



LifeKeeper Single Server Protection

v9.0.2

Release Notes

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LifeKeeper Single Server Protection Release Notes

Version 9.0.2

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-ikAPA-9.0.2-6513.noarch.rpm	Apache Web Server v2, v2.2 and v2.4
LifeKeeper SAP Recovery Kit	steeleye-ikSAP-9.0.2-6513.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-ikSAPDB-9.0.2-6513.noarch.rpm	SAP MaxDB v7.5, v7.6, v7.7, v7.8 and v7.9
LifeKeeper DB2 Recovery Kit	steeleye-ikDB2-9.0.2-6513.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-ikORA-9.0.2-6513.noarch.rpm	Oracle Database Standard Edition and Enterprise Edition v10g R2, v11g, v11g R2 and v12c Oracle Database Standard Edition One (SE1) v10g R2, v11g, v11g R2 and v12c Oracle Database Standard Edition 2 (SE2) v12c (except AWS EC2 system. See Known Issues and Workarounds > Oracle)
LifeKeeper MySQL Recovery Kit	steeleye-ikSQL-9.0.2-6513.noarch.rpm	MySQL and MySQL Enterprise v5.1, v5.5, v5.6 and v5.7 Note: MySQL v5.7 is supported only for RHEL 5.x 6.x / CentOS 5.x 6.x / OEL 5.x 6.x / SLES 11.x. The OS that uses Systemd is not supported. See Known Issues and Workarounds > MySQL Recovery Kit

Package	Package Name	Protected Applications
LifeKeeper PostgreSQL Recovery Kit	steeleye-lkPGSQL-9.0.2-6513.noarch.rpm	PostgreSQL v8.3, v8.4, v9, v9.1, v9.2, v9.3 and v9.4 EnterpriseDB Postgres Plus Standard Server v8.4 and v9 EnterpriseDB Postgres Plus Advanced Server v8.3, v8.4, v9.1, v9.2, v9.3 and v9.4 EnterpriseDB Postgres Plus Solutions Pack v9.1, v9.2 and v9.3
LifeKeeper Sybase ASE Recovery Kit	steeleye-lkSYBASE-9.0.2-6513.noarch.rpm	Sybase ASE 15.5 and 15.7
LifeKeeper Postfix Recovery Kit	steeleye-lkPOSTFIX-9.0.2-6513.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-9.0.2-6513.noarch.rpm	Standard Samba file services provided with the supported Linux distributions
LifeKeeper NFS Server Recovery Kit	steeleye-lkNFS-9.0.2-6513.noarch.rpm	Linux kernel version 2.6 or later The NFS Server and client packages must be installed on SLES systems.
LifeKeeper Network Attached Storage Recovery Kit	steeleye-lkNAS-9.0.2-6513.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-9.0.2-6513.noarch.rpm	WebSphere MQ v7.1, v7.5 and v8.0

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.

Feature	Description
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 9.0.2

Product	Feature
New in This Release (9.0.2)	
LifeKeeper Core	Support of Red Hat Enterprise Linux Version 7.2. ※ MySQL RK is not supporting RHEL 7.x/CentOS 7.x/OEL 7.x. ※ Support of RHEL 7.2 by each application must be confirmed by user.
	Update OpenSSL package to 1.0.1q
	Bug Fixes.
MQ	WebSphere MQ – Added support for Multi-version WebSphere MQ. With this support queue managers for 7.1, 7.5, and 8.x can all be protected on the same cluster node.
	Added the function that mqm group user can execute MQ command alternatively
	Bug Fixes.
IP, Filesystem, DMMP, EC2, PostgreSQL, Power Path, SAP, SAP DB/MaxDB, Oracle	Bug Fixes.
Licensing	Update the package of FlexNet
New in Version 9.0.1	
LifeKeeper Core	Bug Fixes.
DataKeeper	Bug Fixes.
New in Version 9.0	

Product	Feature
LifeKeeper Core	Combined documents of Parameters List , and added the lkchkconf command .
	vSphere 6 support (SMC feature is no longer supported with vSphere 6.)
	reiserfs filesystem is no longer supported.
	Arks supported with Red Hat Enterprise Linux Version 7.0/7.1, Community ENTerprise Operating System (CentOS) Version 7.0/7.1, and Oracle Linux Version 7.0/7.1 are the same as LifeKeeper for Linux v8.4.1. (Arks to be applied: PostgreSQL, MySQL, Oracle, DB2, Apache, Postfix, NFS, NAS, Samba)
	Bug Fixes.
GUI	JRE 8u51 support. (JRE 7 is no longer supported.)
	Chrome Browser is no longer supported.
	Bug Fixes.
FileSystem, PostgreSQL	Bug Fixes.

Bug Fixes

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

Bug	Description
2711	Fixed an issue that inappropriate error message is output if listener is not functioning when creating MQ resource.
2726	Fixed an issue that always using root as user when creating MQ resource.
2967	Fixed an issue that CleanIPC log is not correct at MQ RK.
2971	Fixed an issue that unintended process is executed when MQ resource is switched if MQS_FORCE_CLEANIPC is set.
3048	Fixed an issue that unintended message is output on GUI screen if MQS_DEBUG is set when creating MQ resource
3069	Fixed an issue that inappropriate IP address can be displayed when creating MQ resource.
3100	Fixed an issue that log message from MQ resource may not be displayed correctly.
3104	Fixed the typographic error in MQ log message.
3405	Fixed an issue that MQ log message is not correctly recorded during quick-Check.

Bug	Description
7012	Fixed an issue that SCSIHALT default value set up of DMMP RK is not correct.
7031	Fixed an issue that inappropriate IP address can be displayed when creating Oracle listener resource.
7081	Fixed an issue that MaxDB resource can not be launched correctly.
7090	Fixed an issue that it cannot be error if the port is already occupied on the target board as status when extending PostgreSQL resource.
7138	Fixed an issue that quickCheck fails when AWS API connection is down.
7140	Fixed an issue that alert/error is not disabled when FILESYSFULLWARN/FILESYSFULLERROR is set to 0.
7141	Fixed an issue that event notification is not performed correctly when AWS API connection is down.
7143	Support Systemd of 7.x OS
7144	Fixed an issue that wrong information is acquired by MQ data collection when executing lksupport command.
7151	Fixed an issue that the partial lost of log can occur on 7.x OS.
7170	Fixed an issue that debug output has problem by common usage of the same function name over different modules with SAP RK.
7171	Corresponding fix for the format change of logic device name output by powermt command in Power Path RK.
7176	Fixed an issue that the net mask is not correct which is displayed as default when creating IP resource on 7.x OS.

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, v5.5, and v6.0 • 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 JRE8 update 51. The currently supported configurations are Firefox and

Known Issues

Internet Explorer on Linux, Windows 2008 R2, Windows 7, Windows 8 or Windows Vista with JRE8 update 51. Other recent platforms and browsers will likely work with the SPS web client, but they have not been tested by SIOS Technology Corp. In addition, particular features of each browser also have not been tested.

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.