NewsShare

DIGITAL NEWS PRODUCTION

Technical Reference Guide

SOFTWARE VERSION 5.1

071837100
NOVEMBER 2004

the most watched worldwide

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Revision Status

Rev Date	Description
November 19, 2004	Release 071-8371-00 for Software Version 5.1

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Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

World Wide Web: http://www.thomsongrassvalley.com/support/
Technical Support E-mail Address: gvgtechsupport@thomson.net.

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Authorized Support Representative

A local authorized support representative may be available in your country. To locate the support representative for your country, visit the product support Web page on the Grass Valley Web site.

Profile Users Group

You can connect with other Profile XP Media Platform users to ask questions or share advice, tips, and hints. Send e-mail to profile-users@thomson.net to join the community and benefit from the experience of others.

Introducing NewsShare

NewsShare provides the DNP system with the ability to share a common news database and common media volumes. This allows newsroom personnel to use a common media base, making all aspects of the editing process easier to create and maintain.

This document describes each of the computers that comprise a NewsShare system, both for the Open SAN system and the NAS system, and how to install and configure all necessary components. If you are installing a system that comes from the factory, most of these procedures have already been done for you. Use this document for reference or when upgrading existing equipment.

This chapter discusses:

• NewsShare components

• Things you should know before upgrading

• Open SAN system overview

• NAS system overview

NewsShare Components

A DNP NewsShare system includes these components:

- DNP workstations, running NewsEdit XT or SC, FeedClip, and/or NewsQ

- Shared network:

  - Open SAN network:

Profile Media Server(s)	For encoding and playing out broadcast-quality video
RAID arrays	Provide storage for all media
File System Manager (FSM)	One or two servers control access to the RAID arrays and host asset databases

  - NAS network:

NAS Server	Manage the network file systems
RAID arrays	Provide storage for all media
Database System Manager (DSM)	Hosts the News database and optionally the SmartBin Service.

- (Optional) XRE Server, used for these services:

  - SmartBin Service
  - Domain Controller for Open SAN security

Before you Begin

Please read the following notes before beginning the upgrade process.

Open SAN Systems Only

- Before creating a NewsShare environment, you first need to install and configure an Open SAN system (MAN).

- Many Open SAN components, particularly the CentraVision File System (CVFS), require all clients and servers to use fixed IP addresses. If your network uses a DHCP server, you must create address reservations or a fixed address subnet.

  Complete IP connectivity must exist between all FSMs, Profile Media Servers, and NewsShare workstations for a particular Open SAN. You may find it convenient to assign all machines on an Open SAN to the same Workgroup. For secure configurations, domain membership is necessary as discussed in the document, *Open SAN Security Instruction Guide*.

- A Profile Media Server's Fibre Channel switch cannot handle both SCSI and IP interfaces. For a NewsShare workstation to work with shared storage, you must configure one Fibre Channel fabric for SCSI and one for IP.

- An Open SAN cluster is comprised of FSMs, Profile Media Servers, NewsEdit workstations, and ContentShare Open SAN Servers that share a common volume. You must use a common-prefix convention (e.g., *prefix_machine)* to name each machine within a cluster; NewsEdit uses these prefixes to determine if files can be accessed within the local cluster or whether a stream exchange to another cluster is necessary.

  For example, you could identify one Open SAN cluster as OSAN1; you would then use that prefix to name all machines in that cluster — a Profile Media Server could be OSAN1_PRO1 and a NewsEdit workstation could be OSAN1_EDIT1. Machines in a different Open SAN cluster require a different prefix (such as OSAN2).

- Note the naming convention that must apply to common-cluster Profile, DNP, and ContentShare Open SAN Broker machines (the OPENSAN_MACHINE morphology) in order for winking (shallow copy) of shared files to work. Without this, send commands will deep-copy through GXF video networking paths or fail completely if no GXF is available. The naming convention does not apply to FSMs, which we

recommend to retain their factory names. If you do rename an FSM, you must also rename the SQL Server that it hosts. See the description of the changename utility in the *Reconfigure FSM Settings* section of the Media Area Network Instruction Manual.

• For DNP machines, whether running on Windows 2000 or Windows XP Professional, use the Win2K version of the same CVFS build used by the FSM and Profile. Use the same settings on all CVFS clients, with one exception: Configure DNP clients (NewsEdit, NewsQ and FeedClip) to be File Name Case Insensitive with Preserve Case. Do not change the settings on the FSMs or Profiles from the normal case-sensitive values specified in the Media Area Network Instruction Manual. Notwithstanding this exception to the DNP guide, generally, if the CVFS configuration specifications for the Open SAN system conflict with this installation guide, follow the more recent specifications.

Open SAN and NAS Systems

• SDNP requires that all SQL Server instances in its products be updated to Service Pack 3. These include the SQL Server Standard Edition found on FSMs, DSMs, and NewsBrowse servers, as well as the SQL Server MSDE found on NewsEdit, NewsQ, and FeedClip. DNP installer programs will insist before proceeding that any downlevel version of SQL Server be upgraded to SP3 or higher. If necessary, follow the *Revised SQL Server Installation and Update Procedures* document for SP3 upgrades. Note that the Standard and MSDE editions are decidely different, and that each must be upgraded only by its indicated service pack. DNP has been increasingly able to embed the MSDE installation and upgrade in DNP's main installers; thus, explicit upgrades to SP3 starting with version 5.0 products are usually unnecessary.

Open SAN System

	What to do...	How to do it...
Hardware	If necessary, replace the single-port Emulex Fibre Channel card with a dual-port card and configure each port	See "Installing the Dual-Port Fibre Channel Card" on page 17.
	Modify Registry entries	See "Modifying the Registry for Correct Use of the SCSI Fibre Channel Fabric" on page 19.
For each Profile Media Server	Follow the correct naming convention for the Open SAN system	See "Setting Up a Failover Open SAN System" on page 16.
Software		
For each File System Manager	Configure the FSM as an Open SAN component	See the *Media Area Network Instruction Manual*.
	Create a CVFS license file	See "Creating a CVFS license.dat File" on page 22.
	Verify SQL licensing	See "Verifying SQL Server Licensing" on page 23.
	Run SetupNewShareServer installer	See "Installing the NewsShare Server" on page 23.
On the ContentShare Server	Install the ContentShare MAN Broker	See the manual, *ContentShare MAN Broker Installation Instructions and Release Notes*.
On the XRE Server	Install SmartBin Service	See the *SmartBins Instruction Guide* for instructions.
For each NewsShare Workstation	If you are upgrading, uninstall the current version of the NewsRoomSuite software.	Use Windows Add/Remove Programs and choose **Automatically Uninstall**.
	Install and configure CVFS	See "Installing the CentraVision File System (CVFS)" on page 26 and "Configuring CVFS" on page 28.
	Implement The CVFS voting accommodation	See "Modifying the Registry for the CVFS Voting Workaround" on page 31.
	Install Profile XP software	See "Installing the PC Open SAN Software" on page 33.

	What to do...	How to do it...
For each NewsShare Workstation, cont...	Install ContentShare Explorer	See "Installing ContentShare Explorer" on page 34.
	Install the NewsRoomSuite 5.0 software	See "Installing the NewsRoomSuite 5.1 software" on page 35.
	Create SmartBins	See the *SmartBins Instruction Guide* for instructions.
Security	See the *Open SAN Security Instruction Guide* for details.	
Test	Test NewsEdit functionality	See "Testing NewsEdit" on page 38.
	Test FeedClip functionality	See "Testing FeedClip" on page 39.

NAS System

What to do...		How to do it...
Hardware	Add a Gigabit Ethernet board and install the drivers	
Software		
For each Database System Manager	Install the Windows 2000 Server	See "Installing Windows 2000 Server Software" on page 42.
	Upgrade an existing SQL Server to SP3	See "Installing SQL Server" on page 42.
	Install the SQL server	See "Installing SQL Server" on page 42.
	Configure the SQL server	See "Configuring SQL Server" on page 46.
	Verify SQL licensing	See "Installing the NewsShare Server" on page 47.
	Run SetupNewsShareServer installer	See "Installing the NewsShare Server" on page 47.
	Set the correct IP addresses for the NAS heads	See "Setting IP Addresses" on page 50.
	Set the date and time for your newsstation	See "Setting the Date and Time" on page 52.
On the XRE Server	Install and configure SmartBin Service	See the *SmartBins Instruction Guide*.
	Set up SmartBins	
	Mount the NAS volume	See "Mounting a NAS Volume" on page 57.
For each NewsShare Workstation	If you are upgrading, uninstall the current version of the NewsRoomSuite software.	Use Windows Add/Remove Programs and choose **Automatically Uninstall**.
	Install the Profile XP software	See "Installing the XP PC Software" on page 56.
	Mount the NAS volume	See "Mounting a NAS Volume" on page 57.
	Install the NewsRoomSuite 5.0 software	See "Installing the NewsRoomSuite 5.1 software" on page 58.
Test	Test NewsEdit and FeedClip functionality	See testing procedures on page 60 and page 61.

