

BMO Nesbitt Burns enjoys a consolidated, adaptable new HP infrastructure while saving \$3.3 million over the next three years



“Partnerships are all about mutual wins for both parties and we’ve always found HP to be very service-oriented, which makes it a strong partner. This latest solution is an excellent example of HP understanding our business goal to be more efficient and flexible, and delivering exactly the right adaptive infrastructure to accomplish it.”

– Mark Saunders

Senior Vice-President and
Chief Information Officer
BMO Nesbitt Burns, Inc.



BMO Nesbitt Burns, Inc. is one of North America's leading full-service investment firms; a recognized leader in the areas of personal finance, investment research, investment and corporate banking, institutional equity and capital markets. The company's staff work hard to ensure that a competitive edge is consistently maintained.

As Mark Saunders, Senior Vice-President and Chief Information Officer, explained "I wanted to increase the information technology infrastructure's cost effectiveness for the services we deliver to BMO Nesbitt Burns' businesses, and be able to quickly adapt those services to meet new industry trends."

With this challenge in mind, HP delivered to BMO Nesbitt Burns a very flexible, scalable and robust solution that has improved performance by 50 – 100 percent depending on the application, and is projected to save the company \$3.3 million over three years.

Network bandwidth opens up new opportunities

The company gives 1500 Investment Advisors and additional support staff access to its core portfolio management and trading system environment – the Wealth Management application based on an Oracle database and hosted by HP-UX® servers – to conduct their business of advising and executing investment strategies on behalf of its customers. With the nature of the business and the volatility of the stock market, BMO Nesbitt Burns cannot predict the exact volume of Investment Advisor activity on any given day. Traditionally the company has maintained computing "headroom" of three to four times an average day's trading volume in order to cope with spikes in activity, leading to a very large amount of underutilized capacity on regular days.

Additionally, as a result of the securities industry's growing trend towards straight-through transaction processing, BMO Nesbitt Burns needed to further increase its headroom, which was going to be extremely costly and complicated to implement across its legacy distributed systems.

The original infrastructure had been developed during a time when there was a lack of affordable high bandwidth networking capability. As regular network speeds were slower, to achieve the best performance for the Investment Advisors the company developed a strategy of having HP rp5400 and rp7400 servers, running HP-UX, located in distributed offices close to the 3000 users, with centralized network monitoring and operations management via HP OpenView.

Today, with networking bandwidth being more affordable, Saunders wanted to simplify the server strategy and felt the UNIX® infrastructure needed to be consolidated and redesigned to become more quickly scalable and flexible.

A financially compelling solution

HP has been a partner in the company's back-end UNIX environment – including the portfolio management and trading system environment – for over ten years and BMO Nesbitt Burns also has over 100 Compaq – now HP – ProLiant server clusters deployed in the branches providing e-mail, file and print capabilities. HP Services provides a variety of consulting services for both the HP-UX and windows environments. The services range from architectural design, installation planning and deployment. HP Critical Systems Support is delivered for both hardware and software to meet the company's HP-UX high availability needs.

"After evaluation of the leading vendors, HP was selected in part because it had continually been a good partner and the Wealth Management application already ran on the HP-UX operating system – we knew a port to another



platform would be more costly and risky. Plus, we have been using HP Financial Services' leasing solutions for about eight years and what really tipped the balance was the HP On-Demand Pay Per Use (PPU) metered capacity pricing model. It made HP's bid – a consolidated infrastructure focused around a core of HP Superdomes – very attractive and gave it the advantage," recalled Saunders.

Under HP's metered capacity pricing model BMO Nesbitt Burns can have a production environment that accommodates its average transaction volume. As peaks occur, Saunders' staff is able to add the capacity that is needed to handle the spike in activity. The company also can reduce the amount of available processing power when the peak has passed. It pays only for the processing power that is in use, thereby no longer requiring extra CPUs to be kept running all of the time to provide headroom.

