

Symantec™ Dynamic Multi-Pathing for Windows Release Notes

Windows

6.1

Symantec™ Dynamic Multi-Pathing for Windows Release Notes

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Symantec Corporation
350 Ellis Street
Mountain View, CA 94043

<http://www.symantec.com>

Technical Support

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For information about Symantec's support offerings, you can visit our website at the following URL:

www.symantec.com/business/support/index.jsp

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Contacting Technical Support

Customers with a current support agreement may access Technical Support information at the following URL:

www.symantec.com/business/support/contact_techsupp_static.jsp

Before contacting Technical Support, make sure you have satisfied the system requirements that are listed in your product documentation. Also, you should be at the computer on which the problem occurred, in case it is necessary to replicate the problem.

When you contact Technical Support, please have the following information available:

- Product release level
- Hardware information

- Available memory, disk space, and NIC information
- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
 - Error messages and log files
 - Troubleshooting that was performed before contacting Symantec
 - Recent software configuration changes and network changes

Licensing and registration

If your Symantec product requires registration or a license key, access our technical support Web page at the following URL:

www.symantec.com/business/support/

Customer service

Customer service information is available at the following URL:

www.symantec.com/business/support/

Customer Service is available to assist with non-technical questions, such as the following types of issues:

- Questions regarding product licensing or serialization
- Product registration updates, such as address or name changes
- General product information (features, language availability, local dealers)
- Latest information about product updates and upgrades
- Information about upgrade assurance and support contracts
- Information about the Symantec Buying Programs
- Advice about Symantec's technical support options
- Nontechnical presales questions
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Support agreement resources

If you want to contact Symantec regarding an existing support agreement, please contact the support agreement administration team for your region as follows:

Asia-Pacific and Japan	customercare_apac@symantec.com
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North America and Latin America	supportsolutions@symantec.com

Documentation

Your feedback on product documentation is important to us. Send suggestions for improvements and reports on errors or omissions. Include the title and document version (located on the second page), and chapter and section titles of the text on which you are reporting. Send feedback to:

doc_feedback@symantec.com

For information regarding the latest HOWTO articles, documentation updates, or to ask a question regarding product documentation, visit the Storage and Clustering Documentation forum on Symantec Connect.

<https://www-secure.symantec.com/connect/storage-management/forums/storage-and-clustering-documentation>

About Symantec Connect

Symantec Connect is the peer-to-peer technical community site for Symantec's enterprise customers. Participants can connect and share information with other product users, including creating forum posts, articles, videos, downloads, blogs and suggesting ideas, as well as interact with Symantec product teams and Technical Support. Content is rated by the community, and members receive reward points for their contributions.

<http://www.symantec.com/connect/storage-management>

Release Notes

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Introduction

This document provides important information regarding Symantec Dynamic Multi-Pathing 6.1 for Windows (DMPW). Please review this entire document before using this product.

The information in the Release Notes supersedes the information provided in the product documents. You can download the latest version of this document from the Symantec SORT Web site:

<https://sort.symantec.com>

For the latest information on updates, patches, and other issues regarding this release, see the following Technote:

<http://www.symantec.com/docs/TECH161556>

Overview and features

This section provides an overview of Symantec Dynamic Multi-Pathing for Windows (DMPW) and describes its main features.

DMPW overview

Symantec Dynamic Multi-Pathing for Windows (DMPW) adds additional fault tolerance to disk storage by making use of multiple paths between a server/host computer and a disk in a storage array. A path is a connection between the server/host computer and the storage array's disks and consists of a host adapter and a SCSI bus connection to one or more SCSI disks or a fiber optic channel connected to a hub, switch, or array. Thus, multiple paths are made possible by connecting two or more host bus adapters with either SCSI or fiber optic cabling to the storage array. DMPW manages the multiple paths so that the data on each of the array's disks is accessible to the host computer. If a path to a disk fails, Dynamic Multi-Pathing automatically transmits data to and from the disk over an alternate path.

