

Novell ZENworks® for Desktops

4.0.1

www.novell.com

CLUSTERING GUIDE

April 17, 2003



Novell®

Legal Notices

Novell, Inc. makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc. makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

You may not export or re-export this product in violation of any applicable laws or regulations including, without limitation, U.S. export regulations or the laws of the country in which you reside.

Copyright © 2003 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

U.S. Patent Nos. 5,633,931; 5,692,129; 5,758,069; 5,761,499; 5,859,978; 5,893,118; 5,905,860; 6,023,586; 6,047,312; 6,061,743; 6,105,069; 6,115,549; 6,144,959; 6,173,289. Patents Pending.

Novell, Inc.
404 Wyman Street, Suite 500
Waltham, MA 02451
U.S.A.

www.novell.com

ZENworks for Desktops 4.0.1 Clustering Guide

[April 17, 2003](#)

Online Documentation: To access the online documentation for this and other Novell products, and to get updates, see www.novell.com/documentation.

Novell Trademarks

ConsoleOne is a registered trademark of Novell, Inc. in the United States and other countries.

DeFrame is a trademark of Novell, Inc.

eDirectory is a trademark of Novell, Inc.

Internetwork Packet Exchange is a trademark of Novell, Inc.

IPX is a trademark of Novell, Inc.

NDS is a registered trademark of Novell, Inc. in the United States and other countries.

NetWare is a registered trademark of Novell, Inc. in the United States and other countries.

NLM is a trademark of Novell, Inc.

Novell is a registered trademark of Novell, Inc. in the United States and other countries.

Novell Application Launcher is a trademark of Novell, Inc.

Novell Certificate Server is a trademark of Novell, Inc.

Novell Client is a trademark of Novell, Inc.

Novell iFolder is a trademark of Novell, Inc.

snAppShot is a trademark of Novell, Inc.

ZENworks is a registered trademark of Novell, Inc. in the United States and other countries.

Third-Party Trademarks

All third-party trademarks are the property of their respective owners.

Contents

- About This Guide** **7**

- 1 Integrating ZfD 4.0.1 with Novell Cluster Services** **9**
 - Overview 9
 - Installation Prerequisites 9
 - Preparing the Clustering Environment for ZfD 4.0.1 10
 - Installing ZfD Components in the Cluster. 10
 - Configuring ZfD Components after Installing Clustering Services 16
 - Configuring Workstation Imaging 17
 - Configuring Workstation Inventory after Installing ZfD 4.0.1 17
 - Upgrading Workstation Inventory in a ZfD 3.2 Clustering Environment to a ZfD 4.0.1 Clustering Environment 18

- 2 Uninstalling or Reinstalling ZfD 4.0.1 Workstation Inventory or Remote Management in a Cluster Environment** **19**
 - Workstation Inventory 19
 - Uninstalling ZfD 4.0.1 Workstation Inventory from a NetWare Cluster 19
 - Reinstalling ZfD 4.0.1 Workstation Inventory on a NetWare Cluster 24
 - Remote Management. 25
 - Removing the ConsoleOne Files 25
 - Removing the Wake-on-LAN Files 26
 - Removing Remote Server Registry 27

About This Guide

This *ZENworks for Desktops 4.0.1 Clustering Guide* includes information about the installing, configuring, and testing processes that Novell® ZENworks® for Desktops (ZfD) 4.0.1 customers will typically encounter while implementing ZfD in Novell Cluster Services environment.

The information in this guide is organized in two major sections:

- ♦ **Chapter 1, “Integrating ZfD 4.0.1 with Novell Cluster Services,” on page 9**
- ♦ **Chapter 2, “Uninstalling or Reinstalling ZfD 4.0.1 Workstation Inventory or Remote Management in a Cluster Environment,” on page 19**

Additional Documentation

For information about the installing, planning, setting up, and testing processes that Novell ZENworks for Desktops (ZfD) 4, ZfD 4 Support Pack 1 (SP1) and ZfD 4.0.1 customers will typically encounter while implementing this product, see the *ZENworks for Desktops 4 Installation Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For information about upgrading the ZENworks Starter Pack, ZENworks 2, and ZENworks for Desktops 3.x to work in a ZfD 4 environment as well as information about upgrading from those environments to ZfD 4 SP1/4.0.1, see the *ZENworks for Desktops 4 Upgrade Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For comprehensive, conceptual information that you can use as you configure and use ZfD 4/SP1/4.0.1 components in your production environment, see the *ZENworks for Desktops 4 Administration Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For information about administering ZfD DeFrame™ to provide directory-enabled management and delivery of thin-client applications through Novell Application Launcher™, see the *ZENworks for Desktops 4.0.1 DeFrame Installation and Administration Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For information about installing, deploying and administering ZfD Preboot Services on your network, see the *ZENworks for Desktops 4 Preboot Services Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For information about administering ZfD Personality Migration, a component that migrates a users' system and application settings, preferences, and data files from one workstation to another, see the *ZENworks for Desktops 4 Personality Migration Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

For troubleshooting strategies that you can use and error messages that might be displayed for problems that could occur as you use ZfD 4/SP1/4.0.1 in your production environment, see the *ZENworks for Desktops 4 Troubleshooting Guide* (<http://www.novell.com/documentation/lg/zdpr/index.html>).

