

Sun Microsystems, Inc.

Sun ERP Grid Reference Architecture for Oracle Database 10g - Fact Sheet -

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Market Environment

Most IT organizations are under mounting pressure to deploy reliable and high performance ERP and database solutions with severely constrained capital and expense budgets. Such organizations are expected to find ways to contribute to the competitiveness of the corporation by offering new or improved services: services to internal employees who need better and faster access to business information; and services to external customers who, for example, want more sophisticated tools for online banking.

The Sun ERP Grid Reference Architecture for Oracle Database 10g

The Sun ERP Grid Reference Architecture for Oracle Database 10g provides a high performance, high availability, enterprise-grade ERP/database deployment in a cost-effective grid environment using Linux running on Sun servers. This reference architecture provides a robust, scalable ERP/database platform that maintains or increases customer service levels at a lower total cost of ownership.

The Sun ERP Grid Reference Architecture for Oracle Database 10g:

- Delivers high ERP and database throughput and performance at service levels that are comparable to higher-end symmetric multiprocessor systems (SMPs).
- Ensures high system availability by providing fail-over mechanisms and redundancy to eliminate single points of failure
- Reduces acquisition costs, deployment and operations costs, and total cost of ownership

The Sun ERP Grid Reference Architecture for Oracle Database 10g consists of low-cost servers and other components that, in combination, provide massive horizontal scalability. The following key components provide the best mix of low cost, high performance, and high availability:

- Sun Fire V20z Opteron-based and V65X Xeon-based servers running Red Hat Enterprise Linux 3
- Oracle Database 10g Real Application Clusters (RAC)
- InfiniBand Topspin interconnect hardware and software

This reference architecture addresses customers' key question of whether to use InfiniBand or Gigabit Ethernet in their commercial grid environment

Best of Breed Technology

Key components in combination, provide massive horizontal scalability. The following key components provide the best mix of low cost, high performance, and high availability.

- Sun Fire V20z Opteron-based and V65X Xeon-based servers running Red Hat Enterprise Linux 3
- Oracle Database 10g
- Topspin 90 InfiniBand Switch

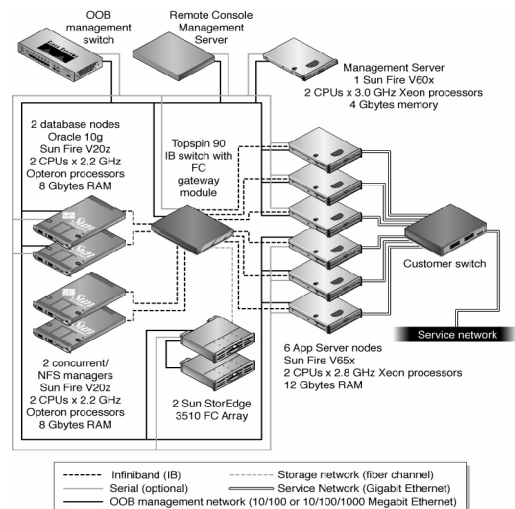
The Sun iForceSM Competency Center for Oracle in Menlo Park, CA, designed, integrated, tested, and tuned this reference architecture using Oracle E-Business Suite 11i on a Oracle 10g instance. The testing measured throughput, performance, utilization, and user-level support for the Forms Server and Concurrent Manager Server components of Oracle eBusiness Suite 11i. The test results supported the conclusion that this reference architecture can deliver SMP-level performance and throughput for ERP/database applications at a lower cost.

Benefits include:

The most compelling benefits of this reference architecture come not from the individual components, but from the combination of complementary elements.

- Scale ERP/database systems incrementally and increase resource utilization by adding small, inexpensive servers.
- Enables flexibility, allowing you to easily reallocate compute resources and bandwidth based on business requirements.
- Higher database throughput, via the integration of Opteron and InfiniBand technology and provides higher performance than grids employing Xeon and Gigabit Ethernet technology.
- Simplifies cabling administration with InfiniBand.

Sun ERP Grid Reference Architecture for Oracle Database 10g Diagram



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Hardware Components

- Sun Fire V20z
- Sun Fire V65X
- StorEdge 3510 with FibreChannel Array
- Sun Rack 1038

Software Components

- Red hat Linux 3.0
- Sun Management Center
- Concurrent Manager Software
- NFS Server Software

Third-Party Components

- Topspin 90 InfiniBand Switch and HCA
- Topspin Element Manager 1.1.3
- Oracle Database 10g RAC (with ASM)
- Oracle Application Server (v9iAS)
- Red Hat Linux 3.0 (32-bit)
- Cisco Catalyst 2750G-24-T Ethernet Switch to Management Network Catalyst 2750G-24-T Customer Switch to Service Network
- Oracle E-Business suite 11i, Release 9

Sun's Reference Architectures

Reference Architectures are designed, tested, tuned and documented proof-of-concept deployment architectures that decrease the complexity of decision-making and deployment while simultaneously increasing reliability and lowering risk.

- Each architecture is completely deployed in Sun's iForce Ready Center in Menlo Park, CA. These architectures serve as a recommended solution, allowing customers to tailor it to their specific requirements.
- The Reference Architectures include extensive testing on real work loads using best-of-class Sun and third-party hardware and software. Complete architecture, implementation, and sizing guides are developed as part of the package. Customers can use the iForce Centers for Proof-of-Concept testing to simulate their own workloads and environments.
- The technical guides can be used by the field and channel partners to develop specific customer implementations, taking advantage of the scenario testing completed during the architecture development.

Complete Life Cycle Management

Sun's Life Cycle Management Program addresses the entire customer experience from proof-of-concept to systems/software implementation to managed services fully customized for individual customer environment. It incorporates all the necessary steps and elements for long-term customer success and lower overall TCO investment.



Ready-to-Deploy Infrastructure

Sun's Customer Ready Systems program (CRS) delivers added value for a wide variety of customers looking to leverage Sun Reference Architectures. The CRS program offers customers flexible Sun-factory integration capabilities and a wide range of services that deliver enhanced reliability, faster deployment times, further contributing to lower TCO.

SunTone™ Quality Initiative

To help customers enhance IT service quality and availability, Sun offers the SunTone Initiative. SunTone is Sun's quality of networked service delivery initiative, validating IT operations excellence through people and process. The first step in achieving quality service delivery is an architecture that supports availability requirements.

SunTone compliant Reference Architectures provide a building block to service delivery quality. Additional building blocks include the optimal people and processes to maintain service quality and availability requirements as customer demands grow. SunTone certification provides an industry collaborative, standards-based quality benchmark for the delivery and management of available, reliable secure IT services that meet customer service level agreements.

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