

# Dell MD Series Storage Arrays

Information Update

## Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

**Copyright © 2017 Dell Inc. or its subsidiaries. All rights reserved.** Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

# Contents

<b>1 Dell MD storage arrays—information update.....</b>	<b>4</b>
Discontinued support for VSS and VDS.....	4
Deprecating VDS.....	4
Deprecating VSS.....	4
In SUSE Linux Enterprise Server 12, the fdisk command creates two links.....	5
Issue with the set diskPool syntax.....	5
RDVD usage with Red Hat Enterprise Linux 7.....	5
Data Assurance Feature.....	5
<b>2 Getting help.....</b>	<b>6</b>
Related Documentation.....	6
Contacting Dell.....	6
Locating Service Tag of your system.....	7
Documentation feedback.....	8

# Dell MD storage arrays—information update

**NOTE:** Information in this document applies to Dell MD34xx and MD38xx series systems.

This document provides more information that is not included in the Dell MD storage array documentation. You must read through the information provided in this document before using your new storage array or upgrading your array software, firmware, or host operating system. For more information, go to [Dell.com/powervaultmanuals](https://Dell.com/powervaultmanuals).

Topics:

- [Discontinued support for VSS and VDS](#)
- [In SUSE Linux Enterprise Server 12, the fdisk command creates two links](#)
- [Issue with the set diskPool syntax](#)
- [RDVD usage with Red Hat Enterprise Linux 7](#)
- [Data Assurance Feature](#)

## Discontinued support for VSS and VDS

Dell is discontinuing support of the VSS and VDS providers.

### Deprecating VDS

Beginning with Windows Server 2012, the Virtual Disk Service (VDS) interface is superseded by the Windows Storage Management API (SMAPI). As Microsoft is moving away from VDS, Dell is also moving away from the VDS provider. While there is no direct Dell replacement product available, the VDS functionality is provided through SMAPI, which uses the current SMI-S provider.

### Deprecating VSS

Dell is no longer releasing the Volume Shadow Service (VSS) Provider. Shadow copies created by using the Dell VSS provider are not recognized by the Windows native VSS provider. However, shadow copies created by using the Dell VSS provider are immediately available to the Windows OS as virtual disks. You can assign a drive letter and access or manage data by using Windows. Hereafter, Dell recommends to use the Microsoft native provider.

If you want to recover the data created by using the Dell VSS provider, and the Dell VSS provider is still installed, Dell recommends that you use the Dell provider to recover any shadow copies created by using the Dell provider, and then use the Microsoft native VSS provider to create future shadow copies of the virtual disks or data. This allows you to recover the data by using the Microsoft provider in future.

# In SUSE Linux Enterprise Server 12, the fdisk command creates two links

In SUSE Linux Enterprise Server 12, the `fdisk` command creates two links to partition each device to maintain the backward compatibility.

```
/dev/mapper; one with the /dev/mapper/mpath<x>-part<y>  
/dev/mapper/mpath<x>_part<y>
```

However, both links belong to the same partition of the multipathing device.

## Issue with the set diskPool syntax

Command Line Interface (CLI) runs the parameter `reservedDriveCount` instead of `reservedPhysicalDiskCount`.

The correct syntax for the command is given here.

```
set diskPool [diskPoolName]  
(addDrives=[trayID1, drawerID1, slotID1 ...  
trayIDn, drawerIDn, slotIDn] |  
addCapacity=(diskPoolCapacity))  
[owner=(0| 1)]
```

## RDVD usage with Red Hat Enterprise Linux 7

Prior to installing the Resource DVD (RDVD) for Red Hat Enterprise Linux 7, you must add the Compatibility Libraries Add-On.

## Data Assurance Feature

The Data Assurance (DA) feature can increase data integrity across the entire storage system. DA enables the storage array to check for errors that might occur when data is moved between the hosts and the physical disks. When this feature is enabled, the storage array appends error-checking codes (also known as cyclic redundancy checks or CRCs) to each block of data in the virtual disk. After a data block is moved, the storage array uses these CRC codes to determine if any errors occurred during transmission. Potentially corrupted data is neither written to disk nor returned to the host.

