

# DIGITAL Clusters for Windows NT

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## Service Pack 2 Addendum

**February 1998**

This addendum supplies information on installing and configuring DIGITAL Clusters for Windows NT Version 1.1 with Service Pack 2.

Also included is a new feature, the Remote Cluster Administrator, and updated information on installing and configuring Web Servers, and Lotus Notes for Failover.

**Revision/Update Information:** This addendum supplements the *DIGITAL Clusters for Windows NT Administrator's Guide*, Second Edition, AA-QVUTB-TE. and *DIGITAL Clusters for Windows NT Administrator's Guide Addendum*, AV-R171B-TE.

**Operating System and Version:** Microsoft Windows NT Version 1.1 with Service Pack 3

**Software Version:** DIGITAL Clusters for Windows NT Version 1.1 with Service Pack 2

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# About This Addendum

This addendum supplies updated information on installing and configuring DIGITAL Clusters for Windows NT Version 1.1 with Service Pack 2.

It also supplies installation and user information related to a new feature, the Remote Cluster Administrator, and updated information on installing and configuring Web Servers and Lotus Notes for Failover.

## Audience

This addendum is for system administrators who will manage the DIGITAL Clusters software. The addendum assumes that you are familiar with the tools and methodologies needed to maintain your hardware, operating system, and network.

## Organization

This addendum consists of four chapters, as follows:

- |           |  |
|-----------|--|
| Chapter 1 | Presents the changes to the Installation procedure for DIGITAL Clusters for Windows NT Version 1.1 with Service Pack 2.  |
| Chapter 2 | Presents a new feature, the Remote Cluster Administrator (RCA). The RCA allows you to administer a cluster node from a remote system location.   |
| Chapter 3 | Presents the updates to the chapter, “Configuring Lotus Notes for Failover,” in the <i>DIGITAL Clusters for Windows NT Administrator’s Guide</i> , Second Edition.                               |
| Chapter 4 | Presents the installation and configuration changes to the chapter, “Configuring Web Servers for Failover” in the <i>DIGITAL Clusters for Windows NT Administrator’s Guide</i> , Second Edition. |

## Conventions

The following conventions are used in this addendum:

<b>Convention</b>	<b>Meaning</b>
DIGITAL Clusters 1. <i>n</i>	Refers to DIGITAL Clusters for Windows NT Version 1. <i>n</i> , where <i>n</i> has a value of 0 or 1.
Chapter <i>n</i>	Chapter references throughout this addendum refer to chapters in the <i>DIGITAL Clusters for Windows NT Administrator's Guide</i> .
<b>Bold</b>	Bold type indicates the actual commands, words, or characters that you type in a dialog box or at the command prompt.
<i>Italic</i>	Italic type indicates a placeholder for information on parameters that you must provide. For example, if the procedure asks you to type <i>filename</i> , you must type the actual name of a file. Italic type also indicates new terms and the titles of other manuals in the DIGITAL Clusters for Windows NT package. Italic type is used for emphasis within procedures as well.
ALL UPPERCASE	All uppercase letters indicates an acronym.
Monospace	Monospaced type represents examples of screen text or entries that you might type at the command line or in initialization files.
▶	A right triangle indicates a procedure with sequential steps.

## Related Information

Several other key sources of information included in the DIGITAL Clusters for Windows NT package will help you plan for and use the cluster software:

- Online release notes
- *DIGITAL Clusters for Windows NT Administrator's Guide*
- *DIGITAL Clusters for Windows NT Configuration and Installation Guide*
- *DIGITAL Clusters for Windows NT Administrator's Guide Addendum*
- Online help

# 1 Installation

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This chapter describes how to upgrade your DIGITAL™ cluster to DIGITAL Clusters for Windows NT® Version 1.1 Service Pack 2. It also describes the procedure for installing the Remote Cluster Administrator.

## Upgrading to Service Pack 2

To upgrade your DIGITAL Clusters for Windows NT Version 1.1 cluster to Service Pack 2, you must install Service Pack 2 on each cluster server node.

## Requirements for Upgrading to Service Pack 2

Before installing Service Pack 2, make sure each of your cluster server nodes meets the following system requirements:

- The cluster server operating system must be Windows NT 4.0 Service Pack 3 or newer.
- DIGITAL Clusters for Windows NT Version 1.1 must be installed.
- Screen resolution must be VGA or better.

## Service Pack 2 Upgrade Overview

Use the following procedure to perform a rolling upgrade:

1. Insure that all users are disconnected from database resources.
2. With both servers in the cluster running, manually failover all cluster resources to one of the servers.
3. On the other server (the server without any cluster resources), exit the Cluster Administrator.