The paths on an array are set up to work in two ways—either in Active/Active mode, which provides load balancing of the data between multiple paths, or in Active/Passive mode, in which only one path is active and any remaining paths are backups.

DMPW is implemented through Symantec Dynamic Multi-Pathing for Windows Device Specific Modules (DMPW DSMs). DMPW DSMs are designed to support a multipath disk storage environment set up with the Microsoft Multipath I/O (MPIO) solution. DMPW DSMs work effectively with Windows to provide a fault tolerant multipath disk storage environment.

DMPW major features

The major features of Symantec Dynamic Multi-Pathing for Windows (DMPW) are the following:

- **Fault tolerance**
Provides fault tolerance to a disk system by using multiple paths to each disk. If the primary path fails, either at the card level or in the cabling from the card to the disk, a secondary path is automatically used.
- **Load balancing in Active/Active configurations**
When a system is configured as Active/Active, Dynamic Multi-Pathing makes use of all the paths to a disk for the transfer of I/O to and from the disk.
- **Support for multiple paths**
With DMPW DSMs, the maximum number of I/O paths you can have is 16.

- **Dynamic recovery**
If an active path to a disk fails, Dynamic Multi-Pathing automatically flags the failed path and no longer attempts to transfer data on it. The failed path is monitored and is automatically restored to service when Dynamic Multi-Pathing detects that the path is functioning correctly. Dynamic Multi-Pathing automatically updates path status on the user display when a path fails or is restored to service.
- **Dynamic path recognition**
If you add a new path to your Dynamic Multi-Pathing configuration, running a rescan or rebooting your system causes Dynamic Multi-Pathing to detect the new path and display its status. If a failed or disabled path is restored to service, Dynamic Multi-Pathing automatically detects the status change and updates the display.

Requirements

For the latest information on supported hardware, see the Hardware Compatibility List (HCL) at:

<http://www.symantec.com/docs/TECH208993>

About Symantec Operations Readiness Tools

Symantec Operations Readiness Tools (SORT) is a website that automates and simplifies some of the most time-consuming administrative tasks. SORT helps you manage your datacenter more efficiently and get the most out of your Symantec products.

SORT can help you do the following:

Prepare for your next installation or upgrade

- List product installation and upgrade requirements, including operating system versions, memory, disk space, and architecture.
- Analyze systems to determine if they are ready to install or upgrade Symantec products and generate an Installation and Upgrade custom report.
- List patches by product or platform, and in the order they need to be installed. Display and download the most recent patches or historical patches.
- Display Array Support Library (ASL) details by vendor, platform, or Storage Foundation and High Availability (SFHA) version. ASLs make it easier to manage arrays that are connected to SFHA-based servers.
- List VCS and ApplicationHA agents, documentation, and downloads based on the agent type, application, and platform.

Identify risks and get server-specific recommendations

- Analyze your servers for potential environmental risks. Generate a Risk Assessment custom report with specific recommendations about system availability, storage use, performance, and best practices.
- Display descriptions and solutions for thousands of Symantec error codes.

Improve efficiency

- Get automatic email notifications about changes to patches, array-specific modules (ASLs/APMs/DDIs/DDLs), documentation, product releases, Hardware Compatibility Lists (HCLs), and VCS/ApplicationHA agents.
- Quickly gather installed Symantec product and license key information from across your production environment. Generate a License/Deployment custom report that includes product names, versions, and platforms, server tiers, Symantec Performance Value Units (SPVUs), and End of Service Life dates.
- List and download Symantec product documentation including product guides, manual pages, compatibility lists, and support articles.
- Access links to important resources on a single page, including Symantec product support, SymConnect forums, customer care, Symantec training and education, Symantec FileConnect, the licensing portal, and my.symantec.com. The page also includes links to key vendor support sites.
- Use a subset of SORT features from your iOS device. Download the application at:
<https://sort.symantec.com/mobile>

Note: Certain features of SORT are not available for all products. Access to SORT is available at no extra cost.

