High Performance SAP Clusters
High Availability and Disaster Protection

Key Benefits

Provide Superior Protection

- Protects your entire SAP stack with high availability clustering, continuous data replication, and disaster recovery functionality

- Enables single- and multi-site clusters using existing servers and storage

- Supports both JAVA and ABAP versions of SAP servers running on Red Hat Enterprise Linux, SUSE Linux Enterprise Server, or Windows and accommodates a wide range of storage architectures.

Make Clusters Easy

- Intuitive, wizard-driven GUI simplifies installation, configuration and management

- Supports physical, virtual or cloud environments and a wide range of storage architectures

Save Money

- HIgh performance for a fraction of the cost of a traditional cluster

- Reduces data transfer costs in cloud environments

- Efficient replication engine minimizes network traffic—without hardware accelerators or compression devices.

- Saves labor cost by automating data replication tasks using an intuitive management console

SIOS SAN and #SANLess clustering software provides comprehensive SAP-certified protection for your applications and data, including high availability, data replication, and disaster recovery in an easy, cost-efficient solution. Combine SIOS software with the power and performance of SanDisk Fusion ION Accelerator or SanDisk Fusion ioMemory products for high performance and complete SAP data availability at a fraction of the cost of a traditional SAN-based cluster.

SIOS software lets you build Clusters Your Way™ to protect SAP in any configuration (or combination) of physical, virtual, cloud (public, private, and hybrid) and high performance flash storage environments such as SanDisk Fusion ioMemory. SIOS software provides easy and flexible configuration, fast replication, and comprehensive monitoring and protection of the entire SAP application environment.
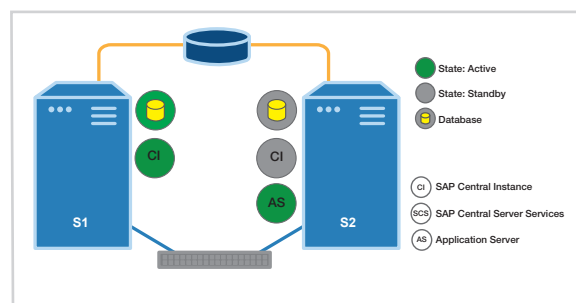
SIOS and SanDisk for Performance and Protection

SIOS software lets you build an SAP cluster using high performance local storage, such as SanDisk Fusion ioMemory products and SanDisk's all-flash shared storage appliance, ION Accelerator, giving you faster SAP response times for a fraction of the cost of a traditional clustering solution. ION Accelerator is SAP Certified Enterprise Storage Hardware for SAP HANA.

SAN or #SANLess Clusters

You can use SIOS Protection Suite™ software to build a traditional SAN-based cluster and add SanDisk Fusion ION Accelerator for fast SAP application acceleration. Or you can use SIOS software to build a #SANLess cluster by synchronizing local storage on the active SAP Server with local storage on a standby server using real time, block-level replication. Replication can operate in either synchronous or asynchronous mode. Use Fusion ioMemory products in your #SANLess cluster to scale performance and provide high availability protection without the cost or complexity of a SAN.

Continuous Monitoring of the Entire SAP Environment

Unlike traditional clustering software that only checks that the server is alive, SIOS Protection Suite software monitors the health of the entire SAP environment and provides application-aware high availability to ensure maximum uptime. SIOS software verifies that SAP is running, file shares

State: Active
State: Standby
Database

CI — SAP Central Instance
SCS — SAP Central Server Services
AS — Application Server

S1   S2

or NFS exports are available, databases are mounted and available, and clients are able to connect.

SIOS software actively monitors: servers, operating systems, SAP Primary Application Server (PAS) Instance, ABAP SAP Central Service (ASCS) Instance, back-end databases (Oracle, DB2, MaxDB, MySQL and PostgreSQL), the SAP Central Services Instance (SCS), volumes or file systems, file shares or NFS mounts, IP and virtual IP, Enqueue and message servers,and Logical Volumes (LVM).

Automatic or Manual Failover

In the event of a failure on the active server, SIOS software moves SAP operation to the standby server. SIOS software lets you configure standby servers that are either local or remote over a LAN or WAN. Real-time replication ensures immediate recovery from a local system failure and allows you to create multiple real-time copies through one-to-many replication.

SIOS clusters can also stop and restart the application both locally and on another cluster server at either the same site or at another geographic location. When the SIOS software detects a problem, it automatically initiates one of three configurable recovery actions that will maximize uptime and protection for applications and data: it may attempt a restart on the same server; switchover to a standby server; or alert a system administrator. It performs both local recovery or complete failover quickly and easily.

SAP Disaster Recovery

The SIOS software makes DR testing easy by allowing administrators to move SAP to the DR site for testing and to move it back to the primary site when testing is done. It also lets you leave SAP in service in the primary site while completing DR testing with no impact to your production network by unlocking the target data, bringing SAP into service on the backup system to verify recovery.

About SIOS

SIOS delivers innovative software solutions that provide application availability and disaster protection for Windows and Linux environments.

Clusters Your Way.™

Essential to any cluster solution, SIOS SAN and #SANLess clustering software provides the flexibility to build clusters your way to protect your choice of Windows or Linux environment – and any configuration (or combination) of physical, virtual and cloud storage – without sacrificing performance or availability. SIOS provides unique #SANLess clustering software that eliminates both the cost and the single-point-of-failure risk of traditional SAN-based cluster solutions.

Founded in 1999, SIOS Technology Corp., is headquartered in San Mateo, California, and has offices throughout the United States, United Kingdom, and Japan.

About SanDisk

SanDisk Corporation (NASDAQ: SNDK), a Fortune 500 and S&P 500 company, is a global leader in flash storage solutions. For more than 25 years, SanDisk has expanded the possibilities of storage, providing trusted and innovative products that have transformed the electronics industry. Today, SanDisk's quality, state-of-the-art solutions are at the heart of many of the world's largest data centers, and embedded in advanced smart phones, tablets and PCs. SanDisk's consumer products are available at hundreds of thousands of retail stores worldwide. For more information, visit www.sandisk.com.

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