

Dell™ NetVault™ Backup Plug-in for NDMP 10.0.5

Application Notes for Mirapoint Message
Server



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Legend

 **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

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

 **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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Introduction

- [About this document](#)
- [Target audience](#)
- [Recommended additional reading](#)

About this document

This document provides information about using the Dell™ NetVault™ Backup Plug-in for NDMP (Plug-in for NDMP) with a Mirapoint Message Server. It is intended as a supplement to the *Dell NetVault Backup Plug-in for NDMP User's Guide* that describes the common procedures for installing and configuring the plug-in.

Target audience

This document is intended for system administrators and others responsible for installing, configuring, and using the Plug-in for NDMP. An understanding of filer administration and the host platform is assumed.

Recommended additional reading

- NetVault Backup documentation
 - *Dell NetVault Backup Installation Guide*: This guide provides information about installing the NetVault Backup Server and Client software.
 - *Dell NetVault Backup Administrator's Guide*: This guide provides information about configuring and using NetVault Backup to protect your data. It provides comprehensive information about all NetVault Backup features and functionality.
 - *Dell NetVault Backup Command Line Interface Reference Guide*: This guide provides information about using the NetVault Backup command-line utilities.
 - *Dell NetVault Backup Plug-in for NDMP Application Notes*: These notes provide filer-specific information.

You can download these guides from <https://support.software.dell.com/>.

- Administrator's Guide for your NDMP-based NAS appliance

Installation and configuration prerequisites

- [Installation prerequisites](#)
- [Configuration prerequisites](#)
- [Additional steps for servers with locally attached devices](#)

Installation prerequisites

In addition to the prerequisites covered in the *Dell NetVault Backup Plug-in for NDMP User's Guide*, verify that the following requirements are met:

- **Software requirements:** For information about software requirements and supported filer operating systems, see the *Dell NetVault Backup Compatibility Guide* available at: <https://support.software.dell.com/>

📘 **NOTE:** The installation and configuration procedures are described in the *Dell NetVault Backup User's Guide*.

Configuration prerequisites

In addition to the prerequisites covered in the *Dell NetVault Backup Plug-in for NDMP User's Guide*, verify that the following requirements are met:

- Set the **NDMP dma** parameter to **bakbone** by typing the following command at the prompt:

```
ndmp set dma bakbone
```
- To use a backup device locally attached to the Mirapoint Server, set the **NDMP LogProtocol** parameter to **off** by typing the following command at the prompt:

```
ndmp set logprotocol off
```
- Create a user with **Backup Operator** privileges and use this user account when adding the NDMP Server or re-configuring the plug-in authentication details.

Additional steps for servers with locally attached devices

When adding a Mirapoint Message Server, the **NDMP Server** window reappears once you complete the **Adding an NDMP Server** procedure outlined in the *Dell NetVault Backup Plug-in for NDMP User's Guide*.

This window displays an additional field that allows you to configure the robotic arm locally attached to the filer.

- **Arm(s):** For Mirapoint Message Servers with locally attached arms, type the complete file path to the device file for the robotic arm. To determine the file name, type the following command at the command prompt on the filer:

```
diag get changeraddress .
```

For filers with no local devices, leave this field blank.

Click **OK** to complete the procedure.

Backing up data

- [About Backup Dump Levels](#)
- [Backing up data using the plug-in](#)

About Backup Dump Levels

The Plug-in for NDMP supports both Full and Incremental Backups. The backup type is determined by the Dump Level that can be set to Level 0 for a Full Backup or Levels 1 through 9 for Incremental Backups:

- **Level 0 or Full Backup:** A Full Backup provides a backup of all the data in the selected path.
- **Level 1 through 9 or Incremental Backup:** The Incremental Backups base themselves on the most recent lower-level Incremental Backup, and include any data that has changed or is new since the last Full or Incremental Backup.

Examples:

- Level 1 Incremental Backup includes any data that has changed or is new since the last Level 0 or Full Backup.
- Level 2 Incremental Backup includes any data that has changed or is new since the last Level 1 Incremental Backup, and so on, up to dump level 9.

Important notes

- If a directory is included in a dump level 0 backup, it is included in all future dumps even if no changes have occurred. In this instance, the directory is empty and does not contain content. However, it does not negatively affect the recovery of data.
- Only one dump level is maintained for each selected set of data. For example, after performing Level 1, Level 2, and Level 3 Incremental Backups, if you perform a Full Backup, the dump level is reset to 0. The next instance of the Incremental Backup is based on the Full Backup.
- If an Incremental Backup fails, the subsequent backup is based on the most recent backup of a lower level. For example, if dump level 1 is completed successfully, but dump level 2 fails, dump level 3 is based on dump level 1. The failure of an Incremental Backup is noted in the NetVault Backup logs.

Backing up data using the plug-in

To back up data using the plug-in

- 1 In the Navigation pane, click **Create Backup Job**.