To access SORT, go to:

<https://sort.symantec.com>

New features and changes in this release

This section describes the new features and changes introduced in this release.

Support for Windows Server 2012/R2, Hyper-V Server 2012/R2, and Windows 8

The following Windows operating systems are supported with this release:

- **Windows Server 2012 64-bit (Full/Core):** Standard Edition, Datacenter Edition
- **Windows Server 2012 R2 64-bit (Full/Core):** Standard Edition, Datacenter Edition
- **Microsoft Hyper-V Server 2012, 2012 R2**

Note: Microsoft Hyper-V Server 2012 R2 is only supported for SFW, and not for SFW HA or VCS.

- **Windows 8 client support:** Microsoft Windows 8.1 Enterprise (x64, x86), Microsoft Windows 8.1 Professional (x64, x86)

Changes to product names

Beginning with the 6.1 release, Storage Foundation and High Availability Solutions product names have been changed.

[Table 1-1](#) lists the new Storage Foundation and High Availability Solutions product names.

Table 1-1 New Storage Foundation and High Availability Solutions product names

Old product name	New product name
Veritas Cluster Server for Windows	Symantec Cluster Server for Windows

Table 1-1 New Storage Foundation and High Availability Solutions product names (*continued*)

Old product name	New product name
Veritas Dynamic Multi-Pathing for Windows	Symantec Dynamic Multi-Pathing for Windows
Veritas High Availability Agent Pack	Symantec High Availability Agent Pack
Veritas Storage Foundation for Windows	Symantec Storage Foundation for Windows
Veritas Storage Foundation and High Availability Solutions for Windows	Symantec Storage Foundation and High Availability Solutions for Windows
Veritas Volume Replicator	Symantec Storage Foundation Volume Replicator

Symantec rebranding does not apply to the following:

- Product acronyms
- Command names
- Error messages
- Alert messages
- Modules and components
- Feature names
- License key description
- Installation and configuration files and directory names

Software limitations

The following limitations apply to DMPW DSMs.

DSM ownership of LUNs

Do not use a DMPW DSM together with a third-party DSM for the same array. Only one DSM at a time can claim the LUNs in an array. According to Microsoft Multipath I/O (MPIO) documentation, if multiple DSMs are installed, the Microsoft MPIO framework contacts each DSM to determine which is appropriate to handle a device. There is no particular order in which the MPIO framework contacts the DSMs. The first DSM to claim ownership of the device is associated with that device. Other DSMs cannot claim an already claimed device. Therefore, to ensure that the DMPW

DSM claims the LUNs of an array, no other DSM should be installed for that same array.

Known issues

The following known issues exist in this release of Symantec Dynamic Multi-Pathing for Windows (DMPW). They are grouped under the following headings:

See “[Installation known issues](#)” on page 13.

See “[Other known issues](#)” on page 15.

For the latest information on issues regarding this release, see the following Technote:

<http://www.symantec.com/docs/TECH161556>

Installation known issues

The following are known installation issues.

Installation on Windows Server 2012 R2 takes more time when logged on user is a domain administrator

This issue occurs because the Windows Service installation takes approximately 3 to 4 minutes on a Windows Server 2012 R2 system, when logged on user is a domain administrator, and domain controller is running on windows server 2008 R2. (3422177)

To avoid the delay in installation, use the local administrator account. Windows Service installation gets completed within few seconds using a local administrator account.

The installation may fail with "The system cannot find the file specified" error

This issue occurs if the vxinstaller service is in a failed state during the product installation. (2560071)

Workaround: Delete the vxinstaller service and then run the installation wizard again.

Installation may fail with the "Windows Installer Service could not be accessed" error

This issue occurs if the Windows Installer Service is not accessible during the installation. Since the service is not accessible, the installer fails to proceed with the installation. (2497344)

Workaround: The Windows Installer Service is a native component of an operating system. Typically, the Installer Service inaccessible issue occurs, if the service is damaged or unregistered and thus repairing the operating system installation serves as a workaround.

