

# Microsoft builds new financial reporting Web portal using SQL Server 2008 and HP ProLiant Intel Xeon processor-based server in a virtualized environment



“A report that used to take six hours to run now runs in two.”

**Microsoft®**

– Quentin Hurd, Solution Manager, Business Insight Solutions, Microsoft Corporation

Industry: Software

HP customer case study: HP ProLiant server with Intel Xeon processors in Microsoft SQL Server 2008 environment

## Objective:

Make financial reports easier and faster for analysts and top executives to find and use

## Approach:

Set up a new financial reporting Web portal, hosted on an HP ProLiant Intel Xeon processor-based server running Microsoft SQL Server 2008, SharePoint Server 2007 and Windows Server 2008 with Hyper-V virtualization

## Business technology improvements:

- Created Web site for easier and broad access to financial reports
- Reduced time to produce critical report by 67 percent (from six hours to two)
- Consolidated five servers into one using Hyper-V virtualization and HP multi-processor server
- Provides access linked to user authorization level
- Direct Web access to financial data eliminates slow downloads of large files

## Business results:

- Executives and analysts have faster, easier, real-time access to critical financial reports, enabling more rapid, better informed business decisions
- Empowers sales force to determine the right price for the right customer, speeding sales cycle and freeing licensing executives to concentrate on higher priority areas
- Server consolidation via virtualization reduced hardware costs by 33 percent and saves \$28,000 per year in facilities usage costs, for this one application alone

## Faster, easier access for critical financial insight via new financial reporting portal

The Microsoft Worldwide Licensing & Pricing (WWLP) finance organization provides data for enterprise accounts, so Microsoft executives and financial analysts have up-to-date, accurate and meaningful financial data at their fingertips. Early in 2008, the Microsoft WWLP Finance Business Insight Solutions team recognized that upcoming new releases of key Microsoft® products would give them an opportunity to enhance the existing financial reporting system by:

- Improving performance
- Delivering easier, faster access
- Providing broader use across the internal Microsoft financial analyst community and among key executives

To meet these goals, the Finance Business Insight Solutions team created a new financial reporting Web portal. To power the new site, Microsoft chose an HP ProLiant DL580 G5 server with Intel® Xeon® E7440 quad-core processor, running Windows® Server 2008 with Hyper-V virtualization, Microsoft SQL Server 2008 and Microsoft Office SharePoint Server 2007. That choice was part of a long history of HP, Intel and Microsoft working closely together – combining their respective strengths as industry leaders to provide better solutions for customers.

Previously, to access reports, users had to download Microsoft Excel spreadsheets and manipulate them on their desktops. The files could be large – hundreds of megabytes – and the data might change while they were using it. Now, using the SharePoint Server 2007 interface, users click on a report and the Excel workbook loads up immediately. The Excel Services rendering part of SharePoint Server 2007 takes output of the SQL Server 2008 data cube (a multidimensional data structure, which allows nearly instantaneous analysis of large amounts of data), makes calculations

## Customer solution at a glance

HP ProLiant quad-core server in a Microsoft Windows Server 2008 and SQL Server 2008 environment

### Primary applications

- Financial reporting and analysis

### Primary hardware

- HP ProLiant DL580 G5 server with Intel Xeon E7440 quad-core processors

### Primary software

- Microsoft Windows Server 2008 operating system with Hyper-V virtualization running on main Windows Server 2008 instance and on client instances
- Microsoft SQL Server 2008 database software
- Microsoft Office SharePoint Server 2007
- Microsoft Excel Services

### Why HP?

- HP's proven record of delivering exceptional technology, as exemplified by the superior performance of HP ProLiant servers with Intel Xeon E7440 processors
- Reduced time and risk with proven solutions based on the long-term partnership and collaborative engagement model between Microsoft and HP
- Adaptive, virtualized IT environment for critical financial applications

and sends results to the client – providing instant drill down and immediate views of the detailed financial data.

### Critical discount report is 50 percent faster

A clear example of the impact of the new financial reporting Web portal is the Enterprise Accounts (EA) report produced by the WWLP Finance Business Insight Solutions team. This report tells executives and analysts what pricing Microsoft provides to large, enterprise customers. In the past, this report was an Excel workbook that took 30 minutes to download and process each time a user needed it. The new financial reporting portal allows users to open the Excel workbook on the server and run all calculations using Excel Services – all without ever downloading the workbook.

With the previous dual-core server, it took six hours to run the EA report. The HP ProLiant DL580 server with Intel Xeon E7440 quad-core processors can run the same report in one third the time. "We only have a few days to pull the data down, test and audit, and generate the data cube, so our customers can use it for critical pricing decisions," says Quentin Hurd, Solution Manager, Business Insight Solutions, Microsoft.

### Business impact

The WWLP pricing-strategy team uses data from the financial reporting Web portal to develop a number of pricing reports. To evaluate the effectiveness of the target prices and pricing strategy, the team looks at customer behavior and trends in terms of target pricing. In the past, however, it took so long to download and process the data that they could only do one type of report monthly.

"The processing time to build the reports dropped significantly," explains David Cardenas, WWLP Pricing Strategy Manager, Microsoft. "As a result, we were able to increase productivity."

Now, the new financial portal and high-performance infrastructure enables the pricing strategy team to

support their clients with 12 to 15 standard monthly reports, plus another 12 to 15 ad hoc reports per month as requested by the field – 30 reports per month versus one previously. "The process is almost real time now," reports Cardenas. "We can modify multiple attributes, export and import data, and fine-tune the data. Then we can re-calibrate our guidance for the field, identify the largest accounts, see what they are buying, and see where we priced and make adjustments."

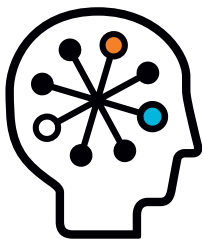
### SQL and HP quad-core server

Most SQL Server 2008 features are optimized for Intel's multi-core and multi-threaded platforms, enabling applications developed for SQL Server to utilize system resources effectively without programmer involvement. Tasks like data encryption and compression get spun off to their own cores, enhancing security and reducing storage requirements with minimal performance impact.

For the financial reporting system, the combination of the HP ProLiant server with Intel Xeon processors and SQL Server 2008 yielded enhanced functioning. The high-performance SQL query processing engine takes advantage of quad-core systems for parallel execution: having more cores to parallelize the query process reduces the total processing time dramatically. Shared memory cache also results in more efficient processing, with more cores sharing the same local memory cache.

### About Microsoft

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