Dell PowerVault MD Storage Array Management Pack Suite Version 5.0

Release Notes

Release Type and Definition

This release notes provides information on the Dell MD Storage Array Management Pack Suite version 5.0, which can be imported into Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, Microsoft System Center Operations Manager 2007 R2 and Microsoft System Center Essentials (SCE) 2010.

Note: All references to OpsMgr mentioned below in this document are applicable to Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, System Center Operations Manager (SCOM) 2007 R2, and System Center Essentials (SCE) 2010, unless otherwise specified.

The Dell MD Storage Array Management Pack Suite v5.0 enables OpsMgr to discover and monitor the status of Dell PowerVault MD Storage Arrays, on a defined network segment. This representation includes the receipt of alerts and pre-failure alerts with the ability to drill down to each hardware component from the overall Dell hardware health, and allows Dell customers to assess, respond to, and ensure availability of Dell Storage systems monitored in the OpsMgr environment. In addition to improved availability, the Management Pack enhances the ability to monitor and manage the hardware in a single management solution.

The Dell MD Storage Array Management Pack Suite v5.0 packages a utility tool: Dell Discovery Utility to discover Dell PowerVault MD Storage Arrays and create a text file with a list of discovered MD storage arrays. This list is used by the Dell MD Storage Array Management Pack Suite to discover and monitor the Dell PowerVault MD Storage Arrays in OpsMgr. This utility discovers Dell PowerVault MD Storage Arrays from the IP Addresses/IP Address ranges (IPv4 or IPv6 address (es)) that you specify.

Version
5.0

Release Date
November 2013

Previous Version
5.0

Importance

RECOMMENDED: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current.

What's New?

- Added support for the following Dell PowerVault MD Storage Array: MD3260, MD3260i, MD3660i and MD3660f.
- Added support for Controller Firmware: 07.80, 07.84.
- Support for Microsoft System Center 2012 R2 Operations Manager.
- Support for Microsoft System Center 2012 SP1 Operations Manager.
- Support for Microsoft System Center 2012 Operations Manager.
- Support for Windows Server 2012 R2 as the management server operating system.
- Revised and updated knowledge articles for recovery failures.
- Support for 64-bit version of Dell Discovery Utility.
- Dell PowerVault Modular Disk Storage Manager IP list extraction Utility (to obtain the list of MD Storage Array IP addresses configured in Dell PowerVault Modular Disk Storage Manager).
- Installer for Dell MD Storage Array Management Pack Suite version 5.0

Hardware and Software Requirements

List of operating systems supported on the management station.
Refer to the list of supported configurations for the following OpsMgr versions:

- SC 2012 OM R2 – http://technet.microsoft.com/en-us/library/hh205990.aspx
- SC 2012 OM SP1 - http://technet.microsoft.com/en-us/library/jj628205.aspx
- SC 2012 OM - http://technet.microsoft.com/en-us/library/jj628205.aspx
- SCOM 2007 R2 - http://technet.microsoft.com/en-us/library/bb309428.aspx
- SCE 2010 - http://technet.microsoft.com/en-us/library/bb422876.aspx

Installation

Installation and configuration Notes

This section provides information about the minimum requirements for installing and using the Dell MD Storage Array Management Pack Suite version 5.0.

Installation details for Dell MD Storage Array Management Pack Suite version 5.0

For information on installing the Dell MD Storage Array Management Pack Suite version 5.0 for your OpsMgr version refer the "Dell PowerVault MD Storage Array Management Pack Suite Version 5.0 for Microsoft System Center Operations Manager and Microsoft System Center Essentials Installation Guide".

NOTE: The Installation Guide (DellMPv50_MDStorageArray_IG.pdf) can be found under the folder where you extracted the Dell MD Storage Array Management Pack Suite version 5.0.

Installation Details for Dell Discovery Utility

No specific installation needed. This utility is installed by running the Dell MD Storage Array Management Pack Suite 5.0 installer. For information on launching the Dell Discovery utility version 5.0, refer the "Dell MD Storage Array Management Pack Suite Version 5.0 for Microsoft System Center Operations Manager and System Center Essentials" Installation Guide.

NOTE: The Installation Guide (DellMPv50_MDStorageArray_IG.pdf) can be found under the folder where you extracted the Dell MD Storage Array Management Pack Suite version 5.0.

