

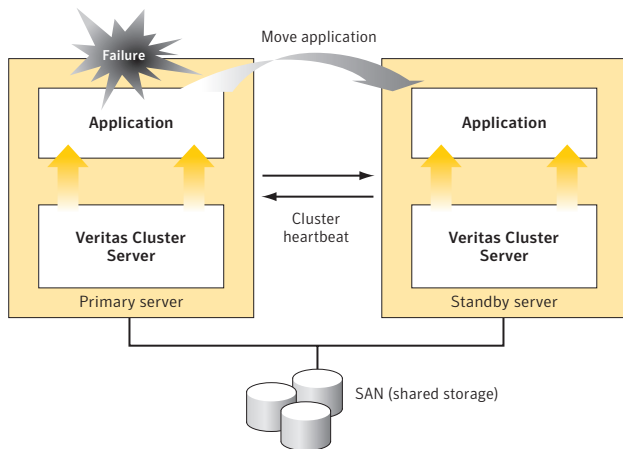
# Veritas™ Cluster Server by Symantec

## Reduce application downtime

Veritas Cluster Server is the industry's leading clustering solution for reducing both planned and unplanned downtime. By monitoring the status of applications and automatically moving them to another server in the event of a fault, Cluster Server can dramatically increase the availability of an application or database.

Veritas Cluster Server can detect faults in an application and all its dependent components, including the associated database, operating system, network, and storage resources. When a failure is detected, Cluster Server gracefully shuts down the application, restarts it on an available server, connects it to the appropriate storage device, and resumes normal operations.

Cluster Server can temporarily move applications to a standby server when routine maintenance such as upgrades or patches requires that the primary server be taken offline.



**Figure 1. In the event of failure of a mission critical application, Veritas Cluster Server gracefully fails over the application stack, including associated directory, network and disk group resources.**

### Highlights

- **Comprehensive hardware and platform support**—Using the same tool across platforms reduces training, administrative, and hardware costs
- **Out-of-the-box support for applications and databases**—Guarantees application compatibility, reduces time to deployment, and cuts consulting costs
- **Availability across any distance**—Builds both local and remote clusters for disaster recovery and local availability
- **Automated disaster recovery testing**—Tests both failover and replication configurations without affecting the primary environment
- **Multi-cluster management and reporting**—Manages and reports on multiple local and remote clusters from a single console
- **Simple to install, configure, and maintain**—With wizard-driven installation and simulated failovers, is easier to implement and manage than any other clustering product
- **Support for all replication technologies**—Provides flexibility to use any of the major replication technologies for disaster recovery
- **Advanced failover logic**—Ensures that server resources are utilized as efficiently as possible by failing over applications to the most appropriate server
- **Advanced virtual machine support**—Provides clustering support for virtual machine architectures

### Comprehensive hardware and platform support

Most clustering solutions require identical hardware and operating system environments for implementing a clustering solution. This can be an expensive and restrictive solution since customers need to ensure platform parity in a cluster.

Veritas Cluster Server is the only solution that can support all leading operating systems, including UNIX, Windows,<sup>®</sup> Linux and virtual platforms, as well as the widest range of heterogeneous hardware configurations. Using Veritas Cluster Server, customers can add clustering to the current infrastructure without having to purchase additional hardware. Organizations can mix and match the servers and storage within a single cluster and share storage infrastructure. Using the same tool across platforms reduces training, administrative, and hardware costs.

### Out-of-the-box support for applications and databases

Veritas Cluster Server provides off-the-shelf support for a wide range of applications, including, but not limited to, applications such as SAP, BEA, Siebel, Oracle<sup>®</sup> Applications, Exchange, and PeopleSoft as well as enterprise-class databases such as Oracle, DB2,<sup>®</sup> SQL Server, and Sybase. In addition, new agents are continually being developed to support upcoming new applications. For custom-built applications, custom agents can be created by Symantec Consulting or end users.



Figure 2. Sample of supported applications, databases, and storage

### Availability across any distance

Building an infrastructure for high availability at a local site may meet many availability requirements of business, while other requirements may involve greater protection that spans across multiple locations. With one tool, Veritas Cluster Server, organizations can deploy both local clustering and remote clustering for complete disaster recovery. With the single click of a button, Veritas Cluster Server can migrate applications between single servers in a local data center or move all applications to a data center several thousand miles away.

### Automated disaster recovery testing

Because data center servers and applications are constantly changing, regularly testing a disaster recovery strategy is critical to guarantee a successful recovery in the event of a system or site-wide outage. To better guarantee the success of a disaster recovery strategy, Veritas Cluster Server includes Fire Drill, a tool that automates testing, reducing

the time and expense of disaster recovery testing. Veritas Cluster Server is the only solution that integrates automated testing with a market-leading disaster recovery solution. Now administrators can make frequent changes to the IT infrastructure and simultaneously reflect those changes at a remote site. And because using Fire Drill does not disrupt production applications, it can be run as often as necessary.

### Multi-cluster management and reporting

With the increasing number of applications and heterogeneous clustered servers distributed across multiple data centers, management of clusters can be painful. From the Cluster Management Console of Veritas Cluster Server, customers can now monitor, manage, and report on Veritas Cluster Server implementations on different platforms from a single Web-based console. The Veritas Cluster Server management capabilities increase administrator efficiency by providing enhanced visualization of the managed clusters, centralized control for global applications, and complete reports of each application's availability status. Veritas Cluster Server also reduces application downtime by helping administrators avoid common cluster configuration mistakes, audit unexpected cluster configuration changes, and provide a standard way for administrators to detect and investigate cluster problems and track management history of all the managed clusters.

