Quest® NetVault® Backup Plug-in *for NDMP* 11.1

Application Notes for Mirapoint Message Server

Legend

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

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

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

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About this document

This document provides information about using the Quest® NetVault® Backup Plug-in *for NDMP*
(Plug-in *for NDMP*) with a Mirapoint Message Server. It is intended as a supplement to the *Quest 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
  - *Quest NetVault Backup Installation Guide*: This guide provides details on installing the NetVault Backup Server and Client software.
  - *Quest NetVault Backup Administrator's Guide*: This guide explains how to use NetVault Backup and describes the functionality common to all plug-ins.
  - *Quest NetVault Backup CLI Reference Guide*: This guide provides a description of the command-line utilities.
  - *Quest NetVault Backup Plug-in for NDMP Application Notes:* These notes provide filer-specific information.

  You can download these guides from https://support.quest.com/technical-documents.
- Administrator's guide for your NDMP-based NAS appliance

Installation and configuration prerequisites

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Installation prerequisites

In addition to the prerequisites covered in the *Quest NetVault Backup Plug-in for NDMP User's Guide*, verify that the software requirements and supported filer operating systems requires are met. For more information, see the *Quest NetVault Backup Compatibility Guide* available at: https://support.quest.com/technical-documents.

> **i** | **NOTE:** The installation and configuration procedures are described in the *Quest NetVault Backup Plug-in for NDMP User's Guide.*

Configuration prerequisites

In addition to the prerequisites covered in the *Quest 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 reconfiguring the plug-in authentication details.

Additional steps for servers with locally attached devices

When adding a Mirapoint Message Server, the **NDMP Server** window is displayed again after you complete the process for adding an NDMP Server outlined in the *Quest NetVault Backup Plug-in for NDMP User's Guide*.

This window displays an additional field, **Arm(s)**, that lets you configure the robotic arm locally attached to the filer. For Mirapoint Message Servers with locally attached arms, type the complete file path to the device file for the robotic arm.

1　To determine the filename, type the following command at the command prompt on the filer

```
diag get changeraddress .
```

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

2　To complete the procedure, click **OK**.

Backing up data

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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

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 lets you easily identify the job for monitoring its progress or restoring data. The job name can contain alphanumeric and nonalphanumeric 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   Next to the **Selections** list, click **Create New**.

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. Quest recommends 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 to 9 as this information is required to recover data up to a specific dump level.

7   To save the settings, click **OK**.

8   Select or create the Schedule Set, Target Set, and Advanced Options Set.

   For more information about these sets, see the *Quest 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 *Quest NetVault Backup Administrator's Guide.*

Restoring data

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- Restoring Incremental Backups
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- Viewing media list

Restoring 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.

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, use the following filter options.

Filter	Description
Client	Displays savesets created for particular clients. The default selection is **Any**. 1 To use this filter, click the **Client** box. 2 In the **Choose Client** dialog box, select the clients. 3 To close the dialog box, click **OK**.
Plugin Type	Displays savesets created using a particular plug-in. The default selection is **Any**. 1 To use this filter, click the **Plugin Type** box. 2 In the list, select the plug-in.

Filter	Description
Date	Displays savesets created during a specified period. The default selection is **Any**. 1 To use this filter, click the **Date** box. 2 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.
Job	Displays savesets created for particular jobs. The default selection is **Any**. 1 To use this filter, click the **Job** box. 2 In the **Choose Job** dialog box, select the jobs. 3 To close the dialog box, click **OK**.

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:** To restore the entire saveset, select the root node (`/usr/store`).

- **All mailboxes:** To restore all mailboxes, select `/usr/store/spool/user`.

- **Individual mailbox:** To restore an individual mailbox, select `/usr/store/spool/user/<mailboxName>`.

i | **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 1. 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 Direct Access Restore (DAR) mode. Therefore, do not change the default selection for this option. The restore job fails if you change the default selection.
Incremental Restore	When restoring dump levels 1 through 9, select this option.

6 To save the settings, click **OK**, and then click **Next**.

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

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

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

8 Select or create the Schedule Set, Restore Source Set, and Advanced Options Set.

For more information about these sets, see the *Quest NetVault Backup Administrator's Guide*.

9 To submit the job for scheduling, click **Submit**.

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 *Quest 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. For instructions, see the relevant Mirapoint documentation.

- 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.

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 Restoring data using the plug-in.

> **i** | **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.

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 9 in 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.

1   On the **Create Restore Job — Choose Saveset** page, select the applicable saveset.

2   In the **Saveset Information** area, click **Media List**.

In the dialog box that is displayed, 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.

3   To close the dialog box, click **Close**.

About us

We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation™.

Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece—you—to the community, to the new Quest.

Contacting Quest

For sales or other inquiries, visit https://www.quest.com/company/contact-us.aspx or call +1-949-754-8000.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.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. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.