"With the goal of simplifying our server infrastructure, we decided to consolidate 21 HP rp5400 and rp7400 servers – from different locations including Calgary, Montreal, Toronto and some from the corporate environment too – onto three centrally located HP Superdomes configured as virtual servers via partitioning. A fourth Superdome would be located at our disaster recovery site," noted Saunders.

HP experts and Saunders' staff collaborated on the design and deployment of this consolidated infrastructure and the company's computing usage patterns were analyzed to establish the basis for the utility pricing model.

Reaping the benefits from a centralized infrastructure

The systems environment is now much easier to manage, with far fewer servers to worry about. For example, the process of operating system upgrades is quicker and more efficiently handled on four central servers instead of across 21 distributed systems. Similarly, all server-related operations and support in the new infrastructure have benefited from the consolidation.

The flexibility and scalability of the HP Superdomes is very evident. The servers can quickly be re-partitioned to optimize the computing power needed at any point in time. HP OpenView helps Saunders' staff manage the overall resources available to the company and allows the resources to be deployed as efficiently and effectively as possible. The versatility of the Superdomes meets Saunders' need for a highly adaptive infrastructure.

"With the reduction to four servers we freed up valuable data-center raised floor space. The Superdomes have lower power and air-conditioning requirements, so we're saving on utility costs too. Comparing our old distributed systems leases to this utility pricing contract, the company will save \$3.3 million over three years, and at the same time we have achieved the increased capacity needed to accommodate the growth in straight-through processing," Saunders explained.

BMO Nesbitt Burns also has seen the processing performance improve 50 to 100 percent over the legacy environment. Saunders noted, "Over and above the performance increase we've already seen, we are looking at our Wealth Management application to make optimal use of the infrastructure."

He concluded, "We have very few strategic partnerships and the ones we have are strong and deep. Partnerships are all about mutual wins for both parties and we've always found HP to be very service-oriented, which makes it a strong partner. This latest solution is an excellent example of HP understanding our business goal to be more efficient and flexible, and delivering exactly the right adaptive infrastructure to accomplish it."

Solution highlights

- HP Superdome 20 CPU (with possible expansion to 32 CPUs) for development
- 2 HP Superdome 44 CPU (with possible expansion to 64 CPUs) for the Wealth Management application production environment
- HP Superdome 48 CPU for disaster recovery (located in a disaster recovery data center)
- Oracle database
- HP On-Demand Pay Per Use (PPU) metered capacity pricing from HP Financial Services
- HP Services' consulting and Critical Systems Support
- HP OpenView for network monitoring and centralized systems management of the HP-UX servers
- 100 HP ProLiant server clusters deployed in the branches providing e-mail, file and print activities

At a glance

- **Company:** BMO Nesbitt Burns, Inc., is a member of BMO Financial Group (TSE, NYSE: BMO)
- **Headquarters:** Toronto, Ontario, Canada
- **Founded:** 1994
- **Revenue:** BMO Nesbitt Burns is a member of BMO Financial Group and part of the organization's Private Client Group. The Private Client Group provides integrated wealth management services in Canada and the United States and has total assets under management and administration and term investments of \$270 billion at October 31, 2002
- **Telephone:** contact JoAnne Hayes at 416-867-4914
- **URL:** www.bmonesbitburns.com
- **Primary business:** personal finance, investment research, investment & corporate banking, institutional equity and capital markets.

Challenge

- Adapt to industry's trends to maintain competitive advantage.
- Reduce cost and complexity of infrastructure.
- Adequately accommodate peak workload requirements.

Solution

- Increase processing capacity.
- Simplify server strategy.
- Leverage metered capacity pricing structure.

Results

- Reduced operational costs because of the simpler environment to manage, saving \$3.3 million over three years.
- More adaptive infrastructure due to the versatility and flexibility of the Superdomes.
- 50-100% improved performance over legacy environment.
- Re-architecture of the portfolio management and trading system application leveraging optimal performance from the new infrastructure.

For more information on how working with HP can benefit you, contact your local HP service representative, or visit us through the Internet at our world wide web address:

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