Veritas™ Dynamic Multi-Pathing Release Notes

VMware ESX

6.0

Veritas Dynamic Multi-Pathing Release Notes

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- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
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Dynamic Multi-Pathing Release Notes

This document includes the following topics:

- About this document
- About Veritas Dynamic Multi-Pathing
- Important release information
- System requirements
- Known issues
- Software limitations
- Documentation

About this document

This document provides important information about Veritas Dynamic Multi-Pathing (Dynamic Multi-Pathing) version 6.0 for ESX. Review this entire document before you install or upgrade Dynamic Multi-Pathing.

The information in the Release Notes supersedes the information provided in the product documents for Dynamic Multi-Pathing.

This is Document version: 6.0.3 of the *Veritas Dynamic Multi-Pathing Release Notes*. Before you start, make sure that you are using the latest version of this guide. The latest product documentation is available on the Symantec Web site at:

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About Veritas Dynamic Multi-Pathing

Symantec's Veritas Dynamic Multi-Pathing for VMware 6.0 (VxDMP) is a multi-pathing solution integrated with VMware's vSphere infrastructure. This brings the established and proven enterprise-class functionality to VMware virtual environments.

Veritas Dynamic Multi-Pathing (Dynamic Multi-Pathing) provides multi-pathing functionality for the operating system native devices configured on the system. Dynamic Multi-Pathing creates DMP metadevices (also known as DMP nodes) to represent all the device paths to the same physical LUN.

Dynamic Multi-Pathing provides the best in class availability, reliability, and performance by using advanced path failover and load balancing for a wide range of storage arrays. Dynamic Multi-Pathing also helps you to gain better visibility of your storage, and to manage it better.

Dynamic Multi-Pathing solution consists of the following components:

- DMP bundles installed on the ESX/ESXi servers.
  The ESX/ESXi bundle contains the binaries for DMP that need to be installed on each individual ESX/ESXi server.
  You can obtain the ESX/ESXi bundle from the Veritas installation media, or download it using vSphere Client.

- Administrative components:

  - DMP Console installed on a Windows-based host (physical or virtual).
    The DMP Console plugs into VMware vSphere Client as vCenter Plugin, and enables you to manage DMP in the vSphere environment. Once the DMP Console is installed, Veritas Dynamic Multi-Pathing is available in vSphere Client, under the **vCenter Home** view, and as a **VxDMP** tab. The VxDMP tab offers the host view for a selected ESX/ESXi host, or the datacenter view for a selected datacenter.
    Use the Veritas installation media to install the DMP Console on a Windows-based host, having the supported Windows version.

  - Administration CLI installed on a Windows-based or Linux-based remote host.
    The conventional `vxdmpadm` and `vxddladm` commands enable you to administer DMP on any ESX/ESXi from a remote host, using a shell that allows scripting.
    You can obtain the CLI package from the Veritas installation media, or download the CLI package using vSphere Client.

Important release information

- For important updates regarding this release, review the Late-Breaking News TechNote on the Symantec Technical Support website:
  http://www.symantec.com/docs/TECH183493

- For the latest patches available for this release, go to:
  http://sort.symantec.com/

- The hardware compatibility list contains information about supported hardware and is updated regularly. For the latest information on supported hardware visit the following URL:
  http://www.symantec.com/docs/TECH170013
  Before installing or upgrading Storage Foundation and High Availability Solutions products, review the current compatibility list to confirm the compatibility of your hardware and software.

System requirements

The following topics describe the system requirements for this release:

Hardware compatibility list (HCL)

The hardware compatibility list contains information about supported hardware and is updated regularly. Before installing or upgrading Storage Foundation and High Availability Solutions products, review the current compatibility list to confirm the compatibility of your hardware and software.

For the latest information on supported hardware, visit the following URL:

http://www.symantec.com/docs/TECH170013

Supported VMware software versions

This section lists the supported VMware software versions for this release of Veritas products.

If your system is running an older version of ESX, upgrade to either ESX 4.1 or ESXi 4.1 before attempting to install the Veritas software. Consult the VMware documentation for more information on upgrading or reinstalling your operating system.

Table 1-1 shows the supported VMware software versions for this release.