Installation Details for Dell PowerVault Modular Disk Storage Manager IP list Extraction Utility

No specific installation needed. This utility is installed by running the Dell MD Storage Array Management Pack Suite 5.0 installer.

Dell_MDStorageArray_ExtractMDListFromMDSM.vbs is a VBScript that is packaged in the Dell MD Storage Array Management Pack Suite version 5.0. This script helps in extracting and saving the IP addresses of MD Arrays being managed by the Dell PowerVault Modular Disk Storage Manager (MDSM) so that they can be managed in your OpsMgr. The saved file containing the IP addresses must be copied to your SCOM Management Station (OpsMgr) and the contents added to the dell_MDStorageArray_ip.cfg so that the MD Arrays can be discovered and monitored. The IP addresses are saved in the format required by the MD Storage Array MP.

Note: Run the script as Administrator because the script invokes smclient.exe (installed with MDSM) to retrieve the list of IP addresses and smclient.exe requires elevation (run as Administrator) when run from the installed folder. For information on launching the Dell MD Storage Array IP List Extraction Utility, refer the "Dell MD Storage Array Management Pack Suite Version 5.0 for Microsoft System Center Operations Manager and Microsoft System Center Essentials Installation Guide".

Installation Pre-requisites

Requirements for Management Station

- Microsoft System Center 2012 R2 Operations Manager or Microsoft System Center 2012 SP1 Operations Manager or Microsoft System Center 2012 Operations Manager or Microsoft System Center Operations Manager (SCOM) 2007 R2 or Microsoft System Center Essentials (SCE) 2010.
- Administrator access on the system, to run the Dell Discovery utility and Dell PowerVault Modular Disk Storage Manager IP list extraction Utility.
- Minimum disk space of 5 MB, for installing and running the Dell MD Storage Array Management Pack Suite version 5.0.
- (Optional) Dell PowerVault Modular Disk Storage Manager (MDSM) is required to diagnose and resolve recovery failure alerts.

Requirements for Running Dell Discovery Utility

- Microsoft .NET version 3.5.
- Administrator access on the system - To run the Dell Discovery utility and modify the IP configuration file (For more information on the Dell Discovery utility, see the online help - DellDiscoveryUtility.chm provided with the utility).

Requirements for Managed System

Controller Firmware

- The recommended PowerVault Controller Firmware (CFW) versions are:
    o 07.35 for MD3000/MD3000i
    o 07.84 for MD3200/MD3200i/MD3220/MD3220i/MD3260/MD3260i and MD3600i/MD3620i/MD3600f/MD3620f/MD3660i/MD3660f

- The supported Controller Firmware (CFW) versions are:
    o 07.35 for MD3000/MD3000i
    o 07.80, 07.84 for MD3200/MD3200i/MD3220/MD3220i
    o 07.84 for MD3260/MD3260i
    o 07.80, 07.84 for MD3200/MD3200i/MD3220/MD3220i and MD3600i/MD3620i/MD3600f/MD3620f
    o 07.84 for MD3660i/MD3660f

(Optional) Storage Array Host Software

Install Dell PowerVault Modular Disk Storage Manager (MDSM) Client on the server that hosts the Dell PowerVault MD storage arrays in order to discover the storage array through in-band. The recommended version is – 10.84.

The supported versions are:

- 10.70
- 10.75
- 10.80
- 10.84

Supported Dell PowerVault MD Storage Arrays

- MD3000
- MD3000i
- MD3200
- MD3200i
- MD3220
- MD3220i
- MD3260
- MD3260i
- MD3600i
- MD3600f
- MD362
- MD3620f
- MD3660i
- MD3660f
- MD1000 when daisy chained to MD3000 or MD3000i.
- MD1200 when daisy chained to MD3200/MD3200i/MD3220/MD3220i/MD3600i/MD3620i/MD3600f/MD3620f/MD3260/MD3260i/MD3660i/MD3660f.

- MD1220 when daisy chained to MD3200/MD3200i/MD3220/MD3220i/MD3600i/MD3620i/MD3600f/MD3620f/MD3260/MD3260i/MD3660i/MD3660f.