— or —

In the Navigation pane, click **Guided Configuration**, and then on the **NetVault Configuration Wizard** page, click **Create Backup Jobs**.

- 2 In **Job Name**, specify a name for the job.

Assign a descriptive name that allows you to easily identify the job for monitoring its progress or restoring data. The job name can contain alphanumeric and non-alphanumeric characters, but it cannot contain non-Latin characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

- 3 Click **Create New** next to the **Selections** list.

- 4 On the **NetVault Backup Selections** page, open the **NetVault Backup Server**, and then open **NDMP Client**.

- 5 Select the applicable filer, and in the **Actions** list, click **Enter Backup Path**.

- 6 In the **NDMP Backup Request** dialog box, configure the following option:

- **Directory:** The Mirapoint Message Server only supports the backup of all mailboxes. Type the full path to the mailbox store (for example, `/usr/store`). The backup fails if you specify any other path.
- **Dump Level:** Select the type of backup that you want to perform. For a Full Backup, type or select 0. For an Incremental Backup, type or select any level from 1 to 9, based on the previous dump level.
- **Save File Information:** This option allows you to restore individual files and directories included in the backup. If you clear this check box, the plug-in does not allow you to perform granular restore of the items included in the backup. We recommend that you leave this check box selected.
- **Update:** With this option selected, the appropriate dump file is updated to reflect the Incremental Backup sequence after a successful backup. For example, if Dump Level 3 backup is performed, this file is updated to indicate the point in time the backup occurred, so that Dump Level 4 knows where to begin its backup.

You must select this option when performing an Incremental Backup of level 1-9 as this information is required to recover data up to a specific dump level.

- 7 Click **OK** to save the settings.

- 8 Select or create the **Schedule Set**, **Target Set**, and **Advanced Options Set**. For more information about these sets, see the *Dell NetVault Backup Administrator's Guide*.

- 9 To submit the job for scheduling, click **Save & Submit**. You can monitor the job progress from the **Job Status** page and view the logs from the **View Logs** page.

To save the job definition without scheduling it, click **Save**. You can view, edit, or run this job from the **Manage Job Definitions** page. This job is not displayed on the **Job Status** page until you submit it.

For more information about **Job Status**, **View Logs**, and **Manage Job Definitions**, see the *Dell NetVault Backup Administrator's Guide*.

Restoring data

- Restoring data using the plug-in
- Restoring Incremental Backups
- Searching for files in savesets
- Viewing media list

Restoring data using the plug-in

To restore data using the plug-in

- 1 In the Navigation pane, click **Create Restore Job**.

On the **Create Restore Job – Choose Saveset** page, the saveset table provides a list of available savesets.

The table shows the saveset name (Job Title and Saveset ID), creation date and time, saveset size, and saveset status. The saveset status is indicated using the following icons.

Table 1. Saveset status icons

Icon	Description
	Saveset is online (all segments are online).
	Saveset is partially online (some segments are online).
	Saveset is offline (all segments are offline).

The saveset list is sorted by creation date (newest to oldest). You can sort the list by one or more columns, as required. The arrowhead next to the column name indicates the sort order.

- 2 To filter the saveset list, you can use the following filter options.

Table 2. Saveset filters

Filter	Description
Client	Displays savesets created for particular clients. <i>To use this filter</i> <ul style="list-style-type: none"> • Click the Client box, and in the Choose Client dialog box, select the clients. Click OK to close the dialog box. The default selection is Any.
Plugin Type	Displays savesets created using a particular plug-in. <i>To use this filter</i> <ul style="list-style-type: none"> • Click the Plugin Type box, and in the list, select the plug-in. The default selection is Any.

Table 2. Saveset filters

Filter	Description
Date	<p>Displays savesets created during a specified period.</p> <p><i>To use this filter</i></p> <ul style="list-style-type: none"> Click the Date box, and in the list, select the option that you want to use. The available options are Last 24 hours, Last Week, Last Month, Last 6 Months, Last Year, and Any. <p>The default selection is Any.</p>
Job	<p>Displays savesets created for particular jobs.</p> <p><i>To use this filter</i></p> <ul style="list-style-type: none"> Click the Job box, and in the Choose Job dialog box, select the jobs. Click OK to close the dialog box. <p>The default selection is Any.</p>

- 3 Select the saveset that you want to use, and click **Next**.

When you select a saveset, the following details are displayed in the **Saveset Information** area: job ID number, job title, tag, server name, client name, plug-in name, saveset date and time, retirement setting, Incremental Backup or not, archive or not, and saveset size.

- 4 On the **Create Selection Set** page, select the data that you want to restore:

- **Entire backup:** Select the root node (`/usr/store`) to restore the entire saveset.
- **All mailboxes:** Select `/usr/store/spool/user` to restore all mailboxes.
- **Individual mailbox:** Select `/usr/store/spool/user/<mailbox name>` to restore an individual mailbox.

