



LifeKeeper Single Server Protection

v8.4.0

Release Notes

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LifeKeeper Single Server Protection Release Notes

Version 8.4.0

Important!!

***Read This Document Before Attempting To Install Or Use This Product!
This document contains last minute information that must be considered before, during and after installation.***

Introduction

This release notes document is written for the person who installs, configures and/or administers the LifeKeeper Single Server Protection for Linux product. The document contains important information not detailed in the formal LifeKeeper Single Server Protection documentation set such as system requirements, new features and links to product restrictions and troubleshooting hints and tips. It is important that you review this document before installing and configuring LifeKeeper Single Server Protection software.

LifeKeeper Single Server Protection Product Description

LifeKeeper Single Server Protection allows for application monitoring in a single node configuration (i.e., no cluster requirements or restraints). Single node environments may be physical or virtual (vSphere, KVM, Amazon EC2). LifeKeeper Single Server Protection is built on the proven and stable architecture of SIOS LifeKeeper. LifeKeeper Single Server Protection provides superior application monitoring and can perform recovery of failed applications and system infrastructure items (e.g., NFS share, IP address, File System). If an application cannot be recovered for some reason, LifeKeeper Single Server Protection will initiate a restart of the node via a system reboot or via a VMware HA restart for VMware virtual machines configured for VM and Application Monitoring.

Components

LifeKeeper Single Server Protection Software is bundled and runs on 64-bit systems (x86_64, AMD64) and is comprised of the following components:

- LifeKeeper Single Server Protection Software
- SteelEye Management Console with LifeKeeper Single Server Protection vSphere Client Plug-in (optional software for VMware environments only)

LifeKeeper Single Server Protection Optional Recovery Software

The following optional software provides resource definition and recovery software for the application versions listed:

Package	Package Name	Protected Applications
LifeKeeper Apache Web Server Recovery Kit	steeleye-lkAPA-8.4.0-6427.noarch.rpm	Apache Web Server v2, v2.2 and v2.4
LifeKeeper SAP Recovery Kit	steeleye-lkSAP-8.4.0-6427.noarch.rpm	SAP v7 Enhancement Package 1 and 2, SAP v7.1, SAP v7.3, and SAP v7.4 LifeKeeper Single Server Protection NFS Server Recovery Kit v8.1 LifeKeeper Single Server Protection Network Attached Storage Recovery Kit v8.1
LifeKeeper SAP DB / MaxDB Recovery Kit	steeleye-lkSAPDB-8.4.0-6427.noarch.rpm	SAP MaxDB v7.5, v7.6, v7.7 and v7.8
LifeKeeper DB2 Recovery Kit	steeleye-lkDB2-8.4.0-6427.noarch.rpm	IBM DB2 Universal Database v9, v9.5, v9.7 and v10.1 IBM DB2 Enterprise Server Edition (ESE) v9, v9.5, v9.7 and v10.1 IBM DB2 Workgroup Server Edition (WSE) v9, v9.5, v9.7 and v10.1 IBM DB2 Express Edition v9, v9.5, v9.7 and v10.1
LifeKeeper Oracle Recovery Kit	steeleye-lkORA-8.4.0-6427.noarch.rpm	Oracle Standard Edition and Enterprise Edition v10g R2, v11g, v11g R2 and v12c Oracle Standard Edition One v10g R2, v11g, v11g R2 and v12c
LifeKeeper MySQL Recovery Kit	steeleye-lkSQL-8.4.0-6427.noarch.rpm	MySQL and MySQL Enterprise v5.1, v5.5 and v5.6

