Frequently Asked Questions
Oracle SuperCluster

Overview

Oracle SuperCluster

Oracle SuperCluster is a secure cloud enterprise infrastructure for Oracle Database and application consolidation. Oracle SuperCluster is an integrated server, storage, networking and software system providing maximum security for end-to-end database and application performance and minimal initial and ongoing support and maintenance effort and complexity at the lowest cost. It is ideal for Oracle Database and best for Oracle application customers who need to maximize return on their software investments, increase their IT agility and improve application usability and overall IT productivity.

Customer Benefits

Ideal for Database and Application Consolidation

Oracle SuperCluster provides unique database, Data Warehouse, OLTP performance, real time analytics, storage efficiency enhancements, unique middleware and application performance enhancements, is engineered and pre-integrated for easy deployment and minimizes overhead backed by the most aggressive support SLAs in the industry.

Core system features and benefits include:

- **Complete Oracle engineered system:** Speed time to deployment by up to 5x compared to build-it-yourself system architectures

- **Advanced security platform:** End-to-end network and data encryption with near-zero performance or efficiency impact; Automated protection from corruption, attacks, and human errors

- **Out-of-the-box security controls:** Fast and easy path to compliance; PCI-DSS secure multi-tenancy

- **Designed for database and application consolidation:** Consolidate up to 500 Oracle Databases with applications together on a single system

- **Automated provisioning of database and infrastructure as a service:** Accelerate database provisioning by 32x

- **Zero-overhead virtualization for multi-tenancy:** Optimize your system utilization by avoiding virtualization overhead and improve consolidation ratios by up to 50%

- **Integrated Oracle Exadata features:** Oracle Exadata Smart Scan increases your database performance by offloading processing to intelligent storage servers; Oracle Exadata Smart Flash Cache improves your response times and throughput; Hybrid Columnar Compression lowers your database response times and throughput; Integrated flash for extreme performance

- **Superfast, low latency, secure InfiniBand networking:** Avoid network performance limitations

- **Oracle Solaris support:** Protect and seamlessly migrate software applications running on Oracle Solaris

- **Comprehensive applications-to-disk management with Oracle Enterprise Manager 12*c*:** Proactively monitor, manage and troubleshoot your entire hardware and virtualization environment

- **Fibre channel connectivity:** Protect your investment in legacy SAN storage and gradual migration to Oracle Database 11*g* Release 2 or higher

- **Oracle Optimized Solutions:** Dramatically reduce your time, effort and risk in deploying Oracle and 3rd party applications

- **Oracle Platinum Services:** Enhanced support for certified Oracle SuperCluster engineered systems with patching, 24/7 fault monitoring, and faster response times—included at no extra cost with Oracle Premier Support

ORACLE®

Frequently Asked Questions

Q: What is the Oracle SuperCluster?

A: Oracle SuperCluster is a secure enterprise cloud infrastructure for Oracle Database and application consolidation. Oracle SuperCluster is an integrated server, storage, networking and software system that provides maximum security end-to-end database and application performance and minimal initial and ongoing support and maintenance effort and complexity at the lowest total cost of ownership. It is ideal for Oracle Database and best for Oracle application customers who need to maximize return on their software investments, increase their IT agility and improve application usability and overall IT productivity.

Oracle SuperCluster M7 offers customers the best price performance in an engineered system for running Oracle database and applications. With up to 16 processors and 8TB of memory, SuperCluster M7 customers can start small with elastic configurations and grow horizontally in-rack and vertically scale to meet data center workload demands now and in the future. Powered by the most advanced microprocessor featuring Software in Silicon technology, SuperCluster M7 delivers advanced security, extreme performance at the lowest cost for any secure cloud enterprise infrastructure solution.

Q: How can Oracle SuperCluster be deployed in my existing data center?

A: Oracle SuperCluster is an excellent choice for consolidation of multiple database and application tiers. Oracle SuperCluster will be installed as a complete and integrated hardware and software engineered system. Connectivity to other systems in an existing data center can be achieved over the 10 GbE NICs included in each Oracle SuperCluster node. Oracle SuperCluster also allows for a gradual migration to Oracle engineered systems by supporting connectivity to an existing SAN infrastructure. Optional Fibre Channel connectivity is available to facilitate migration of data between legacy storage subsystems and the Oracle Exadata Storage Servers that are integrated with Oracle SuperCluster.

