

Sun Oracle Database Machine Frequently Asked Questions

Overview

The Sun Oracle Database Machine is the world's fastest for any type of database workload, and the only database machine that runs transaction processing applications. It is a complete package of software, servers, storage and networking for all data management, including data warehousing, transaction processing and consolidated mixed application workloads.

World's First OLTP Database Machine

Built using industry standard server, storage and networking components from Sun, and Oracle Database 11g Release 2 and Oracle Exadata Storage Server Software from Oracle, the Sun Oracle Database Machine is at least 5 times faster than its predecessor, taking into account both hardware and software improvements.

In yet another industry first, the Sun Oracle Database Machine goes beyond data warehousing applications with the addition of Sun's FlashFire technology for game-changing storage that delivers extreme performance and scalability for transaction processing and mixed workload systems.

Sun FlashFire Technology

At the heart of the Sun Oracle Database Machines are intelligent Sun Oracle Exadata Storage Servers that execute query processing closer to the data. Each Sun Oracle Exadata Storage Server now comes complete with 384 GB of Sun's FlashFire cache storage. This solid-state storage provides intelligent caching of 'hot' data for faster transaction and query processing. With an effective data bandwidth per Server up to 3.6 GB/second for uncompressed data, and 36 GB/second for compressed data, customers can experience extreme performance and scalability for consolidated transaction processing and data warehousing applications.

Customer Benefits

With the Sun Oracle Database Machine's new Hybrid Columnar Compression, customers can store up to ten-times more user data and search data up to ten-times faster, all while making business decisions in real time. The Sun Oracle Database Machine enables Oracle Database customers to run all their applications without change, while fully exploiting the power of all Oracle Database products and features.

Extreme Performance and Scalability

The partnership of industry standard hardware from Sun, and intelligent database and storage software from Oracle, combine to deliver extreme performance and scalability for all Oracle database applications.

Hardware from Sun

- 80% Faster CPUs - Intel Xeon 5500 (Nehalem) processors
- 50% Faster Disks – 600 GB SAS Disks at 6 Gigabits/second
- 200% Faster Memory - DDR3 memory
- 125% More Memory - 72 Gigabytes per Database Server
- 100% Faster Network - 40 Gigabits/second InfiniBand
- Raw disk capacity of 100 TB (SAS) or 336 TB (SATA)

Software from Oracle

- Oracle Exadata Flash Cache to increase random disk I/O's
- Hybrid columnar compression for 10-50x data compression
- Scans on compressed data for even faster query execution
- Storage Indexes to further reduce disk I/O
- Query processing offloads using Exadata Smart Scans
- Scoring of Data Mining models in storage

Frequently Asked Questions

What is the Sun Oracle Database Machine?

The Sun Oracle Database Machine is the next generation of the world's fastest database machine. It offers extreme performance and scalability for data warehousing, online transaction processing and consolidated mixed application workloads.

What are Sun Oracle Exadata Storage Servers?

Sun Oracle Exadata Storage Servers deliver the disk and flash storage for the Sun Oracle Database Machine, or for custom hardware configurations with customers' existing Oracle Database servers

What is Oracle Exadata Storage Software?

Oracle Exadata Storage Software runs on each storage server performing data-intensive processing that reduces the volume of data returned to database servers. Smart Scans, Storage Indexes, Data Mining Model Scoring and Hybrid Columnar Compression are all components of Oracle Exadata Storage Software that enable extreme performance.

What is Sun's FlashFire Technology?

FlashFire technology includes a range of hardware and software products that deliver the performance benefits of flash storage. Exadata Smart Flash Cache leverages Sun's FlashFire technology for faster query and scan performance.

What are the Hardware Components from Sun?

Sun supplies the storage and database server hardware, the Infiniband switches, the rack and console hardware. All of the hardware components for the Sun Oracle Database Machine are provided and supported by Sun, with the exception of the Ethernet switches, supplied by Cisco.

What are the Software Components from Oracle?

Oracle Database 11g Release 2 and Oracle Real Application Clusters run in the database servers and Oracle Exadata Storage Server software run in the storage servers. Oracle Enterprise Linux is the operating system for both storage and database servers.

Is this a Build or Buy System?

Sun Oracle Database Machines are pre-built with a balanced configuration and ready to be implemented in a matter of days, not months.

Will I have to Change my Database Applications?

Any application that runs on Oracle Database 11g should work without change on the Sun Oracle Database Machine. The intelligent Oracle software operates automatically, and is transparent to applications, enabling them to run faster.

Is there a Choice of Configurations?

There are 4 configurations of the Sun Oracle Database Machine; Full Rack (8 Database and 14 Storage servers), Half Rack (4 Database and 7 Storage Servers), Quarter Rack (2 Database and 3 Storage Servers and Single Server 1 Database and 1 Storage Server. All configurations can easily scale processing power, storage capacity and network bandwidth.

How Does the System Scale?

Oracle's Real Application Clusters transparently scales database servers, and Oracle's Automatic Storage Management technology transparently scales the storage nodes. Infiniband connectivity creates a fast and scalable networking fabric.

Can I order the Sun Oracle Database Machine today?

Yes, we are now taking orders for this product. First shipments are expected in October.

Who sells the Sun Oracle Database Machine?

The Sun Oracle Database Machine is sold exclusively by Oracle. Oracle is also the single point of support for the product, in collaboration with Sun to provide the hardware warranty and support.

Can I get a demo of the Sun Oracle Database Machine?

Certainly. Simply contact your Oracle Sales representative to discuss timing and goals.

Where can I find out more?

You can contact your Oracle Sales representative directly or call 1-800-Oracle1. For more information about the Sun Oracle Database Machine on the web, go to:

www.oracle.com/goto/database-machine.

Pricing for the all Oracle Exadata products can found at:

www.oracle.com/pricing.



Oracle Corporation

Worldwide Headquarters

500 Oracle Parkway
Redwood Shores, CA
94065
U.S.A.

Worldwide Inquiries

Phone
+1.650.506.7000
+1.800.ORACLE1

Fax
+1.650.506.7200

oracle.com



| Oracle is committed to developing practices and products that help protect the environment

Copyright © 2009, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

0109