

The **ORACLE** Exadata Database Machine

Hardware and Software,
Engineered to **Work Together**

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The Oracle Exadata Database Machine X2 for SAP software is a new, out-of-the-box optimization solution that not only allows companies to enhance the performance of their IT systems, but also to perform data consolidations.

The Oracle Exadata Database Machine combines both software and hardware in one unique system rack, with all of the components and modules designed to work together. The solution's high-speed connections ensure connectivity.

The database machine's multitude of individual components — and the intelligent way in which they are combined — allows it to deliver outstanding performance, scalability, and stability, as well as IT cost savings in both OLTP and OLAP applications and when consolidating mixed workloads.

Open Up Entirely New Possibilities

The Oracle Exadata Database Machine features a fully integrated platform for database and database-based applications. The machine enables previously unheard of levels of database service, allowing users to implement a highly efficient centralized data pool that features a multitude of system databases.

Ideal for initiating consolidations or supporting ongoing consolidation initiatives, the

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Oracle Exadata Database Machine can bring IT real cost savings. The out-of-the-box approach also means that there is no need to perform the costly integration work that is normally required when using databases in a mission-critical environment. Rather, the Oracle Exadata Database Machine can be implemented and migrated in a short period of time, without requiring a long and expensive project runtime.

The Oracle Exadata Database Machine combines both software and hardware in one unique system rack, with all of the components and modules designed to work together.

Under the Hood: Hardware and Features

Oracle Exadata Database Machine includes hardware components that are particularly beneficial in both grid and cloud computing environments. These components include:

- Two eight-processor x64 database servers with a total of 128 Intel CPU cores and two TBs (X2-8) of memory, or up to 8 dual-processor x64 database servers with a total of 96 cores and 768 GB of memory (X2-2 full rack)
- 14 Exadata Storage Servers with 168 Intel CPU cores and up to 336 TBs of raw storage capacity
- Up to five TBs of Exadata Smart Flash Cache space, which allows users to cache frequently accessed data for extremely fast transaction response times and high throughput
- Multiple compression tiers to manage more data and reduce I/O requirements of OLTP and OLAP data
- 40 GB per second InfiniBand internal connectivity
- 10 GB per second Ethernet external connectivity
- Up to 1,500,000 flash cache IOPS
- Up to 75 GB per second raw flash data bandwidth

Best-in-Class Software

For the Oracle Exadata Database Machine to provide exceptional database services, the software also has to be up to the job. That's why several of the latest intelligent high-performance software components are integrated into the database machine, including features like advanced compression, secure files, advanced security, real application testing, and more. Additionally:

- The Oracle Real Application Clusters (RAC) prevent the database from becoming a single point of failure.

At a Glance

Oracle Exadata Database Machine

- Combines technologies from Oracle and Sun
- Boosts performance in database-supported OLTP and data warehousing applications, while consolidating mixed workloads
- Satisfies even the most stringent security and high-availability requirements
- Makes complex integration work and manual tuning (for database, storage, network, and server components) superfluous
- Optimally supports implementations, migrations, and consolidations for quick, inexpensive project runtimes
- Enables users to implement a highly efficient, centralized data pool featuring a multitude of system databases
- Provides high-level support services from Oracle, Sun, and selected partners
- Is available in a range of rack versions (half rack, quarter rack, full rack) to satisfy individual company requirements

- The Oracle Enterprise Manager software has a unique, top-down design that delivers outstanding service quality at extremely low IT operating costs.
- Oracle Automatic Storage Management (ASM) is designed to satisfy the requirements of an Oracle databases in a grid environment and ensure simple system administration. ASM also delivers a high degree of protection in the event of storage or disk errors.
- Either Oracle Linux or Oracle Solaris 11 can be used as the operating system for the database servers within the Oracle Exadata Database Machine.

Take Advantage of an Enterprise-Ready Solution

The Oracle Exadata Database Machine features everything required to deliver highly efficient database services. This unique solution embodies the comprehensive know-how, extensive experience, and sound knowledge of Oracle and Sun, so companies can be sure they will receive optimum support whether they're introducing, implementing, migrating, or operating the appliance.

This means that companies benefit not only from the database machine's integrated hardware, software, storage, and network technologies, but also from the corresponding support services. The Oracle Exadata Database Machine is scheduled to be available in 2011.

For more information, visit www.oracle.com/sap. ■

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