

Solaris™ Cluster

The Best High Availability Solution on Solaris



Highlights

- Integrated High Availability and Virtualization Solution
- Optimum Consolidation Reduces Costs
- Faster Failure Detection and Recovery
- End-to-End Oracle High Availability Solution
- Fencing and Quorum Options for Tailored Solutions
- Broadest Choices in Software, Storage, and Hardware
- From Single Instance High Availability to Global Disaster Recovery

Unleashes the Combined Power of High Availability and Virtualization



Aging data centers, rapidly growing amounts of mission-critical data and application services, increasingly stringent OPEX requirements – these are all trends resulting in enterprises looking for customizable solutions that can protect their data centers, at lower cost, utilizing the most advanced technologies. Today's high availability (HA) solution needs to integrate seamlessly with top notch virtualization technologies, extending the combined capabilities for a single physical server to across clusters of machines and unleashing the unlimited power of virtualization while providing maximum availability to the business services that share resources in these environments. Solaris Cluster, leveraging Solaris Containers and LDom, leads this transformation.

Solaris Cluster Virtualization – Optimum Consolidation, Lower Costs

Solaris Container Cluster optimizes hardware compute resource utilization and significantly reduces software expenses. It enables consolidation of multi-tier applications and databases in a shared cluster of hardware. Each application runs in fully isolated virtual clusters based on Solaris Container virtual nodes that can be configured to cap CPU usage, reducing the number of licenses required and the cost associated while providing highly available consolidated services.

This single, end-to-end, integrated virtualization and high availability platform ensures security isolation, resource management, and fault isolation for enterprises' mission-critical business services.

Solaris Cluster also manages LDom both as cluster nodes and as resources in the nodes by combining LDom framework's migration capability with high availability features to provide robust and reliable deployments in consolidated environments.

Tightest Solaris Integration – Faster Failure Detection, Faster Recovery

Tightly coupled with Solaris, Solaris Cluster detects failures without delay, provides much faster failure notification, application

failover, and reconfiguration time, and significantly reduces services recovery time.

A Single HA and DR Solution for Multi-tier Oracle Applications and Databases

Oracle databases and applications, including Oracle E-Business Suite, Siebel CRM 8, and Oracle single instance and RAC databases, are supported to run in Solaris Container Clusters. Solaris Cluster is the only Solaris-based HA solution that leverages software licensing models based on CPU utilization. The costs of the applications and databases that co-exist in the same cluster of hardware will effectively be reduced by using Solaris Container Clusters.

Enhancing Oracle RAC HA solutions:

- Solaris Cluster supports Oracle single instance and RAC databases on Oracle Automatic Storage Management (ASM) in Solaris Containers to leverage ASM's ease of use and performance while further ensuring high availability
- Solaris Cluster integrates with RDSv1 over Infiniband for Oracle RAC inter-node communication for enhanced performance and scalability
- Solaris Cluster Geographic Edition supports Oracle Data Guard for a complete end-to-end Oracle RAC database global disaster recovery configuration.



Multiple Fencing and Quorum Options for a Tailored HA Solution

Solaris Cluster uses disk fencing to block failing cluster nodes from accessing the cluster data. A cost-effective HA solution requires the complete control of fencing that allows customers to choose the right combination of HA and hardware within budget. Solaris Cluster offers a variety of options including fencing that can be tuned to enable the use of shared storage by systems outside of the cluster and the inclusion of storage with limited or no support of SCSI-based fencing.

To ensure data integrity for new storage configurations, Solaris Cluster provides a quorum device protocol that allows customers to use different types of disks, such as the new high capacity 1TB disk storage, SATA and SSD, as quorum devices. Quorum monitoring is applied to all quorum types, raising the bar even higher for High Availability.

The Broadest Choices in Software, Storage, and Hardware

Solaris Cluster offers out-of-the box support for the largest number of applications, such as Oracle, MySQL, Siebel, SAP, and Sybase, through the pre-built and thoroughly tested Solaris Cluster agents. Customers can also develop agents for custom applications using Solaris Cluster's easy-to-use agent toolkit.

Lower acquisition costs are driving mission-critical services to be deployed on x64/86 platforms. Solaris Cluster applies its rich experience in SPARC-based servers to x64/x86-based servers to ensure the same protection and integration with a broad range of industry-standard hardware and storage arrays for highly available business applications.

Solaris Cluster Across Campus

Solaris Cluster automates failover procedures across a campus or metropolitan area to limit service outages due to local problems, minimizing human error and improving recovery time and overall services availability. Supported replication technologies include EMC SRDF and Hitachi Universal Replicator and Truecopy.

Solaris Cluster Geographic Edition – An End to End Global Solution

As a layered extension of Solaris Cluster, Solaris Cluster Geographic Edition further protects application services from disruptions using a redundant and secure infrastructure between distant clusters. Combined with data replication software, this technology enables applications to tolerate disasters by migrating services to a geographically separated secondary cluster.

Solaris Cluster supports leading replication technologies for more configuration options in global disaster recovery solutions. These replication technologies include Hitachi Universal Replicator and Truecopy, EMC SRDF, Sun StorageTek Availability Suite for a virtualized solution, Oracle Data Guard for end-to-end Oracle RAC databases, and MySQL replication for continuous services running on MySQL databases.

To further extend the flexibility of a disaster recovery solution, Solaris Cluster introduces a script-based replication module that enables developers to integrate specific replication technologies with Solaris Cluster Geographic Edition for custom environments.

Learn More

To learn more about disaster recovery and business continuity with Solaris Cluster, visit sun.com/solaris/cluster

For additional information on the Solaris 10 OS, visit sun.com/solaris

Ease of use

Solaris Cluster's user interface simplifies management through:

- Configuration wizards with Web-based graphical user interface
- Easy-to-use object-oriented command line interface
- Tight integration with Oracle 10g and 11g RAC for easier set up and monitoring
- Automatic installation with default options during configurations
- Optional Solaris Cluster global device for easier installation

Solaris Cluster Services and Support

Sun offers a comprehensive portfolio of services and support that range from installation, implementation, upgrade, training, customized cluster solutions, modular services for configuration, creation of data services, testing, to verification and knowledge transfer for a complete clustered solution with optimal performance and productivity.

Solaris Cluster delivers more than ten years of support for each product version, providing great investment protection for customer deployments.