##

DELL(TM) MD STORAGE ARRAY MANAGEMENT PACK SUITE 4.0 FOR MICROSOFT(R)
SYSTEM CENTER OPERATIONS MANAGER 2007 and MICROSOFT(R)
SYSTEM CENTER ESSENTIALS 2007 - README

##
##
Version: 4.0
Release Date: January 2010

This readme provides information on the Dell MD Storage Array
Management Pack Suite version 4.0, which can be imported into
Microsoft(R) System Center Operations Manager (SCOM) 2007 SP1/R2 and
System Center Essentials (SCE) 2007 SP1.

This readme contains updated information for the Dell MD Storage
Array Management Pack Suite Version 4.0 for Microsoft System Center
Operations Manager 2007 and System Center Essentials User's Guide,
and any other technical documentation included with the Dell
Management Pack for Operations Manager.
All references to Operations Manager are also applicable to System
Center Essentials.

NOTE: You cannot apply Dell MD Storage Array Management Pack Suite
4.0 as an upgrade over Dell Management Pack 3.x or any other
previous versions of Dell Management Pack. Importing the Dell MD
Storage Array Management Pack version 4.0 over the Dell Management
Packs version 3.x is not supported.

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The Dell MD Storage Array Management Pack Suite v4.0 enables SCOM to
discover and monitor the status of Dell PowerVault(TM) MD3000/MD3000i
and PowerVault MD1000 Storage Arrays that are daisy chained to
MD3000/MD3000i storage arrays, on a defined network segment. This
improved representation, which includes the receipt of failure and
pre-failure alerts, allows you to assess, respond to, and ensure the
availability of Dell MD storage arrays monitored in the SCOM
environment. In addition to improved availability, the management
pack enhances the ability to monitor and manage the hardware in a
single management solution.

This readme contains the following sections:

* Criticality

* Minimum Requirements

* Release Highlights

* Installation/Un-Installation

* Operating System Support

* Known Issues

* Additional Information

##
CRITICALITY
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- Recommended

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MINIMUM REQUIREMENTS
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This section provides information about the minimum requirements for
installing and using the Dell MD Storage Array Management Pack Suite
version 4.0 for Microsoft System Center Operations Manager SP1/R2
and System Center Essentials SP1.

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Requirements
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* Controller Firmware :
The recommended PowerVault MD3000/MD3000i Controller
Firmware(CFW) version is 07.35.31.60. The supported firmware versions
are:
* 07.35.31.60
* 07.35.22.61
* 06.70.17.60

* Storage Array Host Software :
Install the Modular Disk Storage Manager (MDSM) Client on the server
that hosts the PowerVault MD3000/MD3000i storage arrays to discover
the Dell storage device through in-band. The recommended version is
- 03.35.36.49

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Supported Dell Devices
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* Supported Storage Arrays:

    • MD3000
    • MD3000i
    • MD1000 when daisy chained to a MD3000 or MD3000i.

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Operations Manager Management Server Requirements
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* To discover Dell™ PowerVault™ MD3000/ MD3000i storage arrays, and
daisy chained PowerVault MD1000 storage arrays the Array Bridge
Broker (ABB) is a prerequisite on the management server.

* Extract the contents of the Dell_MDStorageArray_ABB.exe to the
default location C:\Dell_MDStorageArray_ABB. The
Dell_MDStorageArray_ABB.exe file is part of the
Dell_MD_StorageArray_Management_Pack_Suite v4.0_A00.exe file.

* Ensure that the default IP listing file Dell_MDStorageArray_ip.cfg
is present in the C:\Dell_MDStorageArray_ABB folder. The default IP listing file
Dell_MDStorageArray_ip.cfg is available on the management station where you
extracted the Array Bridge Broker (ABB) files and the Auto Discovery utility.
You can create an IP listing file with a different
name and also save the file in a different folder location.For more information,
see the the "Dell(TM) MD Storage Array Management Pack Suite Version
4.0 For Microsoft(R) System Center Operations Manager 2007 and System
Center Essentials 2007 User's Guide"

* For Systems Center Operations Manager (SCOM) to run the
DellABB.exe file, ensure that there is a minimum disk space of 1 GB
on the management station in an environment where you are managing a
large number of devices.

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RELEASE HIGHLIGHTS
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* Base folder utility, which holds the root folder for Dell hardware
and views for other management packs to group under.

* The MD Storage Array management pack discovers storage arrays that
contain firmware version, which supports IPv6 addresses.

* The management pack MP provides Recovery Guru information as a
point of reference to assist in troubleshooting the MD Storage Array
for the respective events.

* The MD storage arrays management pack suite includes the Dell
Discovery utility that discovers the PowerVault MD3000/MD3000i
devices in your network and creates an IP listing file with the IP
addresses of the storage arrays. SCOM uses this IP listing file to
discover and manage the storage arrays. The Dell Discovery utility
supports both IPv4 and IPv6 addresses.