NOTE: If the **Save File Information** option was not selected during backup, then you cannot perform granular restores. For such savesets, select the root item and restore the entire saveset.

- 5 Click **Edit Plugin Options**, and configure the following settings.

Table 3. Restore options

Option	Description
NDMP Server	The name of the server from which the data was backed up is displayed in this field. Do not change this default value.
Direct Access Restore Mode	The Mirapoint Message Server does not support DAR. Therefore, do not change the default selection for this option. The restore job fails if you change the default selection.
Incremental Restore	Select this option when restoring dump levels 1 through 9.

- 6 Click **OK** to save the settings, and then click **Next**.

- 7 In **Job Name**, specify a name for the job.

Assign a descriptive name that allows you to easily identify the job for monitoring its progress. The job name can contain alphanumeric and non-alphanumeric characters, but it cannot include non-English characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms

- 8 In the **Target Client** list, the client from which data was backed up is selected by default. Do not change this setting.

- 9 Select or create the **Schedule Set**, **Restore Source Set**, and **Advanced Options Set**. For more information about these sets, see the *Dell NetVault Backup Administrator's Guide*.

- 10 Click **Submit** to submit the job for scheduling.

You can monitor the job progress from the **Job Status** page and view the logs from the **View Logs** page. For more information about these functions, see the *Dell NetVault Backup Administrator's Guide*.

Post-restore procedures

On completion of the restore procedure, perform the following steps:

- Merge the restored emails into existing emails. Refer to the relevant Mirapoint documentation for instructions.
- If you selected `/usr/store` to restore the entire saveset, reboot the server.

Restoring Incremental Backups

The incremental restores build on each other. To restore an Incremental Backup, you must have all the backups from Level-0 through the last backup in the backup sequence that you want to restore.

To restore an Incremental Backup

- 1 Restore the Full or Level 0 Backup. For more information, see [Restoring data using the plug-in](#).
- 2 Restore each Incremental Backup in the backup sequence, starting with the lowest-level backup and going to the last backup that you want to restore (that is, in the same order in which they were created). For each dump level, follow the steps outlined in the section [Restoring data using the plug-in](#).

IMPORTANT: All NDMP backups are effectively snapshots of the volume. When you restore a dump backup in an increment series, it restores all the data in the saveset. At the same time, it deletes the files present on the filer, but not available in that saveset. Thus, it reconstructs the subtree as it was at the time of backup.

Searching for files in savesets

The **Search** option on the **Create Restore Job – Choose Saveset** page allows you to find specific files or data items without opening any savesets or browsing through their contents. You can use filenames or regular expressions to find the data items that you want to restore.

To search for data items in savesets

- 1 On the **Create Restore Job – Choose Saveset** page, click **Search**.
- 2 In the **Search for files in savesets** dialog box, configure the following options:
 - **Search String:** Type the search string.
 - **Regular expression search:** To use POSIX (Portable Operating System Interface for Unix) regular expressions in the **Search String** box, select this check box.
 - **Case sensitive:** To perform a case-sensitive search, select this check box.
- 3 Click **Search**. On the **Search Results** page, you can view the savesets that contain the specified files or data items.
- 4 Select the items you want to restore. You can only restore items from one saveset. Click **Next**.
- 5 Complete [Step 5](#) through [Step 10](#) in the section [Restoring data using the plug-in](#).

Viewing media list

The **Media List** option on the **Create Restore Job – Choose Saveset** page lets you view information about the media items used to store a backup. You can view details about the data segments and index segments for a backup.

To view the media details for a saveset

- 1 On the **Create Restore Job – Choose Saveset** page, select the applicable saveset.
- 2 In the **Saveset Information** area, click **Media List**.
- 3 In the dialog box that appears, you can view the following details:
 - **Backup size:** This area shows the total size of the saveset in number of bytes
 - **Data segment table:** This table shows information about the media items that contain the data segments. You can view the following details: media label, media group label, stream ID, starting byte number, ending byte number, and media location
 - **Index segment table:** This table shows information about the media items that contain the index segments. You can view the media label and media location.
- 4 Click **Close** to close the dialog box.

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Contacting Dell

For sales or other inquiries, visit <http://software.dell.com/company/contact-us.aspx> or call +1-949-754-8000.

Technical support resources

Technical support is available to customers who have purchased Dell software with a valid maintenance contract and to customers who have trial versions. To access the Support Portal, go to <https://support.software.dell.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the Support Portal provides direct access to product support engineers through an online Service Request system.

The Support Portal enables you to:

- Create, update, and manage Service Requests (cases).
- View Knowledge Base articles.
- Obtain product notifications.
- Download software. For trial software, go to <http://software.dell.com/trials>.
- View how-to videos.
- Engage in community discussions.
- Chat with a support engineer.