support the Windows platform. Given the benefits of the new solution, the cost of migration was a sound investment that is already contributing to the bottom line."

Positioned for Future Growth

Perhaps most important to John Hancock, migrating SmartStream from UNIX to Windows helps prepare the company for its future growth. While the servers are now dedicated to SmartStream, John Hancock anticipates upgrading them to SQL Server 2000 and running multiple databases and applications that can take advantage of that platform, according to John Chapman, general director of database administration.

"We did this project as a pilot to see if we could put a significant, company-wide business application on the Windows platform – and we succeeded," says Horne. "We want to converge on fewer technologies. Windows 2000 Server, in conjunction with SQL Server, delivers a high-

performing, secure and scalable platform with all the robustness we want. All of our new Intel servers are Windows 2000 and we're very pleased with that. The SmartStream migration is convincing evidence of the benefits of running more of our business applications on the Windows 2000 platform."

Trinity Consulting (www.Trinity-Inc.net) is headquartered in Marlborough, Massachusetts, with staff in Newton, Quincy and Westborough. Our consultants, with nearly 20 years experience at the top levels of multinational consulting firms, provide quality, full service consulting, strategic planning, project management, development, integration, systems security, training and support to large, medium and small organizations. Trinity delivers technical solutions to business problems using Microsoft technologies in conjunction with third party applications and hardware.

The .NET Enterprise Servers are Microsoft's comprehensive family of server applications for building, deploying and managing next generation integrated Web experiences that move beyond today's world of standalone Web sites. Designed with mission-critical performance in mind, .NET Enterprise Servers provide fast time to market as well as scalability, reliability and manageability for the global, Web-enabled enterprise. They have been built from the ground up for interoperability using open Web standards such as XML. The .NET Enterprise Servers are a key part of Microsoft's broader .NET strategy, which will enable a distributed computing model for the Internet based on Internet protocols and standards in order to revolutionize the way computers talk to one another on our behalf.

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