## Installation

### **NOTE:**

If you try to install the Clusters Service Pack 2 while running the Cluster Administrator application, the upgrade will not complete.

4. Install DIGITAL Clusters for Windows NT Version 1.1 Service Pack 2 and reboot the server. For a detailed procedure, see the next section.
5. Manually failover all cluster resources to the server that was just upgraded to Service Pack 2.
6. Exit the Cluster Administrator
7. Now install Service Pack 2 on the second server. For a detailed procedure, see the next section.
8. Reboot the second server.

## Installing Service Pack 2 on a Cluster Server

Use the following procedure to install DIGITAL Clusters for Windows NT Version 1.1 Service Pack 2 on a cluster server.

► **To install Service Pack 2 on a cluster server:**

1. Access the DIGITAL Clusters Version 1.1 Service Pack 2 CD-ROM from the server and start the installation for your platform:

\Clu1-1nt.40\CluSP2\Setup.exe

2. The Welcome dialog box appears. Click Next.



## Installation

3. Enter your name and the name of your company.

Confirm the information, then click Next to proceed to the next screen.

If needed, you can return to a previous screen by clicking Back and change the information you entered.

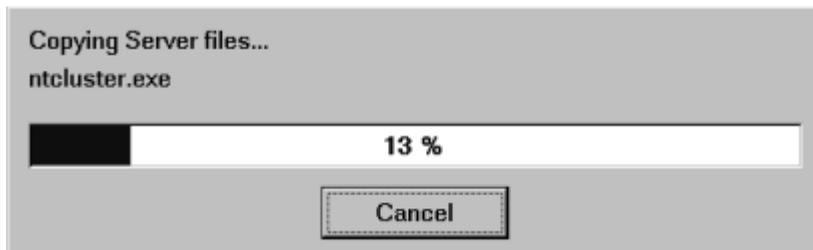


The image shows a dialog box titled "User Information" with a close button (X) in the top right corner. On the left side, there is a graphic of a computer monitor, keyboard, mouse, and a globe. To the right of the graphic, the text reads: "Type your name below. You must also type the name of the company you work for." Below this text are two input fields. The first is labeled "Name:" and the second is labeled "Company:". At the bottom of the dialog box, there are three buttons: "< Back", "Next >", and "Cancel".

4. In the Select Installation Options dialog box, select the Install Service Pack 2 on NT Cluster Server radio button, and then click Next.



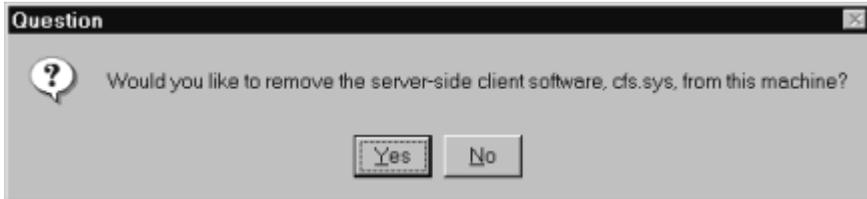
The installation program now indicates that it is copying server files to your system.



## Installation

5. When the server files are copied, you now have the option of removing the server-side client software from your server.

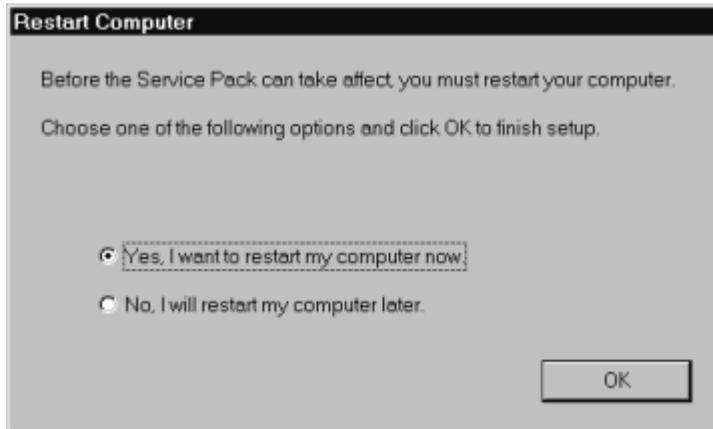
If TCP/IP is installed on your cluster servers you do not need the client software. Click Yes to remove the server-side client software.