Documentation Updates

Check the *ZENworks for Desktops 4 Documentation Web site* (<http://www.novell.com/documentation/lg/zdpr/index.html>) for updates that might not be included on the documentation shipped on the *ZENworks for Desktops Program CD* or the *ZENworks 6 Desktop Management Program CD*.

Documentation Conventions

In Novell documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

A trademark symbol (®, ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as UNIX, should use forward slashes as required by your software.

1

Integrating ZfD 4.0.1 with Novell Cluster Services

This document contains information that will help you understand the tasks necessary for successfully installing and configuring Novell® ZENworks® for Desktops (ZfD) 4.0.1 components in a Novell Cluster Services™ (NCS) environment. The topics include:

- ◆ “Overview” on page 9
- ◆ “Installation Prerequisites” on page 9
- ◆ “Preparing the Clustering Environment for ZfD 4.0.1” on page 10
- ◆ “Installing ZfD Components in the Cluster” on page 10
- ◆ “Configuring ZfD Components after Installing Clustering Services” on page 16
- ◆ “Upgrading Workstation Inventory in a ZfD 3.2 Clustering Environment to a ZfD 4.0.1 Clustering Environment” on page 18

Overview

ZENworks for Desktops 4.0.1 components are considered “cluster-safe,” which means that you can install the ZfD 4.0.1 services in a Novell Cluster Services environment, but if the cluster volume goes down, there will be an interruption in services while the cluster fails over.

When failover occurs, most of the ZfD services will be restored but Workstation Imaging must be restarted and some group policies that rely on a single resource (that is, a server where the policy files are copied) will time-out waiting for the resource to become available. The policies won’t be applied until the next login or scheduled event occurs and the file resource becomes available again.

For more information about Novell Cluster Services, see the Novell Cluster Services documentation at the [NetWare 5.1 documentation Web site \(http://www.novell.com/documentation/lg/ncs/index.html\)](http://www.novell.com/documentation/lg/ncs/index.html) or the [NetWare 6 documentation Web site \(http://www.novell.com/documentation/lg/ncs6p/index.html\)](http://www.novell.com/documentation/lg/ncs6p/index.html).

Installation Prerequisites

Before you install and configure Novell ZENworks for Desktops (ZfD) 4.0.1 to run with Novell Cluster Services™ (NCS), make sure that all of the hardware and software requirements for the respective products are met, including:

- At least two NetWare® 5.1 or NetWare 6 servers (also called “nodes”) where NCS can be installed
- NCS 1.0.1 SP4 installed and running on the NetWare 5.1 servers that will be part of the cluster
- NCS 1.6 installed and running on the NetWare 6 servers that will be part of the cluster

- ❑ A cluster volume created and cluster-enabled (this is called a virtual server or a cluster server)

For more information on clustering, see the [Novell Cluster Services documentation \(http://www.novell.com/documentation\)](http://www.novell.com/documentation).

Preparing the Clustering Environment for ZfD 4.0.1

To prepare cluster nodes for ZfD:

- 1 Upgrade each node to ConsoleOne® 1.3.3 or later.

ConsoleOne 1.3.3 (or later), included on the ZENworks for Desktops *Companion* CD must be installed on each cluster node for ZfD to work properly. For more information, see “[Obtaining and Installing ConsoleOne](#)” in the *ZENworks for Desktops 4.0.1 Installation Guide*.

- 2 Unload Java* on each node.

To avoid an error message displayed by the ZfD installation program if Java is running on the server (that is, the cluster node), you should unload Java before you begin the ZfD installation there. To do this, you need to have System console access to each servicing node. At the system console for each node, enter the following command:

```
unload java
```

- 3 Install the Novell Client on the workstation. For more information about installing the appropriate client, see “[Understanding the Novell Client](#)” in “[Understanding ZENworks for Desktops 4](#)” in the *ZENworks for Desktops 4.0.1 Administration Guide*.

Installing ZfD Components in the Cluster

To install ZfD in a network configured with Novell Cluster Services (NCS):

- 1 From a network workstation configured with the proper Novell Client, log in as Admin to the directory tree where your cluster resides.