Installing the Open SAN Hardware

If you are creating an Open SAN NewsShare system using some existing equipment, i.e., DNP workstations or a Profile Media Server, you may need to make some changes to your current equipment.

This chapter discusses how to:

• Set up a failover Open SAN system

• Install the dual-port fibre channel card and configure drivers

• Modify the Registry for Correct Use of the SCSI Fibre Channel Fabric

Setting Up a Failover Open SAN System

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In a failover-configured Open SAN system that has redundant Fibre Channel SCSI fabrics, the fabric topology must be configured in a particular way to assure correct failover performance. This topology is often custom-specified for individual Open SAN systems; as appropriate, this specification should be sought and followed. In general, given redundant SCSI fabrics A and B, follow these guidelines:

- Connect the A ports for all Profile and RAID chassis to the A fabric domain.

- Connect the B ports for all Profile and RAID chassis to the B fabric domain.

- The DNP machines do not have redundant Fibre Channel SCSI ports, therefor, split the attachment of the DNP equipment between the A and B domains.

- Assign domain numbers to each Fibre Channel switch such that any A-domain value is less than any B-domain value. Note that the term <u>domain</u> is used here in the Fibre Channel-fabric sense to indicate an FC switch. Do not confuse this Fibre Channel domain with the semantically distinct Windows domain.

When used correctly, the NewsShare Open SAN system works as follows:

- Each FC client will discover, in order, the A then B RAID controllers.

- The DNP machines will select a single, stable, predictable path to the redundant RAID controllers.

- In the event of a RAID controller failure, a DNP machine, after rebooting if necessary, will find the alternate path to the RAID chassis.

- In the event of a Fibre Channel switch failure, the DNP machines not primarily connected to the failed switch will continue to function, though they may first require rebooting.

Important changes must be made to each DNP NewsShare client in order for it to function correctly in the Open SAN environment. See Chapter 4, "Setting Up Workstations on an Open SAN System" for details.

Installing the Dual-Port Fibre Channel Card

You need to install a dual-port Fibre Channel card on each DNP NewsShare system and then configure the two ports.

Installing the Fibre Channel Card

If any exist, you first need to remove old single-port Emulex Fibre Channel cards and install dual-port Fibre Channel cards.

To install the Fibre Channel card:

1. Remove the Emulex card from each NewsShare workstation.

2. Install a dual-port Fibre Channel card in each NewsShare workstation.

3. Connect the cables to both ports.

4. Power on the system and log into Windows 2000 as **Administrator**.

5. Configure the ports as described in the following two sections.

Configuring the SCSI Drivers

You need configure both ports of the Fibre Channel card with SCSI drivers.

To configure the SCSI drivers:

1. Right-click on My Computer and choose **Properties**.

2. Click the **Hardware** tab.

3. Click **Device Manager**.

   Two Fibre Channel controllers appear under **SCSI and RAID Controllers**.

4. Right-click on the first Fibre Channel controller and choose **Properties**.

5. Click the **Driver** tab.

6. Click **Update driver**.

   The Upgrade Device Driver Wizard appears.

7. Click **Next**.

8. Select **Search for a suitable driver for my device** and click **Next**.

9. Insert the media with the Qlogic QLA2342 Dual Fibre Channel SCSI driver.

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10. Select the device with the SCSI driver from the list and click **Next**.

    The Digital Signature Not Found window appears.

11. Click **Yes**.

12. Click **Finish** to complete the device driver upgrade.

13. Repeat Steps 4 through 12 for the second Fibre Channel controller.

14. Close the Properties window.

Configuring the IP Driver

You need configure the upper port of the Fibre Channel card with an IP driver.

To configure the IP driver:

1. Choose **Start | Settings | Control Panel | Add/Remove Hardware**.

   The Add/Remove Hardware Wizard appears.

2. Click **Next**.

3. Select **Add/Troubleshoot a device** and click **Next**.

4. Select **Add a new device** and click **Next**.

5. Select **No, I want to select the hardware from a list** and click **Next**.

6. Select **Network Adapters** from the Network Types list and click **Next**.

7. Click **Have Disk**.

8. Insert the media with the Qlogic QLA2342 Dual Fibre Channel IP driver.

9. Select the device with the SCSI driver and browse to the **/W2K/IP** folder

10. Select the **netql2x.int** file and click **Open**.

11. Click **OK**.

12. Select the **QLogic QLA2x00 PCI Adapter** and click **Next**.

13. Click **Next** and then click **Yes**.

14. Click **Finish.**

15. Reboot the system.

16. Click **Cancel** when the Found new Hardware window appears.

Modifying the Registry for Correct Use of the SCSI Fibre Channel Fabric

After normal installation of the QLogic HBA cards (whether done in the factory or field), certain Registry values must be tuned for correct use of the SCSI Fibre Channel fabric. (See the topology discussion in this chapter's section, "Setting Up a Failover Open SAN System" on page 16.) By hand or by script, effect the (sparsely specified) values indicated here in Registry script syntax:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\ADIC\CentraVision File
System\1]
   "NoMultiplePaths"=dword:00000001
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ql2
300\Parameters\Device]
   "DriverParameters"="UseSameNN=0;buschange=0;SNSGET=2"
   "MaximumSGList"=dword:000000fc
   "NumberOfRequests"=dword:00000096
```

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Setting Up the File System Manager on the Open SAN System

To accommodate NewsShare on your Open SAN, for each FSM you need to:

- Add licenses to the master CVFS license.dat file for the DNP machines

- Add SQL server licenses for the DNP machines

- Install the NewsShare database

If you need additional information on configuring an FSM for your Open SAN, refer to Chapters 5 and 6 of the *Media Area Network Instruction Manual*.

Creating a CVFS license.dat File

Each File System Manager requires a master CVFS license.dat file that contains the FSM license as well as the licenses from each Profile Media Server and NewsShare workstation on your shared storage network. If you are using two FSMs on your Open SAN, each system needs the same master file. If this master license.dat file was not created at the factory, use a text editor such as NotePad to compile the license strings.

Depending on how your NewsShare system was assembled and shipped from the factory, the license.dat file on each FSM may already contain a license string for each client, or each client may carry its own license string which needs to be copied to the master license.dat file on each FSM. If the DNP machines were not originally shipped for use as an Open SAN system, they may not have CVFS licenses. In this case, contact Thomson Grass Valley to obtain licenses.

Verify that there exists a correct License Authorization String for each Profile and NewsShare system in the master license.dat files. For each client, follow this example to create the license.dat file:

1. On the primary FSM, browse to the **C:\MediaAreaNetwork\config** directory and open the license.dat file in a text editor.

2. For each Profile Media Server and NewsShare workstation, do the following:

    a. Browse to the **C:\MediaAreaNetwork\config** directory and open the license.dat file in a text editor.

    b. Locate the license string text. This is an example of license string text:

    # System Identifier: B0D0B0C5B1 (XP1)
    # Platform: NT
    # Expiration Date: Expiration Date: Mon Dec 31 23:59:59 2001
    # License Authorization String: client 1 NT B0D0B0C5B1
    AAAABNEB8ASCDWFS2Y2SCNL2569SSPHVT8QCU6S6AZSFNPTC4 TSXP1
    grassvalleygroup

    c. If the text does not exist in the master license.dat file on the FSM, copy it into that file.

3. Repeat Step 2 for each machine.

4. Save the master license.dat file.

5. Copy the master license.dat file to the backup FSM.

Verifying SQL Server Licensing

For each File System Manager in your Open SAN, verify the following:

- That the maximum per-seat number in the SQL Server license is adequate to include Profile Media Servers and NewsShare workstations.

Installing the NewsShare Server

The SetupNewsShareServer installer must be run on each FSM in the Open SAN system. This installer is included in the DNP distribution CD-ROM. It must be run for both new installations and upgrades, and it may be run before or after the independent installers for the NewsShare client machines.

The installer will not modify or delete customer data in existing News databases; it simply makes compatibility changes for programming interfaces. Nonetheless, it is strongly recommended that backups be made of existing, server-mounted News databases prior to running the installer. See Appendix A, "Database Maintenance Utilities" for available backup utilities.

To install the NewsShare Server:

1. Log in to the FSM machine as Administrator.

2. Stop the Failover Monitor Service and make sure the unit is not in active service to NewsShare clients or SmartBin Services.

3. Navigate to the location of the SetupNewsShareServer installer and double-click the installer icon.

   The installer can be run directly from a DNP distribution CD-ROM, a networked volume, or a local drive.

The installer completes in about a minute. You don't need to reboot. After the installer has been run on both FSMs, they can be returned to service.

Explanation of the Database Installation Elements

Whether used in shared or local mode, all FeedClip, NewsEdit, and NewsQ workstations, and all SmartBin servers, install MDAC (Microsoft Data Access Components), an embedded version of SQL Server called MSDE (Microsoft SQL Server Desktop Engine), and the DNP database named News. In upgrades, these components are updated as necessary. For a fresh installation, MDAC and MSDE are loaded early in the process and the News Database is created late, possibly after a required reboot.

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Typically, these components are factory installed, or, if done in the field, automatically installed with no user interaction. If errors occur, proceed as directed by Thomson Grass Valley service personnel.

For details on the installation of SQL Server (both Standard and MSDE editions) for DNP, see the document *SqlServerSp3ForGvgDnpProducts.htm*.

Starting with version 5.0 of the NewsroomSuite software, the management of MSDE is substantially embedded in the various installers. You should need to refer to this document only to maintain or upgrade earlier DNP versions that are still using MSDE SP2.

For installation or upgrade of the News database on a workstation, in the directory C:\Program Files\Vibrint 3.0\DB Install, the DNP installer calls the executable dbInstall.exe with certain parameters. If dbinstall does not encounter any errors, it exits and returns control to the main installer. If it encounters a fatal error, it will block with a message that describes the error.

The normal, error-free DB installation does not block, so the command-line messages are not easily readable. Here is an example of what they would be for a typical upgrade:

