

## Oracle's Exadata Enters the Data Management Hardware Fray

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Through Exadata, Oracle is entering the hardware market with a storage grid and a data warehouse appliance, both optimized for Oracle's database management system.

## NEWS ANALYSIS

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### Event

On 24 September 2008, Oracle announced the availability of the Exadata products: the Exadata Storage Server and the HP Oracle Database Machine. The products offer scalability and high performance at the storage level and deepen Oracle's partnership with HP.

### Analysis

Oracle's Exadata Storage Server product is based on HP hardware, Infiniband connectivity and Automated Storage Management (ASM). The HP Oracle Database Machine adds HP servers running Oracle Database 11g Real Application Clusters (RAC), an Infiniband network and an array of Exadata storage servers to create a data warehouse appliance.

With these two products, Oracle delivers a massively parallel storage grid and database management system (DBMS) that increases overall performance because a portion of SQL code is executed on the storage appliance. A single database machine has about 170 terabytes of storage and can be easily clustered to deploy petabytes of storage. Customers with large databases (such as data warehouses, large transactional systems) processing complex queries will benefit most and are the initial target market.

Oracle will sell and install the products, and serve as the single support contact. (Oracle coordinates the hardware support.) Oracle and HP have firm process designs for supporting the hardware elements of the solution between them. Ultimately, we expect Oracle to succeed in supporting the appliance, but while Oracle support learns HP's support process, customers might experience some delays.

This is a new example of Oracle branching out from its traditional DBMS market — but closer than application acquisitions. Oracle customers now have four data warehouse options — custom warehouses, reference configurations, optimized warehouses or the database machine. Oracle database licenses are transferable among the solutions and customers do not have to migrate or upgrade between any of them. The storage management, database and system management intellectual property are all separate, so migration is no different than a hardware upgrade.

Gartner believes the offering competes directly with HP's Neoview, but HP believes the offerings are complementary and that the Exadata products compete with every other appliance except Neoview. Both HP (Neoview) and now Oracle (Exadata family) have sophisticated database appliances that are optimized for data warehousing. We believe Oracle's scalable hardware platform sets the Oracle data warehouse solution in direct competition with HP's Neoview.

## RECOMMENDATIONS

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- **Oracle large data warehouse customers:** Consider Exadata as a storage appliance for increased performance while keeping in mind it is a new product.
- **Oracle data warehouse prospects:** Consider the HP Oracle Database Machine as a possibility for a data warehouse appliance.
- **HP customers:** Watch carefully as the market develops for the Oracle Exadata family and monitor how effectively it competes with the current HP offerings.

## RECOMMENDED READING

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- "Magic Quadrant for Data Warehouse Database Management Systems, 2007" — The data warehouse DBMS market is in transition due to new entrants, data warehouse appliance fever, large DBMS vendors challenging the data-warehouse-only vendors and the changing workloads affecting the performance of the data warehouse. **By Donald Feinberg and Mark Beyer**
- "RDBMS Software Market Surpasses \$17 Billion in 2007" — In 2007, the relational DBMS market saw strong worldwide growth of 13.3%. **By Colleen Graham**

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