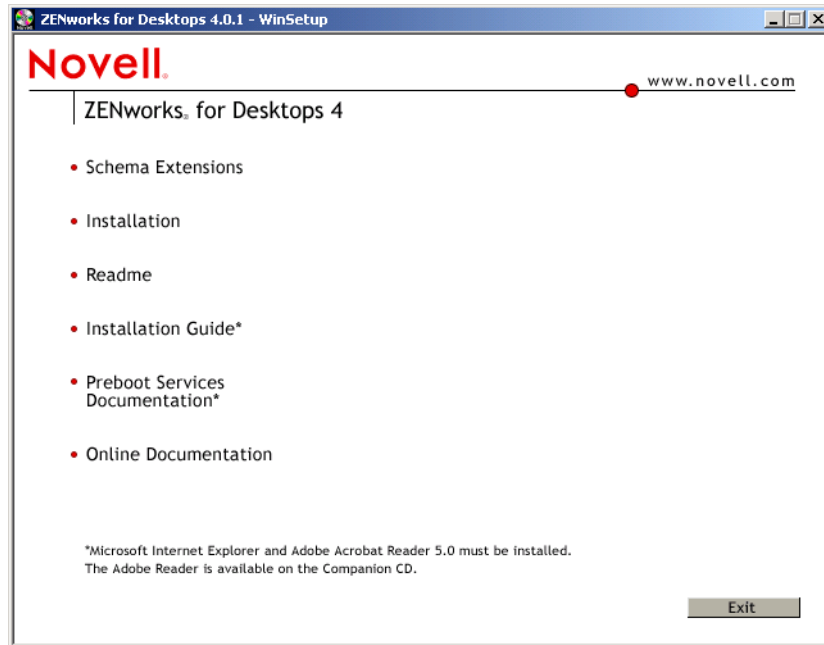
IMPORTANT: Make sure that this workstation and all other administrative workstations are not running ConsoleOne while the ZfD installation is running.

- 2 Select a Windows 2000 workstation (or a Windows NT/2000 server) to run the ZfD Server installation program. The workstation or server must meet the requirements for an installing workstation. For details, see “[Software Requirements for the Installing Workstation](#)” in “[Preparing for Installation](#)” in the *ZENworks for Desktops 4.0.1 Installation Guide*.

- 3 At a Windows workstation, insert the *ZENworks for Desktops Program* CD or the *ZENworks 6 Desktop Management Program* CD.

The winsetup.exe program will autorun. If it does not autorun, launch it from the root of the CD.

- 4 Click English to display a page with general installation options.



5 Choose whether to extend the schema for ZfD 4/SP1/4.0.1 before installing or install with the option of extending the schema during the installation.

5a If the network environment where you want to install the ZfD Server is a large tree, you may want to extend the schema and let the Novell eDirectory™ tree stabilize before you actually install the new ZfD product.

To extend the schema first, select Schema Extensions to display a list of the trees where you are authenticated. Choose a tree from this list where you want to add ZfD 4/SP1/4.0.1 schema extensions > click OK > click Yes.

The duration of the schema extension operation depends on the size and complexity of your tree. When the schema extension is complete, the installation menu is displayed again.

When the schema extension operation is complete, you can view a log file that is stored in c:\novell\zfdtemp\zwextsch.log.

5b If you want to install the ZfD Server software after extending the schema, or if you want to extend the schema of the tree as part of the installation, click Installation to display a page with more installation options:



- 6 Click Install Server to launch the ZfD Server installation program.

IMPORTANT: If you remove the *ZENworks for Desktops Program CD* or the *ZENworks 6 Desktop Management Program CD* from the CD drive during the installation, or if you lose your connection to the server you are installing to, the installation program will stop and will not proceed. To terminate the installation process, in the Windows Task Manager click Processes > select javaw.exe > click End Process.

- 7 On the first Installation page, read the details about running the installation program > click Next.

- 8 Read the License agreement > click Accept if you agree with the terms of the License Agreement.

If you do not agree with the terms of the license agreement, do not install the software.

- 9 On the Installation Requirements page, read the requirements for installing the ZfD Server software > make sure that the server where you plan to install meets the listed requirements > click Next.

- 10 On the Select Trees page, type or browse to the name of the Novell eDirectory tree where you want to install the ZfD Server > if you have not already extended the schema for this installation (see [Step 5a on page 11](#)), check Extend Schema to extend the schema on the tree where you will be installing ZfD Server software > click Next.

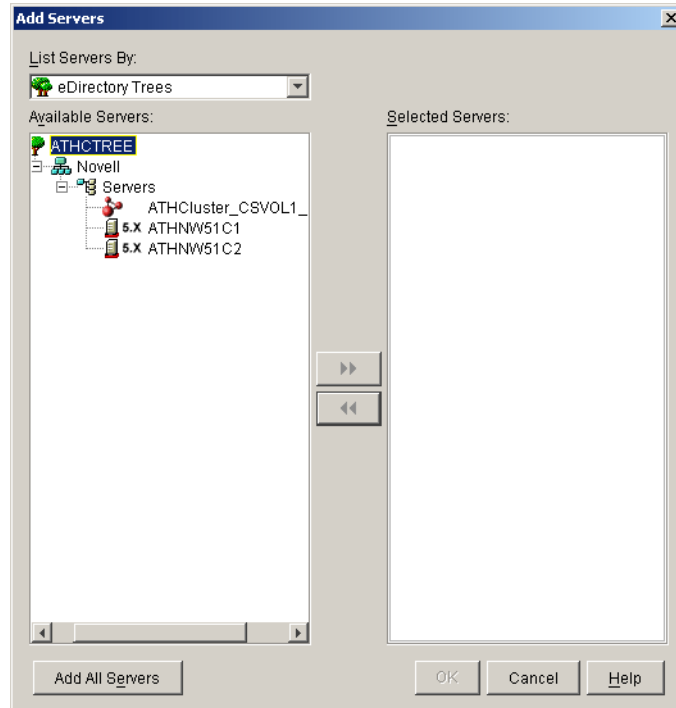
NOTE: You cannot install ZfD Server software on multiple trees at the same time.

