



Product Brief: Veritas Storage Foundation Cluster File System

Introduction

Veritas Storage Foundation Cluster File System enables concurrent file access from multiple servers to provide a flexible, high-performance, and highly available platform for shared data in a SAN environment. It's built for commercial transactional workloads and provides a mature single file system schema that is cache-coherent and POSIX-compliant.

A cluster-wide volume and file system configuration allows for simplified management. Organizations also benefit from an integrated cluster volume manager that presents every node in the cluster with the same logical view of shared device configurations.

Product Overview

The industry-proven Cluster File System provides Cluster File System on top of Veritas Cluster Volume Manager (CVM) to deliver storage consolidation and simplified storage management and scalability for server farms.

Dynamic Multi-pathing (DMP) is included to provide multiple paths from server to storage to enable load balancing and fast failover. DMP is highly scalable; it is not uncommon to support thousands of LUN paths in a single installation.

Veritas Cluster Server is also fully integrated to provide a complete high availability solution.

Key Use Cases

Fast Failover

For businesses that want to absolutely minimize downtime. Because the file system is already mounted on every node in the cluster, there is no need to wait for the file system to mount and for disks to come online after a failover.

NFS Replacement

For business critical applications that require scalability and availability. Typical applications include TIBCO messaging, SAP, ETL workloads, and business intelligence.

Parallel Applications and Data Sharing

Symantec expertise has been demonstrated on Oracle RAC, with more solutions emerging. Applications include SAS, Informatica, Sybase, home-grown data-sharing, and compute clusters.

CFS Key Benefits

- Market tested, long standing product with a history of best-in-breed file management and data integrity
 - Cache coherency model allows for robust file sharing
 - DST (dynamic storage tiering), Checkpoints and all other local VxFS features are fully supported.
- Heterogeneous solution for the entire Unix datacenter
 - No other cluster file system vendor provides the breadth of platform support
- Integration with Veritas Cluster Server to provide a full HA solution
- Strong integration with DMP and CVM ensures a resilient and highly supportable infrastructure
 - Shared agreement on cluster membership, path and volume naming
 - IO Fencing model ensures protection against cluster “split brain” scenarios
- POSIX lock compliance
 - Ensure data integrity
 - Ensure proper recovery
- Better Scalability
 - New scalable architecture provides the highest level of scalability
 - Multiple Transaction Servers architecture load balances metadata transactions
- Concurrent file access
 - Parallel access to files
 - Storage consolidation possible because no need to maintain multiple copies of files for server farms
- Quick and Non-Disruptive Failover
 - File System already mounted on all nodes in a cluster, no need to wait for FS mount and disks to come online when failover occurs
 - Really fast application failover (as a result of above)
 - Automated primary server failover
- Ease of Management
 - Storage for all Servers administered as a single entity (commands can be run on any node, only need to manage 1 FS instead of multiples)
 - Single file system schema
- Higher performance and reliability than NFS
 - Avoids NFS bottlenecking which leads to general problems of scaling