Package	Package Name	Protected Applications
LifeKeeper PostgreSQL Recovery Kit	steeleye-lkPGSQL-8.4.0-6427.noarch.rpm	<p>PostgreSQL v8.3, v8.4, v9, v9.1, v9.2 and v9.3</p> <p>EnterpriseDB Postgres Plus Standard Server v8.4 and v9</p> <p>EnterpriseDB Postgres Plus Advanced Server v8.3, v8.4, v9.1, v9.2, and v9.3</p> <p>EnterpriseDB Postgres Plus Solutions Pack v9.1, v9.2 and v9.3</p>
LifeKeeper Sybase ASE Recovery Kit	steeleye-lkSYBASE-8.4.0-6427.noarch.rpm	Sybase ASE 15.5 and 15.7
LifeKeeper Postfix Recovery Kit	steeleye-lkPOSTFIX-8.4.0-6427.noarch.rpm	Postfix software provided with the supported Linux distributions installed and configured on each server. The same version of Postfix should be installed on each server.
LifeKeeper Samba Recovery Kit	steeleye-lkSMB-8.4.0-6427.noarch.rpm	Standard Samba file services provided with the supported Linux distributions
LifeKeeper NFS Server Recovery Kit	steeleye-lkNFS-8.4.0-6427.noarch.rpm	<p>Linux kernel version 2.6 or later</p> <p>The NFS Server and client packages must be installed on SLES systems.</p>
LifeKeeper Network Attached Storage Recovery Kit	steeleye-lkNAS-8.4.0-6427.noarch.rpm	NFS version of Mounted NFS file systems from an NFS server or Network Attached Storage (NAS) device v2, v3 and v4
LifeKeeper WebSphere MQ Recovery Kit	steeleye-lkMQS-8.4.0-6427.noarch.rpm	<p>WebSphere MQ v6, v7, v7.1 and v7.5</p> <p>Note: This recovery kit does not support running multiple versions of MQ on the same server (e.g. MQ Versions 7.0.1 Fix Pack 6 and 7.1 and later versions); however, protecting multiple queue managers within a single MQ installation as well as the use of the DataPath parameter in the mqs.ini is supported.</p>

Features of LifeKeeper Single Server Protection

Feature	Description
Temporal Recovery Logic	Local recovery attempt limits can be set providing improved application availability.
Multi-Level Policies	Recovery options can be specified at the server and resource levels allowing clients to define the most appropriate recovery strategy for each application.
Notification Only/Maintenance Mode	Allows users to temporarily disable monitoring of one or more resources preventing LifeKeeper Single Server Protection from attempting to recover a resource that is undergoing maintenance.
VMware vSphere Integration	Integrates with VMware's vSphere platform to improve application availability while allowing organizations to realize the full benefits of server virtualization and automation. (VMware environments only)
vSphere Client Plug-in	Centralized management and monitoring through the vSphere Client. (VMware environments only)

New Features of LifeKeeper Single Server Protection Version 8

Product	Feature
New in This Release (8.4.0)	
LifeKeeper Core	Red Hat Enterprise Linux Version 7 support. (ARKs to be applied: PostgreSQL, MySQL, Oracle, DB2, Apache, Postfix, NFS, NAS, Samba)
	Community ENTerprise Operating System (CentOS) Version 7 support. (ARKs to be applied: PostgreSQL, MySQL, Oracle, DB2, Apache, Postfix, NFS, NAS, Samba)
	Oracle Linux Version 7 support. (ARKs to be applied: PostgreSQL, MySQL, Oracle, DB2, Apache, Postfix, NFS, NAS, Samba)
MySQL	MariaDB 5.5 support. Bux Fixes.
New in Version v8.3.2	

Product	Feature
LifeKeeper Core	Red Hat Enterprise Linux Version 5 Update 11 support.
	Community ENTERprise Operating System (CentOS) Version 5 Update 11 support.
	Oracle Linux Version 5 Update 11 support.
	Red Hat Enterprise Linux Version 6 Update 6 support.
LifeKeeper Core	Community ENTERprise Operating System (CentOS) Version 6 Update 6 support.
	Oracle Linux Version 6 Update 6 support.
	Oracle, Sybase, EC2, Route53
SMC	Bug Fixes.
New in Version 8.3.1	
LifeKeeper Core	Bug Fixes.
New in Version 8.3	
LifeKeeper Core	Unbreakable Enterprise Kernel Release 3 for Oracle Linux support.
	Bug Fixes.
Oracle	Bug Fixes.
Postfix	Support the configuration that allows Postfix to listen with "all" or more than one IP address.
New in Version 8.2.1	
LifeKeeper Core	Red Hat Enterprise Linux Version 6 Update 5 support.
	Community ENTERprise Operating System (CentOS) Version 6 Update 5 support.
	Oracle Linux Version 6 Update 5 support.
	VMware vSphere v5.5 support.
Oracle	Support for Oracle 12c excluding ASM and pluggable database.
PostgreSQL	Support for EnterpriseDB Postgres Plus Advanced Server 9.3.
WebSphere MQ	Support for WebSphere MQ v7.5.
LifeKeeper Core	Bug Fixes.
NFS	Bug Fixes.
PostgreSQL	Bug Fixes.