You can extend the schema on a tree as many times as you like. You can authenticate to a tree by clicking the Login button and entering a user ID and password with the appropriate rights.

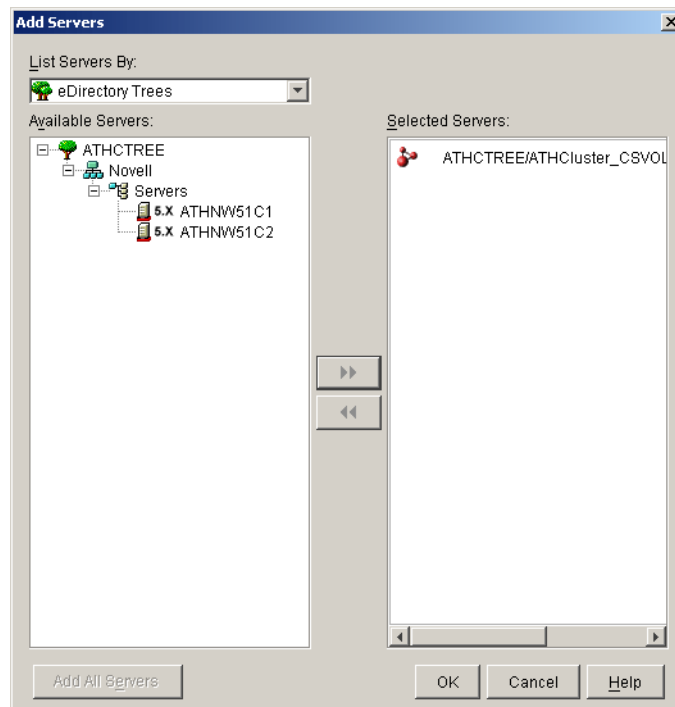
- 11 On the Select Components page, select the ZfD components you want to install > click Next.

For more information about these components, see [“About Novell ZENworks for Desktops”](#) in the *ZENworks for Desktops 4.0.1 Installation Guide*.

- 12 On the Select Servers page, click Add Servers to browse to the cluster object where you want to install ZfD Server software.



- 12a** In the Add Servers dialog box, you can list the servers by their eDirectory tree names. To install to a cluster, choose eDirectory Trees > browse to and click the name of the cluster object you want to install to > click the right-arrow button to move the selected cluster object to the Selected Servers pane > click OK.



IMPORTANT: When you select the cluster object, do not select an individual server (cluster node) that a node belongs to. The installation program will detect these servers for you. If you want to, you can also select non-clustered servers when you are installing to a cluster.

12b On the now-populated Select Servers page, you can further specify the services you want to install for the ZfD components you previously selected.

- ♦ **ConsoleOne Snap-Ins:** Select this component if you want to install the ConsoleOne® snap-ins for ZfD on this server.
- ♦ **Import:** Select this component if you want to install the Automatic Workstation Import service on this server.
- ♦ **Removal:** Select this component if you want to install the Automatic Workstation Removal service on this server.
- ♦ **ZEN Preboot:** Select this component if you want to install ZENworks for Desktops Preboot Services on this server.

When you install Preboot Services, one of the components that is installed is the Proxy DHCP server. If the standard DHCP server is on the same server where you are installing the Proxy DHCP server, you must set option tag 60 in DHCP services. For more information, see [“Installing and Setting Up ZENworks for Desktops Preboot Services”](#) in the *ZENworks for Desktops 4 Preboot Services Installation and Configuration Guide*.

- ♦ **XML Proxy Service:** Select this component if you want to install and configure an XML Proxy server.

If you want to send or roll up the scan data to an Inventory server that is across the firewall, you must configure a NetWare 5.1/6 or Windows NT/2000 server to run the XML Proxy service.

12c Click Next to save your settings.

If you chose to install Workstation Inventory, the Inventory/Database File Installation Path dialog box is displayed as the cluster-shared volume.

The ZfD 4/SP1/4.0.1 Server installation process, by default, assigns Standalone as the Inventory server role. The Standalone Server has the following characteristics:

- ♦ This server has inventoried workstations attached to it.
- ♦ This server maintains the Inventory database.
- ♦ There is no roll-up of scan information.

