



# **SteelEye DataKeeper Cluster Edition**

**v7.7**

**Release Notes**

**October 2013**

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# SteelEye DataKeeper Cluster Edition

## Release Notes

### Version 7.7

(Version 7 Update 7)

### **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

**SteelEye DataKeeper Cluster Edition** is a highly optimized host-based replication solution which integrates seamlessly with Windows Server 2012, Windows Server 2008/2008 R2/2008 R2 SP1 Failover Clustering as well as Windows Server 2003 Cluster Service. 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. SteelEye 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 SteelEye DataKeeper Cluster Edition is installed, a new storage class resource type called DataKeeper Volume is available. This new SteelEye 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 SteelEye DataKeeper Cluster Edition v7

Feature	Description
<b>New in This 7.7 release</b>	
Microsoft Windows Server 2012 R2 Support	DataKeeper Version 7.7 and later supports Windows Server 2012 R2.
General maintenance	See <a href="#">Bug Fixes</a> below.
<b>New in DataKeeper Cluster Edition Version 7.6</b>	

Feature	Description
Target Snapshot	<p>DataKeeper Cluster Edition now supports the ability to create point in time copies of replicated target volumes without impacting operations such as switchovers and failovers allowing access to data on a standby cluster node to perform tasks such as:</p> <ol style="list-style-type: none"> <li>1. Enabling SQLServer Reporting on underutilized target systems</li> <li>2. Allowing backups to be run on secondary systems, offloading the IO and CPU demand from the primary system</li> <li>3. Allowing offloading of Extract, Transform and Load (ETL) or other time-consuming processes</li> </ol> <p>This allows your data to be used on an otherwise idle target node without negatively impacting the performance of the source, offloading work from the source by using the CPU and IO bandwidth of the target server.</p> <p>DataKeeper target snapshot is currently supported in these environments (1x1, 1x1x1, 2x1) using Windows 2008 R2 and Windows Server 2012.</p>
IPv6	DataKeeper Cluster Edition now supports Internet Protocol Version 6 (IPv6). Due to this change, IPv4 and IPv6 subnet addresses use CIDR notation.
Automatic Check Disk ( <code>chkdsk</code> )	Add property <code>DiskRunChkdsk</code> to DKCE volumes to avoid validation errors. This is a change in behavior to comply with Microsoft recommendations. Read the considerations in the upgrade section to understand the implications of this change.
General maintenance	Bug Fixes.
<b>New in DataKeeper Cluster Edition Version 7.5</b>	
Windows Server 2012	DataKeeper now supports Windows Server 2012. For related information, see the <a href="#">Windows Server 2012</a> section below.
Performance Improvements	Major performance improvements in I/O bandwidth and CPU utilization for mirroring.
Using iSCSI Target with DataKeeper on Windows Server 2012	Support for Microsoft iSCSI Target cluster resources on Windows Server 2012 now allows customers to build iSCSI Target clusters using replicated storage with DataKeeper Cluster Edition. In addition to traditional use cases for iSCSI Target software, iSCSI Target clusters can also be used in CSV configurations allowing for the possibility of using DataKeeper Cluster Edition to replicate Scale Out File Server workloads as well as Hyper-V VMs deployed on CSVs hosted on the iSCSI Target cluster.
General maintenance	Bug Fixes.

Feature	Description
<b>New in DataKeeper Cluster Edition Version 7.4.3</b>	
General maintenance	Bug fixes.
<b>New in DataKeeper Cluster Edition Version 7.4</b>	
Volume Resizing	DataKeeper now supports resizing of volumes while retaining mirror settings.
Service ID and Password Selection Enhancement	DataKeeper supports authenticated connections via enhanced DataKeeper Service Log On ID and Password selections.
CHANGEMIRRORENDPOINTS Enhancement	DataKeeper's CHANGEMIRRORENDPOINTS command has now been expanded to three nodes.
SQL Server 2012	DataKeeper now supports Windows Server Failover Clusters running SQL Server 2012.
<b>New in DataKeeper Cluster Edition Version 7.3.1</b>	
DataKeeper Core	General maintenance.
<b>New in DataKeeper Cluster Edition Version 7.3</b>	
DataKeeper Core	General maintenance.
<b>New in DataKeeper Cluster Edition Version 7.2.2</b>	
LifeKeeper 7.2.1 compatibility	DataKeeper 7.2.2 is compatible with LifeKeeper 7.2.1.
<b>New in DataKeeper Cluster Edition Version 7.2.1</b>	
Windows 2008 R2 SP1 support	Beginning with Version 7.2.1, DataKeeper supports Windows 2008 R2 SP1.
64-bit Performance Monitor counters	SteelEye DataKeeper Performance Monitor counters are available in both the 64-bit and 32-bit Performance Monitor application.
LifeKeeper 7.2.1 compatibility	DataKeeper 7.2.1 is compatible with LifeKeeper 7.2.1.
Sector Size Enhancement	Support for disks with sector size not equal to 512 bytes.
Documentation	A complete reference providing instructions for installing, configuring, administering and troubleshooting SteelEye DataKeeper for Windows is now available on the Documentation section of the <a href="#">SIOS Technology Corp. website</a> .
<b>New in DataKeeper Cluster Edition Version 7.2</b>	
Microsoft Data Protection Manager support	DataKeeper 7.2 supports Microsoft Data Protection Manager 2010 on Windows Server Failover Clustering 2008.
Microsoft System Center Virtual Machine Manager support	DataKeeper 7.2 supports Microsoft System Center Virtual Machine Manager.