* The MD Storage Array management pack discovers storage arrays with
IPv6 addresses.

* The Diagram view of the MD storage arrays displays realistic icons
for the various components modeled by the MD Storage Array
management pack.

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################################################################################
INSTALLATION/UN-INSTALLATION
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Installation
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For information on installing the Dell(TM) MD Storage Array Management
Pack Suite version 4.0 for Microsoft (R) SCOM 2007 SP1/R2 and SCE 2007
SP1, see the "Dell(TM) MD Storage Array Management Pack Suite Version
4.0 For Microsoft(R) System Center Operations Manager 2007 and System
Center Essentials 2007 User's Guide".


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Un-Installation
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For information on uninstalling the Dell MD Storage Array Management
Pack version 4.0, see the "Dell™ MD Storage Array Management Pack
Version 4.0 For Microsoft(R) System Center Operations Manager 2007
and System Center Essentials 2007 User's Guide".



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OPERATING SYSTEMS SUPPORT
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List of Operating Systems supported on the Management Station:

- Windows Server 2003 SP2, Standard x86 Edition
- Windows Server 2003 SP2, Standard x64 Edition
- Windows Server 2003 SP2, Enterprise x86 Edition
- Windows Server 2003 SP2, Enterprise x64 Edition
- Windows Server 2003 SP2, Datacenter x86 Edition
- Windows Server 2003 SP2, Datacenter x64 Edition
- Windows Server 2003 R2 SP2, Standard x86 Edition
- Windows Server 2003 R2 SP2, Standard x64 Edition
- Windows Server 2003 R2 SP2, Enterprise x86 Edition
- Windows Server 2003 R2 SP2, Enterprise x64 Edition
- Windows Server 2003 R2 SP2, Datacenter x86 Edition
- Windows Server 2003 R2 SP2, Datacenter x64 Edition
- Windows Server 2008, Standard x86 Edition
- Windows Server 2008, Standard x64 Edition
- Windows Server 2008, Enterprise x86 Edition
- Windows Server 2008, Enterprise x64 Edition
- Windows Server 2008, Datacenter x86 Edition
- Windows Server 2008, Datacenter x64 Edition
- Windows Server 2008 SP2, Standard x86 Edition
- Windows Server 2008 SP2, Standard x64 Edition
- Windows Server 2008 SP2, Enterprise x86 Edition
- Windows Server 2008 SP2, Enterprise x64 Edition
- Windows Server 2008 SP2, Datacenter x86 Edition

- Windows Server 2008 SP2, Datacenter x64 Edition
- Windows Server 2008 R2, Standard x64 Edition
- Windows Server 2008 R2, Enterprise x64 Edition
- Windows Server 2008 R2, Datacenter x64 Edition

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KNOWN ISSUES
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* After you remove the management pack, you need to close and
re-launch the SCOM console for a complete cleanup of the cache.
(DF310069)

* The description under the Management Pack Properties tab contains
unknown characters as separators. (DF325583)

* The tooltip for objects in the Diagram view of the SCOM Web
console does not display any information related to attributes.
This is a limitation in the SCOM Web console.

* The Display Name attribute for Dell PowerVault MD3000/MD3000i Array
is not displayed in the SCOM Operations console. This is a limitation
in the SCOM Operations console.

* MD Storage Array alerts are not displayed in the Alerts view of the
SCOM Web console. This is a limitation in the SCOM 2007 SP1 Web
console. (DF344591)

* The SCOM 2007 SP1 Web console displays only 15 objects in its
Diagram view.When there are more than 15 objects in a group,the SCOM
2007 SP1 Web console displays only 15 objects. This is a limitation
in the SCOM 2007 SP1 Web console.(DF345485)

*The Alert Details pane of the Alert View in the SCOM Operations
console, does not display the Knowledge Resolutions. This is a
limitation in SCOM 2007 SP1. (DF344587)

*An Invalid character is displayed in the Alert description field
of Alert Properties pane. This is a limitation in SCOM 2007 SP1.
(DF350178)

* When you remove IP addresses from the MD Array IP configuration file,
their corresponding alerts are retained in SCOM console views. You must manually close
the alerts on the SCOM console.(DF357269)

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Additional Information
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* Occasionally MD Storage arrays that you manage from SCOM could disappear
from the console when the MD Arrays stop responding. The SCOM 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 on the SCOM console.

* Management Pack scripts may generate "Script or Executable failed to
Run" - warning alerts. After you take corrective actions suggested in the
alert knowledge base, you must manually close the alert on the SCOM
console.

* The "dell_MDStorageArray_ip.cfg" file contains sample IP addresses
separated by semi-colons. Before importing the management pack, the
operator needs to replace them with the set of MD IP addresses manually
or use the output file of Dell Discovery Utility.

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