To install ZfD Workstation Inventory in other deployment scenarios:

- ♦ Use top-down deployment for Inventory installation. Always begin the installation at the topmost level server and proceed with the next lower-level servers. For example, in an inventory setup with a Root Server and a Leaf Server, complete the inventory installation at the Root Server, and then run the installation for the Leaf Server. For more information, see [“Understanding the Inventory Server Roles”](#) in [“Setting Up Workstation Inventory”](#) in [“Workstation Inventory”](#) in the *ZENworks for Desktops 4.0.1 Administration Guide*.
- ♦ After installing Workstation Inventory, change the role of the Inventory server by configuring the Inventory Service object settings. For more information, see [“Configuring the Inventory Service Object”](#) in [“Setting Up Workstation Inventory”](#) in [“Workstation Inventory”](#) in the *ZENworks for Desktops 4.0.1 Administration Guide*.

13 On the Inventory/Database File Installation Path page, do the following:

13a Confirm the default installation path for the Inventory server-side components or browse through the cluster enabled volume where you want to install the Inventory server-side

components. Confirm the default installation path or browse to add the path where you want to install the database.

This path could be the same per platform for all target servers. By default it is *shared_cluster_volume\zenworks* for NetWare.

The installation program will install the software to the *user_specified_installation_path\zenworks* directory. If the zenworks directory is not explicitly specified, it will be appended to the installation path.

You can specify a different path for each server.

IMPORTANT: If a previous installation of ZfD 4, ZfD 4.0.1 or ZfD 4 SP1 is detected, the existing path is displayed and dimmed. The current installation will install all the files in the same path. If the dimmed path is not the path you want to install to, we recommend that you stop the installation and delete the zenworks.properties file in the sys:\system directory of the servers that are also cluster nodes. The installation program looks for the zenworks.properties file, reads it for previous install paths, and automatically selects this path for the installation.

After you delete zenworks.properties, you can start the installation program again and the cluster volume will be available for installation.

NOTE: Do not use spaces in the installation path. Do not select the sys: volume for installing Inventory or the database.

If a database already exists, you will be prompted to overwrite the database. If you install the database to the same directory, the existing database files will be overwritten.

Because the database file can grow large, place the database on a volume other than sys:.

NOTE: The Inventory server uses ZEN Web Server (ZWS) to process the XMLRPC requests. If a previous installation of ZWS is detected on the target server, the ZWS files will not be copied to the current installation path.

13b Click Next.

If you choose to install Workstation Inventory and Sybase, the Inventory Standalone Configuration page is displayed. On this page, you can automatically configure the Database Location policy during the installation or manually configure the policy after the installation.

To start the Inventory server or the Inventory database for the first time, offline the cluster and then online the cluster. This causes the cluster software to re-read the updated load script and load the Inventory server or the Inventory database.

14 If you want the installation program to automatically create and configure the Database Location policy and start the Inventory Service Manager, do the following:

14a Select the Configure Standalone check box.

14b Select the container where the Database Location policy will be created.

14c Click Next.

If you chose to install the proxy service, the XML Proxy Service Configuration page will be displayed.

15 In the XML Proxy Service page, do the following:

15a Confirm that the default installation path is correct or browse to add the path on the selected server where you want to install the XML proxy service.

This path could be the same per platform for all target servers. By default it is *shared_cluster_volume\zenworks* for NetWare.

The installation program will install the software to the *user_specified_installation_path*\zenworks directory. If the zenworks directory is not explicitly specified, it will be appended to the installation path.

You can specify a different path for each server.

NOTE: The XML Proxy server uses ZWS to process the XMLRPC requests. If a previous installation of ZWS is detected on the target server, the ZWS files will not be copied to the current installation path. If a previous installation of Inventory is detected, if you have selected to install Inventory or if the XML Proxy is detected, the installation path will be greyed out.

15b Enter a port number for the XML Proxy service.

You must enter a value between 1 and 65535. The default port number is 8080.

If a previous installation of ZfS 3, ZfS 3.0.2, ZfS 3 SP1, ZfS 3 SP2 or ZfD 4 is detected, the existing port number will be dimmed.

The firewall must allow XMLRPC requests to the XML Proxy service on this port number to pass through. For more details on opening the port for a firewall, see the appropriate firewall documentation.

NOTE: The XML Proxy service does not support any commercial Web servers. Ensure that the port number that you have entered is not used by any other service.

IMPORTANT: Do not use spaces in the installation path. Do not select the sys: volume for installing Inventory or the database.

15c Click Next.

16 If you chose to install Remote Management, the Remote Management Configuration page is displayed.

17 Confirm that the default path to the Remote Management Agent is correct, or browse through the cluster enabled volume where you want to install the agent.

The installation program will install the software to the *user_specified_installation_path*\zenworks directory. If the zenworks directory is not explicitly specified, it will be appended to the installation path.

IMPORTANT: Do not use spaces in the installation path. Do not select the sys: volume for installing Inventory or the database.

18 Click Next.

19 On the Summary page, review the list of components and their parts that are to be installed > if the summary is correct, click Finish to launch the installation program.

