



SIOS DataKeeper Cluster Edition

v8.5

Release Notes

January 2017

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Address correspondence to:
ip@us.sios.com

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SIOS DataKeeper Cluster Edition

Release Notes

Version 8.5

(Version 8 Update 5)

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	
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.

Feature	Description
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	
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	

Bug Fixes

Feature	Description
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
3629	Provide a tunable VSS quiesce timeout
3961	Improved block switchover when a snapshot is active
4061	New-DataKeeperJob cmdlet should fail when passed invalid strings for volume letters
4062	EMCMD CREATEJOB and EMCMD UPDATEJOB commands should fail when passed invalid strings for volume letters
4063	EMCMD CREATEJOB and EMCMD UPDATEJOB commands should fail when passed invalid strings for mirror types
4089	Implement two-phase device removal logic
4098	Added check to CREATEMIRROR to verify bytes per sector on the source and the target match
4134	Implement a VSS Provider to properly quiesce source system during target snapshot initialization
4136	Fixed BSOD in NDIS / TCP driver accessing a buffer that ExtMirr had freed
4149	Prevent BSOD during resync with an inaccessible disk
4156	Improved product license expiration warnings in the event log
4157	dksupport.cmd Event Log entries are viewable on non-DataKeeper servers
4169	Implement Disable/Enable Status Updates option in EMTray
4174	Automatically create BitmapBaseDir path if folders don't exist
4176	dksupport.cmd archive includes the msinfo database

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.