



SIOS DataKeeper Cluster Edition

v8.4

Release Notes

July 2016

This document and the information herein is the property of SIOS Technology Corp. (previously known as SteelEye® Technology, Inc.) and all unauthorized use and reproduction is prohibited. SIOS Technology Corp. makes no warranties with respect to the contents of this document and reserves the right to revise this publication and make changes to the products described herein without prior notification. It is the policy of SIOS Technology Corp. to improve products as new technology, components and software become available. SIOS Technology Corp., therefore, reserves the right to change specifications without prior notice.

LifeKeeper, SIOS and SIOS DataKeeper are registered trademarks of SIOS Technology Corp.

Other brand and product names used herein are for identification purposes only and may be trademarks of their respective companies.

To maintain the quality of our publications, we welcome your comments on the accuracy, clarity, organization, and value of this document.

Address correspondence to:
ip@us.sios.com

Copyright © 2016
By SIOS Technology Corp.
San Mateo, CA U.S.A.
All rights reserved

Table of Contents

- SIOS DataKeeper Cluster Edition 1**
- Introduction 1**
- New Features of SIOS DataKeeper Cluster Edition v8 1**
- Bug Fixes 3**
- Product Definitions and Platforms 4**
- Product Requirements 4
- Local Security Policy Requirement 5**
- Known Issues 5**
- SCVMM 2012 5
- Windows Server 2012 5
- DataKeeper Cluster Edition Quick Start Guide 6**

SIOS DataKeeper Cluster Edition

Release Notes

Version 8.4

(Version 8 Update 4)

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

SIOS DataKeeper Cluster Edition is a highly optimized host-based replication solution which integrates seamlessly with Windows Server 2012, Windows Server 2012 R2, and Windows Server 2008 R2/2008 R2 SP1 Failover Clustering. Features of Windows Server Failover Clustering such as cross-subnet failover and tunable heartbeat parameters make it easy for administrators to deploy geographically dispersed clusters. SIOS DataKeeper provides the data replication mechanism which extends both versions of Windows Clustering, allowing administrators to take advantage of these advanced features to support non-shared disk high availability configurations.

Once SIOS DataKeeper Cluster Edition is installed, a new storage class resource type called DataKeeper Volume is available. This new SIOS DataKeeper Volume resource can be used in place of the traditional Physical Disk shared storage resource to enable geographically dispersed clusters, also known as multi-site clusters.

New Features of SIOS DataKeeper Cluster Edition v8

Feature	Description
New in This Release	
DataKeeper Volume Resource Health Check	DataKeeper Volume Resource Health Check determines if the underlying volume device becomes unreachable.
Target Bitmap File	Target writes are now tracked in a persistent target bitmap file.
General Maintenance	See Bug Fixes below.
New in Version 8.3	

Feature	Description
DataKeeper Notification Icon	The DataKeeper Notification Icon shows a summary of your DataKeeper mirrors in the Windows Notification Tray. In addition to the display functions, the DataKeeper Notification Icon also serves as a shortcut to managing your DataKeeper mirrors.
mirrorcleanup.cmd	This command will remove all remnants of a mirror for a selected volume on the local system only and should only be run when recommended by SIOS Support.
Powershell cmdlet support	Powershell cmdlets that can be used to create job(s), create mirror(s), remove job(s), remove mirror(s) and fetch information about a volume used in DataKeeper (New-DataKeeperMirror, New-DataKeeperJob, Remove-DataKeeperMirror, Remove-DataKeeperJob, Add-DataKeeperJobPair, Get-DataKeeperVolumeInfo).
DKHEALTHCHECK	Support status and issue identification tool. Provides command line interface for basic mirror status and problem detection.
General Maintenance	See Bug Fixes below.
New in Version 8.2.1	
General Maintenance	Bug Fixes.
New in Version 8.2	
DataKeeper Non-Mirrored Volume Cluster Resource	The DataKeeper Non-Mirrored Volume Cluster Resource allows users to use a local volume in a failover cluster without requiring that it be part of a mirror. Some of the common use cases for this feature include enabling rolling cluster OS upgrades on existing hardware and moving tempdb to local storage in SQL 2008 R2 clusters and earlier.
General Maintenance	Bug Fixes.
New in Version 8.1	
General Maintenance	Bug Fixes.
New in Version 8.0.1	
General Maintenance	Bug Fixes.
New in Version 8.0	
Replicate to Node Outside of Cluster	DataKeeper now allows you to have a replication target which resides outside of the failover cluster.
Operating System Support	DataKeeper now only supports Windows 2008R2 and later 64-bit Operating Systems. To run on an earlier version of Windows or on 32-bit systems, you must use DataKeeper v7.
Windows 2012 R2 Support	DataKeeper now supports Windows 2012 R2.
General Maintenance	Bug Fixes.