6. The Setup Complete dialog box is displayed. DIGITAL strongly suggests that you read the ReadMe file at this time. Click Finish to complete this installation.



7. For the Service Pack 2 installation to take effect, you must restart your computer. Select Yes, and click the OK button.



## Installing the Remote Cluster Administrator

DIGITAL Clusters for Windows NT Version 1.1 Service Pack 2 provides the capability of performing cluster administration tasks from a system which is not a member of the cluster. This section describes the system requirements for installing this tool and provides a detailed installation procedure.

### Installation Requirements

Before installing the Remote Cluster Administrator, make sure your system meets the following requirements.

- The operating system must be any version of Windows NT.
- The user installing Remote Cluster Administrator must have administrative privileges on the system.
- Screen resolution must be VGA or better.

Use the following procedure to install the DIGITAL Clusters for Windows NT Remote Cluster Administrator.

### Installing the Remote Cluster Administrator Tool

#### ► To install the Remote Cluster Administrator:

1. Access the DIGITAL Clusters Version 1.1 Service Pack 2 CD-ROM from the server and start the installation for your platform:

## Installation

\Clu1-Int.40\CluSP2\Setup.exe

2. The Welcome dialog box appears. Click Next.



3. Enter your name and the name of your company.

Confirm the information, then click Next to proceed to the next screen.

If needed, you can return to a previous screen by clicking Back and change the information you entered.



The image shows a Windows-style dialog box titled "User Information". On the left side, there is a graphic illustration of a computer monitor, a tower PC case, a CD-ROM, and a globe. To the right of the graphic, the text reads: "Type your name below. You must also type the name of the company you work for." Below this text are two text input fields. The first field is labeled "Name:" and the second is labeled "Company:". At the bottom of the dialog box, there are three buttons: "< Back", "Next >", and "Cancel".

## Installation

4. In the Select Installation Options dialog box, select the Install NT Cluster Remote Administrator Only radio button, and then click Next.



5. Confirm the directory path for the installed files.

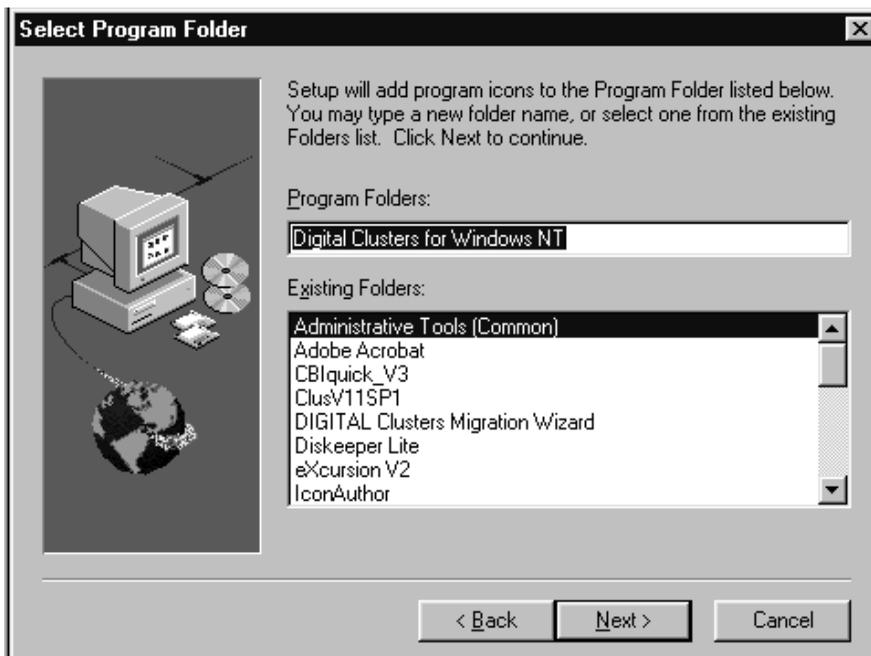
To change the directory path, click Browse and select a new directory.

If the specified destination directory does not exist, the Setup program asks you if you want to create it.