Configuring ZfD Components after Installing Clustering Services

After you have completed the Novell ZENworks for Desktops (ZfD) installation, you can continue preparing for using ZfD in Novell Cluster Services™ (NCS) by completing various other configuration tasks, including:

- ◆ [“Configuring Workstation Imaging” on page 17](#)
- ◆ [“Configuring Workstation Inventory after Installing ZfD 4.0.1” on page 17](#)

Configuring Workstation Imaging

- 1 At the NetWare system console of each node in the cluster, edit `autoexec.ncf` > comment out the following line:

```
sys:\system\zfdstart.ncf
```

- 2 Edit the `tftp.ini` file in `shared_cluster_volume:\system` > comment out the following line:

```
ReadPath=sys:\tftp\
```

Add the following line directly after the one you just commented out, substituting the actual name of your shared cluster volume:

```
ReadPath=shared_cluster_volume:\tftp\
```

- 3 Edit the `pdhcp.ini` file in `shared_cluster_volume:\system` > add the following line, substituting the actual IP address of the shared volume on the virtual server:

```
TRANSACTION_SERVER_IP = IP_address_of_the_shared_cluster_volume_on_virtual_server
```

- 4 Edit the `zfdstart.ncf` file in `shared_cluster_volume:\system` > change the following line from this:

```
SEARCH ADD shared_cluster_volume:\SYSEM
```

to this:

```
SEARCH ADD shared_cluster_volume:\SYSTEM
```

- 5 Modify the cluster object in the unload script.

5a In ConsoleOne, open the Cluster object > right-click the NWCS volume resource > click Properties.

5b On the Unload page, type `unload imgserv <<y` in the Script text box > click Apply.

5c On the Cluster State page, select the resource volume you want to offline > click Offline > reselect the same resource volume > click Online.

This step restarts the imaging server from scratch.

- 6 Edit the `zfdstop.ncf` file in `shared_cluster_volume:\system` > comment out the following line:

```
Unload imgserv
```

Imaging Issues in a NetWare Cluster Environment

Imaging multicast sessions that you set manually at the Image Server console (`imgserv.nlm`) are lost when the virtual server hosting `imgserv.nlm` fails over. The only workaround is to re-create those multicast sessions and restart the process manually.

Configuring Workstation Inventory after Installing ZfD 4.0.1

- 1 Configure the Inventory database object. If you have selected Sybase* during ZfD installation, the installation program creates the Database object (`server_name` > Inventory database) and configures the properties of this object. Skip Step 1a and 1b. If you are using Oracle* or MSSQL*, continue with step 1a.

1a If you are maintaining the Inventory database in Oracle or MSSQL, ensure that you have created the Database object and configured the properties. For more information, see [“Configuring the Sybase Database Object on a NetWare Server”](#) in [“Installing”](#) in the *ZENworks for Desktops 4.0.1 Installation Guide*.

- 1b** To configure the Database object for a cluster environment: In ConsoleOne[®], right-click the Database object > click Properties > click ZENworks Database > browse for the DN (NCP server object) of the virtual server or specify the IP address of the virtual server > click OK.
- 2** If, during installation, standalone configuration is not selected then while creating database location policy set inventory database to <virtual server name>_invDatabase.
- 3** While creating work station inventory policy set inventory service object DN to <virtual server name>_ZenInvService.
- 4** Inventory service object of the cluster service (<virtual server name>_ZENInvService) should be chosen to configure all rollup policies.

Upgrading Workstation Inventory in a ZfD 3.2 Clustering Environment to a ZfD 4.0.1 Clustering Environment

When you upgrade from ZfD 3.2 Workstation Inventory in a clustering environment to ZfD 4.0.1 Workstation Inventory in a clustering environment, you will need to reconfigure inventory policies. Perform the following tasks to reconfigure the policies:

- Reconfigure the Inventory Rollup policies that use the cluster as the target server to point to the Inventory Service object of the cluster service (that is, change *virtual_server_name* as the target to ZENInvService as the target).
- Associate all Inventory Rollup policies associated to the NCP server object a cluster node must be associated to the NCP server object for the virtual server.
- Reconfigure all workstation inventory policies to point to the virtual server's ISO.
- If you manually created DB objects, reconfigure the server DN to point to the virtual server's NCP server object

2

Uninstalling or Reinstalling ZfD 4.0.1 Workstation Inventory or Remote Management in a Cluster Environment

Circumstances might occasionally make it necessary for you to either uninstall or reinstall a Novell ZENworks for Desktops (ZfD) component. This section contains information about both uninstalling and reinstalling the following ZfD components:

- ♦ [“Workstation Inventory” on page 19](#)
- ♦ [“Remote Management” on page 25](#)

IMPORTANT: If the ZENworks for Servers (ZfS) Server Inventory component is installed to the same NetWare cluster where ZfD Workstation Inventory is installed, removing the ZfD inventory components also stops the ZfS Server Inventory components from working.