```
C:\Program Files\Vibrint 3.0\DB Install>dbInstall -nox -FSM1
VMAN_VBRFSM1
Skipping MSDE installation. Ver. 8.00.760 already installed.
Installing skeletal news DB on local MSDE server.
This may take a moment...success.
Updating news DB on this machine.
This may take a moment...success.
Inserting root bins in local news DB.
Revising local DB based on vbrDataSource...success.
Communicated successfully with DB news on server VMAN_VBRFSM1.
Database installation complete.
```

An analogous executable, svrDbInstall.exe installs and configures the News database on DSM and FSM servers, and is called by the SetupNewsShareServer installer.

Setting Up Workstations on an Open SAN System

For each NewsShare workstation on your Open SAN system, assuming a NewsroomSuite upgrade, you need to:

- Uninstall the current NewsRoomSuite software

- Install and configure CVFS

- Modify the Registry and network adapter order to accommodate CVFS voting

- Install the PC Open SAN version of the Profile XP

- Install ContentShare Explorer

- Install the NewsRoomSuite version 5.1 software

Uninstalling the NewsRoomSuite Software

Use the Windows Add/Remove Programs application and select **Automatically Uninstall**.

Installing the CentraVision File System (CVFS)

You need to use the Win2K version of CVFS on the NewsShare workstations, regardless of whether they are running Windows 2000 or XP Professional.

To install CVFS:

1. Insert the CVFS CD-ROM.

   The installation program starts automatically.

2. When prompted for a directory name, enter **C:\MediaAreaNetwork**.

   You cannot use spaces in the directory name.

3. Click **Yes** when prompted to create the directory.

4. When the File System Components screen appears, select **Help Files** and **Client Files**; do not select Server Files.
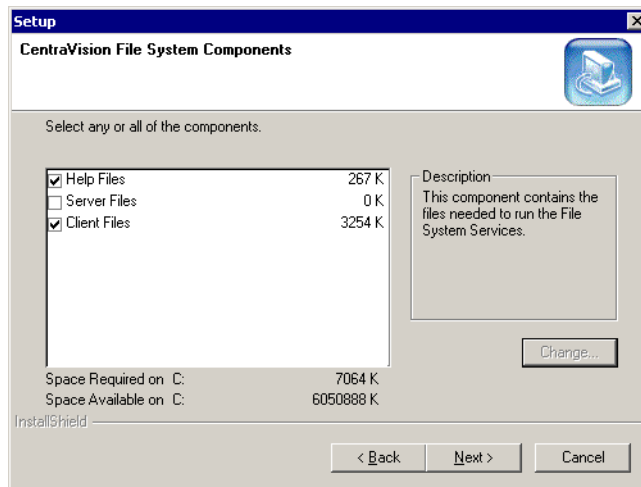
5. When prompted for a Program folder, enter **Media Area Network**.

6. When prompted to view the Help Folder, click **No**.

7. When the Choose Options to Complete the Installation screen appears, leave the checkbox blank and click **Next**.

8. When the File System Name Services Locations screen appears, enter the name or IP address of the File System Manager.

   If your Open SAN system has a redundant FSM, enter the redundant FSM name as well, separated by a comma.

9. Click **Next** and then click **Next** on the following screen.

10. When you are notified that file system services have started, click **OK**.

11. When prompted to establish drive mapping and credentials, click **No**.

12. Restart Windows when prompted.

13. After the computer restarts, choose **Start | Programs** and verify that the Media Area Network program group was created.

    If it is not correct, choose **Start | Settings | Taskbar** to change the name of the program group.

Configuring CVFS

Configure the DNP machine's CVFS parameters to exactly match those specified for the version of Profile that you are using, with this exception: when configuring the CVFS File System Control Parameters Mount Options, check the File Name Case Insensitive and Preserve Case checkboxes.

Except for case sensitivity as discussed above, if a newer Profile release requires parameters set differently from those indicated in this manual, use the newer Profile settings.

To configure CVFS:

1. Choose **Start | Programs | CentraVision File System | File System Control Parameters**.
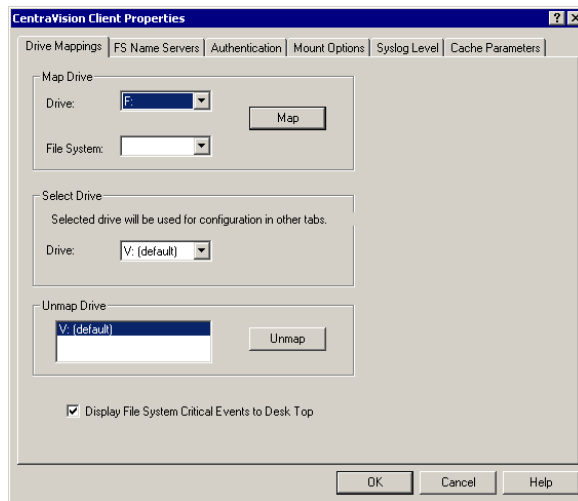
2. On the Drive Mappings tab, select **default** from the Map Drive | File System drop-down list.

3. In the Map Drive | Drive drop-down list, select **V**.

4. Click **Map**.

   Your selected drive and file system appear in the Select Drive | Drive box.

5. Click the Mount Options tab and configure it as described in the table below:
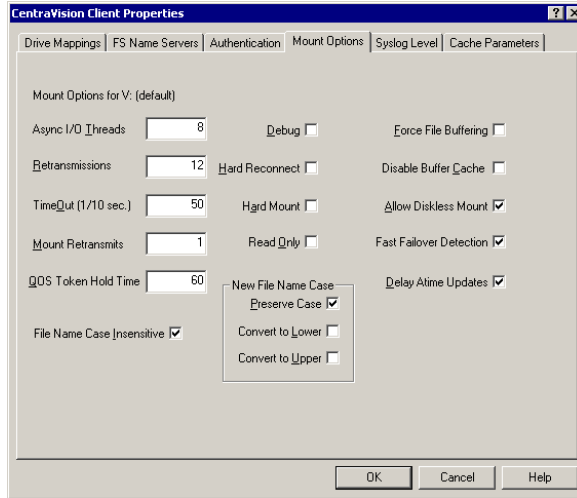
Option	Value
Allow Diskless Mount	✔
Fast Failover Detection	✔
Delay Active Updates	✔
File Name Case Insensitive	✔
New File Name Case | Preserve Case	✔

Leave the rest of the settings at their default values.

6. Click the Cache Parameters tab and configure it as described in the table below:
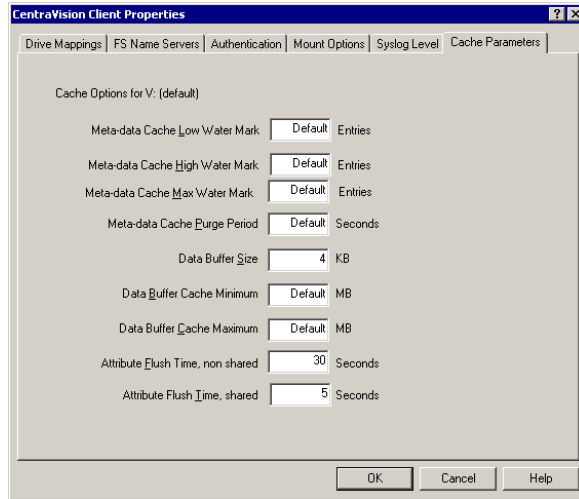
Option	Value
Data Buffer Size	4 KB
Attribute Flush Time, non shared	30 seconds
Attribute Flush Time, shared	5 seconds

Leave the rest of the settings at their default values.

7. Click **OK** and **Yes** to save your settings and close the application.

8. Reboot your system when prompted.

Modifying the Registry for the CVFS Voting Workaround

A voting protocol matter during FSM control-transfer can disable the CVFS shared file system when multiple DNP machines are attached. This issue affects all Open SAN systems that have shared storage-attached NewsShare versions of DNP equipment (FeedClip, NewsEdit and NewsQ).

With multiple NewsShare machines actively attached to the Open SAN, FSM failover or FSM power-cycle events that should properly cause a particular FSM to take control of the default volume (the V: drive) instead result in a suspended volume with no FSS control. A cardinal symptom in this circumstance is that a proper FSS is elected to service the suspended volume as soon as all NewsShare (but not Profile) equipment is powered down.

Configuration Changes

To avoid this situation, do the following:

1. For each Windows 2000 (NewsShare) machine on the Open SAN, effect the Registry value indicated here in Registry script syntax:

   ```
   [HKEY_LOCAL_MACHINE\System\CurrentControlSet\
   Services\Tcpip\Parameters]