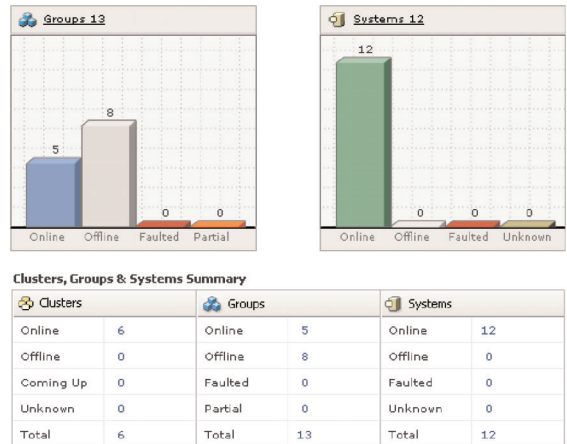


Figure 3. In the Cluster Management Console, one can view the status of all the clusters in a data center.

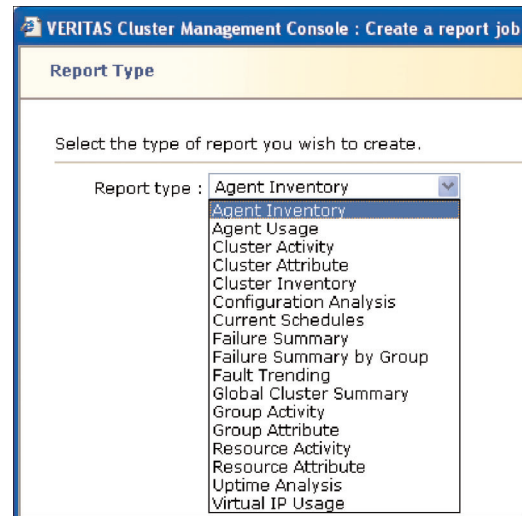


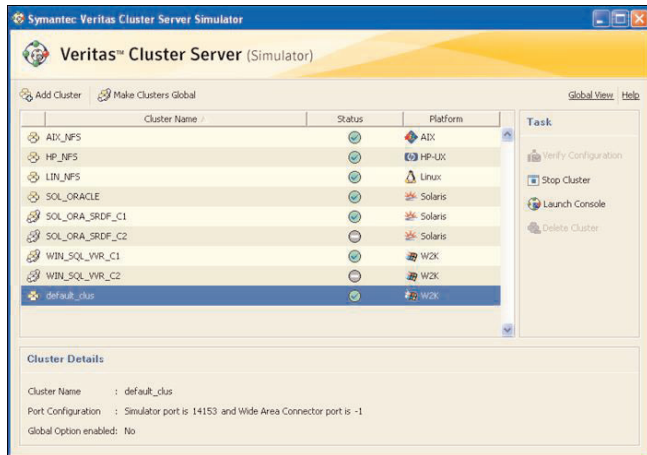
Figure 4. You can generate 17 predefined reports in Veritas Cluster Server.

### Simple to install, configure, and maintain

Veritas Cluster Server provides administrators with easy-to-use configuration wizards for simplified storage management and cluster implementation. Cluster Simulator, a feature of Cluster Server, allows cluster administrators to simulate application failover scenarios and familiarize themselves

## Data Sheet: Server Management Veritas Cluster Server by Symantec

with Veritas Cluster Server. Cluster Simulator helps administrators simulate high availability environments from their laptops and test multiple application failover scenarios without affecting production environments.



**Figure 5. By using Veritas Cluster Server Simulator, administrators can ensure that critical applications are running on an optimal set of servers in the cluster configuration.**

### Support for all replication technologies

Since a good disaster recovery plan should include both data and application availability, Veritas Cluster Server supports all major hardware, software, and database replication technologies. Veritas Cluster Server completely automates the process of replication management and application startup at the remote site without the need for complicated manual recovery procedures involving storage and application administrators. Veritas Cluster Server provides all the necessary logic to completely control the underlying synchronous or asynchronous replication configuration.

In addition to the Veritas Volume Replicator Option by Symantec, Veritas Cluster Server provides full support for all major third-party data replication solutions, including

Hitachi TrueCopy, HP Continuous Access XP, EMC SRDF, EMC MirrorView, NetApp® SnapMirror, IBM® Metro Mirror, IBM Global Mirror, IBM HADR, Oracle DataGuard, and others.

### Advanced failover logic

With Veritas Cluster Server, IT administrators can set failover policies based on server capacity. Veritas Cluster Server then chooses the best server for a specific application at the time of failure based on application needs and the current state of resources in the cluster. It allows true N+1 “roaming spare” capability for maximum availability without the cost of a dedicated spare per application. When a failure occurs, Veritas Cluster Server can automatically choose the least utilized server and automatically add repaired servers back into the selection pool when they rejoin the cluster. Advanced failover logic in Veritas Cluster Server ensures that application uptime is maximized and server resources are utilized as efficiently as possible.

### Advanced virtual machine support

With virtualization technologies, multiple virtual machines are commonly hosted on a solitary physical server. A failure of that physical server can lead to a loss of availability for several applications. As a result, the need to provide for highly available services increases with the use of virtualization technologies. Veritas Cluster Server provides a single solution for clustering both physical and virtual systems. With Cluster Server, administrators can monitor an application running within a virtual machine and recover it in the event of a failure.

### Supported operating systems

For complete operating system support, please visit [support.symantec.com](http://support.symantec.com) or contact your local Symantec representative.

- IBM AIX®
- HP-UX
- Sun™ Solaris™
- Linux
- Microsoft® Windows

### More information

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