Workstation Inventory

This section includes information that will help you to uninstall or reinstall the Workstation Inventory component of ZfD 4.0.1 in a NetWare clustering environment.

- ♦ [“Uninstalling ZfD 4.0.1 Workstation Inventory from a NetWare Cluster” on page 19](#)
- ♦ [“Reinstalling ZfD 4.0.1 Workstation Inventory on a NetWare Cluster” on page 24](#)

Uninstalling ZfD 4.0.1 Workstation Inventory from a NetWare Cluster

ZfD 4.0.1 Workstation Inventory cannot be uninstalled automatically. You must manually remove the Inventory server, the Inventory database running on Sybase, the Novell eDirectory objects, and the ConsoleOne files.

NOTE: If your Inventory database is mounted on Oracle or MS SQL, follow the uninstall procedure recommended by Oracle or MS SQL.

You must remove the objects and the files from every server and workstation where the Workstation Inventory components are installed. In an enterprise deployment of Inventory, uninstall all Leaf Servers first, then uninstall Intermediate Servers, and finally uninstall the Root Server.

Before uninstalling Workstation Inventory, make sure you have made and archived a reliable backup of the Inventory database residing at the Root Server. To manually uninstall ZfD 4.0.1 Workstation Inventory, proceed in this sequence:

1. [“Removing the Workstation Inventory eDirectory Objects” on page 20](#)
2. [“Removing the DatabaseDirectory Object” on page 20](#)
3. [“Removing the Sybase Inventory Database” on page 21](#)
4. [“Removing the Sybase Engine” on page 21](#)

5. “Removing the Zfd Software from the Inventory Server” on page 22
6. “Removing the XML Proxy Server” on page 22
7. “Removing the Workstation Inventory Snap-Ins from ConsoleOne” on page 23
8. “Removing the Inventory Server Registry” on page 24

Removing the Workstation Inventory eDirectory Objects

- 1** At the server console prompt of the active node, enter **stopSer *** to stop the Inventory services.
- 2** If the ZENworks Database policy is enabled, disable it.
 - 2a** In ConsoleOne, right-click the Service Location Package object > click Properties > click Policies.
 - 2b** Select the ZENworks Database policy > click Properties > click the Inventory Management tab.
 - 2c** Delete the specified Inventory Database entry > click OK.

IMPORTANT: If the ZENworks Database policy is used by more than one Inventory server, you must uninstall those Inventory servers before performing this step.
- 3** Disable the Workstation Inventory policy.
 - 3a** In ConsoleOne, right-click the Workstation Package object > click Properties.
 - 3b** Click Policies > select the appropriate operating system suboption.
 - 3c** If the Workstation Inventory policy is enabled, select the policy > click the Reset button > click Yes.
 - 3d** Deselect the Workstation Inventory policy.
 - 3e** Click Apply > Close.

IMPORTANT: If you have configured the Workstation Inventory policy for more than one operating system, select the appropriate operating system suboption from the Policies tab and repeat this step.
- 4** If the Roll-Up policy is enabled, disable it.
 - 4a** In ConsoleOne, locate the container holding the Server Package > right-click the Server Package > click Properties > click the Policies tab > click the NetWare or the Windows suboption.
 - 4b** Select the Roll-Up policy > click the Reset button > click Yes.
 - 4c** Deselect the Roll-Up policy.
 - 4d** Click Apply > Close.
- 5** In ConsoleOne, locate the container holding the Inventory Service object and delete the Inventory Service object.

Removing the DatabaseDirectory Object

In ConsoleOne, locate the container holding the Inventory database object and delete the Inventory database object.

Removing the Sybase Inventory Database

- 1 At the Sybase console prompt of the active node, press **Q** to stop Sybase.
- 2 Delete the *database_path*\mgmtdb.db entry from the sys:\system\mgmt dbs.ncf file from all cluster nodes. Do not delete other database paths.

If there are no other .db entries, remove the Sybase engine before proceeding to Step 3.

For more information on how to remove the Sybase engine, see [“Removing the Sybase Engine” on page 21](#).

- 3 Note the value of the INVDBPATH key from the sys:\system\zenworks.properties file from any of the cluster node.
- 4 From the value identified in the INVDBPATH key, delete the Inventory database files (mgmtdb*.db), including mgmtdb.log from the shared volume. Before deleting the database files, make sure that you have made a reliable backup of the database files if you want to use the inventory information stored in it.
- 5 Delete the INVDBPATH key from the sys:\system\zenworks.properties file from all the cluster nodes.
- 6 Delete the following section from the sys:\system\zenworks.properties file from all the cluster nodes:

```
[ZfD_Inventory_Database_Server]
Version = 4.0.20030121
Installed_From = Product CD
Support_Pack = 1
```

- 7 If Sybase is not uninstalled and if it is used by other ZENworks products, at the NetWare server console enter **mgmt dbs . ncf**.