Table 1-1   Supported VMware software versions

VMware software version	vCenter Server version
ESX 4.1, 4.1 Update 1 (U1) and 4.1 Update 2 (U2)	vCenter Server 4.1 and later
ESXi 4.1, 4.1 Update 1 (U1) and 4.1 Update 2 (U2)	vCenter Server 4.1 and later

Note: In this guide, references to ESX refer to both ESX and ESXi systems unless otherwise noted.

Microsoft Windows requirements

The DMP console is the Web server for the vSphere User Interface client for DMP. The DMP console Web server can be installed on a Microsoft Windows system meeting the following requirements.

The DMP console requires 256M of heap space. So at least 256M of RAM should be free and available on the system for DMP console server to start up.

Table 1-2 shows the supported Microsoft Windows versions.

Table 1-2   Supported operating systems

Operating systems
Windows 2008 x64 bit
Windows 2008 R2

Optionally, the VxDMP remote CLI can be installed on a physical system or virtual machine running Microsoft Windows. The same requirements apply.

Web browser requirements

The following are the supported Web browsers for Dynamic Multi-Pathing:

■ Internet Explorer 6.0 (or later)

Additional considerations for supported Web browsers:

■ The following settings in your Internet Explorer (IE) browser must be enabled:

Tools > Internet Options. Advanced tab.	■ Use SSL 2.0 ■ Use SSL 3.0 ■ Use TLS 1.0
Tools > Internet Options. Security tab.	■ Active scripting ■ Run ActiveX controls and plug-ins ■ Script ActiveX controls marked safe for scripting
Tools > Manage Add-ons	Shockwave Flash Object

- ■ To view the VxDMP tab on the Windows Server 2003 or Windows Server 2008 systems running Internet Explorer (IE) version 9, the IE Enhanced Security setting must be set to "Off" for the Administrator and the Users groups.
- ■ To view the VxDMP tab, you must have Adobe Flash installed on the system from where you run VMware vSphere Client.

Support requirements for the remote CLI

The VxDMP remote Command Line Interface (CLI) can be installed on any Linux or Windows system that uses Java Runtime Environment (JRE) 6.0 or above. The system can be a physical system or a virtual machine.

Known issues

This section covers the known issues in this release.

See the corresponding Release Notes for a complete list of known issues related to that product.

See "Documentation" on page 16.

VxDMP console installation fails if installed in a folder having Japanese character in it (2670506)

When you install VxDMP on a host with a Japanese OS, if you select for installation a directory having a Japanese character in its name, the installation fails.

Workaround: When installing VxDMP on a host with a Japanese OS, use the default installation directory:`C:\program files(x86)\symantec\DMP\`

Configuration of the VxDMP Console server and registering the DMP plugin fails if the installation directory contains special characters (2671487)

If you install DMP Console in a directory that has a name with unsupported special characters, then the post-installation configuration fails. The special characters that are not supported include the following: percent sign (%); ampersand (&); tilde (~); ` apostrophe ('); exclamation point (!); at sign (@); number sign (#); dollar sign ($); carat (^); plus sign (+); equal sign (=}; brackets ([ ]) and semicolon (;).

If the directory contains unsupported characters, you cannot configure Symantec DMP Console server, or register the DMP plug-in.

If you try to uninstall VxDMP from the system, then a fatal error occurs.

Workaround:

The installation directory name must not have special characters other than dash (-); underscore (_); parenthesis (()); or period (.).

Issues related to installation (2642164)

Repair of the DMP console installation fails if the *InstallDirectory*/DMP/bin directory is missing, or if files are missing from this directory.

Workaround:

If the repair fails, you must uninstall and reinstall the package.

Issue when installing the vCenter Plug-in components

When you install the vCenter Plug-in components from the ISO image, and then you try to uninstall and reinstall, the re-installation fails. This issue is because some of the files are left in the `program files (x86)\symantec\dmp` directory structure incorrectly.

Workaround:

Manually remove the DMP directory and its contents before re-installation.

Refreshing the VxDMP tab multiple times displays a network connectivity error (2379946, 2379707)

This issue is typically observed in case of Internet Explorer 7 (IE7) browser. If auto-refresh is enabled, VxDMP tab refreshes the I/O statistics for every interval (as specified in seconds). However, in case of network failure if you manually refresh the VxDMP tab multiple times, IE7 displays a network connectivity error.

Workaround:

For details, refer to the following knowledge base article from Microsoft.

http://support.microsoft.com/kb/927917#more_information

Storage processor name is not displayed correctly for NetApp Filer (2655614)

For NetApp filer with iSCSI storage, VxDMP does not display the array storage processor information correctly.