Upgrading From Previous Versions

You can upgrade Dell MD Storage Array Management Pack Suite 4.1 to Dell MD Storage Array Management Pack Suite 5.0. For information on upgrading the Dell MD Storage Array Management Pack Suite version 5.0 for your version of OpsMgr, refer the "Dell MD Storage Array Management Pack Suite Version 5.0 for Microsoft System Center Operations Manager and Microsoft System Center Essentials Installation Guide".

NOTE: Dell.Storage.MDStorageArray.mp is the scalable edition of the management pack. It monitors the health of the Dell PowerVault MD Storage Array on Dell.Storage.MDStorageArray.DetailedMonitoringOn.mp is the Management Pack that enables health computation for all components in the Dell PowerVault MD Storage Array.

NOTE: You cannot however apply Dell MD Storage Array Management Pack Suite 5.0 as an upgrade over versions other than Dell MD Storage Array Management Pack 4.0 as this is not supported.

Uninstallation

For information on uninstalling the Dell MD Storage Array Management Pack Suite version 5.0 refer the "Dell MD Storage Array Management Pack Suite Version 5.0 for Microsoft System Center Operations Manager and Microsoft System Center Essentials Installation Guide".

Open Issues and Resolutions

Issue (357269):

Removing an IP address from the MD Array IP configuration file, should remove the corresponding alerts for that device in OpsMgr console.

Description

When you remove IP addresses from the MD Array IP configuration file, their corresponding alerts are retained in OpsMgr console views.

Workaround

You must manually close the alerts in the OpsMgr console.

Versions Affected

All OpsMgr consoles.

Issue (493772):

When Physical Disk is in impending failure state, OpsMgr may show the Physical Disk as healthy in the Diagram View.

Workaround

You can check for Physical Disk Impending Failure State alerts in MD Storage Array Alerts view of the OpsMgr and take appropriate action as specified in the Alert's Knowledge Article.

Versions Affected
All OpsMgr consoles.

Issue (473374):
When EMM firmware does not match the MD Storage Array, OpsMgr may show the EMM as healthy.

Workaround
You need to check for EMM Firmware mismatch alerts in MD Storage Array Alerts view and take appropriate action as specified in the Alert's Knowledge Article.

Versions Affected
All OpsMgr consoles.

Issue (492918)
Fan position for daisy chained enclosure (MD1000) maybe shown incorrectly when daisy chained to MD3000.

Workaround
You need to launch the Dell PowerVault Modular Disk Storage Manager (MDSM) to find the actual position of the fan for MD1000.

Versions Affected
All OpsMgr consoles.

Platforms Affected
MD1000 when daisy chained to MD3000/MD3000i.

Issue (469943)
Uninstallation of MD Storage Array management pack fails due to Operations Manager database transaction log getting full.

Description
When there is large amount of data related to the MD Storage Arrays in the Operations Manager database, uninstall operation will cause Operations Manager database to delete the data causing the Operations Manager Database transaction log to fill. When the transaction log is full and data deletion is not complete, the uninstall operation will fail and report a Database exception to the user with the message 'The transaction log for database 'Operations Manager' is full.

Workaround
You need to increase Operations Manager transaction log size (5GB or as desired) temporarily and delete the management pack. You can restore the transaction log size back to original settings after the management pack is deleted.

Versions Affected
All OpsMgr consoles.

Issue (310069)
Deleting management pack from OpsMgr console, does not delete the MD Storage Array Alerts view and Diagram view. If user clicks any of these views, an error is shown as "Object not found".

Description
After removing the imported management pack, the diagram view and alerts view
should get cleaned up. If the Base Management Pack is deleted or if user closes & re-opens the OpsMgr console then cleanup happens.

Workaround
You need to restart OpsMgr Console with /clearcache option.

Versions Affected
All OpsMgr consoles.

Issue (340250)
The Display Name attribute for Dell PowerVault MD Array is not displayed in the tooltip for MD storage Array objects in OpsMgr.

Description
The tooltip displayed on selecting the MD storage Array device objects in the Diagram view of the OpsMgr and its Web console does not display any information related to the Display Name attribute of the device, though other attribute information get displayed.

Workaround
No known workaround. This is a limitation in the OpsMgr.