Q: What type of applications can run on Oracle SuperCluster?

A: Oracle SuperCluster is best for running Oracle Database and applications on a single engineered system. Applications supported on Oracle Solaris will run on SuperCluster. In addition, applications running on previous versions of Oracle Solaris can be deployed on Oracle SuperCluster using Oracle Solaris Zones or Oracle Solaris Legacy Containers. Access to the Oracle Exadata Storage

Server included with Oracle SuperCluster requires a minimum of Oracle Database 11*g* Release 2 (11.2.0.3). Additional certification is not required unless an independent software vendor (ISV) routinely requires certification for all new platforms.

Q: Can I run In-Memory applications on Oracle SuperCluster?

A: The large 8 terabyte memory footprint of SuperCluster M7 allows many applications to run entirely in memory. Running Oracle In-Memory applications on Oracle SuperCluster provides significant application performance benefits.

Q: What versions of Oracle Solaris and virtualization technologies are supported on Oracle SuperCluster?

A: Using Oracle VM Server for SPARC, multiple application stacks can be deployed on both Oracle Solaris and are fully supported side by side. Additionally, individual Oracle Solaris 11 and Oracle Solaris 10 instances can be virtualized with Oracle Solaris Zones for optimal utilization and application performance.

Q: Is Oracle SuperCluster optimized for Oracle Database?

A: Oracle SuperCluster pre-integrates Oracle's Exadata Storage Servers. For this reason it is well suited for a wide range of high-performance database deployments ranging from scan-intensive data warehouse applications to highly concurrent online transaction processing (OLTP) applications. Because of its support for the latest Oracle Database and its built-in zero-overhead virtualization, and earlier versions of Oracle Database, Oracle SuperCluster is an ideal system for database consolidation. Additional Exadata Storage Expansion racks can be connected to Oracle SuperCluster using high-speed InfiniBand networking.

Q: Is Oracle SuperCluster the right choice for all Oracle Database deployments?

A: Oracle SuperCluster is an ideal system to consolidate both small and large numbers of databases, or to deploy complex, multi-user development, test and deployment environments. Oracle SuperCluster is an excellent choice for all database workloads, ranging from scan-intensive data warehouse applications to real time analytics to highly concurrent OLTP applications.

Q: How do Oracle Exadata Storage Servers work with Oracle SuperCluster?

A: The full capabilities of Oracle Exadata Storage Servers are included with every SuperCluster. Oracle Exadata Storage Servers are specially optimized for Oracle Database11*g*

Release 2 and Oracle Database 12*c* operations and will provide outstanding performance for both transaction-based and decision support workloads. Oracle SuperCluster uses a combination of scale-out storage, InfiniBand networking, database offload, and PCI flash to deliver extremely high performance rates from flash. Exadata Storage Expansion racks can be added for additional performance and capacity.

Q: What if I don't use Oracle Database 11*g* Release 2 or higher?

A: The minimum Oracle Database release required for Exadata and the Oracle Exadata Storage Servers is Oracle Database 11*g* Release 2 (specifically 11.2.0.3). Applications that are dependent on earlier releases of Oracle Database will need to be migrated to enjoy the benefits of Oracle Exadata Storage Servers.

Q: What are some of its other unique capabilities?

A: Oracle SuperCluster incorporates high-speed on-chip encryption engines for data security, low latency QDR InfiniBand or 10 GbE networking for connection to application infrastructure, integrated compute server, network, and storage virtualization through Oracle Solaris Zones, and the mission- critical, Oracle Solaris operating system.

Q: We run smaller databases, will this fit my needs?

A: Oracle SuperCluster is suitable for consolidating smaller Oracle Databases and come with virtualization capabilities that allow customers to run smaller applications in secure Oracle Solaris Zones or virtual machines supported by Oracle VM Server for SPARC.

Q: Are Oracle Solaris Zones supported on Oracle SuperCluster?