   "DisableDHCPMediaSense"=dword:00000001
   ```

   For more information, see Microsoft Knowledge Base Article 239924 at http://support.microsoft.com:80/support/kb/articles/Q239/9/24.asp&NoWebContent=1.

2. For each DNP machine that has a Fibre Channel adapter for IP (GXF, Profile), make sure that the machine's Ethernet adapter has top priority:

   a. Select **Start | Settings | Control Panel | Network and Dial-up Connections**.

   b. Select **Advanced | Advanced Settings**.

   c. Click the Adapters and Bindings tab, observe that the Ethernet adapter has top priority, followed by the Fibre Channel adapter.

   If this is not the case, select adapters as appropriate and use the up- and down-arrow dialog buttons to order them correctly.

3. On each CVFS client machine, create a file named

C:\MediaAreaNetwork\config\fsroutes and add for each of the FSMs on the Open SAN system a line of the form:

<FSM machine name>   <FSM IP address>

The file might, for example, have these entries:

DNPMAN_FSM1   10.16.56.201

DNPMAN_FSM2   10.16.56.202

The fsroutes file should exist on every CVFS client machine, including Profiles and FSMs, which latter are usually CVFS clients themselves. You may find it convenient to create the file on one client and then copy the file onto all the others.

Verifying the Changes

After you have made these configuration changes, reboot each client, then test the system as described in the following paragraphs. For either configuration, you do not need to start any DNP or Profile applications. From a CVFS client machine, you can verify correct FSS election by creating and deleting a simple text file on the V: drive.

For a single-FSM system, establish CVFS attachment (a functioning V: drive) for all clients. Reboot the FSM. It should complete its start-up and automatically resume control of the CVFS file system.
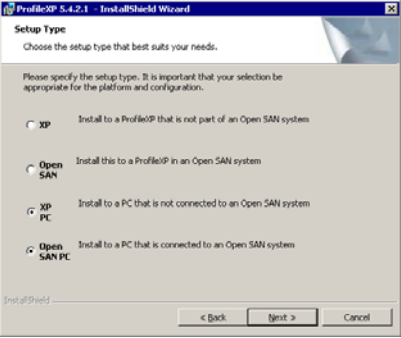
For a dual-FSM system, similarly establish CVFS attachment for a nominal primary FSM and cause a failover to an active-backup FSM. The backup FSM should automatically take control of the CVFS file system. Repeat the test to fail back to the previous FSM.

Installing the PC Open SAN Software

You use the Profile XP installation software to install the PC Open SAN application on each NewsShare workstation.

To install the Profile software:

1. Insert the NewsroomSuite CD into your CD drive.

2. Navigate to **Software Installs | Profile *version* | XP**.

3. Double-click on **Setup.exe**.

4. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Read and accept, then click **Next**.
Setup Type	Select **Open SAN PC** and click **Next**. >>> *WARNING: The other setup types are for installing Profile software on a Profile Media Server and should never be used on a NewsroomSuite computer.*
Ready to Install	Click **Install**.
Installation Complete	Click **Finish**. The computer prompts you to reboot so the new settings take effect.

Installing ContentShare Explorer

Open SAN

You need to install ContentShare Explorer (version 2.4.0) on each NewsShare workstation you are using on the Open SAN.

To install ContentShare Explorer:

1. Insert the ContentShare Profile End-User CD.

    The Setup program starts automatically. If it does not, browse to the CD and double-click on **\disk1\setup**.

2. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
Read Release Notes	Click **Next**.
Choose Destination Location	Leave set at the default location and click **Next**.
Select Installation Type	Click **Client PC**.
Edit Agent Domain Name	Enter an Agent Domain Name (use the host name for one of the Profile storage systems that you configured during the Profile Setup), then click **Next**. *NOTE: The Profile system you specify must be online and the Port Server running in order to run ContentShare on this client PC.*
Installation Complete	Click **Finish** to close the installation program. The computer prompts you to reboot so the new settings take effect.

Installing the NewsRoomSuite 5.1 software

The next step of the upgrade process is to install the NewsRoomSuite software:

1. Insert the NewsroomSuite CD into your CD drive and navigate to **Software Installs | DNP Application**.

   If you are installing NewsEdit SC, navigate to the **Software Installs** directory.

2. Double-click on **SetupNewsRoomSuite.exe** (or **SetupNewsEditSC.exe)**.

3. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
Select Destination Directory	Leave set at the default location and click **Next**.
Select Shared or Local Installation	Select **Open SAN**. To enable security, check **Domain Security**. Click **Next**.
Specify the Servers for the Shared Database	Enter the names of the primary and secondary (if applicable) File System Managers (or Database System Managers for the NAS system) and click **Next**.
Specify Directory for Shared Video and Audio Files	Leave set at the default location and click **Next**.
Specify Directory for AV Cache Files	Leave set at the default location and click **Next**.
Specify Location for Shared Thumbnails	Leave set at the default location and click **Next**.
Specify Directory for Local Video and Audio Files	Leave set at the default location and click **Next**.
Ready to Install	Click **Next** to begin the installation.
Installation Complete	Click **OK** to close the installation program. The computer prompts you to reboot so the new settings take effect.

Once the computer reboots, a System Self Test runs, testing your software configuration and software versions.

Open SAN

Open SAN

Testing Your Open SAN System

Once you've installed and configured all of the components, you should test the NewsShare Open SAN system to make sure it's operating properly.

This chapter discusses how to:

- Test NewsEdit functionality

- Test FeedClip functionality

Open SAN

Testing NewsEdit

To verify that the NewsShare Open SAN system is working properly:

1. Record a short DV, MPEG2, or I-frame-only clip on a Profile Media Server.

2. Start NewsEdit on each NewsShare workstation and verify that the main title bar indicates that it is running in shared mode.

3. Select the appropriate options for the sequences you recorded.

4. Create and open a test bin, and then open ContentShare Explorer and drag the clip you recorded on Profile into the new NewsEdit bin.

5. Create a new sequence and drag the clip from the Bin to the Timeline.

6. Cue to the head of the sequence and play it.

7. Leave the sequence open on that workstation.

8. On a second NewsEdit workstation, navigate via the Bin Explorer to the sequence you created on the first NewsEdit workstation.

9. Open the sequence.

10. Acknowledge the message that the sequence is edit-locked on the first machine.

11. Cue to the head of the sequence and play it.

12. Close the read-only sequence.

13. On the first NewsEdit workstation, save the sequence and close it.

14. Create a send destination for the Open SAN-based Profile Media Server.

15. Send the sequence to that destination.

16. On the Profile Media Server, open the sequence and play it.

Testing FeedClip

To ensure that the NewsShare Open SAN system is working properly:

1. Start FeedClip and start a recording with the same compression format you used in the NewsEdit tests.

2. Mark a few subclips.

3. Leave the recording running and switch context to a NewsEdit instance, changing to a different machine if necessary.

4. Use NewsEdit's Bin Explorer to navigate to FeedClip's recording bin.

