

# Veritas™ Storage Foundation Cluster File System by Symantec

High performance file system for business-critical applications in physical, virtual or cloud deployments

## Data Sheet: High Availability

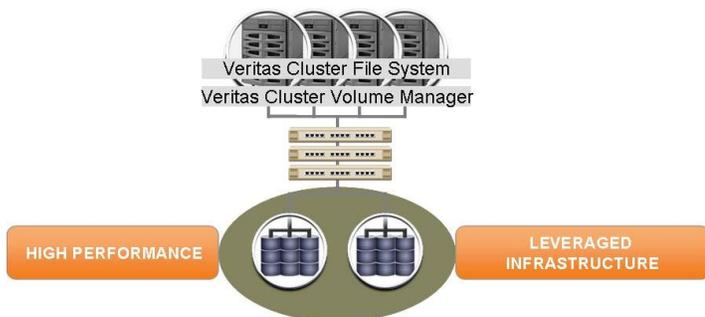


Figure 1. Veritas Storage Foundation Cluster File System Architecture

### Overview

Veritas Storage Foundation Cluster File System is the cornerstone of a highly available environment, delivering faster recovery for business-critical applications -- with reduced complexity and costs.

Compared to traditional single-instance file system implementations, Cluster File System significantly reduces application downtime and improves data access. Because multiple servers share the same storage resources, the length of time it takes to bring storage online is drastically reduced when an application fails. Its high performance file system spans heterogeneous servers to provide concurrent access to data and enables faster failover of applications and databases, such as Oracle, SAP or Tibco.

### Highlights

- **Improves application performance and scalability**—Get parallel processing and add servers dynamically to improve service levels and performance. Cluster File System scales performance linearly by up to 64 servers.
- **Minimizes application downtime**—Because data is available to all servers at all times, failover is simply limited to the time it takes the application to restart. For Oracle RAC, get sub-minute recovery at a fraction of the

cost and complexity. Get higher availability for Linux and Unix environments.

- **Reduces costs with storage consolidation**—Mix and match heterogeneous storage resources, enabling storage consolidation.
- **Perform online storage migrations**—Move application data non-disruptively to support changing business and operational requirements, regardless of storage or platform.

### Improve application and database performance and scalability

An increasing number of applications are achieving scale by running in parallel instances on multiple servers. Some applications of this type operate on data partitions, but more frequently, all instances must operate on a common data set. Because Cluster File System can be mounted on up to 64 cluster nodes simultaneously, it is an ideal solution for application “scale out.” Cluster File System provides a scale-out approach to application availability and delivers optimum performance and optimum data integrity. A critical enabling technology is its load balancing architecture that distributes file ownership across all nodes in the cluster for near-linear performance scalability. Cluster File System is designed for reliable and high-performance file data access across a broad spectrum of enterprise applications, including media applications and unstructured data.

### Minimized application downtime

Cluster File System is tightly integrated with Veritas Cluster, providing a comprehensive failover solution that minimizes both planned and unplanned downtime across all nodes in the cluster. In the event of an application or node failure, the application is dynamically migrated to an available node within the cluster, without interruption. As all nodes in the

cluster have visibility to a shared storage pool, there is no need to manually mount storage to unique nodes in the event of application or node failures.

With Veritas Storage Foundation Cluster File System, the process is quite simple: detect the failure, start the application on the new server and reconnect the clients. Failover time is dramatically reduced.

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### Reduce cost with storage consolidation

Consolidating storage into a single accessible pool helps reduce storage costs and also enables standardization of systems and configurations. Configurations can be cloned easily to increase reliability and repeatability. This standardization reduces administrative complexity and streamlines the provisioning of new systems. With the Dynamic Storage Tiering capabilities of Veritas Storage Foundation, older data can be moved to less expensive storage devices transparently, without downtime. Policies can be created that will dynamically move files based on date created, last time accessed, owner, size, or name.

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### Related Solutions: Virtual Business Services

Today, applications can run as entire business services consisting of multiple components that interact with each other, despite running on different operating systems and virtualization technologies. Not only does a failed component need to be recovered, but it must also be reintegrated into the complete business service. For an end-to-end application monitoring platform, use Virtual Business Services - included with Veritas Cluster Server and managed through Veritas Operations Manager. Virtual Business Services is aware of the complete business service and can take action in the event of a failure. When an individual component of the service fails, Veritas Cluster Server will not only recover the failed application, but in conjunction with Operations Manager, will also automatically orchestrate the connection to other

computing resources needed to keep the business service available. The end result is faster recovery and minimal downtime—all with no manual intervention for all of your business-critical applications.

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### Supported platforms

- IBM AIX®
- HP-UX®
- Sun Solaris™ SPARC
- Sun Solaris x86
- SUSE Linux®
- Red Hat® Linux

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### More Information

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