

Symantec Backup Exec NDMP Option

The Symantec Backup Exec for Windows Servers NDMP Option lets Backup Exec use the Network Data Management Protocol (NDMP) to initialize and control backups and restores of Network Attached Storage (NAS) devices.

You can back up data to a storage device that is connected directly to the NDMP server (direct-attached) or that is connected to another NDMP server (filer-to-filer).

You can back up NDMP data only to the NDMP storage devices; however, the Backup Exec server and the NDMP server can share a storage device. The duplicating of NDMP backup sets is not supported.

Requirements for using the NDMP Option

To use the NDMP Option, the Backup Exec server must have the following items installed:

- Windows 2000/XP/Server 2003.
- Backup Exec for Windows Servers 11.d or later.

In addition, you must have the following:

- A NetApp filer with Data ONTAP 7.0 or later installed.
- An NDMP server with the Network Data Management Protocol enabled.
- A supported storage device that is attached to an NDMP server.

About installing the NDMP Option

The NDMP Option is installed locally on the media server as a separate add-on component of Backup Exec. No files are copied to the NDMP server. To install the NDMP Option on the local media server,

Configuring the NDMP server

In order for Backup Exec to back up NDMP resources, the NDMP service must be running on the NDMP server and you must authenticate with the NDMP server.

□ Entering the following command on the NDMP server (accessed by using telnet or the Web interface):

```
filerA> ndmpd on
```

To configure the NDMP server to use the challenge (MD5) method for authentication Enter following command:

```
filerA> options ndmpd.authtype challenge
```

To authenticate with the NDMP server you should use the root password or non-root user with the NDMP-specific password that the system generated. To configure these and other settings, refer to your NAS documentation.

Configuring Backup Exec to use the NDMP Option

Before you can use the NDMP Option, you must do the following tasks in Backup Exec:

- Add the NDMP server that you want to back up to the backup selection list. You can add the NDMP server to the NDMP Servers node or the User-defined Selections node.
- Add the storage device that is attached to the NDMP server to the Backup Exec device list.

When you add an NDMP storage device to the Backup Exec device list, Backup Exec automatically adds the NDMP server to the NDMP Servers node. If you want to protect an NDMP server that does not have an attached storage device, add the NDMP server to the backup elections list as a user-defined selection.

Note In a CASO environment, you can add an NDMP Server only to a central administration server or to a managed media server on which the device and media database is located.

To add an NDMP storage device

1. On the navigation bar, click **Devices**.
2. In the task pane, under NDMP Tasks, click **Add NDMP Server**.
3. In the Add NDMP Server dialog box, enter the following information:
4. Click **OK** to add the NDMP server.
5. After adding the NDMP server, restart Backup Exec services.

The NDMP server and the storage devices that are directly attached to it appear in the devices pane.

NDMP Server Enter the name of the NDMP Server. **Port** Enter the port to be used for communications between the Backup Exec server and the NDMP server.

Logon Account Select the Logon Account for the NDMP server.

NDMP server supports ICMP ping operations Check NDMP server supports ICMP ping operations to ensure that the Backup Exec can use ping to locate the NDMP server.

Backing up NDMP resources

The following limitations exist when creating backup jobs for NDMP resources:

- Backup selection lists cannot contain selections for both NDMP and non-NDMP resources.
- The NDMP Option will not exclude folders from the backup job if the parent folder is being backed up. Instead, all items in the parent folder will be backed up, even if you marked items for exclusion from the backup.
- Backup Exec cannot gather sufficient file and directory information on an NDMP backup to accurately populate the Job Summary and Set Detail Information sections of the job history with the number of files, directories, files skipped, corrupt files, and files in use. These numbers always appear as 0.
- While the **Verify after backup completes** option is supported, the creation of a separate verify job is not supported for the NDMP option. To ensure that data from a previous backup can be read, run a restore job using the option Restore without writing data to disk.