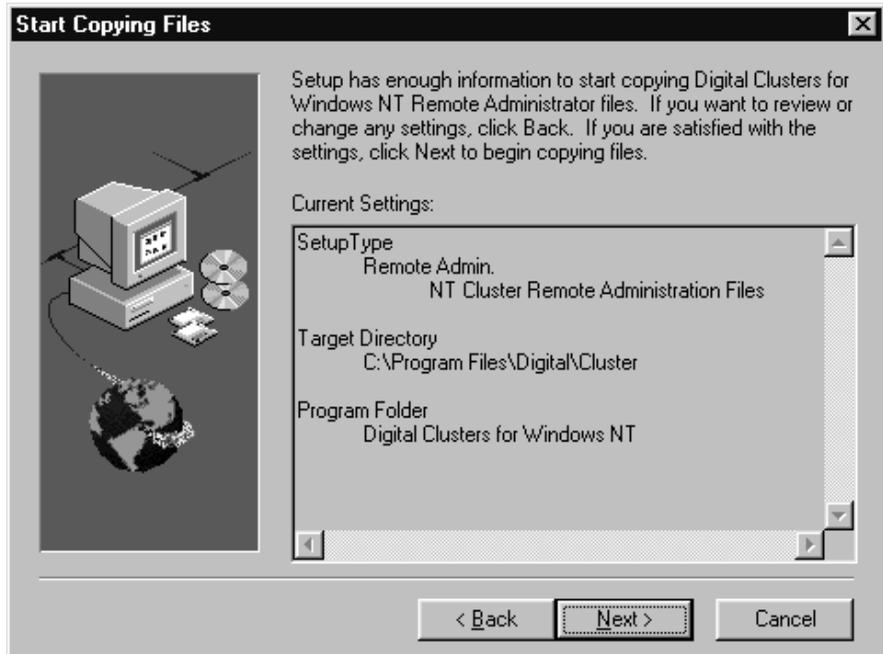


## Installation

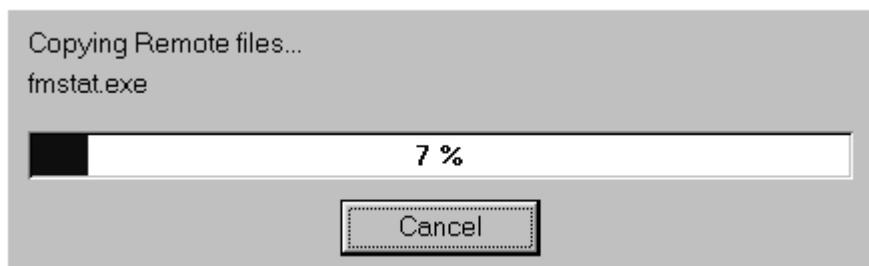
6. Select the program folder for the program icons. You can select an existing folder from the Existing Folders list or create a new folder by typing the new folder name in the Program Folders box.



7. Verify the information you have supplied to the Setup program. If you want to change any of the supplied information, click Back repeatedly until you return to the window containing the information you want to change.



If the information displayed is correct, click Next. The Setup program copies files to the destination directory. While Setup is copying files, the program displays a status meter to mark its progress.



## Installation

8. The Setup program creates the Cluster program folder, then displays the Copying Complete dialog box. Click Finish to complete Setup. DIGITAL strongly recommends that you read the ReadMe file at this time.

This completes the Remote Cluster Administration installation.



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# Using the Remote Cluster Administrator

## Overview

The Remote Cluster Administrator allows you to administer any cluster node in any cluster from a remote system location: either a standalone system (i.e., a system that is not a node on an existing cluster) or from a node in another cluster.

Four requirements must be met:

- You must have administrative privileges on both nodes in the target cluster as well as on the remote system running this program.
- You must have an operational RPC infrastructure (NETBIOS over TCP/IP) between the remote system running this program and the target cluster nodes.
- DIGITAL Clusters for Windows NT (DCNT) Version 1.1 Service Pack 2 must be installed on a cluster node to enable that node to perform the remote administration of another cluster.
- If administering a cluster on a different domain, the domain in which the remote system resides must trust the target cluster's domain.

Any system running DIGITAL Clusters 1.1 Service Pack 2 or only the Remote Cluster Administrator software can run multiple instances of Cluster Administrator and can therefore administer more than one cluster at a time.

## Using the Remote Cluster Administrator

DCNT 1.1 Service Pack 2 and the Remote Cluster Administrator have added a new item to the view menu of the Cluster Administrator screen.

On the View menu:

- There is an additional menu selection, “Make Connection”. This selection allows you to select and make a remote connection to a target cluster node. A text box is displayed allowing the desired target node name to be entered. This selection is also the mechanism that allows a cluster node to return to administering itself.

When running the Cluster Administrator program in the remote mode, the program performs similarly in use to the Cluster Administrator running on a cluster node administering itself with the following exceptions:

On the Tools menu:

- The Event Viewer displays the events logged on the remotely connected target cluster node.
- The Disk Administrator selection is grayed-out, and therefore not available.
- The Explorer selection displays only printers and file shares on the remotely connected cluster node.