5. Using the Bin Trimmer, play part of the still-recording master clip and then the subclips you marked.

   Observe in the Bin Trimmer that the duration continues to update periodically as the recording continues.

Open SAN

Setting Up the Database System Manager on a NAS System

To accommodate NewsShare on your NAS system, for each DSM you need to:

- Install Windows 2000 Server software
- Install or upgrade the SQL Server
- Configure the SQL Server
- Install the NewsShare Server

NAS

Installing Windows 2000 Server Software

Install the Windows 2000 Server software following the network configuration for your news station.
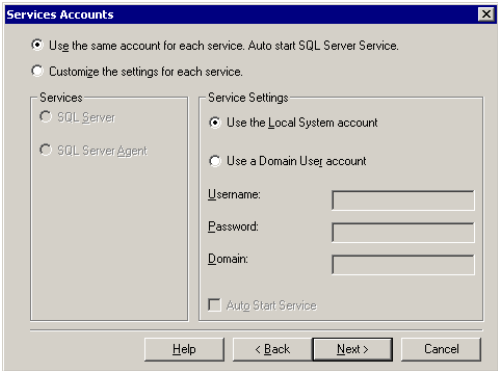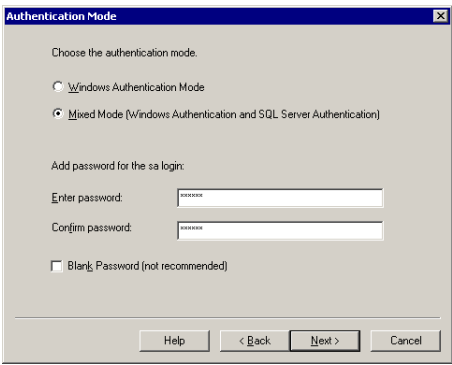
See the *Microsoft Windows 2000 Security Configuration Guide* or the *Windows 2000 Server Online Help* for more information.

Installing SQL Server
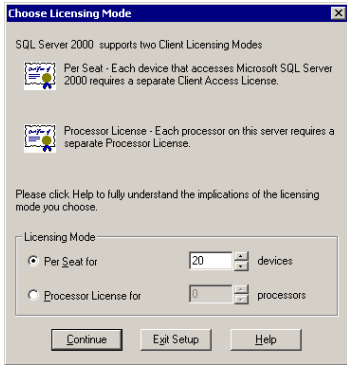
To install the SQL Server on the DSM:

1. Insert the Microsoft SQL Server 2000 Standard Edition into the machine's CD-ROM drive.

2. The installation program starts automatically and guides you through the installation process as follows:

On this screen...	Do this...
Opening screen	Select **SQL Server 2000 Components**.
Install Components	Select **Install Database Server**.
Welcome	Click **Next**.
Computer Name	Select **Local Computer**. Verify computer name.
Installation Selection	Select **Create a new instance of SQL Server, or install Client Tools**.
User Information	Enter name and company.
License	Read and accept, then click **Yes**.
CD Key	Enter key.
Install Definition	Select **Server and Client Tools**.
Instance Name	Select **Default**.
Setup Type	Select **Typical**.

On this screen...	Do this...
Services Accounts	 Select **Use the same account for each service**. In Service Settings, select **Use the Local System Account**.
Authorization Mode	 Select **Mixed Mode**, enter and confirm the password *triton*.
Copy Files	View files being copied.

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On this screen...	Do this...
Licensing	
	Select **Per Seat**.
	Select the maximum number of SQL clients for which your network is designed.

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3. Restart the machine.

4. After restart, open the SQL system tray icon to verify that the database is running.

Upgrading an Existing SQL Server to SP3

To upgrade a SQL Server to SP3:

1. Make sure you are logged in to the computer as Administrator and stop any foreground applications.

2. Locate the service pack file **sql2ksp3.exe** and double-click its icon. This unpacks the software into a temporary directory. Use the default location of C:\sql2ksp3.

3. Bring up **Start | Run**, type `c:\sql2ksp3\setup.bat`, and then press **Enter** to start the installation.

4. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Read and accept, then click **Next**.
Instance Name	Click **Next**.
Connect to Server	Select **Windows account information** and click **Next**.
sa Password Warning	Enter and confirm the sa password *triton* in lower case and click **Next**.
Backward Compatibility Checklist	Leave unchecked **Enable cross-database ownership**, but check the **Upgrade Microsoft Search** box. Click **Continue**.
Error Reporting	Leave unchecked **Automatically send fatal error reports** and click **OK**.
Start Copying Files	Click **Next**. The service pack takes several minutes to install. When the "backup your master and msdb databases" message appears, click **OK**.
Setup Complete	Click **Finish**.

Configuring SQL Server

To set up SQL server properties:

1. Select **Start | Programs | Microsoft SQL Server | Enterprise Manager**.

2. Expand the Tree view to reveal the DSM machine by clicking the "+" next to "Microsoft SQL Servers" and also next to "SQL Server Group."

3. Right click on the DSM's icon and select **Properties**. (Except as noted in the following steps, do not change default values.)

   a. Click the Security tab. Under Authentication, make sure that **SQL Server and Windows** is selected.

   b. Click the Memory tab. The **Dynamically configure SQL Server memory** radio button should be selected. Use the Maximum slide bar to set the memory limit to 256 MB less than the server's memory size. For example, for a server with 512 MB of memory, the setting is 256 MB.

4. Click **OK** to save settings and close the SQL Server Properties dialog box.

NAS

Installing the NewsShare Server

The SetupNewsShareServer installer must be run on each DSM in the NAS system. This installer is included in the DNP distribution CD-ROM. It must be run for both new installations and upgrades, and it may be run before or after the independent installers for the NewsShare client machines.

The installer will not modify or delete customer data in existing News databases; it simply makes compatibility changes for programming interfaces. Nonetheless, it is strongly recommended that backups be made of existing, server-mounted News databases prior to running the installer. See Appendix , *Database Maintenance Utilities*for available backup utilities.

To install the NewsShare Server:

1. Log in to the DSM machine as Administrator.

2. Stop the Failover Monitor Service and make sure the unit is not in active service to NewsShare clients or SmartBin Services.

3. Navigate to the location of the SetupNewsShareServer installer and double-click the installer icon.

   The installer can be run directly from a DNP distribution CD, a networked volume, or a local drive.

The installer completes in about a minute. You don't need to reboot. After the installer has been run on both DSMs, they can be returned to service.

Explanation of the Database Installation Elements

Whether used in shared or local mode, all FeedClip, NewsEdit, and NewsQ workstations, and all SmartBin servers, install MDAC (Microsoft Data Access Components), an embedded version of SQL Server called MSDE (Microsoft SQL Server Desktop Engine), and the DNP database named News. In upgrades, these components are updated as necessary. For a fresh installation, MDAC and MSDE are loaded early in the process and the News DB is created late, possibly after a required reboot.

Typically, these components are factory installed, or, if done in the field, automatically installed with no user interaction. If errors occur, proceed as directed by Thomson Grass Valley service personnel.

For details on the installation of SQL Server (both Standard and MSDE editions) for DNP, see the document *SqlServerSp3ForGvgDnpProducts.htm*.

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Starting with version 5.0 of the NewsroomSuite software, the management of MSDE is substantially embedded in the various installers. You should need to refer to this document only to maintain or upgrade earlier DNP versions that are still using MSDE SP2.

For installation or upgrade of the News database on a workstation, in the directory C:\Program Files\Vibrint 3.0\DB Install, the DNP installer calls the executable dbInstall.exe with certain parameters. If dbinstall does not encounter any errors, it exits and returns control to the main installer. If it encounters a fatal error, it will block with a message that describes the error.

The normal, error-free DB installation does not block, so the command-line messages are not easily readable. Here is an example of what they would be for a typical upgrade:

```
C:\Program Files\Vibrint 3.0\DB Install>dbInstall -nox -FSM1
VMAN_VBRFSM1
Skipping MSDE installation. Ver. 8.00.760 already installed.
Installing skeletal news DB on local MSDE server.
This may take a moment...success.
Updating news DB on this machine.
This may take a moment...success.
Inserting root bins in local news DB.
Revising local DB based on vbrDataSource...success.
Communicated successfully with DB news on server VMAN_VBRFSM1.
Database installation complete.
```

An analogous executable, svrDbInstall.exe installs and configures the News database on DSM and FSM servers, and is called by the SetupNewsShareServer installer.

NAS

Setting Up the NAS System

Before using the NAS system, you need to set the appropriate IP addresses for the NAS servers and set the date and time. Use any PC that is part of the same network as the NAS system and that has Internet Explorer software.

This chapter discusses how to:

- Set IP addresses for the NewsShare NAS

- Set the date and time for your newsroom

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Setting IP Addresses

To set the IP address for the NAS Servers:

1. On any PC on your network with Internet access, right-click on Network Places and select **Properties**.

2. In the Network & Dial-up Connections window, select the Local Area Connection for your primary public ethernet port, right-click and select **Properties**.

3. In that Properties window, select **Internet Protocol (TCP/IP)** and click the **Properties** button.

   The Internet Protocol (TCP/IP) Properties window opens:
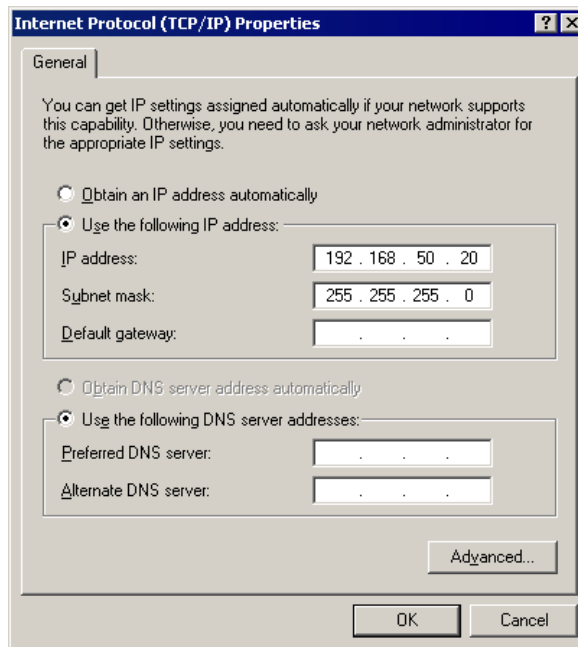
4. Click **Use the following IP address:** and set the IP address and Subnet mask to the Thomson Grass Valley settings, using an unassigned address on the same subnet.

5. Click **OK** twice.

6. Using Internet Explorer, logon to the NewsShare NAS application.

   The default address is 192.168.50.20:9890.

7. Configure your network ports according to the type of NewsShare NAS system you have:

   - For the NewsShare NAS Fibre Channel Network system, select **Network | Network Port Configuration**.

   - For the NewsShare NAS Serial ATA Network system, select **Network | Network Ports**.

8. Change the IP addresses for both Nodes, if applicable—Public IP, Private IP, and Netmask, for your network.

   NOTE: Private IP is only available with the NewsShare NAS Fibre Channel Network system.

   An example of an appropriate scheme is:

Name	Node1	Node2
Public IP	192.168.50.20	192.168.50.21
Private IP	192.168.50.22	192.168.50.23
Netmask	255.255.0.0	

9. Click **Save**.

10. Reboot your computer.

11. Follow steps 1-5 and reset the IP address for your computer back to its original settings.

Setting the Date and Time

You should set the date and time that NewsShare NAS uses, in order to have all file times synchronized. After you have set the date and time, NewsShare NAS maintains the correct date and time even when special events, such as Daylight Savings and Leap Year, occur.

To set the date and time for your newsroom:

1. Open the NewsShare NAS application in a browser window.

   The default address is: http://192.168.50.20:9890.

2. Select **System | System Administration | Date/Time**.
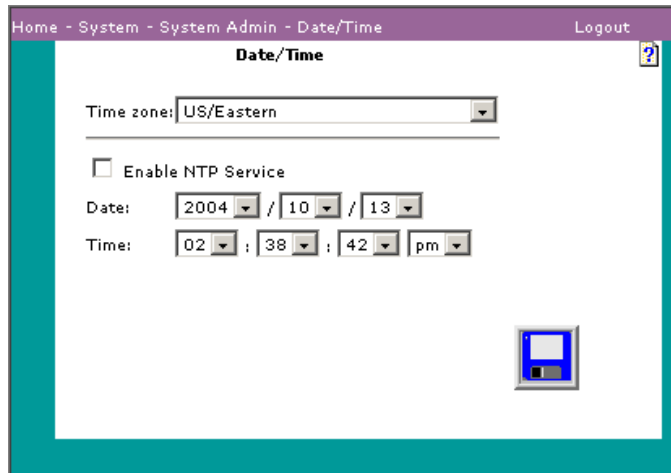
3. If your newsroom uses Network Time Protocol (NTP) to synchronize time, see "Using Network Time Protocol" on page 53.

4. Select your time zone from the drop-down list.

   NOTE: To automatically update scheduled time changes such as daylight savings time, use a city time zone rather than a regional time zone.

5. Specify the current **year**, **month**, and **day**.

6. Specify the current time in **hours**, **minutes**, and **seconds**.

7. Click **Save**.

Using Network Time Protocol

Network Time Protocol (NTP) is a protocol that synchronizes the real-time clock in a computer to the Universal Time Coordinated (UTC) via radio, satellite, or modem.

To use NTP to set the time for NewsShare NAS:

1. In the Date/Time window, check the **Enable NTP Service** checkbox.

   The Date/Time window updates:
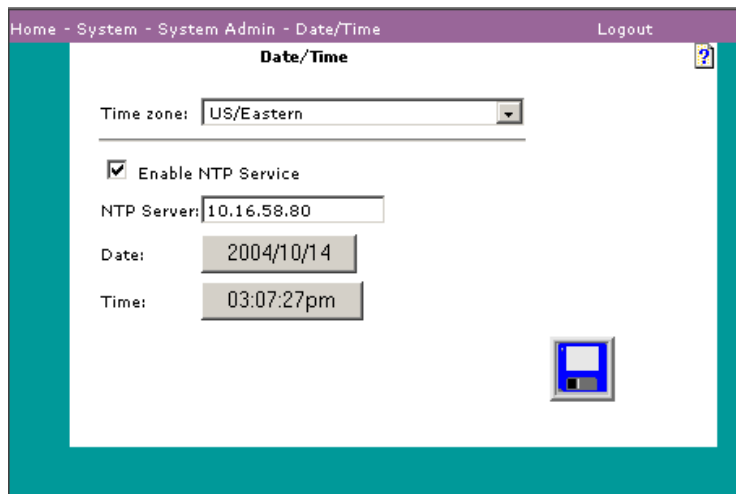
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2. In the NTP Server field, enter the **IP address or the host name** of the NTP service to which you subscribe.

   The date and time fields are set at the current date and time based on the NTP time server and cannot be modified.

3. Click **Save**.

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Setting Up NewsShare Workstations

For each NewsShare workstation on your NAS system, assuming a NewsroomSuite upgrade, you need to:

- Uninstall the current NewsRoomSuite software

- Install the XP PC version of the Profile XP

- Mount the NAS volume

- Install the NewsRoomSuite version 5.1 software

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Uninstalling the NewsRoomSuite Software
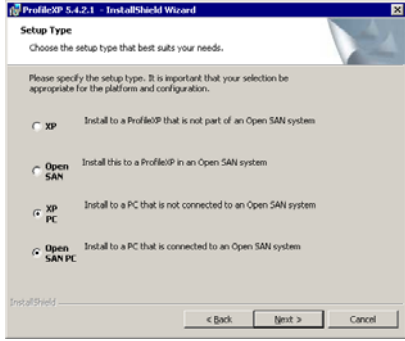
Use the Windows Add/Remove Programs application and select **Automatically Uninstall**.

Installing the XP PC Software

You use the Profile XP installation software to install the XP PC application on each NewsShare workstation.

To install the Profile software:

1. Insert the NewsroomSuite CD into your CD drive.

2. Navigate to **Software Installs | Profile *version* | XP**.

3. Double-click on **Setup.exe**.

4. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Read and accept, then click **Next**.
Setup Type	Select **XP PC** and click **Next**.
Ready to Install	Click **Install**.
Installation Complete	Click **Finish**. The computer prompts you to reboot so the new settings take effect.

Mounting a NAS Volume

For each client machine and the XRE Server running the SmartBin Service, if applicable, you need to mount the NAS volume before installing the NewsroomSuite software. In addition, if the client machines are used by more than one user login, you need to log in under each user account and mount the NAS volume.

To mount a NAS volume:

1. On the machine you want to map the drive to, open **My Computer** and select **Tools | Map Network Drive**.
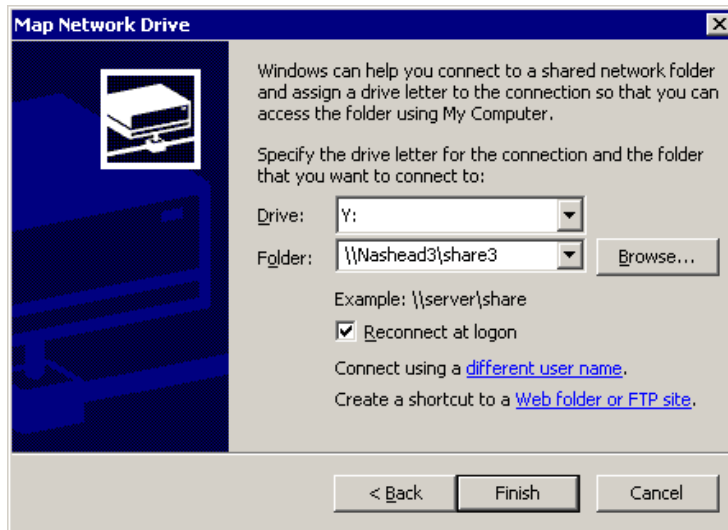
2. Select the NAS drive letter from the drop-down list.

3. Type in the name of the NAS folder where the shared database resides.

4. Check the **Reconnect at login** checkbox.

5. Click **Finish**.

Installing the NewsRoomSuite 5.1 software

The next step of the upgrade process is to install the NewsRoomSuite software:

1. Insert the NewsroomSuite CD into your CD drive and navigate to **Software Installs | DNP Application**.

   If you are installing NewsEdit SC, navigate to the **Software Installs** folder.

2. Double-click on **SetupNewsRoomSuite.exe** (or **SetupNewsEditSC.exe)**.

3. Install the software following these instructions:

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On this screen...	Do this...
Welcome	Click **Next**.
Select Destination Directory	Leave set at the default location and click **Next**.
Select Shared or Local Installation	Select **Open SAN**. To enable security, check **Domain Security**. Click **Next**.
Specify the Servers for the Shared Database	Enter the names of the primary and secondary (if applicable) File System Managers (or Database System Managers for the NAS system) and click **Next**.
Specify Directory for Shared Video and Audio Files	Leave set at the default location and click **Next**.
Specify Directory for AV Cache Files	Leave set at the default location and click **Next**.
Specify Location for Shared Thumbnails	Leave set at the default location and click **Next**.
Specify Directory for Local Video and Audio Files	Leave set at the default location and click **Next**.
Specify the shared drives for use with the NAS	Enter a comma-separated list of the drive letters that will be used for media storage.
Ready to Install	Click **Next** to begin the installation.
Installation Complete	Click **OK** to close the installation program. The computer prompts you to reboot so the new settings take effect.

Once the computer reboots, a System Self Test runs, testing your software configuration and software versions.

Testing Your NAS System

Once you've installed and configured all of the components, you should test the NewsShare NAS system to make sure it's operating properly.

This chapter discusses how to:

- Test NewsEdit functionality
- Test FeedClip functionality

NAS

Testing NewsEdit

To verify that the NewsShare NAS system is working properly:

1. Record a short DV, MPEG2, or I-frame-only clip on a Media Server such as a Profile or M-Series.

2. Start NewsEdit on each NewsShare workstation and verify that the main title bar indicates that it is running in shared mode.

3. Select the appropriate options for the sequences you recorded.

4. Create and open a test bin, and then open ContentShare Explorer and drag the clip you recorded on the Media Server into the new NewsEdit bin.

5. Create a new sequence and drag the clip from the Bin to the Timeline.

6. Cue to the head of the sequence and play it.

7. Leave the sequence open on that workstation.

8. On a second NewsEdit workstation, navigate via the Bin Explorer to the sequence you created on the first NewsEdit workstation.

9. Open the sequence.

10. Acknowledge the message that the sequence is edit-locked on the first machine.

11. Cue to the head of the sequence and play it.

12. Close the read-only sequence.

13. On the first NewsEdit workstation, save the sequence and close it.

14. Create a send destination for the Media Server.

15. Send the sequence to that destination.

16. On the NAS Server, open the sequence and play it.

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Testing FeedClip

To ensure that the NewsShare NAS system is working properly:

1. Start FeedClip and start a recording with the same compression format you used in the NewsEdit tests.

2. Mark a few subclips.

3. Leave the recording running and switch context to a NewsEdit instance, changing to a different machine if necessary.

4. Use NewsEdit's Bin Explorer to navigate to FeedClip's recording bin.

5. Using the Bin Trimmer, play part of the still-recording master clip and then the subclips you marked.

   Observe in the Bin Trimmer that the duration continues to update periodically as the recording continues.

