

Veritas™ Cluster Server for SAP Solutions

Keep your SAP landscape online, all the time with Veritas Cluster Server

Key benefits

- Reduce planned and unplanned downtime of SAP NetWeaver and mySAP Business Suite applications
- Simplify the administration of the complex environment with a single interface
- Automate remote failover for disaster recovery

Many organizations rely on SAP NetWeaver as the platform for execution of business processes. As an organization's information systems become increasingly integrated and interdependent, the potential impact of failures and outages grows to enormous proportions.

The challenge for IT organizations is maintaining continuous SAP application availability in a complex and interconnected application environment. The difficulties include:

- The application environment is complex and heterogeneous
- N-tier applications have many potential points of failure
- The application infrastructure is in constant change
- Downtime is not an option
- Businesses face escalating risks and costs

Complex and heterogeneous application environment

The SAP NetWeaver environment has multiple components that form the execution environment, including the database server, Central Instance, Standalone Enqueue (part of the Central Services instance) and Enqueue Replication Servers, and Dialog instances. SAP applications are built to run on these components. Between the application and the end user, however, are several other components, such as Web servers, load balancers, and

the logical IP address infrastructure. Because application delivery depends on the total environment, the operations team must be able to manage and maintain application servers, operating systems, storage systems, network infrastructure, and databases. To reduce the administrative costs while improving availability, IT organizations need a single interface for managing all components of the application environment across different platforms and databases.

N-tier applications have many potential points of failure

To access the application, the user needs the entire application infrastructure to be working. The more tiers and components supporting an application, the more potential points of failure need to be protected. Building redundancy at a component level at each layer increases the complexity of the IT environment—and hence the cost of managing that environment. IT organizations need an end-to-end approach to protecting SAP application availability, the database, and the necessary components.

The application infrastructure is in constant change

The infrastructure on which a certain SAP solution depends is made up of so many different levels and components and is essentially a moving target, with firmware updates, patches, capacity upgrades, and maintenance on storage hardware. These changes are necessary; however, every change introduces the potential for error and system instability. IT organizations need an integrated solution for SAP application and database availability during planned and unplanned downtime.

Downtime is not an option

SAP solutions are usually critical to an organization's daily operations, and thus downtime—planned or unplanned—is not affordable. With global operations, the few hours that operations staff once had in the middle of the night are now business hours somewhere around the globe, making planned downtime increasingly scarce and expensive.

Unplanned downtime may interrupt critical business processes and cost companies thousands of dollars or more per hour. In an inherently volatile environment, IT organizations need the ability to upgrade, test, maintain, and deploy infrastructure components non-disruptively. They need the time to maintain applications and correct problems as they occur, without interrupting application access.

Businesses face escalating risks and costs

In a complex system landscape, the risk of application downtime escalates. To mitigate this risk, companies are increasing their expenditures on equipment for redundancy and operational staff. And by increasing the complexity of the infrastructure, IT organizations increase training and administrative costs.

To reduce the cost and risks of maintaining SAP landscapes, companies need an end-to-end solution for application availability that lets them manage the entire landscape with a single interface. They need the ability to manage change proactively, swapping or upgrading components without disrupting users' access to the application. And for business continuity purposes, they need to migrate applications to alternate sites, and to leverage the alternate site investment.

Clustering services can protect against server, application, and database downtime by eliminating the single point of failure found within a single server. A cluster is a group of computers that work together to run a set of applications and provide the image of a single system to the client and application. The computers are physically connected by cables and programmatically connected by cluster software. The servers within the cluster remain in constant communication. If one of the servers or resources running on the server in a cluster becomes unavailable as a result of failure or maintenance, another server immediately begins providing service, a process known as failover. Users can continue to access the service and are unaware that it is now being provided from a different physical server.

Veritas Cluster Server for SAP availability

Veritas offers an end-to-end, fully integrated solution for ensuring highly available SAP landscapes. **Veritas Cluster Server** eliminates planned and unplanned downtime by clustering critical applications and the resources they require. The Veritas Cluster Server environment running SAP uses Cluster Server agents to monitor and track the SAP system, database, and file server.