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### Note

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If you are running Windows NT 3.51 on your Remote Cluster Administrator machine, on the Tools menu the File Manager selection is grayed-out and therefore not available.

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On the Manage menu:

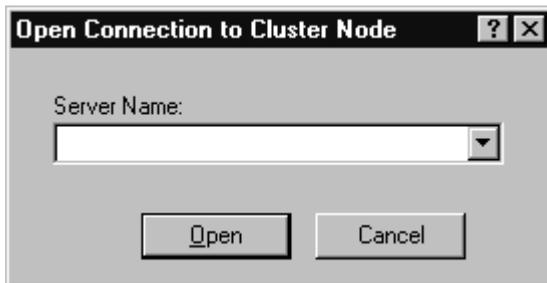
- The Event Log selection is grayed-out and is therefore not available.

### Before You Start

- Install the Remote Cluster Administrator on each NT system or DCNT 1.1 Service Pack 2 on any DCNT 1.1 cluster node you may wish to run remote sessions on.
- Follow instructions for installing DIGITAL Clusters 1.1 Service Pack 2 in the Installation section of this Addendum.
- At the “Select Installation Options” window:
  - Select the option “Install NT Cluster Remote Administrator Only” to install the Remote Cluster Administrator on any NT system
  - Select the option “Install Service Pack 2 on NT Cluster Server” to install a remote-capable version of the Cluster Administrator on any DCNT 1.1 cluster node.

### Using the New Remote Cluster Administrator

- **To start a remote session from a remote standalone system:**
1. In Windows NT 4.0 from the Start menu, select Program/Digital Clusters for Windows NT/Cluster Administrator.
  2. In Windows NT 3.51, click the Cluster Administrator icon in the DIGITAL Clusters program group.
  3. A remote Cluster Administrator session is reestablished for the last cluster node you were connected to.
  4. If the reconnection is successful, the Cluster Administrator screen is displayed with the information for the remotely connected cluster node.
  5. If for some reason the Cluster Administrator was unable to reestablish that connection, the “Open Connection to Cluster Node” dialog box is displayed.



## Using the Remote Cluster Administrator

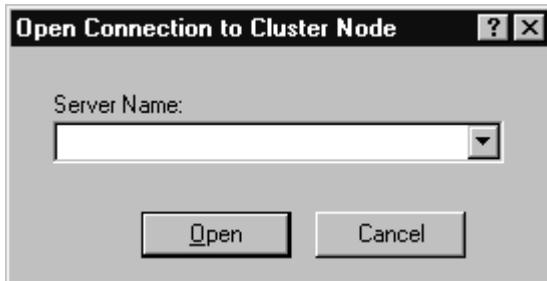
6. Enter the desired node name in the Server Name combo box. This combo box also lists the last ten cluster nodes that were successfully connected to. Click one of these node names or enter the desired node name.

The following entries are also permitted in the Server Name combo box.

- The period character (“.”) (if you are working from a cluster node), which returns administration from a remote session back to the local cluster node.
  - The IP address of a valid cluster node, which connects you to that node.
  - The IP address or NetBIOS name of an IP Failover Object active in a cluster group, which connects you to the node which currently owns that resource.
7. Click Open.
  8. The node is checked for validity. If a connection cannot be made to the given cluster node name or the name is in some other way invalid, an error message is displayed and you are prompted to enter a different node name.
  9. The Cluster Administrator screen is displayed. On this screen, the display is refreshed with the information for the remotely connected cluster node.
  10. To administer a different cluster node, select “Make Connection” from the View menu of the Cluster Administrator. The “Open Connection Cluster Node” dialog box is displayed.

► **To start a remote session from a DCNT 1.1 Service Pack 2 cluster node:**

1. From the Start menu, select Program/Digital Clusters for Windows NT/Cluster Administrator. The Cluster Administrator screen is displayed for the local cluster node.
2. Select “Make Connection” from the View menu of the Cluster Administrator screen. The “Open Connection to Cluster Node” dialog box is displayed.

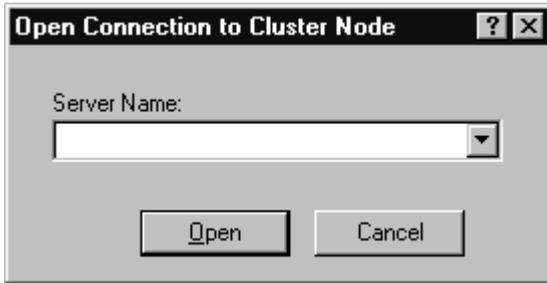


3. Enter the desired node name in the Server Name combo box. Refer to the section, “To start a remote session from a remote standalone system” step 6, for other valid entries for this dialog box or refer to online help.
4. Click Open.
5. The Cluster Administrator screen is displayed showing the information for the remotely connected cluster node.

