

# Data and Application Availability Management

DISASTER RECOVERY

• HA CLUSTERING

• DATA PROTECTION

## LifeKeeper® Protection Suite for SAP

### Key Features:

- Supports Red Hat and SUSE Linux and all versions of Windows 2000/2003
- Monitors and provides switchover for complete SAP application stack including
  - Central Instance (ABAP)
  - Central Services (Java)
  - Database
  - NFS Mounts or File Shares
  - Message and Enqueue services
  - Replicated Enqueue on backup servers
  - IP Addresses (via Virtual IP)
  - Logical Volumes (LVM on Linux)
- Supports for both ABAP and Java configurations
- Protect databases using Oracle, DB2, SQL Server, MaxDB
- Clusters can be built using shared SCSI, Fiber SANs, NAS devices or data replication
- Active/Active and Active/Standby configuration support
- SteelEye is a winner of the prestigious SAP Pinnacle Award for Outstanding Product Development

### High Availability Clustering, Data Replication and Disaster Recovery for SAP

What does it cost your business when your SAP system is down due to a hardware failure, an administrator mistake or for maintenance activities? The impact can range from thousands of dollars loss in sales per minute to significant drops in employee productivity and customer satisfaction. Through the implementation of a high-availability cluster configuration, downtime from both planned and unplanned outages can be virtually eliminated. SteelEye and SAP AG have worked closely together to ensure that the availability needs which corporate users have for critical business infrastructure running on Linux and Windows platforms are achieved through the deployment of monitoring and switchover solutions for SAP Application Server (AS) and both JAVA and ABAP Web Application Server (WAS) environments.

Switchover is a standard technique to increase the availability of critical SAP Application Server and SAP Web Application Server environments by clustering together a number of servers (a primary and one or more standby servers) to eliminate single points of failure within the SAP topology. Switchover operates by constantly monitoring all components of the SAP solution stack, including servers, databases, network connections and the SAP services themselves, and taking an automatic recovery action on detection of any problem. The recovery often includes a first attempt to perform "local recovery" by bringing SAP back into service on the primary server. If not possible due to a hardware outage or not successful for any other reason, the recovery process will then bring SAP in service on a stand-by server configured within the switchover cluster. In most instances, switchover takes less than three minutes, greatly reducing downtime from system failures.

Since 2002, SteelEye's LifeKeeper for SAP has provided switchover protection for SAP AS and WAS installations throughout the world. LifeKeeper, available for both Red Hat and SUSE Enterprise Linux distributions as well as Microsoft Windows Server 2000 and 2003, uses lightweight agents which constantly monitor the operation of all pieces of an SAP solution. Should any of these agents detect a problem with the components being monitored, LifeKeeper will automatically begin a recovery procedure which restores SAP to full operation with minimal impact on end-users and applications. LifeKeeper protects all SPoFs including the back-end database (Oracle, DB2, MaxDB, SQL Server), NFS mounts, and the SAP Central Instance services to ensure the full end-to-end protection SAP solution stack is always available. In addition to protecting against downtime, LifeKeeper can be used to manually migrate services and client connections between systems to eliminate downtime associated with planned maintenance.

### About SteelEye Technology

SteelEye, an SAP Development Partner, is the leading provider of data and application availability management solutions for business continuity and disaster recovery for Linux and Windows. The SteelEye LifeKeeper family of application-focused data replication, high availability clustering and disaster recovery solutions are easy to deploy and operate, enabling enterprises of all sizes to ensure continuous availability of business-critical applications, servers and data.

To learn more, visit [www.steeleye.com](http://www.steeleye.com) or call

1.877.319.0108  
(US and Canada)

1.650.843.0655  
(International)



**SteelEye**  
TECHNOLOGY INC

# SteelEye LifeKeeper Ensures Availability of SAP Solutions



Bob Williamson  
Vice President of  
Products,  
SteelEye Technology

When your SAP system is down due to hardware failure, an administrator mistake, or maintenance activities, the business impact can range from thousands of lost sales dollars to significant drops in employee productivity and customer satisfaction. Implementing a high-availability cluster configuration can virtually eliminate downtime from these planned and unplanned outages.

SteelEye and SAP AG have worked together to ensure that users' availability expectations for business-critical infrastructure components running on Linux are achieved through the deployment of monitoring and switchover for SAP NetWeaver Application Server environments.

## Switchover Ensures Availability

Switchover is a standard technique for increasing the availability of critical SAP NetWeaver Application Server environments by clustering together a number of servers to eliminate single points of failure — including

the back-end database, SAP Central Instance with enqueue and message services, and Network File System (NFS) mounts — within the SAP landscape. Switchover solutions constantly monitor all components of the SAP solution stack, including servers, databases, network connections, and SAP services, and take automatic recovery action if a problem is detected.

Recovery often includes an attempt to first bring SAP back into service on the primary server. If that is not possible, the recovery process will then bring SAP into service on a standby server configured within the switchover cluster, ensuring that all processes start in the correct order and all storage, network, and client connections are migrated to the newly active server.

## Automatic Detection and Recovery

Since 2002, SteelEye LifeKeeper for SAP has provided switchover protection for SAP NetWeaver Application Server

installations worldwide. LifeKeeper, available for both Red Hat and SUSE Enterprise Linux distributions, uses lightweight agents that constantly monitor the operation of all critical components of an SAP solution. Should these agents detect a problem, LifeKeeper will automatically begin a recovery procedure to restore SAP to full operation. In addition to protecting against outages due to failure, LifeKeeper can migrate services and client connections between systems to eliminate downtime associated with planned maintenance. With LifeKeeper, standby servers do not have to be idle; they can run their own set of applications, which will be integrated into the switchover process as needed for full recovery.

## Protecting Your Business Assets

To ensure the availability of business-critical data and applications running on Linux, SAP customers must deploy a high-availability solution to eliminate the risks exposed by single points of failure. SteelEye Technology's LifeKeeper for SAP solutions provides monitoring and recovery for all pieces of SAP NetWeaver Application Server deployments, delivers the highest availability levels, and protects business assets and customer relationships. To learn more, visit

[www.steeleye.com](http://www.steeleye.com). ■

## Case Study: Media Company Realigns Its IT Infrastructure

In 2004, St. Galler Tagblatt AG, the largest media company in eastern Switzerland, decided to realign its IT infrastructure using SUSE LINUX to host its SAP R/3 4.6C with SAP for Media industry solution on IBM eServer xSeries 455 systems, with SteelEye LifeKeeper for SAP protecting the deployment. St. Galler is already seeing significant cost savings and productivity gains based on the economics of Linux and the reliability of LifeKeeper. Like other business-savvy SAP shops, St. Galler has learned that the new deployment paradigm includes Linux and LifeKeeper.