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Chapter 9   Testing Your NAS System

NAS

Appendix **A**

Database Maintenance Utilities

Six command-line utilities are available for maintenance of the 4.1x, 4.5x and 5.x News database that is used by NewsEdit, FeedClip, NewsShare, and NewsQ. These utilities automatically install on DNP client machines and most versions of NewsShare servers. If they are not found in the C:\Program Files\Vibrint 3.0\DB Maintenance directory of a DNP client or server, they can be installed by running the SetupNewsShareUtilities installer from the DNP distribution.

This chapter discusses how to:

- Back up the database

- Restore the database from a back up

- Completely uninstall the database

- Recreate an empty news database

- Shrink the database

- Schedule automatic backups of the database

Overview

>>> *CAUTION: Use these utilities with great care. The restore and drop commands, respectively, overwrite and delete existing databases such that current data will be lost.*

When used, the utilities must be run from the C:\Program Files\Vibrint 3.0\DB Maintenance directory of the machine whose database is being operated upon. The user must be a member of the system's Administrators group. For a local, stand-alone machine, run the utilities at that workstation. For the central News database of a shared storage system (NewsShare), run the utilities at the FSM or DSM.

The six database utilities are:

Name	Description
newsBackUpDb	Backs up the News database
newsRestoreDb	Restores the database from a backup
newsDropDb	Removes the database (for complete uninstall)
newsInstallDb	Recreates an empty News database
newsShrinkDb	Shrinks the database
newsInitAutoBack	Schedules automatic backups of the News database

To run any of the utilities, open a command window and type the command. The following sections describe each utility and its usage. Note that filenames used in the commands must be fully qualified.

Before running any of the utilities, follow these preparatory steps:

• For restore and drop operations, the News database must be servicing no clients. Close all DNP applications that would use it.

• For FSM- and DSM-based News databases, observe these constraints:

   - Back up the database from the primary FSM or DSM.

   - If automatic database backups are scheduled, they must be set to occur during periods of extremely low system utilization, preferably when zero NewsShare or Profile systems are recording or playing clips.

- Stop all access before restoring or dropping the database.

- Take FSMs and DSMs out of service before restoring or dropping the database. For an FSM-mounted News database, this is especially true of the Grass Valley FSM Failover Monitor service; be sure that it is stopped.

- Close all SQL applications before restoring or dropping the database.

- Restore the database to the primary FSM or DSM.

Backing Up the Database

Template

newsBackUpDb <backup file name>

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance>
newsBackUpDb c:\backups\news.dat
Backing up this machine's News 4.1+ database to location
c:\backups\news.dat
. . .
Contents of log file vNewsBackUpDb.log:
-----------------------------------------------------------
Tue 11/26/2002

 4:38p

Administrator


Backing up news DB from VMAN_VBRFSM3 to file
c:\backups\news.dat.


27 percent backed up.
55 percent backed up.
83 percent backed up.
99 percent backed up.
Processed 432 pages for database 'news', file 'news_dat'
on file 1.
100 percent backed up.
Processed 1 pages for database 'news', file 'news_log' on
file 1.
BACKUP DATABASE successfully processed 433 pages in 0.326
seconds (10.863 MB/sec).
-----------------------------------------------------------
Press any key to exit . . .
C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Restoring the Database from a Backup

>>> *Caution: This will overwrite the current News database.*

Template

newsRestoreDb <backup file name>

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance>
newsRestoreDb C:\backups\news.dat
Restore will overwrite any current News 4.1+ DB on this
machine!
Press Cntl-C to abort, any other key to proceed . . .
Restoring this machine's News 4.1+ database from file
C:\backups\news.dat . . .

Contents of log file vNewsRestoreDb.log:
---------------------------------------------------------
Tue 11/26/2002
 4:58p
Administrator

Restoring news DB on VMAN_VBRFSM3 from
C:\backups\news.dat.

11 percent restored.
20 percent restored.
31 percent restored.
40 percent restored.
51 percent restored.
61 percent restored.
70 percent restored.
81 percent restored.
90 percent restored.
100 percent restored.
```

```
Processed 432 pages for database 'news', file 'news_dat'
on file 1.

Processed 1 pages for database 'news', file 'news_log' on
file 1.

RESTORE DATABASE successfully processed 433 pages in 0.213
seconds (16.626 MB/sec).

'vibrint' added to role 'db_owner'.
The number of orphaned users fixed by updating users was 0.
---------------------------------------------------------
Press any key to exit . . .
C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Removing a Database

Caution: This will delete the current News database.

If the Microsoft SQL Server program is ever to be removed, this drop should be done first. Otherwise, remnant files will interfere with future installations of the News database.

Template

newsDropDb

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance> newsDropDb
Ensure that the Failover Service is stopped before dropping
the news DB.
Drop will delete the News 4.1+ database on this machine!
Press Cntl-C to abort, any other key to proceed . . .
Dropping News 4.1+ database on this machine . . .

Contents of log file vNewsDropDb.log:
-----------------------------------------------------------
Tue 11/26/2002
 4:41p
Administrator

Deleting database file 'C:\Program Files\Microsoft SQL
Server\MSSQL\data\news.ldf'.
Deleting database file 'C:\Program Files\Microsoft SQL
Server\MSSQL\data\news.mdf'.
-----------------------------------------------------------
Press any key to exit . . .
C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Purging and Recreating an Empty Database

First run newsDropDb, as shown above, on the host machine for the database. Then run newsInstallDb as shown here. This batch file dispatches to the dbInstall program which is placed on each client by the DNP installer. This will work for standalone editors. For FSM or DSM servers, use Add/Remove Programs to remove the TGV DNP database program entry and rerun Setup NewsShareServer. Before or after creating the empty database, you need to purge or manually reconcile the media files.

Template for local (non-shared) database

newsInstallDb -local [-noxform]

If the -noxform switch is not present and the installer finds certain markers that indicate that NewsEdit 4.0 had previously been used on the machine, the program will attempt to convert the 4.0 database to 4.1+ form for local use. If such a conversion happens, media-database skew will render the data nearly useless unless the machine has just been converted from 4.0. The noxform switch **should be used** except for upgrades.

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance>
newsInstallDb -local -noxform
Skipping MSDE installation. Ver. 8.00.194 already
installed.
Installing skeletal news DB on local MSDE server.
This may take a moment...success.
Database installation complete.
Press any key to exit . . .
C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Shrinking a Database

Since the database automatically shrinks its transaction log, this operation would be necessary only under unusual circumstances.

Template

newsShrinkDb

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance> newsShrinkDb
Shrinking News 4.1+ database on this machine . . .

Contents of log file vNewsShrinkDb.log:
---------------------------------------------------------
--------------------
Tue 11/26/2002
 4:58p
Administrator

Cannot shrink file '2' in database 'news' to 12800 pages
as it only contains 256 pages.
DBCC execution completed. If DBCC printed error messages,
contact your system administrator.
---------------------------------------------------------
--------------------
Press any key to exit . . .
C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Scheduling Automatic Database Backups

>>> *Caution: This utility should be used only by experts or as instructed by Grass Valley personnel, due to required considerations of system load, system drive space, network load, and necessary familiarity with the Windows at command and Task Scheduler.*

This command schedules a system event which will automatically back up the News database every Monday at 3 am. The event in turn dispatches the vbrAutoBack batch file, which affects these files in the \Program Files\Vibrint 3.0\DB Maintenance\ directory:

newsAutoBack.dat	Most recent backup
newsAutoBack.old.dat	Previous backup
vNewsBackUpDb.log	Most recent backup log
vNewsBackUpDb.old.log	Previous backup log

As each successive auto-backup occurs, the previous backup is shifted onto the old images. After you have run newsInitAutoBack, use the at command or (on Windows 2000) the Task Scheduler to reschedule the event to suit your facility. Alternatively, without running newsInitAutoBack at all, you can directly schedule an event to dispatch vbrAutoBack.

Before you use this utility, consider these cautions:

- The DNP, FSM and DSM systems are highly tuned for load. The backups must occur only at times when the systems are quiescent. Disregarding this caveat may cause erratic performance or system-wide failure.

- The backup files, particularly on an FSM or DSM, can become quite large and thus deleteriously affect system performance. If your databases are large, you should plan to move the backup files off the system as part of the backup process.

- The DNP and Profile systems require very high Ethernet performance, particularly for shared storage. If your backup strategy involves network transfers of the backups, these systems must not be playing or recording any clips.

- The newsInitAutoBack command does not check for overlapping backup events. Be sure to run it only once and inspect its task listing for collisions.

Template

newsInitAutoBack

Example