## Using the Remote Cluster Administrator

► **To return to administering a local node from any remote session:**

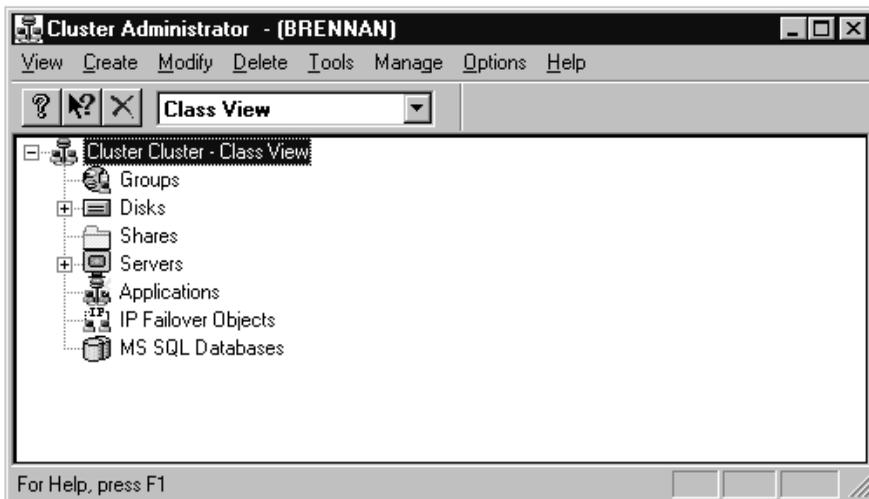
1. Select “Make Connection” from the View menu of the Cluster Administrator. The “Open Connection to Cluster Node” combo box is displayed.



2. Select the period character (“.”) from the drop-down list or manually enter a period or the name of the local node in the Server Name combo box.
3. Click Open.
4. The Cluster Administrator screen is displayed. On this screen, the display is refreshed with the information for the local cluster node.

## Using the Cluster Administrator Screen

Shown below is the Cluster Administrator screen. Note that Brennan is listed on the title bar, indicating that Brennan is connected as the remote cluster node.



## Using the Remote Cluster Administrator

The Cluster Administrator screen functions remotely in a similar fashion as it does when you are using it from a local cluster node with the exceptions listed in Overview section of this chapter.



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## Configuring Lotus Notes for Failover

The *DIGITAL Clusters for Windows NT Administrator's Guide* provides information on installing and setting up Lotus Notes in a DIGITAL Clusters for Windows NT environment. This chapter of the *Addendum* for Service Pack 2 presents changes to the *Administrator's Guide* for the following configurations:

DIGITAL Clusters Version	Lotus Notes Version
DIGITAL Clusters 1.1	Domino 4.5 and 4.6 server, Notes 4.5 client
DIGITAL Clusters 1.0, Service Pack 1 or later	Notes 4.11 server and client

Follow the instructions in the *DIGITAL Clusters for Windows NT Administrator's Guide* for installing and setting up Lotus Notes in a DIGITAL Clusters for Windows NT environment with the following exceptions.

### Installing the Domino Servers As Windows NT Services

After you install your partitioned Domino servers on the first cluster server, you must install the Domino servers as Windows NT services. Currently, Domino servers started as Windows NT services do not survive after a logoff sequence.

#### Requirements

You need the following files from the Windows NT 4.0 Resource Kit:

- `instsrv.exe`
- `srvany.exe`

## Configuring Lotus Notes for Failover

### ► To install a partitioned Domino server as a Windows NT service:

1. On the first cluster server, open a command window. If the `instsrv.exe` and `srvany.exe` files are not in your current path, move to the directory where the files are located. Then enter the following command:

```
> instsrv Domino_name disk:path\srvany.exe -a domain\administrator -p password
```

where:

*Domino\_name* is the name of your partitioned Domino server as you want it to appear in the Windows NT Control Panel, Services applet.

*disk:path* is the full path to the `srvany.exe` file.

*domain\administrator* specifies the current Windows NT domain and an administrator account.

*password* specifies the password for the given administrator account.

The command window displays a message if the command is successful.

