



SIOS DataKeeper Cluster Edition

v8.6

Release Notes

August 2017

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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**
- Windows 2016 5
- SCVMM 2012 5
- Windows Server 2012 5
- DataKeeper Cluster Edition Quick Start Guide 6**

SIOS DataKeeper Cluster Edition

Release Notes

Version 8.6.0

(Version 8 Update 6)

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	
Tunable Write Queue Byte Limit	Users can specify the maximum number of bytes that can be allocated for the write queue of a mirror by changing the WriteQueueByteLimitMB registry value.
General Maintenance	See Bug Fixes below.
New in Version 8.5.1	
Windows 2016 Support	DataKeeper now supports Windows 2016.

Feature	Description
VSS Provider	SIOS VSS Provider has been disabled by default.
General Maintenance	See Bug Fixes below.
New in Version 8.5	
CHANGEMIRRORTYPE	This EMCMD command is used to change the mirror type of a mirror that is part of a DataKeeper job.
Microsoft SQL Server 2016 support	DataKeeper now supports Windows SQL Server 2016.
Tunable bitmap block size	Users can modify the effective size of an entry in the DataKeeper intent log (bitmap) by changing the BitmapBytesPerBlock registry value.
General Maintenance	See Bug Fixes below.
New in Version 8.4	
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	
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	

Bug Fixes

Feature	Description
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
3224	Allow users to specify a mirror write queue byte limit
4051	DRNodeOutsideCluster: Online Attempt when Source on DR Node crashes Resource DLL
4151	After source node reboot, some mirrors are left with the source Paused and the target role is None (locked)
4177	Update Failover Cluster Database correctly when Windows Chkdsk cannot repair "Dirty" volume
4185	EmTray icon hover text does not always display correctly
4212	ExtMirrSvc garbled event log message MSG_UNABLE_TO_CREATE_THREAD
4213	Fixed memory leaks
4216	Permanent license incorrectly identified as expired
4230	Support complete shutdown for AWS VMs with bitmaps on ephemeral storage
4238	Prevent resync from starting during a failover

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

Windows 2016

- [Occasional job creation failure](#)

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.