```
C:\Program Files\Vibrint 3.0\DB Maintenance>
newsInitAutoBack
Added a new job with job ID = 1


SCHEDULED TASKS:
Status ID    Day                        Time
Command Line
----------------------------------------------------------
----------------------
        1    Each M                3:00 AM
"C:\Program Files\Vibrint 3.0\
DB Maintenance\vbrAutoBack.bat"


 C:\Program Files\Vibrint 3.0\DB Maintenance>
```

Transplanting the News Database

This appendix describes how to transplant the News Database from a File System Manager (FSM) to a Database System Manager (DSM).

Before You Transplant the Database

The NewsShare version must be 5.0 or higher in order to support split FSM/DSM operation on an Open SAN system. This discussion pertains to the database and not to the shared volume or the elemental media. Resist the temptation to perform the database backup and restore operations using the SQL Server Enterprise Manager GUI—though crude, the command-line utilities perform these operations in a specific and tested way. Do not conflate this transplant procedure with a possible version upgrade: upgrade first; transplant second.

Overview

To transplant the News Database:

1. Establish the DSM.

2. Create a backup from the working FSM.

3. Install the backup onto the DSM.

4. Perform an interim test and client update.

5. Drop the old news database from the FSMs.

6. Verify the operation.

The following sections describe each step in detail.

Establishing the DSM

Note that as a SQL Server host per se, the DSM does not require any CVFS components or Fibre Channel attachment.

To establish the DSM:

1. Choose a DSM name that fits the convention established for the Open SAN that it will service. For example, if the FSMs are named X_FSM1 and X_FSM2, an appropriate name might be X_DSM. This advice is trivial, but explicit planning avoids some difficulty that might be had if the DSM is renamed after SQL Server is installed.

2. Set up the DSM as described in Chapter 6 of this manual.

   As a SQL Server host, the DSM has certain similarities to the FSM; however, in contrast, it does not use the Grass Valley SCSI card, it does not host the CVFS Server, and the database server neither mounts the Media database not supports FSM failover-style replication.

Creating a Backup from the Working FSM

1. Proceeding requires that the FSMs be taken out of service. Close all DNP applications on all NewsShare clients. Follow the Open SAN procedures to cleanly stop the Failover Monitor service on first the backup FSM, then the primary FSM.

2. Using SQL Server Enterprise Manager, verify that replication has been stopped on the primary FSM. This is extremely important.

3. Verify that there are no open transactions by running the command **dbcc opentran** against the News database in SQL Server Query Analyzer or by using the replCheck.bat utility in the attached replUtilities.zip file.

4. Follow the procedure "Backing Up the Database" on page 66. This information is also available in the **News Database Utilities.htm** document that can be found on an FSM or DSM in directory C:\Program Files\Vibrint 3.0\DB Maintenance. You'll need to back up to a local file, then use networking, memory sticks or other removable media to make the file available to the DSM for restoration.

Installing the Backup onto the DSM

1. Using the backup file you created, restore the News database on the DSM by following the procedure "Restoring the Database from a Backup" on page 67.

2. Verify that there are no open transactions by running the command **dbcc opentran** against the News database in SQL Server Query Analyzer.

Performing Interim Testing and Updating Client Machines

1. Follow standard procedures to put only the primary FSM back in service. This is only temporary to allow for testing.

2. At one DNP machine, redirect it to the new database server by using *one* of the following two methods, dbinstall or hand modification of the Registry, exemplified for a DSM named X_DSM:

   - From a cmd window, run dbinstall as follows:

     ```
     C:\>cd "C:\Program Files\Vibrint 3.0\DB Install"


     C:\Program Files\Vibrint 3.0\DB Install>dbinstall -nox
     -msde -FSM1 X_DSM
     Skipping MSDE installation. Ver. 8.00.760 already
     installed.
     DB news already exists on local MSDE server.
     Updating news DB on this machine.
     This may take a moment...success.
     Root bins already exist in news DB.
     Revising local DB based on vbrDataSource...success.
     Communicated successfully with DB news on server X_DSM.
     Database installation complete.
     C:\Program Files\Vibrint 3.0\DB Install>
     ```

   - Modify the Registry as indicated by this script:

     ```
     Windows Registry Editor Version 5.00
     [HKEY_LOCAL_MACHINE\SOFTWARE\Vibrint\Common\3.0\Datab
     ase]
     "FSM1"="X_DSM"
     "FSM2"=""
     ```

3. Start NewsEdit on the machine modified. The application's main title bar should indicate connection to the new DSM (X_DSM in our example) and its bin view should be fully populated by the same objects as before the transplant. Confirm that you can open and play an existing master clip.

4. If you encounter problems in Step 3, resolve them. Otherwise continue to Step 5.

5. Repeat either Step 2a or 2b for each DNP machine on the shared volume that runs FeedClip, NewsEdit, NewsQ, or the SmartBin Service. Do not modify conform servers, which in current releases do not connect to the shared database. If you're modifying several machines, it may be convenient to create a Registry script similar to that shown in the example, deposit it on the shared volume, then double-click run it at each machine.

Dropping the Old News Database From the FSMs

This step is important in that substantial replication functions of the Failover Monitor service will not be disabled unless the News database is dropped from the FSMs. Note that this a is cleanup task on the former hosts of the News DB: Do not drop the transplanted database from the DSM.

To remove the old news database:

1. Follow standard procedures to again remove the primary FSM from service. (The back-up FSM should not have been returned to service yet.) At this point, both FSMs should be powered on and both Failover Monitor services should be stopped.

2. On each FSM, follow the *Remove (for complete uninstall)* procedure described in Appendix A.

3. Follow standard procedures to return the FSM pair to active primary-backup service.

Verifying Operation

Perform various operations to confirm that all DNP machines (NewsEdits, Profiles, etc.) function correctly. Winking should be tested, in that it touches several interoperation dependencies.