Bug Fixes

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

	Description
2663	Provide a new initialization status message during UI startup
3568	Don't fail DataKeeper Volume online after node failure if network is reconnected during online
3701	Increase switchover speed with slow networks
3734	Improved bad sector handling during resync
3909	Improved silent install to disable the distributed link tracking client
3925	Improved volume device removal handling
3931	emdrvcmd can truncate output when running remote target (RT) command
3957	Improved the error message for emcmd ispotentialmirrorvol command when the volume is not formatted properly with NTFS
3958	Disable split-brain notification for clustered volumes
3977	Update Add or Remove Programs to include a Change option for DataKeeper and SPS-W package installers
4053	Handle "EmSP" pool tag allocation failure
4065	Memory leak on target volume after reboot
4066	Implement ResyncReads to control resync throughput, deprecate WriteQueueLowWater
4068	Improved License Manager launching from EmTray if user is not an administrator
4074	Improved split brain\current status notifications in EmTray
4075	Improved split brain\current status notifications with DKHealthCheck
4076	Ensure mirror consistency when a lost network connection is restored
4079	Track target writes in a bitmap file
4080	Added mountvol output into dksupport and lksupport log files
4081	Added Microsoft systeminfo output to DataKeeper support logs
4082	Improved chkdsk handling in DataKeeper Volume Online
4085	Implement cluster health checks
4100	Improved replication performance during SQL database restore
4107	Don't fail cluster Online if chkdsk takes a long time to complete
4113	EMCMD ISPOTENTIALMIRRORVOL reports TRUE only for volumes formatted with NTFS file system
4117	Improved disk write performance during mirror resync

	Description
4119	Improved replication throughput during resync and sequential writes
4128	Fixed BSOD that can occur when attempting to create a mirror of a volume whose size is less than 512MB

Product Definitions and Platforms

Product Requirements

Product	Operating Systems	Additional Software	
Server Components	See the DKCE Support Matrix	Hotfix – KB 951308 http://support.microsoft.com/kb/951308 If protecting Hyper-V resources, Hotfix KB 958065 http://support.microsoft.com/?id=958065 Note: These hotfixes are not required for Windows Server 2008 R2/2008 R2 SP1. Microsoft Hotfix KB 2741477 is now available that will allow NICs to be added to a Virtual Machine after the VM has been placed into a Failover Cluster. (For more information, see Hyper-V Host Cluster Error.)	
		See the DKCE Support Matrix	See below for details.
		Note: The target snapshot feature requires Microsoft .NET Framework 3.5 SP1 to be installed - download from: http://www.microsoft.com/net .	
User Interface	See the DKCE Support Matrix	MMC 3.0 - download from: http://support.microsoft.com/kb/907265	

Note: All servers should run the same version of Windows and the same version of DataKeeper software.

Make sure you verify the following settings prior to installing and configuring SIOS DataKeeper Cluster Edition.

- **Important:** SIOS Technology Corp. recommends that users use Domain accounts that have local Admin privileges on all servers running DataKeeper. If you are using Local accounts, the username and passwords must match on all servers running DataKeeper. This recommendation is for all editions and all platforms.
- Follow Microsoft best practices for deploying geographically dispersed clusters, including changing the quorum mode majority node setting with a file share witness.
- DataKeeper Failover Cluster registration is automatic and occurs 60 seconds after the following events

have occurred on each cluster node:

- A DataKeeper Cluster Edition license has been installed on each cluster node.
- The Windows server Failover Clustering feature has been installed on each server.
- A Windows server Cluster configuration has been formed.

Local Security Policy Requirement

If your Windows servers are not in a domain and you are going to run the DataKeeper Service as the local system account, the Local Security policy setting "**Network Access: Let Everyone permissions apply to anonymous users**" must be enabled.

Known Issues

SCVMM 2012

If using DataKeeper with SCVMM 2012, you must use SCVMM 2012 SP1.

Windows Server 2012

For issues and enhancements related to **Windows Server 2012**, see the following topics in the Known Issues section of the DataKeeper Cluster Edition Technical Documentation:

- WSFC 2012 Failover Cluster Manager UI Defect
- WSFC 2012 New File Server Type Not Supported
- Manual Creation of a Mirror in WSFC
- WSFC 2012 Cluster Creation Default Setting Issue
- WSFC 2012 File Shares Cannot be Created for File Server Resource
- WSFC 2012 Server Manager – Incorrect Volume Display
- WSFC 2012 Server Manager – DataKeeper "Disk" Not Shown as Clustered
- Windows Server 2012 Default Information Missing During Mirror Creation
- Windows Server 2012 MMC Snap-in Crash
- Windows Server 2012 – Simultaneous Move of Multiple Clustered File Server Roles Can Result in DataKeeper Switchover Failures
- Windows Server 2012 iSCSI Target Role Does Not Support Dynamic Disks
- Using iSCSI Target with DataKeeper

DataKeeper Cluster Edition Quick Start Guide

To get started using SteelEye DataKeeper Cluster Edition, refer to the DataKeeper Cluster Edition Quick Start Guide.