Versions Affected
All OpsMgr consoles.

Issue (345485)
The Microsoft System Center Operations Manager (SCOM) 2007 R2 Web console displays only 15 objects in its Diagram view.

Description
When there are more than 15 objects in a group, the Microsoft System Center Operations Manager (SCOM) 2007 R2 Web console displays only 15 objects.

Workaround
No known workaround. This is a limitation in the Microsoft System Center Operations Manager (SCOM) 2007 R2 Web console.

Versions Affected
Microsoft System Center Operations Manager (SCOM) 2007 R2 web console.

Issue

The tooltip for objects in the Diagram view of the OpsMgr Web console does not display any information related to attributes.

Description

The tooltip shown on selecting the MD storage Array device objects in the Diagram view of the OpsMgr Web console does not display any information related to attributes.

Workaround

No known workaround. This is a limitation in the OpsMgr Web consoles.

Versions Affected

All OpsMgr Web consoles.

Issues related to Dell Discovery Utility

Issue (357265)

Auto discovery launch fails when Run-As account is used for discovery. Irrespective of the user permissions, when we select Administrator account as a Run-As account, Auto Discovery utility launch fails.

Description

When you use the "Run As" option to launch the Dell Discovery utility, it displays the following error "Unable to find a version of the runtime to run the application".

Workaround

To avoid this error, you must uncheck the following option in the "Run As" popup menu: "Protect my computer and data from unauthorized program activity" to run the utility.

Issue (354368)

You cannot launch the Dell Discovery utility from a network share.

Workaround

You must modify the .Net security policy in order to run the application from a network share. For more information, see support.microsoft.com/kb/897296.

Additional Information

Security Consideration for Dell Discovery Utility

When you run Dell Discovery utility on any system, to discover the MD storage arrays, there is a delay of 40-45 seconds to launch the utility if the system does not have access to the Internet. The delay occurs because in the .NET Framework 2.0, when the CLR loads an assembly into a process, if the CLR finds an Authenticode signature (which involves a Certificate), it generates Publisher Evidence from it and validates the Certificate by contacting the issuing authority to ensure the Certificate has not been revoked. When validating the Certificate the operating system scans the chain of Certificates and tries to download the Certificate Revocation List from a server on the internet. If you do not have internet access or network is too slow, then this process is delayed - thereby delaying start of the application.

Note: When you disable signature verification, the .NET Framework 2.0 managed application no longer receives publisher evidence. This behavior affects the .NET Framework 2.0 managed application only when you use publisher evidence or when you use the PublisherIdentityPermission class.

To avoid the delay in launching the utility on a system without Internet access:

1. Open the DellDiscoveryUtility.exe.config file from the location where you
   have installed the Dell MD Storage Array Management Pack suite 6.0.

2. Set the value of <generatePublisherEvidence enabled="True"/> to "False".
   For more information, see support.microsoft.com/kb/936707.

Non responding MD Arrays shown in OpsMgr

MD Storage arrays from OpsMgr Diagram view will disappear if MD Arrays stop responding. The OpsMgr console displays a new alert provided by the Management Pack. You must take the corrective actions suggested in the alert to ensure that the storage arrays that have disappeared from the console start responding in the subsequent discovery cycles, and are displayed in the OpsMgr console.

Fixes
None

Limitations
Refer to the Installation Guide.

Contacting Dell

Note: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit **www.dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down menu at the top of page.
4. Select the appropriate service or support link based on your need.

For information about documentation support:

1. Go to **dell.com/support/manuals**
2. In the **Tell us about your Dell system** section, under **No**, select **Choose from a list of all Dell products** and click **Continue**.
3. In the **Select your product type** section, click **Software & Security**.
4. In the **Choose your Dell Software** section, click the required link from the   following:
    – Client System Management
    – Enterprise System Management
    – Remote Enterprise System Management
    – Serviceability Tools
5. To view the document, click the required product version.

    Note: You can also directly access the documents using the following links:

    o For Client System Management documents — **dell.com/OMConnectionsClient**
    o For Enterprise System Management documents — **dell.com/openmanagemanuals**
    o For Remote Enterprise System Management documents — **dell.com/esmmanuals**
    o For Serviceability Tools documents — **dell.com/serviceabilitytools**