The Data Assurance feature for the MD34/38 Series arrays requires both a hard drive that is Data Assurance compatible and the purchase of the Data Assurance Premier Feature Key and installation of it on the array.

The compatibility of the disk can be seen in the Modular Disk Storage Manager (MDSM), when checking the physical disk information in MDSM. It will show "Data Assurance (DA)" under "Physical Disk capabilities", which means that the disk has the T10 Protection Information (PI or T10 PI) capability. This allows a checksum to be transmitted from the controller to protect the integrity of the data.

Besides the hard drives having this capability, the array must enable the Data Assurance Premier Feature to utilize this feature.

The Data Assurance Premier Feature Key is optionally available only with the unbranded OEM version of the storage array.

There are no issues with utilizing drives that are Data Assurance compatible that do not have the Data Assurance Feature enabled, and they are interchangeable with drives that do not have this capability when the Data Assurance Feature is not enabled.

# Getting help

Topics:

- [Related Documentation](#)
- [Contacting Dell](#)
- [Locating Service Tag of your system](#)
- [Documentation feedback](#)

## Related Documentation

- ① **NOTE:** For all Storage documentation, go to [Dell.com/powervaultmanuals](http://Dell.com/powervaultmanuals) and enter the system Service Tag to get your system documentation.
- ① **NOTE:** For all Dell OpenManage documents, go to [Dell.com/openmanagemanuals](http://Dell.com/openmanagemanuals).
- ① **NOTE:** For all storage controller documents, go to [Dell.com/storagecontrollermanuals](http://Dell.com/storagecontrollermanuals).

Your product documentation includes:

- *Dell PowerVault MD3460/MD3860i/MD3860f Storage Arrays Getting Started Guide*—Provides an overview of system features, setting up your system, and technical specifications. This document is also shipped with your system.
- *Dell PowerVault MD3460/MD3860i/MD3860f Storage Arrays Owner's Manual*—Provides information about system features and describes troubleshooting the system and install or replace system components.
- *Rack Installation Instructions*—Describes installing your system into a rack. This document is also shipped with your rack solution.
- *Dell PowerVault MD Series Storage Arrays Administrator's Guide*—Provides information about configuring and managing the system by using the MDSM GUI.
- *Dell PowerVault MD 34XX/38XX Series Storage Arrays CLI Guide*—Provides information about configuring and managing the system using the MDSM CLI.
- *Dell PowerVault MD3460/MD3860i/MD3860f Storage Arrays Deployment Guide*—Provides information about deploying the storage system in the SAN architecture.
- *Dell PowerVault MD 34xx and 38xx Series Support Matrix*—Provides information about the software and hardware compatibility matrices for the storage array.

## Contacting Dell

Dell provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer service issues:

- 1 Go to [Dell.com/support](http://Dell.com/support).
- 2 Select your country from the drop-down menu on the lower right corner of the page.
- 3 For customized support:
  - a Enter your system Service Tag in the **Enter your Service Tag** field.
  - b Click **Submit**.The support page that lists the various support categories is displayed.
- 4 For general support:

- a Select your product category.
- b Select your product segment.
- c Select your product.

The support page that lists the various support categories is displayed.

5 For contact details of Dell Global Technical Support:

- a Click [Global Technical Support](#).
- b The **Contact Technical Support** page is displayed with details to call, chat, or e-mail the Dell Global Technical Support team.

## Locating Service Tag of your system

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Code and Service Tag are found on the frontback of the system by pulling out the information tag. Alternatively, the information may be on a sticker on the chassis of the system. This information is used by Dell to route support calls to the appropriate personnel.

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Code and Service Tag are found on the front of the system by pulling out the information tag. Alternatively, the information may be on a sticker on the chassis of the system. This information is used by Dell to route support calls to the appropriate personnel.

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Code and Service Tag are found on the chassis label. Alternatively, the information may be on a sticker on the chassis of the system. This information is used by Dell to route support calls to the appropriate personnel.

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Tag is found on top of the system and Express Service Code is found on back of the system. This information is used by Dell to route support calls to the appropriate personnel.



Figure 1. Locating Service Tag of your system

# Documentation feedback

You can rate the documentation or write your feedback on any of our Dell documentation pages and click **Send Feedback** to send your feedback.