To back up NDMP resources

1. On the navigation bar, click the arrow next to Backup.
2. Click **New Backup Job**.
3. On the Properties pane, under Source, click **Selections**.
4. In the backup selections tree, expand either **NDMP Servers** or **User-defined Selections**. If Backup Exec added the NDMP server to the backup selection list automatically, the NDMP server appears in the NDMP Servers node. If you added the NDMP server to the backup selection list manually, the NDMP server appears in the User-defined Selections node.
5. Select the NDMP resource you want to back up. You may be prompted to select or create a logon account for this resource.

6. Do one of the following:

- Select the entire NDMP server for backup or expand the resource.
- Select individual volumes or directories to backup.

You can browse to the individual file level, but you cannot select them for backup.

7. On the Properties pane, under Destination, click **Device and Media**.

8. In the Device list, select a storage device that is attached to an NDMP server.

9. On the Properties pane, under Settings, click **NDMP**.

10. Select any of the following options:

11. Do one of the following:

- Start the backup job.
- Select other backup options from the Properties pane, and then start the backup job.

Backup method Select this option to specify the backup level.

Level 0 provides a full backup. Levels 1 through 9 provide various levels of incremental backups.

Level 1 backup method backs up new or modified files since the level 0 backup, level 2 backup method backs up new or modified files since the level 1 backup, and so on.

Backup Access Control Lists Check **Backup Access Control Lists** to have Backup Exec back up the access control lists during the backup. The access control lists contain the users' or groups' access rights to each share. **Disable file history** Select this option to prevent the generation of file history data. File history is used to optimize recovery of selected subsets of data from the backup image. File history generation and processing increase the backup time. To improve backup time, check **Disabling file history**. If file history is made unavailable and you must later restore data, restore the entire backup image.

Restoring NDMP data

During the backup selection process, all selections were made at the folder level or higher.

During the restore process, you can select individual files for restore if file history was not disabled for the backup job.

Backup Exec cannot gather sufficient file and directory information on an NDMP restore to accurately populate the Job Summary and Set Detail Information sections of the job history with the number of files, directories, files skipped, corrupt files, and files in use. These numbers always appear as 0. NDMP backup sets cannot be cataloged unless the option Use storage media-based catalogs is selected as a catalog default.

To restore NDMP data

1. On the navigation bar, click the arrow next to Restore.

2. Click **New Restore Job**.

3. Select the data you want to restore.

4. To change or test logon credentials, on the Properties pane, under Source, click **Resource Credentials**.

5. On the Properties pane, under Source, click **Device**.

6. On the Properties pane, under Settings, click **NDMP**.

7. Select any of the following options:

Restore Access Control Lists Select this option to have Backup Exec restore the access control list data when the restore is performed.

The access control lists contain the users' or groups' access rights to each share.

8. Do one of the following:

- Start the restore job.
- Select other restore options from the Properties pane, and then start the restore job.

Setting default backup and restore options for NDMP

You can use the defaults set by Backup Exec during installation for all NDMP backup and

restore jobs, or you can choose your own defaults. You can also change the defaults for any specific backup or restore job.

To set default backup and restore options for NDMP

1. On the Tools menu, click **Options**.
2. On the Properties pane, under Job Defaults, click **NDMP**. Enable Direct Access Recovery
Select this option to have Backup Exec use Direct Access Recovery (DAR) during the restore job. With DAR-enabled recovery, Backup Exec can specify the exact location of a file in a backup data stream. The NDMP server can then read the data applicable to the single file being restored, which reduces the amount of information that is processed and significantly reduces recovery time. If DAR is not available, the restore may take significantly longer.
Restore without writing data to disk (Verify data without doing a restore) Select this option to have Backup Exec verify the integrity of the data without actually restoring the data. Running a restore job with this option selected is the only way to verify data with the NDMP option.
3. Select the appropriate options as follows:
4. Click **OK**.

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