2. Go to the Windows NT Control Panel, Services applet. Your new Domino service should be listed. Select the service and click Startup.
3. In the Service dialog box, select the following settings:
  - Startup Type: Manual
  - Log On As: System Account  
Allow Service to Interact with Desktop

4. Start the Registry Editor (`regedt32.exe`).
  - a. Under `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Domino`, create a Parameters key. *Domino* is the name you gave to the Domino service. When you create the key, leave the Class field blank.
  - b. Under the Parameters key, create an Application value with the default type of REG\_SZ. Set the Application value to:

*Disk*:\notes\data\nserve.bat

where:

*Disk* is the letter of the shared disk where you installed the \notes\data files for this Domino server.

`nserve.bat` is the default command file for starting the partitioned server. The default file sets the Notes partition number, then starts the Domino executable:

```
Set NOTESPARTITION=1
```

```
Start C:\notes\nserver.exe (for Intel) or aserver.exe (for Alpha)
```

- c. Check that you have the line `NOTESPARTITION=2` in `nserve.bat` of the second Domino server.
- d. Change “Start C:\notes\aserver.exe” to

```
Start C:\notes\aserver.exe =Disk:\notes\data\notes.ini
```

where :

*Disk* is the letter of the shared disk where you installed the \notes\data files for this Domino server. This is to ensure that `aserver.exe` uses the correct `notes.ini` file.

You may want to add a command in the file to display a startup message. For example:

```
net send %COMPUTERNAME% "Domino Server Name starting on  
%COMPUTERNAME%"
```

- e. Under the Parameters key, create an AppDirectory value with the default type of REG\_SZ. Set the AppDirectory value to:

*Disk*:\notes\data

### Setting Up Partitioned Domino Servers on the Second Cluster Server

After you set up your partitioned Domino servers on the first cluster server, repeat the process on the second cluster server.

► **To set up partitioned Domino servers on the second cluster server:**

1. In Cluster Administrator, manually fail over the groups that contain the shared disks where you installed your `\notes\data` directories when setting up the first cluster server.

2. Install the first Domino server on the second cluster server.

Install the Notes program folder on a local disk of the second cluster server.

Install the Notes data folder on the same shared drive and path that you used for the first Domino server on the first cluster server.

When you start the Notes client, you are not prompted to register the Domino server because you completed this step on the first cluster server.

3. Install the second Domino server on the second cluster server.

Install the Notes data folder on the same shared drive and path that you used for the second Domino server on the first cluster server.

When you start the second Notes client, you are not prompted to register the Domino server because you completed this step on the first cluster server.

4. Install the Domino servers as Windows NT services on the second cluster server. Use the same NT service names as on the first server.

### Creating Script Files and Completing the Failover Groups

After setting up the partitioned Domino servers on both cluster servers, you can:

- Create your failover script files.
- Complete your failover groups.
- Verify that your setup works by manually failing over groups.

#### Creating Failover Scripts

For each Domino server, you need start and stop command files. These files contain the commands to start and stop the Domino server. Place a copy of the files for each Domino server in your designated scripts directory on each cluster server, then create a Script Failover Object in the Cluster Administrator and specify the path to these files.

For example, if your first Domino server has a service name of Domino Manufacturing, you could create the following two files:

### **Start Domino Mfg.cmd**

```
rem Start script for the Domino Server Manufacturing, in Notes partition 1.
rem First stop the service. (See the end of the Stop script for details.)
rem Use the Windows NT service name for the Domino server.
net stop "Domino Manufacturing"
net start "Domino Manufacturing"
net send %COMPUTERNAME% "Starting Domino Server Manufacturing on %COMPUTERNAME%"
```

### **Stop Domino Mfg.cmd**

```
rem Stop script for the Domino Server Manufacturing, in Notes partition 1.
rem Data directory is K:\notes\data
rem
net send %COMPUTERNAME% "Stopping Domino Server Manufacturing on %COMPUTERNAME%"
Disk:

cd \notes\data
Set NOTESPARTITION=1

rem For second Domino server Set NOTESPARTITION=2
rem Use "nserver" for Intel. Use "aserver" for Alpha.
C:\notes\aserver.exe =Disk:\notes\data\notes.ini -quit
```

*Disk* is the letter of the shared disk where the data files of a Domino server are installed

```
rem Do not stop the Windows NT service now. This may halt the shutdown procedure.
rem Stop the Windows NT service at the beginning of the Start script.
```

### **Completing the Failover Groups**

In Cluster Administrator, add the script failover object for a Domino server to the server's failover group. The group now contains:

- The shared disk where the Domino server's databases reside
- The IP failover object that specifies the cluster IP address for the Domino server
- The script failover object that specifies the start and stop commands for the server

### Adding Failover Support for the Domino Web Server

The Domino server includes an integrated web server that can let users access Notes databases from a web browser, if permitted by the Domino administrator. See the Notes documentation for a full description of Domino web server features and setup.

