



Microsoft Uses LiteSpeed™ for SQL Server from Quest Software to Eliminate the Need for Additional Storage

Microsoft uses SAP as its primary Enterprise Resource Planning software. The Microsoft Enterprise Application Services Group depends on a variety of SAP systems for online transaction processing, batch processing and analytical reporting.

The Challenge

Two of these mission-critical systems include SAP Advanced Planning and Optimization (APO) and SAP Business Warehouse (BW). Both systems have four separate environments: technical sandbox, development, test and production. They require a total of eight separate databases and these databases were frequently running out of backup space due to extensive growth.

Steve Bury, Senior Technologist in the Enterprise Application Services (EAS) Group, explained, "Without a compression solution we were on the verge of having to acquire additional database backup storage to accommodate database growth. Just adding a few drives was not an option. Most systems' drivebays were full so we would have been required to add both new drivebays as well as additional controllers. A far more expensive alternative would have been to replace all existing drives with larger ones."

The Quest Solution

Today the Microsoft EAS Group is using LiteSpeed™ for SQL Server to help compress and speed up the backup process on all SAP systems: R/3, GTS, APO and BW. All R/3 environments are running on SQL Server 2005 and the other systems will be upgraded soon. As a result, Microsoft estimates it will save up to \$186,000 per year for costs associated to resources, storage and hardware.

"With LiteSpeed for SQL Server, we recognized a 4-to-1 compression ratio on our SAP database backups which solved our disk space problem. Without LiteSpeed it would not have been possible to move the 2.2 terabyte R/3 database from tape-based backups to disk-based backups," said Bury.

Hardware Savings

LiteSpeed allowed the Microsoft SAP Group to get more life out of its existing hardware, which apart from the storage capacity problems was perfectly adequate. "CPU utilization, memory and disk I/O were not an issue. It was solely a drive capacity problem," added Winge. "Using LiteSpeed solved the problem, and we have realized additional benefits."

Overview

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- Steve Bury, Senior Technologist,
Enterprise Application Services (EAS) Group,
Microsoft Corporation

Microsoft

Headquarters

Redmond, Washington

Critical Needs

- Mitigate the purchase of additional database backup storage media
- Postpone storage related infrastructure expansion, including the acquisition of new drivebays and controllers
- Reduce, through compression, the overall size of SAP database backups
- Preserve current storage infrastructure, driving down Total Cost of Ownership (TCO)

Solution

LiteSpeed for SQL Server

Results

- EAS Group achieved a three to four fold increase in the speed of its SAP backups
- LiteSpeed's 4-to-1 compression ratio enabled EAS to move to disk-based backups from tape-based
- EAS charge-backs associated with file backups were reduced by 75 percent on a per gigabyte basis
- With the reduced size of backup files using LiteSpeed, EAS realized \$186,000 in annual savings
- Locally stored backups enabled EAS to increase its short and long-term disaster recovery options

The Bottom Line

"LiteSpeed allowed the Microsoft EAS Group to get more life out of its existing hardware, which apart from the backup storage capacity problems was perfectly adequate," said Bury. He cited as evidence LiteSpeed's performance benefits, which enabled Microsoft's EAS Group's SAP backups to run three to four times faster. Going to 64-bit hardware led to an additional 30 percent performance gain while dropping CPU utilization by 25 percent.

File backups using LiteSpeed for SQL Server also resulted in substantial savings. "Our backup files are secured nightly by being copied over to network attached storage from which the Corporate Backup Group archives to tape. We are charged by gigabyte and because the files are one quarter of the original size, we realize significant savings," explained Bury.

"For example, the SAP R/3 production database has a size of 2.2 terabytes," explained Bury. "With LiteSpeed for SQL Server, the size of the backup files is reduced to 580 gigabytes. Since we are paying \$.41 per gigabyte, we realize annual savings of \$82,000 for full and differential backups on the R/3 production and test systems. In addition, the Corporate Backup Group also benefits by being able to archive to tape in one quarter of the time."

Smaller backup files, according to Bury, allow the Microsoft EAS Group to store several full backups on the servers locally, increasing their options during emergencies and disaster recovery efforts.

About the Microsoft Enterprise Application Services Group

In addition to SAP Basis Administration, the team provides support for the back-end Microsoft SQL Server-based SAP databases and is one of the most mission-critical teams in Microsoft. The team's mission is to ensure the highest possible levels of system availability, stability, performance and security.

About Quest Software, Inc.

Quest Software, Inc. delivers innovative products that help organizations get more performance and productivity from their applications, databases and Windows infrastructure. Through a deep expertise in IT operations and a continued focus on what works best, Quest helps more than 18,000 customers worldwide meet higher expectations for enterprise IT. Quest Software can be found in offices around the globe and at www.quest.com