

## ORACLE EXADATA FOR SAP CUSTOMERS NOW AVAILABLE!

Database Consolidation and extreme Performance for your SAP ERP and BW/BI and more.

The Oracle Exadata Database Machine it is a complete package of servers, storage, networking, and software that is massively scalable, secure, and redundant. With Oracle Exadata Database Machine, SAP customers can reduce IT costs through consolidation, manage more data on multiple compression tiers, improve performance of all applications, and make better business decisions in real time.

**Q:** *Why is the Oracle Exadata Database Machine an ideal optimization tool for companies using SAP? – What are the main benefits for users?*

**A:** The Oracle Exadata Database Machine combines both software and hardware in one unique box. All the database features and storage functionalities are integrated in a system rack (X2-2 and X2-8) and all the components and modules are designed to work together – or in other words: *“Hardware and Software, Engineered to Work Together”*.

The Database Machine is a pre-configured system ready for use on day one. It eliminates significant integration work, cost, and time from the database deployment process as well as the need to deploy a high-performance database system.

Database machines are tested in the factory and delivered ready for use. Because all database machines are the same, their characteristics and operations are well known and understood by Oracle field engineers and support. Individual customers will not need to diagnose and resolve unique issues that only occur on their configuration. Performance tuning and stress testing performed at Oracle on an exact replica of the customer’s configuration ensure better performance and higher quality.

The powerful servers within the Exadata Database Machine (up to 64 cores and 2 TB RAM) allow customers to move multiple small databases to a single server for enhanced management and resource sharing. This can even be supported by a new feature called Oracle instance caging which can dedicate processors to specific instances (a solution that prevents one instance from “hogging” the processors).

- Large databases can be spread over several RAC nodes.
- Exadata is suitable for any kind of load, OLTP, OLAP or a combination of both.

We often refer to the 3 legs of a stool: extreme performance, lower cost, and complete solution. The 3 legs are interconnected, for example, extreme performance leads to less hardware, thus less floor space, cooling, etc. which results in lower cost. Having a complete solution on day one means less setup and configuration time, thus lower cost and so on.

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**Q:** *Is Oracle Exadata only intended for companies using SAP?*

**A:** Oracle and SAP agreed to certify Exadata and Oracle technologies (such as Oracle ASM and Oracle Linux). All companies using SAP are potential customers who can benefit of the Oracle Exadata Database Machine for SAP.

Benefiting most from the Oracle Exadata Database Machine are definitely companies which provide database services based on the Oracle Database and database-based applications using the Oracle Database, such as SAP.

It can be assumed that between 70 and 80 percent of all SAP customers also use Oracle database servers for non-SAP purposes. This group of customers stands to benefit in particular from the Exadata Database Machine.

Exadata can be considered as a consolidation platform for any kind of Oracle database, regardless of the application. If a large number of databases share the platform, this will dramatically reduce administration costs and improve economic viability.

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**Q:** *What position does the Oracle Exadata Database Machine occupy on the market?*

**A:** Optimization is where Oracle is uniquely positioned to help customers meet their unique needs in today's tough economic environment. We also have the experience to help you to solve these problems – helping maximize the return to your business and gain a competitive advantage.

Exadata provides the benefit of a common infrastructure when using a database for SAP and non-SAP applications, whether using OLTP, DW, or a combination of the two. Also, as a platform for consolidating several databases, it creates great opportunity for efficiency in the data center. It is truly a “cloud in a box.”

By consolidating non-SAP related Oracle databases and Oracle databases for SAP through Exadata, a “database farm” is created. Virtually, all relevant SAP customers run several Oracle databases with several SAP application solutions, the result of continuous growth over the last several years. Whether they are databases for SAP ECC 6.0, SCM, SRM or NW, BW all of these “SAP databases” can be consolidated into an Oracle Exadata Database Machine that results in benefits and efficient operation. Such data pooling and all the benefits it brings are an optimization priority for customers with a SAP IT infrastructure.

Compared with proprietary UNIX hardware, customers can save money by using the Oracle Exadata Database Machine with standard CPUs. Unlike proprietary UNIX hardware, Exadata also offers needs-based future compatibility and progressive technologies with prospects.