In the VxDMP host view, the Serial Number and Attributes field may display incorrect information.

In the VxDMP datacenter view, the Array Port and Array Storage Processor fields may display incorrect information.

There is no workaround for this issue.

Enabling or disabling the controller from the VxDMP tab fails for an iSCSI configuration with NetApp Filer (2488955)

For an iSCSI configuration with NetApp Filer, enabling or disabling the controller from the VxDMP tab fails. This issue results from the issue where the WWN is not displayed correctly.

Workaround:

Perform the operation from the remote CLI. For example:

```
# vxdmpadm host=host user=user password=passwd \
disable enclosure=enclr_name portid=portid
```

Installation failure due to parallel installation processes causes fatal error during post-installation configuration (2695797)

Installation of VxDMP fails if the installer detects that an installation is already in progress. If the installation fails due to a parallel installation process, the following error displays:

```
V-5-20072-1 System.Reflection.TargetInvocationException: Exception
has been thrown by the target on an invocation.
System.UnauthorizedAccessException: Access to
the path 'pathname' is denied.....
```

Workaround:

To resolve the issue

1   Check for installation logs at the following location:

    `System Drive:\ProgramData\Veritas\VPI\log`

2   Cancel or complete the installations that are in progress.

3   Resolve the issue with the system according to the installation logs.

4   Uninstall the DMP components from ARP entry.

5   Reboot the system.

6   Clean the system by deleting residual folders of DMP in the installation directory and reqistry keys, if any.

7   Install VxDMP again.

Using the remote CLI, enabling or disabling one array port for an enclosure affects all of the array ports (2696181)

Enabling or disabling one array port for an enclosure using the remote CLI causes all of the array ports to be enabled or disabled respectively.

Workaround:

Perform the operation with the VxDMP GUI.

Issues related to Command Line Interface

This section describes the known issues for Command Line Interface.

ESX CIM provider shows exception errors

Problem: In case the user provides invalid command line arguments, the ESX CIM provider may show exception errors.

There is no workaround for this issue.

Command failed message appears while disabling a path or a controller

Problem: While disabling a path or a controller, if the last accessible path or controller for any LUN is being disabled, then the operation displays a command failed message, instead of stating that the force option can be used.

There is no workaround for this issue.

Software limitations

This section covers the software limitations of this release.

See the corresponding Release Notes for a complete list of software limitations related to that component or product.

See "Documentation" on page 16.

vSphere Client DMP GUI limitations

The following are the software limitations for the vSphere Client DMP GUI, in the current release.

- Some attributes in the controller and LUN tables are currently displayed as '-'.

VMware device claiming limitation

The following is a software limitation from VMware, for the current release.

If the vendor and the model of the storage device is not supported by VMware, the device is not claimed by VxDMP or the device disappears after VxDMP installation.

Workaround: If the device in not supported, delete the MPP claim rule associated with VxDMP, from the **esxcli corestorage claimrule list**.

For arrays with such vendor IDs, create claim rules for each Product ID on your setup.

Limitation to displaying and gathering I/O statistics (2671706)

This release of DMP does not support all of the `vxdmpadm iostat` command options for displaying and gathering I/O statistics. The following options are supported:

```
# vxdmpadm iostat start [memory=m]

# vxdmpadm iostat stop

# vxdmpadm iostat reset

# vxdmpadm iostat show [filter][interval=n [count=m]]

# vxdmpadm iostat show groupby=criteria [filter][interval=n [count=m]]
```

For more information on these commands, refer to the *Veritas Dynamic Multi-Pathing Administrator's Guide*.

Documentation

Product guides are available in the PDF format on the software media in the `/product_name/docs` directory. Additional documentation is available online.

Make sure that you are using the current version of documentation. The document version appears on page 2 of each guide. The publication date appears on the title page of each document. The latest product documentation is available on the Symantec website.

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Documentation set

Table 1-3 lists the documentation for Veritas Dynamic Multi-Pathing.

Table 1-3   Veritas Dynamic Multi-Pathing documentation

Document title	File name
Veritas Dynamic Multi-Pathing Release Notes	dmp_notes_60_esx.pdf
Veritas Dynamic Multi-Pathing Installation Guide	dmp_install_60_esx.pdf
Veritas Dynamic Multi-Pathing Administrator's Guide	dmp_admin_60_esx.pdf