For more details on the workaround, refer to the following Microsoft knowledge base articles.

<http://support.microsoft.com/kb/315353>

<http://support.microsoft.com/kb/315346>

Delayed installation on certain systems

You may experience a slower installation on certain systems.

This issue occurs, if you have configured any software restriction policies on the system. During the installation the restriction policies increases the package verification time and thus the over all installation time is increased. (2516062)

Installation may fail with "Unspecified error" on a remote system

This issue occurs if the vxInstaller service does not start on the remote node to begin the installation. (2429526)

Workaround: Run the installation locally on the system where the installation has failed.

vxlicrep and GUI showing wrong product name for DMPW license

In a graphical user interface (GUI) based installation, on the **License** page, when you enter the license key and select the key to view the licensed options, it shows the wrong product name and does not list product features. In a command-line interface (CLI) based installation, you can see this by using the `vxlicrep` command. (2160859)

Workaround: There is no workaround for this issue.

Side-by-side error may appear in the Windows Event Viewer

This issue occurs on the systems where the Microsoft VC redistributable package or the .NET installation is corrupted. (2406978)

Workaround: You must repair the VC redistributable package or the .NET installation.

Uninstallation may fail to remove certain folders

After a successful uninstallation, the product installer may fail to remove the following folders:

- VERITAS Object Bus
- Veritas Shared
- Veritas Volume Manager

These folders contain application logs. The reinstallation of the product will not be affected if these folders are not deleted. (2591541, 2654871)

Workaround: You can safely delete these folders manually.

Error while uninstalling the product if licensing files are missing

This issue occurs if the licensing files are missing from the system, and you try to uninstall the product. (3330686)

The product installation wizard gives the following error on the system selection page:

```
License details for the following systems are not specified:  
<system_name>
```

Workaround: Use the Add or Remove Programs of the Windows Control Panel to add the product license and retry uninstalling the product.

Other known issues

The following are other known issues for this release.

vxdmpadm's deviceinfo and pathinfo with disk specified in p#c#t#l# parameter displays information only by one path

The `deviceinfo` and `pathinfo` commands of `vxdmpadm` work with only one `p#c#t#l#` parameter shown with the disk in the `vxdmpadm disk list` command. Even if the disk has more than one path, the `deviceinfo` and `pathinfo` commands with `p#c#t#l#` values of other paths fail with the Invalid Argument error. (2162670)

Changes made to a multipathing policy of a LUN using the Microsoft Disk Management console, do not appear on the VEA GUI

DMP DSMs do not manage the load balance settings made with the Microsoft Disk Management console. So changes made to a multipathing policy using the Microsoft Disk Management console do not appear on the VEA GUI.

Changing the load balance settings for DMP DSMs must be done using the SFW VEA GUI or CLI. (1859745)

VEA or CLI operations for DMPW DSMs fail without providing error message if WMI service is disabled

The Windows Management Instrumentation (WMI) service is required for using the DMPW DSM feature. If you disable the WMI service, the wizards or commands for DMPW DSM operations that require the WMI service will fail. The message window displays only an error code without a message explaining the cause of the failure. (2590359)

Documentation

Symantec Dynamic Multi-Pathing for Windows includes the following documentation, in addition to the release notes.

- *Symantec Dynamic Multi-Pathing for Windows Installation and Upgrade Guide*
- *Symantec Dynamic Multi-Pathing for Windows Administrator's Guide*

You can download the latest version of these documents from the Symantec SORT Web site.

<https://sort.symantec.com>

Acronyms

The following table defines acronyms used in the Symantec Dynamic Multi-Pathing for Windows (DMPW) release notes:

Table 1-2 Acronym List

Acronym	Definition
DMPW	Symantec Dynamic Multi-Pathing for Windows

Table 1-2 Acronym List (*continued*)

Acronym	Definition
CLI	Command-line interface
GUI	Graphical user interface
HCL	Hardware Compatibility List
MPIO	Multipath I/O
VEA	Veritas Enterprise Administrator