Feature	Description
Automatic creation of a DataKeeper Volume Resource in WSFC	DataKeeper 7.2 allows resource to be automatically assigned to WSFC Available Storage during mirror creation.
New EMCMD: CHANGEMIRRORENDPOINTS	DataKeeper 7.2 added this command to simplify moving a DataKeeper protected volume to another network location.
DataKeeper Online Help Enhancements	“Extending a Traditional 2-Node WSFC Cluster to a Third Node via DataKeeper” added in the DataKeeper 7.2 Online Help.
LifeKeeper 7.2 compatibility	DataKeeper 7.2 is compatible with LifeKeeper 7.2.
Subscription-based licensing support	DataKeeper 7.2 supports subscription-based, time-limited licensing with an automatic license renewal option.
File Server Resource Manager support	DataKeeper 7.2 and later supports Disk Quota functionality using File Server Resource Manager on Windows Server 2008 R2. File Screening is not supported.
<b>New in DataKeeper Cluster Edition Version 7.1.2</b>	
2+ Node Support in an MSCS/WSFC cluster	Beginning with Cluster Edition 7.1.2, DataKeeper supports more than two nodes in an MSCS/WSFC cluster.
Mixed shared storage/replicated storage cluster support	Beginning with Cluster Edition 7.1.2, DataKeeper supports mixed shared storage/replicated storage clusters.
<b>New in DataKeeper Cluster Edition Version 7.1.1</b>	
Microsoft System Center Virtual Machine Manager 2008 R2* support	DataKeeper v7.1.1 and later supports Microsoft System Center Virtual Machine Manager 2008 R2**  <b>Note:</b> Microsoft System Center Virtual Machine Manager 2008 is not compatible with SteelEye DataKeeper Cluster Edition v7.1.2 (see Known Issues in the DataKeeper Technical Documentation Troubleshooting Section for further information)
<b>New in DataKeeper Cluster Edition Version 7.1</b>	
One-to-many replication configurations	DataKeeper 7.1 and later supports one-to-many replication configurations.
<b>New in DataKeeper Cluster Edition Version 7</b>	
Windows 2008 R2 support	DataKeeper Version 7 supports Windows 2008 R2.
Windows Server 2003 MSCS support	DataKeeper Version 7 supports Windows Server 2003 MSCS for multi-site clusters.
File Share Resources type support	DataKeeper Version 7 supports File Share Resources type in WSFC.
Integration with SteelEye LifeKeeper v7	DataKeeper Version 7 is now integrated with LifeKeeper v7
Localized for Japan	DataKeeper Version 7 is now localized for Japan

## Bug Fixes

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

Bug	Description
3671	Protect against BSOD with invalid packet on dispatch port
3686	BSOD at system boot time

## Product Definitions and Platforms

### Product Requirements

Product	Operating Systems	Additional Software
Server Components	Microsoft Windows: Server 2003 Enterprise Edition; 32- or 64-bit version	N/A
	Microsoft Windows: Server 2008 Enterprise Edition or Datacenter Edition 32- or 64-bit version, SP1 and SP2	Hotfix – KB 951308 <a href="http://support.microsoft.com/kb/951308">http://support.microsoft.com/kb/951308</a> If protecting Hyper-V resources, Hotfix KB 958065 <a href="http://support.microsoft.com/?id=958065">http://support.microsoft.com/?id=958065</a>
	Server 2008 R2/2008 R2 SP1 Enterprise Edition or Datacenter Edition 64-bit version	<b>Note:</b> These hotfixes are not required for Windows Server 2008 SP2 and Windows Server 2008 R2/2008 R2 SP1. <a href="#">Microsoft Hotfix KB 2741477</a> 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 <a href="#">Hyper-V Host Cluster Error.</a> )
	Microsoft Windows: Server 2012 Datacenter and Standard	See <a href="#">below</a> for details.
	<b>Note:</b> The target snapshot feature requires Microsoft .NET Framework 3.5 SP1 to be installed - download from: <a href="http://www.microsoft.com/net">http://www.microsoft.com/net</a> .	



Product	Operating Systems	Additional Software
User Inter- face	Microsoft Windows: <ul style="list-style-type: none"> <li>• Server 2003 R1 and R2</li> <li>• Server 2008 R1, R2 and R2 SP1</li> <li>• Server 2012 Data-center and Standard</li> <li>• Vista</li> <li>• XP</li> <li>• Windows 7</li> </ul>	Microsoft .Net Framework 3.5 SP1 - download from: <a href="http://www.microsoft.com/net">http://www.microsoft.com/net</a>  MMC 3.0 - download from: <a href="http://support.microsoft.com/kb/907265">http://support.microsoft.com/kb/907265</a>

**Note:** All servers within a cluster should be running the same version of Windows.

Make sure you verify the following settings prior to installing and configuring SteelEye 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.
- The Windows Failover Cluster environment must be installed and configured prior to installing the SteelEye DataKeeper Cluster Edition software up to the point of creating your first cluster resource. Follow Microsoft best practices for deploying geographically dispersed clusters, including changing the quorum mode majority node set with a file share witness. **If the basic Windows cluster is not configured prior to installing DataKeeper Cluster Edition, a repair installation of DataKeeper Cluster Edition is necessary before you are able to create a DataKeeper cluster resource.**

## Requirements for Windows 2008

While installing SteelEye DataKeeper Cluster Edition on Windows 2008, a dialog box will appear asking whether the installer should make the system configuration changes described below. If the installer is not allowed to make these changes, they will need to be made manually after installation is complete.

- Windows Firewall
- The **Distributed Link Tracking Client** must be disabled

In addition, if your Windows 2008 servers are not in a domain, the Local Security policy setting "**Network Access: Let Everyone permissions apply to anonymous users**" must be enabled. If the servers are in a domain, then this setting is not required.

## 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.