Oracle allows customers to choose the hardware at the SAP application server level that is most suited to their needs.

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**Q:** *Is there an alternative to the Oracle Exadata Database Machine?*

**A:** The Oracle Exadata Database Machine has a unique position in the market.

To reiterate: The multitude of individual components and the intelligent way in which they are combined make the Oracle Exadata Database Machine unique – *“Hardware and Software, Engineered to Work Together”*.

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**Q:** *How much work is the implementation of the Oracle Exadata Database Machine?*

**A:** The out-of-the-box approach means there is no need for the costly integration work required when using databases in a mission-critical environment. The Oracle Exadata Database Machine can be implemented and migrated in a short time span without lengthy and expensive project runtimes.

It can take weeks or months to build systems from scratch. Testing and validation is also an issue. The Exadata Database Machine does not require schema configuration or tuning since this is completed prior to delivery, reducing deployment time by up to six months is not unusual. It also facilitates the management of storage, operating system, and database, reducing your ongoing cost.

This unique solution embodies the comprehensive know-how, extensive experience and sound knowledge of Oracle and Sun, giving companies optimum support in meeting their business requirements through the use of IT – as we've said before: *“Hardware and Software, Engineered to Work Together.”*

Given this setup, companies can not only access the Oracle Exadata Database Machine with its integrated hardware, software, storage and network technologies, but also the corresponding support services, whether introducing/implementing, migrating or operating the Oracle Exadata Database Machine.

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**Q:** *How do SAP customers benefit from using the Oracle Exadata Database Machine?*

**A:** The Oracle Database Machine is a tested out-of-the-box solution featuring a fully integrated high-availability platform for database and database-based applications. Exadata for SAP enables a previously unheard of database service, allowing users to implement a highly efficient centralized data pool featuring a multitude of system databases.

The Oracle Exadata Database Machine for SAP is ideal for initiating consolidations or effectively supporting ongoing consolidation initiatives, resulting in real IT cost savings.

Business benefits of Oracle consolidations are:

Performance – Massive parallel grid with wide InfiniBand pipes increases data bandwidth between servers; intelligent software offloads data-intensive query processing to storage servers; utilizes latest Intel Xeon processors, DDR3 memory, SAS drives and Smart Flash Caches.

Complete – Hardware, software and networking components delivered pre-configured; uses standard configurations and industry standard hardware; runs Oracle database and options (e.g. Oracle RAC and partitioning).

We would expect to see significant improvements in performance in terms of OLTP and SAP BI/BW.

The Oracle Exadata Database Machine delivers the following benefits while also reducing TCO: best performance and scalability, best deployment flexibility, best availability, best support for very large databases, best database security and best manageability and self-management. It's a fact that Oracle is the market's leading database in the SAP environment.

For the Oracle Exadata Database Machine to provide excellent and beneficial database services, the software 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.

The Oracle Database 11 Release 2 includes features such as Advanced Compression, Secure Files, Advanced Security, Real Application Testing, and more. The Oracle Real Application Clusters (RAC) enables use of clustered and active-active databases. The Oracle Enterprise Manager management software has a unique top-down design that delivers outstanding service quality at extremely low IT operating costs.

The Database Machine also includes Oracle Exadata Storage Software with Oracle Automatic Storage Management (ASM). Oracle Automatic Storage Management is used as the file system and volume manager for Exadata. Oracle ASM provides a consolidated environment where multiple databases can be stored and managed within the same disk group.

Exadata has fully redundant hardware; redundant servers, redundant storage servers, redundant network. So any component can fail and the system as a whole will keep running.

SAP will expand utilities and tools such as BR\*Tools or the Solution Manager to ensure Oracle Exadata Database Machine administration (monitoring) and control from within the SAP environment.

Please see more in SAP Note 1590515 – SAP Software and Oracle Exadata.

More detailed information and best practices can be found in the technical white paper "Using SAP NetWeaver with the Oracle Exadata Database Machine" located on SDN under

<https://www.sdn.sap.com/irj/sdn/ora>