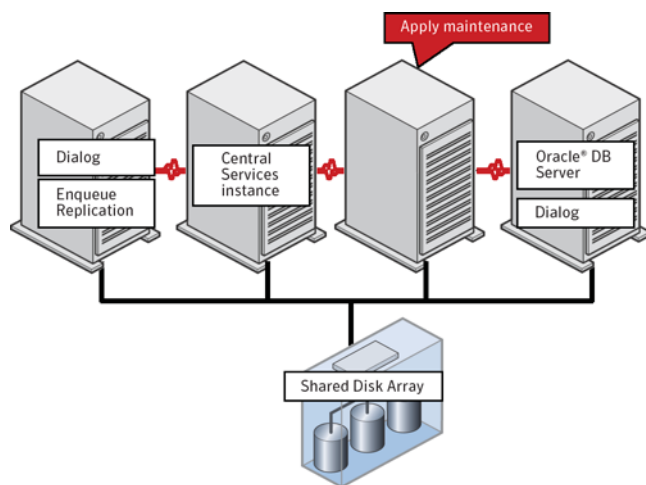
The Symantec™ High Availability and Disaster Recovery Solution for SAP enhances both local and remote availability for critical SAP applications.

Local availability: Veritas Cluster Server creates a highly available environment that helps you:

- Manage complexity by providing a single interface for starting, stopping, monitoring, and maintaining SAP applications

Data Sheet: Clustering Veritas Cluster Server for SAP Solutions

- Manage change by proactively moving applications to enable dynamic maintenance and testing
- Improve availability with automated, application-specific monitoring and failover when problems occur—and with fast reconfiguration when the problem is resolved
- Improve server utilization by consolidating servers and making better use of resources



Veritas Cluster Server monitors each component with application-specific agents, and maintains connections between servers to determine system availability. With this infrastructure in place, Veritas Cluster Server supports both planned and unplanned downtime scenarios.

Remote availability: Creating a highly available local clustering environment protects critical SAP applications from a wide range of component failures as well as supporting preventative and proactive maintenance without service disruption. However, it still leaves companies vulnerable to site-wide disruptions. Many companies are giving their business continuity planning efforts renewed emphasis in recent years, and critical SAP applications are a logical place to start planning. Once you have the local availability infrastructure in place, you can leverage your existing architecture and build an alternate site for remote availability and disaster recovery.

By adding data replication and remote clustering to your highly available SAP landscape, you gain the ability to switch over an entire application site between geographically distributed data centers quickly and accurately.

Thus, Veritas Cluster Server for SAP provides tangible, demonstrable results, helping reduce the complexity of the SAP application environment while meeting your service-level goals.

Supported platforms and Veritas Cluster Server versions

Veritas Cluster Server for SAP (UNIX)	
Application versions	SAP R/3 4.6C with 4.6D Kernel, 4.6D, 4.7 (Enterprise), and SAP NetWeaver applications based on the Web Application Server 6.20, 6.40, 7.00 (NW04, NW04s)
Platforms	Solaris™, AIX®, HP-UX, Linux®, VMware Linux guests
Services supported	Central Instance Application (Dialog) Servers SAP Central Services (SCS containing Standalone Enqueue Server) and Enqueue Replication Server

Veritas Cluster Server for SAP (Windows)	
Application versions	SAP R/3 4.6C with 4.6D Kernel, 4.6D, 4.7 (Enterprise), and SAP NetWeaver applications based on the Web Application Server 6.20, 6.40, 7.00 (NW04, NW04s)
Platforms	Microsoft® Windows® 2000 (SP4) Microsoft Windows Server® 2003 Microsoft Windows Server 2003 (x64) Microsoft Windows Server 2003 (IA-64)
Services supported	Central Instance Application (Dialog) Servers SAP Central Services (SCS containing Standalone Enqueue Server) and Enqueue Replication Server

For the latest information on supported platforms and Veritas Cluster Server versions, see the Symantec Web site at: <http://go.symantec.com/vcs>

Related products

Veritas Storage Foundation provides online storage management and gives administrators the flexibility to move data between different operating systems and storage arrays.

Veritas Volume Replicator reliably, efficiently, and consistently replicates data to remote locations over any IP network for maximum business continuity.

For more information, visit:

<http://go.symantec.com/vcs>