

Veritas™ Dynamic Multi-Pathing for Windows Release Notes

Windows Server 2003, Windows Server
2008

5.1

Veritas™ Dynamic Multi-Pathing for Windows Release Notes

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Release Notes

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Introduction

This document provides important information regarding Veritas Dynamic Multi-Pathing for Windows (DMPW) 5.1. 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 Support website.

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

<http://www.symantec.com/docs/TECH59755>

For general information on DMPW, see the Symantec website at:

<http://www.symantec.com>

For information about the supported hardware configurations, see the Hardware Compatibility List (HCL) at:

<http://www.symantec.com/docs/TECH138719>

Overview and features

This section provides an overview of Veritas Dynamic Multi-Pathing for Windows (DMPW) 5.1 and describes its main features.

DMPW overview

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

DMPW major features

The major features of Veritas 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 utilized.
- **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 DMP 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.

DMPW DSM support

This release provides support for the following Veritas Dynamic Multi-Pathing for Windows Device Specific Modules (DMPW DSMs):

- 3PARDATA (V3PARAA)
- Dell EqualLogic array (VEQLOGIC)
- EMC Symmetrix/DMX (VEMCSYMM)
- EMC Clariion (VEMCCLAR)
- Hitachi TagmaStore/HP XP (VHDSAA)
- Hitachi 95xx-AMS-WM (VHDSAP)
- HP 2000 array (VHPMSA2)
- HP EVA-MSA (VHPEVA)
- IBM DS8000/ESS (VIBMAADS)
- IBM DS6000 (VIBMAP)
- IBM DS4000/SUN 6000 (VENGAP)
- IBM DS AP (VIBMAPDS)
- IBM XiV Storage System (VXIV)
- HUAWEI S5300/S2300 array (VHUAWEIAP)
- FUJITSU ETERNUS 2000 array (VFUJITSUAA)
- NETAPP (VNETAPP)

- PILLAR (VPILLAR)
- WindowsStorage Server 2003 R2 iSCSI (VITARGET)
- XioTech Array (VXIOTECH)
- Compellent array (VCOMPLNT)
- SUN Array (VSUN)

Note: Symantec maintains a Hardware Compatibility List (HCL) for SFW on the Symantec Support web site. Check the HCL for details about supported storage arrays enabled for thin provisioning. For the latest updates to array support and for supported hardware configurations, see the HCL at:

<http://www.symantec.com/docs/TECH138719>

Requirements

For information about the operating system, hardware, and other general requirements of Veritas Dynamic Multi-Pathing for Windows (DMPW), see the *Veritas Dynamic Multi-Pathing for Windows Installation and Upgrade Guide*.

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

<http://www.symantec.com/docs/TECH138719>

Known issues

The following known issues exist in this release of Veritas Dynamic Multi-Pathing for Windows (DMPW).

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

<http://www.symantec.com/docs/TECH59755>

Array/Device setting wizards for weighted path policy accept a larger number without throwing any error (2171310)

In the Array/Device Setting wizard, if Weighted Paths option is selected and, on the next page, the value entered for the path weight is bigger than the maximum integer value 2,147,483,647, then the wizard does not show any errors. However, the VEA GUI shows a Number Format Exception.

There is no workaround for this issue.

Statistics monitoring dialog accepts a large polling value without any error (2149046)

In the Statistics Monitoring command's Path Statistics screen, the VEA GUI does not show any error even if the value for the Polling Interval field is bigger than the maximum integer value 2,147,483,647.

There is no workaround for this issue.

vxddmpadm setattr dsm CLI fails to set loadbalance policy or primary path or SCSI parameters (2162011)

Because the `vxddmpadm setattr dsm` command operations have been blocked, you can not set Load Balancing Policy or Primary Path or SCSI parameters at DSM level.

Workaroud: Set these parameters for individual arrays.

vxddmpadm's deviceinfo and pathinfo with disk specified in p#c#t#l# parameter displays information only via one path (2162670)

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

Vxddmpadm disk list CLI does not show the correct disk style and status (2164658)

The Disk Style (MBR/GPT) shown in the `vxddmpadm disk list` command does not get updates when it is changed from Disk Management. The Disk Status in the `vxddmpadm disk list` command is always shows as Uninitialized or Unknown.

Workaroud: You need to do run the `vxddmpadm rescan` command to update the Disk Style. However, there is no workaround to update the Disk Status.

Cannot set SCSI3 support for a DSM (2163823)

Users cannot set SCSI-3 support for a DSM. The `vxddmpadm setdsm SCSI3` command operation fails.

Workaroud: Set SCSI-3 support for individual array using the `vxddmpadm setarrayscsi3` command.

VEA fails to launch because MSVCR71.dll is missing (2169691)

Veritas Enterprise Administrator (VEA) fails to launch because it cannot find the MSVCR71.dll file in the location \Program Files\Veritas\Veritas Object Bus\Bin.

Workaround: To resolve this issue, copy the MSVCR71.dll file from \Program Files\Veritas\Veritas Object Bus\Eat\Bin to \Program Files\Veritas\Veritas Object Bus\Bin.

vxlicrep and GUI showing wrong product name for DMPW license (2160859)

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 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.

There is no workaround for this issue.

Bug check may occur when adding DMPW DSM option (1251851)

After installing SFW, adding the DMPW DSM option, with Windows Add or Remove Programs, may result in bug check 0xD1. This issue has been reported to Microsoft (SRZ080421000462).

Acronyms

The following table defines the acronyms used in the Veritas Dynamic Multi-Pathing for Windows (DMPW) 5.1 release notes:

Table 1-1 Acronym List

Acronym	Definition
DMPW	Dynamic Multi-Pathing for Windows
CLI	Command-line interface
GUI	Graphical user interface
HCL	Hardware Compatibility List
MPIO	Multipath I/O
VEA	Veritas Enterprise Administrator