# datadomain

# Amanda Enterprise 3.0 Integration Guide

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# Amanda Enterprise 3.0 Integration Guide

This document explains how to configure and integrate Data Domain systems with the Amanda Enterprise 3.0 backup application. This document focuses on the NFS protocol.

This document covers the topics shown in the following table:

Related Documentation	Page 4
Tape Marker Settings and Restrictions	Page 4
Supported Operating Systems	Page 4
NFS Device Discovery and Configuration	Page 4
Backup and Restore Examples	Page 6
Configuration Checklist	Page 9

## datadomain

#### **Related Documentation**

Please refer to the Zmanda online documentation, especially the *Zmanda Management Console for Amanda Enterprise User's Manual*. Visit http://www.zmanda.com to view the Zmanda documentation.

**Note:** Access to documentation on the Zmanda Web site requires authentication.

#### **Tape Marker Settings and Restrictions**

There are no required tape marker settings.

Amanda Enterprise server-side and client-side compression and encryption are disabled by default and should remain disabled. Data Domain systems achieve the best possible compression if the Amanda compression and encryption features are disabled.

Replication has not been tested.

#### Supported Operating Systems

Amanda backup servers are supported on both Linux and Solaris.

#### **NFS Device Discovery and Configuration**

The Amanda backup server require NFS access to the Data Domain system volumes. This means that the Data Domain system should be accessible from the backup server via the network and the Data Domain system volume should be exported. Follow this procedure to discover and configure the Data Domain system volumes:

- 1. On the Data Domain system, either create a directory specifically for Amanda and grant the amandabackup administrator or root access to that directory, or give the amandabackup user administrator or root access to the top-level mount point (normally the mount point is /backup).
- **2.** On the Amanda backup server, create an NFS mount point and mount the Data Domain system volume.

For example, if dd1 is the Data Domain system and /backup is the volume name, it should be mounted as /mnt/ddr-nfs:

```
# mkdir /mnt/ddr-nfs
# mount dd1:/backup /mnt/ddr-nfs
```

3. On the Amanda backup server, use the following commands to create the amanda subdirectory on the Data domain system;

```
# mkdir /mnt/ddr-nfs/amanda/
# chown amandabackup:disk /mnt/ddr-nfs/amanda/
# chmod 750 /mnt/ddr-nfs/amanda/
```



- 4. Log in to the Zmanda Management Console (ZMC).
- **5.** Select Devices in the Admin tab.
- 6. Select Disk and click Add.

The page shown in Figure 1 appears.

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Configure St	orage Device Profile: Disk		0						
Device Type:	Disk								
Name:	DDR_NFS		_						
Comment	DDR appliance mou	nted with NFS	_						
Root Path: Note: Each b need a different device profile	/mnt/ddr-nfs/ama ackupset will use a subdirect ent root path for a different bac	ndalvtapes/ ory under this ro xup set, then cr	ot path. If you eate a new						
	Add C	ancel) (Update	Device Profile						
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Actions	Device Name	Туре	Comment			Status	Path		
Delete	Tape1	tape	First tape drive			inactive	/dev/nst0		
Delete	DDR_NFS	R_NFS disk DDR appliance mounted with NFS				inactive	/mnt/ddr-m	fs/amanda/vtapes/	
								<< first < prev	next > last >>
Done							1	zmctrunk.zman	da.com 🔒 🧩

Figure 1: NFS Device Configuration

7. Specify the Device Name, Comments, and Root Path to the device.

The Device Name must be unique among the configured devices. You can use the Comment field to further identify the device. See Figure 1.

This completes the NFS device configuration.

# **Backup and Restore Examples**

#### **Creating and Executing a Backup**

- 1. Open the What page of the Backup tab of the Zmanda Management Console and choose the backup source.
- **2.** Select Linux/Unix File System as the backup object type (Figure 2).

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**Figure 2:** What Page of the Backup Tab

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**3.** Enter the details for the file system to be backed up. See Figure 3 and refer to the *Zmanda Management Console for Amanda Enterprise User's Manual* for more information.

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						Ur	ido All Check All Hos	sts Apply Changes	s to Server
Done							zr	nctrunk.zmanda.	com 🔒 🧩

Figure 3: Details of the File System being Backed Up

In this example, we are configuring a backup to the Data Domain system via NFS.

**4.** Open the Where page of the Backup tab and select the DDR\_NFS device as shown in Figure 4.



Figure 4: Configuring Disk Backup Media



 Select the maximum amount of disk space that can be used for the backup. In Figure 5, 5000MB for each backup volume (virtual tape) is configured.

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Configure Se	condary Stora	e Device:Disk 🛛 👔					
Device Type:		Manage DDR_NFS Device					
Comment:		Using virtual tapes on NFS-mounted, DDR appliance					
Number of VT	apes:	15					
Size of VTape	s:	5000 MB 💌					
Maximum Spa	ace Used:	5000MB (notto exceed quantity above	)				
Destination F	ile Path:	/mnt/ddr-nfs/amanda/Backup					
Note: VTapes the storage de NAS at the pa	will be create evice is not the th above, befo	at this location, when this form is saved. If ocal filesystem, please mount the remote saving this form.					
Holding Disk	File Path:	/hd1					
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**Figure 5:** Configure the Details of the NFS Device

**6.** Select the number of virtual tapes to be used.

The number of virtual tapes determines the retention policy for the backups.

- 7. (Optional) You can also configure a holding disk (a disk staging area for backups). In this example, the /hdl file system is configured as a holding disk, and the backup set can use all of the space available in this file system.
- 8. (Recommended) Verify the configuration on the Verify page of the Backup tab.
- **9.** Schedule backups on the When page of the Backup tab, or start a backup immediately by using the Activate page of the Backup tab.

You can monitor the status of the backup on the Monitor page (Figure 6) or check the Reporting pages later.



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	calhost.localdomain /ust/	'lib				
Legend (2)						
Backup State						
Success						
In Progress						
Failure						
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Figure 6: Successful Backup Shown on the Monitor Page

#### **Restoring a Backup**

Follow this procedure to use the Restore pages to restore a backup.

- 1. Select the files and directories to be restored on the What page of the Restore tab and click Next.
- **2.** On the Where page of the Restore tab, select the destination for the selected files, set the restore options, and click Next.
- 3. On the Restore page of the Restore tab, start the restore operation.

### **Configuration Checklist**

- 1. Configure and verify NFS access to the Data Domain system.
- 2. Create a backup set with the Data Domain system.
- 3. Perform a test backup.
- **4.** Perform a test restore.

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