By default, the web pages for the Domino web server are stored in a directory under the `\notes\data` directory.

#### ► To add failover support for the web server:

You simply set the web server task to start automatically whenever the Domino server starts:

1. Shut down the Domino server. You can enter Exit in the server command window.
2. In a text editor, open the `notes.ini` file.
3. At the end of the `ServerTasks=` line, add a comma and the command `http`. For example:

```
ServerTasks=Replica, Router, Update, Stats, http
```

In the `httpd.cnf` file, add the following line to ensure that the http daemon knows which process to shut down when both the partitions are running on the same machine:

```
Bindspecific      Yes
hostname          x.x.x.x ( IP address of the this Domino server)
```

#### Web Server Address

When started, the web server is available from the address of the Domino server. If you specified a fully qualified TCP/IP domain name for the Domino server, users can access the server by that name. For example:

```
http://myserver.digital.com
```

If you did not specify a fully qualified TCP/IP domain name, you must ensure that clients can resolve the server name to the cluster IP address. Otherwise, users cannot specify the server name for web access. In any case, users can enter the cluster IP address for the Domino server. For example:

```
http://11.22.33.44
```

#### Running Multiple Web Servers

By default, a web server uses TCP/IP port 80 for connections. You can run multiple web servers by using a different port setting for each web server. For example, you could run web servers for two partitioned Domino servers. You should check with your network administrator and read your web server documentation before activating multiple web

servers. If you use a port number other than 80, users must specify the port in the URL. For example:

```
http://myserver.digital.com:81
```

You can specify the TCP/IP port for a Domino web server in the HTTP section of the server's document, stored in the Address Book. See the Notes documentation for details.

In the `notes.ini` file, add the following line:

```
TCPIP_TCPIPADDRESS=0,x.x.x.x:1352
```

where `x.x.x.x` is the IP address of the Domino server service and 1352 is a well-known port for Lotus Notes.



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# Configuring Web Servers for Failover

## Introduction

This chapter indicates the updates to the section “Configuring Web Servers for Failover” in the *DIGITAL Clusters for NT Administrator’s Guide*. These updates are for DIGITAL Clusters for Windows NT Version 1.1 Service Pack 2 and the new Microsoft Internet Information Server and Netscape Enterprise Server releases.

## Microsoft IIS Version 4.0 Installation and Configuration

This section describes the differences in installation and configuration for the Microsoft IIS Version 4.0 for failover support.

### Installation

Use these instructions when installing the Microsoft IIS Version 4.0 software on a cluster running DIGITAL Clusters for Windows NT.

Follow the installation instructions for MS IIS 3.0 from the *DIGITAL Clusters for Windows NT Administrators Guide*, Chapter 5, with the following exceptions:

On each of the nodes:

- Be sure to set the “WWW Service default WEB publishing directory” and “FTP Service default FTP” publishing directories on the cluster shared SCSI bus drives.
- Be sure to put the “Application Installation Point” directory on a non-shared disk on the node. Each node must have its own copy of the IIS executables.

### Configuration

If you wish to add the new NNTP or Certificate service, you must append new lines to the stop and start scripts.

## Configuring Web Servers for Failover

For the NNTP service, add:

“@net start nntpsvc” to the start script

“@net stop nntpsvc” to the stop script

For the Certificate service, add:

“@net start certsvc” in the start script.

“@net stop certsvc” in the stop script.

For each of these new services, be sure that they are set to start up manually. Open Services in the Control Panel, select the Service, then click Startup. Select the Manual option button in the dialog box that appears.

You must install the IIS software on each cluster server. Follow the installation instructions in the *Administrator's Guide*.

## Netscape Enterprise Server Version 3.0 Installation and Configuration

This section describes the differences in installation and configuration for Netscape Enterprise Server 3.0 (Intel) for failover support.

### Installation

You must install the Netscape Enterprise Server software on each cluster server. Follow the installation instructions in the *Administrator's Guide*.

### Configuration

When creating stop and start scripts, the service names have changed. For example, “Netscape Enterprise Server http-Manufacturing” changes to “Netscape Enterprise Server 3.0 (https-Manufacturing)”