

## Network Attached Storage (NAS) Protection Challenges with NDMP

Businesses depend on having immediate access to critical data and any loss of that data can adversely impact the bottom line. Network Attached Storage (NAS) devices, such as those from Network Appliance, EMC Celerra, and IBM's Network Appliance-based N-series have become the primary storage location for many companies' most critical data.

Administrators who are deploying or planning on deploying NAS devices into their environments need to understand these devices and plan for the challenges of protecting and quickly recovering them including:

- How to protect new and existing NDMP-enabled NAS devices along with existing non-NDMP systems, such as Windows, Linux, Unix, MAC, and NetWare systems, with a single data protection solution?
- How to maximize investments in existing LAN and/or SAN backup infrastructure by sharing existing tape and disk backup devices between the backup server and NAS device?
- How to protect NAS systems without having to use complex command-line scripts or configuration settings?
- How to quickly recover individual files or directories from an NDMP volume level backup?
- How to separate NDMP vs. non-NDMP backups onto different backup media?

## Setting the Standard in NAS Protection with Backup Exec

With the Backup Exec 12.5 for Windows Servers NDMP Option, administrators can quickly overcome these obstacles to quickly and easily setup protection of their NAS device alongside their other non-NAS systems. IT Administrators can leverage their investment in Backup Exec and existing tape or disk backup devices to protect NetApp, EMC, or IBM N-series NAS devices or attach tape devices directly to a NAS device and manage them all together from Backup Exec.

The Network Data Management Protocol (NDMP) Option of Backup Exec 12.5 for Windows Servers provides protection specifically for organizations utilizing NetApp, EMC, and/or IBM N-series Filers in concert with their Windows environment. The NDMP Option allows Backup Exec 12.5 to manage most NAS configurations including:

- Tape or VTL devices attached directly to NDMP-enabled NAS devices for "Local NDMP" backups
- Tape or VTL devices attached to a 2nd NDMP-enabled NAS device for "3-way NDMP" backups
- **New!** Tape, VTL, or Backup-to-Disk (B2D) devices attached to a Backup Exec server for "Remote NDMP" backups
- **New!** Tape, VTL, or Backup-to-Disk (B2D) devices shared via a SAN between a Backup Exec server and NAS device for mixed NDMP and non-NDMP backups of existing Windows, Linux, Unix, MAC, NetWare data

## The Value of the Backup Exec NDMP Option

As a result of the role that NAS storage devices now serve in many organizations, implementation of a data protection solution designed to support these devices alongside non-NAS systems is important in helping to safeguard the integrity and availability of the critical business data stored on these systems. Symantec has enhanced Backup Exec 12.5 NDMP Option to provide:

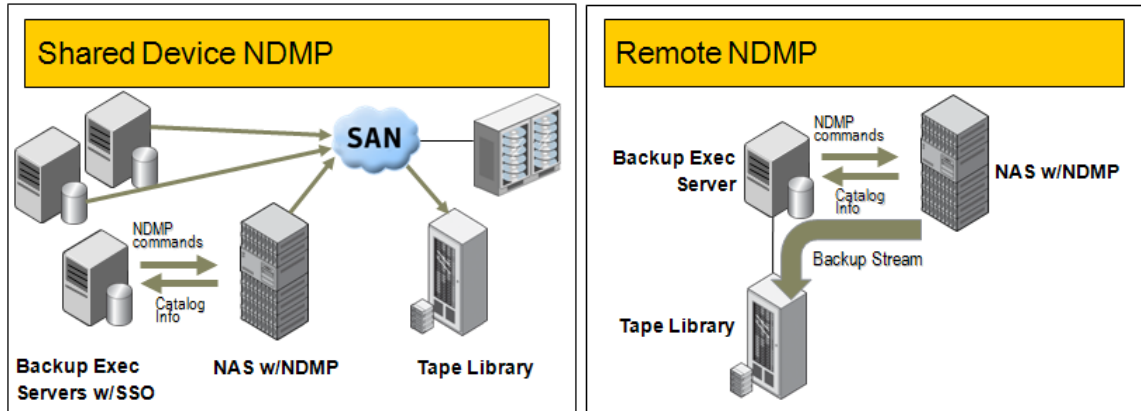
- **New!** Mixing of NAS and non-NAS data on the same tape or disk media
- **New!** Automated data duplication to tape of NAS data
- **New!** GUI-based include/exclude support for making selections of NAS data
- **New!** GUI-based NDMP environmental variable setting support