A: Yes, Oracle Solaris Zones are a great way to consolidate database and applications on Oracle SuperCluster.

Q: What applications can benefit from the Oracle SuperCluster high availability infrastructure?

A: Oracle SuperCluster is best for Oracle, ISV and custom applications. Its built-in availability features address customers' uptime requirements through hardware availability, through the Oracle Solaris operating system with Predictive Self-Healing and fault management, through Real Application Clusters for database high availability, and through the optional use of Oracle Solaris Cluster, which provides even higher levels of application availability by offering built-in, automated failover of virtual

environments and applications across SuperCluster as well as disaster recovery capabilities.

Q: Are Oracle Optimized Solutions available for Oracle SuperCluster?

A: Yes. Oracle Optimized Solutions dramatically reduce deployment time, effort and risk while maximizing performance using tested and documented best practices. Customers can deliver cloud services "out of the box" using Oracle Optimized Solutions. Oracle Optimized Solutions provide templates that customers can leverage to reduce operating costs on aging assets while delivering a more flexible service environment to internal application users. Customers can quickly deploy enterprise cloud services with 24/7 availability, secure multi-tenancy, and a radically simplified management, patching, and support model. The result is an agile database environment that is better able to support business needs by enabling higher end-user productivity, increased utilization, and reduced IT costs.

[Enterprise Database Cloud with Oracle SuperCluster](#)

[Oracle Optimized Solution for Oracle E-Business Suite](#)

[Oracle Optimized Solution for PeopleSoft Human Capital Management](#)

[Oracle Optimized Solution for SAP](#)

[Oracle Optimized Solutions for Oracle SuperCluster Backup and Recovery](#)

Q: What are the benefits of using Oracle Solaris Cluster on Oracle SuperCluster?

A: Oracle SuperCluster is a highly optimized and reliable system. However, some applications require an additional level of availability that can be obtained only by tightly coupling multiple server units through an advanced OS-based clustering solution. Oracle Solaris Cluster is the clustering solution designed for Oracle Solaris and is optimized to leverage Oracle SuperCluster's redundancy and reliability features. It provides built-in support for a large portfolio of applications, with a wide range of options for virtualized deployment based on Oracle VM Server for SPARC and Oracle Solaris Zones, which are compatible with Oracle SuperCluster configurations. With Oracle SuperCluster customers get the perfect environment for deploying high availability clustering: a pre-integrated hardware cluster and a pre-tested system, which means no errors in cabling, no issues in hardware compatibility; built-in redundancy for network, storage, server, and connectivity; and seamless integration and thorough testing with operating system and clustering software.

Together Oracle SuperCluster and Oracle Solaris Cluster deliver the highest service level for mission-critical applications across all tiers of the data center.

Q: How do I get Oracle Platinum Services at no additional cost for Oracle SuperCluster?

A: Oracle Platinum Services provides enhanced support for high availability and performance with remote patching services performed by Oracle up to four times per year, 24/7 remote fault monitoring and accelerated response times. Customers who purchase a [Platinum-certified Oracle SuperCluster](#) with Oracle Premier Support coverage are automatically eligible for Oracle Platinum Services at no additional cost if they maintain a Platinum-certified configuration and accept connectivity to Oracle. Oracle will enable the services at the time of system installation so customers can begin taking advantage of the services right away. Determine if your Oracle SuperCluster is Platinum-certified and learn more about Oracle Platinum Services at http://www.oracle.com/goto/platinumservices.

Q: How can Oracle SuperCluster be managed effectively?

A: Oracle Enterprise Manger Ops Center 12*c* is included to monitor and manage all aspects of hardware and virtualization configuration. Oracle Enterprise Manager 12*c* provides a complete cloud lifecycle management solution including self-service provisioning and integrated chargeback and capacity planning.

Q: Where can I find more information about Oracle SuperCluster and other Oracle products and services?

Visit the following web pages:

http://www.oracle.com/supercluster

http://www.oracle.com/technetwork/server-storage/solaris/index.html

http://www.oracle.com/technetwork/server-storage/solaris-cluster/index.html

http://www.oracle.com/technetwork/oem/ops-center/index.html

http://www.oracle.com/goto/platinumservices

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