Bug Fixes

The following is a list of the latest bug fixes and enhancements.

Bug	Description
3270	Improved the LifeKeeper syslog configuration steps during install to stop and alert the user when the configuration fails.
3567	Broadcast ping address always calculated as FF.FF.FF.FF.
3706	perform_action during LikeKeeper resource initialization leaves resources stuck in illstate.
3744	Virtual IP address add fails during restore after toggling link status.
3791	Added debug logging to LifeKeeper watchdog scripts.
3813	steeleye-lighttpd default log rotations settings do not work.
3822	Ping command failure incorrectly reported as "IP address still exists".
3827	mysqladmin hang causes resource remove to hang, need timeout to force failure.
7047	Multiple occurrences of umask setting in /etc/default/Lifekeeper.
7060	Upgraded lighttpd to latest version to avoid SSL vulnerabilities.

System Requirements

LifeKeeper Single Server Protection Product Requirements

LifeKeeper Single Server Protection is supported on any Linux platform that satisfies the minimum requirements included in the table below.

Description	Requirement
Linux Operating System*	See the Linux Configuration Table (Kernel Section only) for specific operating system information.

Virtual Environments	<p>SPS for Linux is architected to be hypervisor-independent as long as the guest operating system running within the virtual machine is one of the supported versions listed in the Linux Configuration Table (Kernel Section only). The following virtual environments are examples of where SIOS Protection Suite for Linux has been deployed:</p> <ul style="list-style-type: none"> • Citrix XenServer v5 or later • KVM • Oracle Virtual Machine (OVM) • VMware vSphere v4, v4.1, v5, v5.1, and v5.5 • Amazon EC2 <p>Fibre channel SAN and shared SCSI cluster configurations are not supported with SPS for Linux running in a KVM and Citrix XenServer virtual machine.</p>
Memory	<p>The minimum memory requirement for a system running LifeKeeper Single Server Protection is 512 MB. This is the minimum amount required by LifeKeeper Single Server Protection supported Linux distributions. System memory should be sized for the applications that will be running on the LifeKeeper Single Server Protection protected system as well.</p>
Disk Space	<p>The LifeKeeper Single Server Protection requires the following disk space:</p> <p>/opt – approx 100000-105000 (1024-byte) disk blocks (depending on kits installed)</p> <p>/ - approx 110000 (1024-byte) disk blocks</p>

LifeKeeper Single Server Protection Support Software Requirements

The following table of Supporting Software is only required in VMware VMs configured for VM and Application Monitoring.

Product	Requirement(s)	Disk Space Required
VMware	<p>VMware vSphere Client (for LifeKeeper Single Server Protection vSphere Client Plug-in functionality)</p> <p>VMware Tools installed and running on all protected virtual machines</p> <p>VMware Application HA monitoring must be enabled and set to VM and Application Monitoring for all protected virtual machines</p>	<p>Approximately 175 KB in /opt (for VMware Tools)</p>

Client Platforms and Browsers

The LifeKeeper Single Server Protection web client can run on any platform that provides support for Java Runtime Environment (JRE) 6, JRE7 update 45. The currently supported configurations are

Known Issues

Firefox, Internet Explorer and Chrome on Linux, Windows 2000, Windows Server 2003, Windows 2008 R2, Windows XP, Windows 7, Windows 8 or Windows Vista with JRE6, JRE7 update 45. Other recent platforms and browsers will likely work with the LifeKeeper Single Server Protection web client, but they have not been tested by SIOS Technology Corp.

IP addresses for LifeKeeper Single Server Protection components (e.g. the SteelEye Management Console and vCenter when installed in a VMware configuration) and protected Linux guests must be resolvable via DNS or the local hosts file (usually/etc/hosts or

C:\windows\system32\drivers\etc\hosts). Using the local hosts file minimizes the client connection time and allows the client to connect even in the event of a Domain Name Server (DNS) failure.

Known Issues

See the Troubleshooting section in LifeKeeper Single Server Protection for Linux Technical Documentation for known issues, workarounds and other troubleshooting information.