



# 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 Fusion ION Accelerator or 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 Fusion ioMemory. SIOS software provides easy and flexible configuration, fast replication, and comprehensive monitoring and protection of the entire SAP application environment.

### SIOS and Fusion-io for Performance and Protection

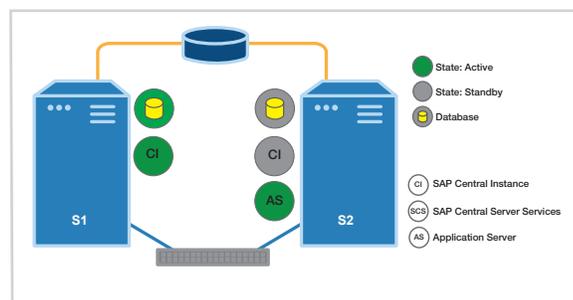
SIOS software lets you build an SAP cluster using high performance local storage, such as Fusion ioMemory products and Fusion's all-flash shared storage appliance, ION Accelerator, giving you faster SAP response times for a fraction of the cost of a traditional clustering solution. ION Accelerator is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

## 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 Fusion-io

Fusion-io delivers the world's data faster. The Fusion ioMemory platform accelerates databases, virtualization, cloud computing, big data, and the applications that drive our economy and our daily lives.

Integrating hardware and software to overcome the limitations of legacy storage architectures and specialized hardware, Fusion ioMemory accelerates businesses from the smallest online retailers to the world's largest data centers, social media leaders, and Fortune Global 500 businesses. The persistent, high capacity ioMemory platform leverages flash memory to significantly increase datacenter efficiency, with enterprise grade performance, reliability, availability, and manageability.

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Integration with SAP NetWeaver®



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