



# LifeKeeper<sup>®</sup> for Linux

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Today, many businesses struggle to balance the need for systems that can support business-critical applications and pressures to reduce total cost of ownership for their IT infrastructure.

A combination of Linux and Intel-based servers with their scalability, reliability and manageability features provide an ideal platform for businesscritical environments as well as unmatched return on IT investments by significantly lowering the Total Cost of Ownership (TCO).

# HIGH AVAILABILITY ON LINUX

SteelEye's LifeKeeper Next Generation Reliability Platform<sup>™</sup> enables businesses to get the best of both worlds – enterprise-grade reliability with the least possible TCO.

SteelEye's commercially proven LifeKeeper products enhance the stability and power of Intel-based servers running in Linux operating environments to provide the industry's best platform to deploy business-critical applications.

LifeKeeper for Linux is high-availability (HA) clustering software that ensures the continuous availability of all critical components to run applications, including servers, storage, data and networks. LifeKeeper maintains high availability of clustered Linux systems by monitoring the system and application health, maintaining client connectivity and providing uninterrupted data access.

In the event of component or system failures, LifeKeeper software automatically detects and recovers computing resources to provide maximum application uptime. This helps IT managers to avoid risks resulting from single points of failure.

# FAULT RESILIENT CLUSTERS

LifeKeeper provides fault resilience for Linux environments by enabling other servers in a cluster to take over for failed servers or failed applications. In addition, LifeKeeper supports active-active server configurations, thus eliminating the need for extra servers dedicated for idle stand-by.

# **PROACTIVE FINE-GRAIN PROTECTION**

With LifeKeeper, hardware component and application faults are detected in advance of a full system failure through multiple fault-detection mechanisms. LifeKeeper monitors Linux clusters using intelligent processes and multiple LAN heartbeats. By sending redundant signals between server nodes to determine system and application health, LifeKeeper confirms a system's status before taking action. This reduces the risk of a single point of failure and minimizes false failovers.

LifeKeeper also eliminates unnecessary failovers by recovering only those applications that failed, without requiring a full server power-down.



#### TRANSPARENT FAILOVER

If an event creates an interruption in a server's availability, LifeKeeper automatically moves the protected resources and applications to another server in the cluster with minimum impact on users' productivity. In addition, LifeKeeper for Linux allows cascading failover for as many as 16 or more active nodes to ensure continuous client access in the event of system or application failure. Meets stringent performance requirements for business-critical applications Minimizes downtime during planned outages

#### LIMITLESS SCALABILITY

LifeKeeper provides a cluster framework to seamlessly increase the number of clustered servers or users supported by an application. For maximum flexibility, LifeKeeper clusters can include a mix of server and storage platforms to accommodate the widest range of business needs.

# EXTREME EASE OF USE

LifeKeeper includes a Java-based GUI that enables easy installation, operation and maintenance of clustered systems, applications and recovery policies. IT administrators can easily manage cluster-wide resources either locally or remotely via any Java-enabled Web browser.

Built-in GUI Wizards simplify and automate common management and operations tasks to further increase the efficiency of IT personnel and eliminate human errors.

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# UPTIME DURING MAINTENANCE AND UPGRADES

LifeKeeper enables continuous operations during planned maintenance or upgrades as well as protecting the system in the event of a failure or should applications cease to respond. During system maintenance operations, applications are easily migrated to other nodes in the cluster. As a result, LifeKeeper easily minimizes maintenance downtime providing continuous access to businesscritical applications.

# FLEXIBLE STORAGE CONFIGURATIONS

LifeKeeper Data Replication (LKDR) - When total cost is the critical decision factor, LKDR option reduces overall cost by eliminating the expensive RAID configuration. Administrators also have the option of locating servers anywhere on the Local Area Network, since there are no SCSI cables to limit distance.

Shared RAID (SCSI) - LifeKeeper provides support for RAID arrays that are shared between separate application servers to ensure data integrity and availability during a failure.

SAN / Fibre Channel - LifeKeeper is fully enabled for Fiber Channel support and has been tested to verify all functionality for a range of Fibre-based storage devices running in Storage Area Networks (SAN).

Network Attached Storage (NAS) – LifeKeeper's Application Recovery Kit for Network Attached Storage provides an integrated protection of network connectivity between servers and remote storage.

# **RECOVERY OPERATIONS**

LifeKeeper provides protection for Linux environments to support disaster tolerance, multiple system failures or faster recovery.

# Multi-Directional Recovery



LifeKeeper for Linux supports a four-node cluster in a multi-directional failover configuration within the context of two nodes connected to the same shared disk.

LifeKeeper supports application recovery between two or more nodes within the cluster that are connected to the same shared disk. In this configuration, one server, in an active-active role, provides backup for failovers from any of the other nodes in the cluster.

Cascading Failover



LifeKeeper for Linux allows cascading failover for as many as 16 or more active nodes to ensure continuous client access in the event of system or application failure.

# **APPLICATION RECOVERY KITS**

LifeKeeper delivers the broadest range of custom developed Application Recovery Kits (ARKs) available on Linux today. These ARKs are tested, and certified in SteelEye's qualification labs to ensure the highest degree of confidence when protecting business-critical applications.

SteelEye provides following LifeKeeper ARK's:

- Oracle, Informix, DB2, and MySQL
- Sendmail
- Apache Web Server, with Secure Socket Layers
- Print Services
- EXT2, JFS, ReiserFS and NFS-Server
- Network Attached Storage (NAS)
- TCP/IP

# **TECHNICAL SPECIFICATIONS**

Linux distributions supported include Red Hat, Caldera eServer, TurboLinux, and SuSE.

Intel-based servers supported include those from Compaq, IBM, HP, Dell, VA Linux, Penguin and others.

# FOR MORE INFORMATION

Contact SteelEye Technology, Inc. toll-free at 877.319.0108. For calls outside the USA, dial +1.650.318.0108.

Also, visit www.steeleye.com for more information about SteelEye's enterprise reliability solutions.

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