### Key Business Benefits

- Protect NAS devices via NDMP through the easy-to-use Backup Exec console **without** complex command-line interfaces or scripts
- Manage your NDMP, as well as existing LAN and SAN backups all from within the easy-to-use Backup Exec interface
- Share tape and disk backup devices between the Backup Exec server and NAS devices over a SAN
- Supports remote NDMP backups of NAS data to Backup Exec tape and disk devices
- Protection of both live and snapshot data volumes
- Significantly reduces recovery time with integrated Direct Access Restore (DAR) support of individual file recovery

### NDMP Platform Support

- Any device running NetApp ONTAP 7.01 and later including:
  - Network Appliance FAS Family
  - Network Appliance StoreVault Family
  - IBM N-series Family
- Any EMC Celerra System running EMC DART 5.5 or later including:
  - NS Series Family



## Key Features and Benefits

<b>Auto-Discovery of NDMP-attached Tape Devices</b>	Backup Exec 12.5 automatically discovers and configures tape devices attached to NDMP devices for fast and easy setup
<b>Direct Access Restore</b>	With DAR-enabled recovery, Backup Exec can specify the exact location of a file in a backup data stream allowing restores down to the individual file level thus dramatically reducing recovery time
<b>NetApp Snapshot Support</b>	Allows backups to be taken from NetApp Snapshot volumes to avoid impact on live production data volumes
<b>Incremental NDMP Backup Support</b>	Provides NDMP 0-9 levels of incremental backups to ensure protection of critical NAS data within small backup windows
<b>Flexible Backup Methods</b>	Backup NAS data using vendor supported backup methods such as EMC "SnapSure" and EMC "VBB"
<b>Broad Tape and Disk Device Support</b>	Backup Exec 12.5 supports a broad variety of tape libraries for use with the NDMP Option to allow for maximum flexibility of choosing new devices or leveraging existing tape libraries already in your environment

## Backup Exec NDMP Option Licensing

The Backup Exec 12.5 NDMP Option is licensed on a *per-NAS device* basis. A single license of the Backup Exec NDMP Option provides protection for a single NDMP-based NAS device. To protect multiple NAS devices, simply purchase the corresponding number of NDMP Option licenses. If a multi-drive tape library is being used, Backup Exec Library Expansion Option (LEO) licenses can be added to support additional drives in the library. Disk or tape devices that are shared between multiple Backup Exec servers and a NAS device will also require a Backup Exec Shared Storage Option (SSO) for each Backup Exec server sharing the device. However, a single Backup Exec server and NAS device sharing a tape or disk device does **not** require a SSO license. Clustered NAS devices only require a single NDMP Option license for the active NAS system.

Scenarios	Customer Environment	Licensing
<b>Protecting 1 NetApp NAS Device with a 2-Drive Tape Library</b>	1 NetApp/IBM Filer with locally attached 2-drive Tape Library	Qty:1 of Backup Exec 12.5 for Windows Server license Qty:1 of Backup Exec 12.5 NDMP Option Qty:1 Library Expansion Option (first drive of multi-drive library included free with Backup Exec 12.5 Server license)
<b>Protection for a EMC Celerra System</b>	1 EMC with locally attached 2-drive Tape Library	Qty:1 of Backup Exec 12.5 for Windows Server licenses, (1) Per Backup Exec Server Qty:1 of Backup Exec 12.5 Central Admin Server Option License
<b>Protection for a SAN Environment</b>	3 Backup Exec SAN servers centrally managed with CASO	Qty:5 of Backup Exec 12.5 for Windows Server licenses, (1) Per Backup Exec Server Qty:1 of Backup Exec 12.5 Central Admin Server Option License Qty:5 of Backup Exec 12.5 SAN Shared Storage Option Licenses, (1) Per Backup Exec Server that is Sharing Backup Devices

### FOR MORE INFORMATION

Symantec Enterprise Sales Support: 800-745-6054

Backup Exec on the Symantec Web Site: <http://www.symantec.com/backupexec/index.jsp>