

## Sun Oracle Database Machine Focuses on Optimizing Mixed Workloads

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The Sun Oracle Database Machine hints at Oracle's plans to meld its software into Sun hardware after the acquisition closes, stressing high-performance database management system I/O throughput to mixed workloads.

## NEWS ANALYSIS

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### Event

On 15 September 2009, Oracle announced it will offer four models of the next generation of the Oracle Database Machine (DBM) on Sun Microsystems hardware. The models, exclusive of software license fees, will be offered at several price points based on hardware requirements, ranging from \$110,000 for a basic system to \$1.15 million for a full rack

### Analysis

The new Sun Oracle DBM offers increased performance from almost every component compared with the previous HP version. Important elements include:

- Database servers with two quad-core Intel Xeon E5540 processors supporting Oracle Database 11gR2 Real Application Clusters (RAC) and Automatic Storage Manager (ASM)
- Sun Flash accelerator cards (up to five terabytes)
- Sun's Infiniband switch

With Oracle database 11gR2, Oracle introduces hybrid columnar compression (available only in the Exadata Storage Server, both in the HP Oracle DBM and the new Sun Oracle DBM), for which Oracle claims compression ratios of up to 10X in query mode and up to 50X in archival mode. This enhancement will likely appeal to enterprises choosing between traditional Oracle server and storage platforms and the DBM.

Oracle's release abruptly brings to end-of-life status the HP Oracle DBM, its joint venture with HP. The Sun Oracle DBM offers the only direct upgrade path with continued technical support, other than loosely coupling HP (without Flash) to Sun Oracle under ASM. However, while the DBM will optimize performance through software and hardware algorithms and accelerators, and scales to hundreds of servers, it lacks finer granularity to incrementally scale performance to cost. Nevertheless, its prebuilt, tested and configured appliances can speed up deployment and will enable users to receive service from a single source.

Even before Oracle's April 2009 bid for Sun, the companies worked together on data warehousing reference implementations that used M5000 SPARC servers running Solaris 10. However, the DBM runs on the Oracle Enterprise Linux operating system, rather than OpenSolaris, and on x86, rather than SPARC. Gartner believes this product may be the fruit of a project commenced before the acquisition talks. Oracle's choice of standard, commodity technologies on Linux for this offering could suggest its future Oracle/Sun technology road map.

### RECOMMENDATIONS

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- **Customers with an HP Oracle DBM:** Assume this is end-of-life for the technology. Plan to expand it only by loosely coupling a Sun Oracle DBM or replacing it with a new Sun Oracle DBM.
- **Prospective Oracle customers:** If you have a pending proposal, consider the new Sun Oracle DBMS or ask for a discount of 50% or greater on the HP Oracle DBM hardware.

- **Oracle customers with traditional Oracle server and storage platforms:** Consider this platform as a consolidation strategy for multiple OLTP applications and for improving performance by consolidating the online transaction processing (OLTP) and data warehouse systems on a single RAC system.

## **RECOMMENDED READING**

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- "How Oracle's Acquisition of Sun Will Affect Database Management Systems" — The proposed acquisition raises many questions for customers about the future of Oracle products on competing hardware platforms and the future of the open-source database management system, MySQL. **By Donald Feinberg**
- "Oracle RAC Moved to Mainstream Use" — In February 2009, after more than eight years nurturing and improving the technology, manageability and implementation, Oracle RAC has moved to the mainstream, where it can provide significant advantages to customers. **By Donna Scott and Donald Feinberg**

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