Removing the Sybase Engine

You can remove the Sybase engine only if it is not used by other ZENworks products. Use the following steps to remove Sybase:

- 1 At the Sybase console prompt of the active node, press **Q** to stop Sybase.
- 2 Note the value of the DBENGINEPATH key from the sys:\system\zenworks.properties file from any of the cluster nodes.
- 3 Verify if the database is mounted on the database server.

The sys:\system\mgmt dbs.ncf file of any cluster node file will have the .db entry if the database is mounted on the database server. If the file does not contain the .db entry, delete mgmt dbs.ncf from all the cluster nodes. If the file contains the .db entry, do not continue to remove the Sybase engine.

- 4 Delete the mgmt dbs.ncf entry from sys:\system\autoexec.ncf load script and remove the dbsrv7.nlm from the unload script.
- 5 Delete the directory specified in DBENGINEPATH.
- 6 Delete the DBENGINEPATH key from the sys:\system\zenworks.properties file from all the cluster nodes.

Removing the ZfD Software from the Inventory Server

- 1** On the Inventory server, stop the Inventory services. To stop the Inventory services, at the server console prompt of the active node, enter **stopser ***.
- 2** On the Inventory server, unload the Java.nlm. To unload the Java.nlm, at the server console prompt of the active node, enter **java -exit**.
- 3** Note the values of the INVSrvPATH and ZWSPATH keys. Note the values from the sys:\system\zenworks.properties file from any of the cluster nodes.
- 4** Delete the invsrvpath\scandir directory.
- 5** Delete the invsrvpath\server directory.
- 6** Delete the following entries from the sys:\system\autoexec.ncf file load script:

```
; ZENworks Inventory Settings
StartInv.ncf
```
- 7** Delete the following entries from the unload script:

```
java -killzenwsinv
java -killzwexit
```
- 8** Delete the following files from the sys:\system\directory from all the cluster nodes:
invenv.ncf
invenvset.ncf
listser.ncf
startinv.ncf
startser.ncf
startzws.ncf
stopser.ncf
dbexport.ncf
debug.properties
stopdb.ncf
- 9** If Tiered Electronic Distribution (TED) is not installed on the Inventory server, remove the ZEN Web Server (ZWS) components. Delete the ZWSPATH entry from the sys:\system\zenworks.properties file from all the cluster nodes and delete the \zwspath directory.
- 10** Delete the INVSrvPATH key from the sys:\system\zenworks.properties file from all the cluster nodes.
- 11** Modify the query.properties file. Delete the insver entry from the sys:\public\mgmt\consoleone\1.2\bin\query.properties for all the cluster nodes.

Removing the XML Proxy Server

To uninstall the ZfD XML Proxy server files from the server if Tiered Electronic Distribution (TED) or Inventory is not installed on the server:

- 1** Unload the Java.nlm. To unload, at the server console prompt of the cluster node, enter **java -killzwsexit**
- 2** Note the value of the ZWSPATH from the sys:\system\zenworks.properties file from any of the cluster nodes.
- 3** Delete the entry `java - killzwsexit` from the unload script.

- 4** Delete the ZWSSTART.NCF file from the sys:\system directory from all the cluster nodes.
- 5** Delete the ZWSPATH directory and the ZWSPATH entry from the sys:\system\zenworks.properties file of all the cluster nodes.
- 6** Delete the following section from the sys:\system\zenworks.properties file from all the cluster nodes:

```
[ ZFD_XML_Proxy_server ]
Support_Pack = 1
Version = 4.0.20030121
Installed_From = Product CD
```

Removing the Workstation Inventory Snap-Ins from ConsoleOne

The ConsoleOne snap-ins are installed on all the cluster nodes. You must remove the Workstation Inventory snap-ins from all the cluster nodes. However, if you are using ConsoleOne to manage other products, do not uninstall ConsoleOne.

To remove the Workstation Inventory snap-ins from ConsoleOne:

- 1** Close ConsoleOne, if it is running from cluster nodes. Also, close all instances of ConsoleOne invoked directory from the Inventory server on multiple workstations.
- 2** In the *consoleone_installation_directory*\1.2 directory of all the cluster nodes on your server or workstation, do the following:

2a Delete the following files:

```
\lib\zen\dbexport.jar
\lib\zen\desktop.jar
\lib\zen\zeninvimages.jar
\lib\zen\zenutility.jar
\lib\zen\statuslog.jar
\lib\zen\classes12.zip
\lib\zen\vbjapp.jar
\lib\zen\vbjorb.jar
\lib\zen\jdbcdrv.zip
\snapins\zen\inventorysnapins.jar
\snapins\zen\inventorysnapins3x.jar
\snapins\zen\dataexportsnapins.jar
\snapins\zen\policymigration.jar
\snapins\zen\workstationsnapins.jar
\snapins\zen\tracer.jar
\help\novellserverinv.hs
\bin\directoryrights.dll
\bin\displayrules.properties
\bin\schemarules.properties
```

2b Delete the following directories:

```
\reporting\canned\novellreporting\zeninventory
\reporting\canned\novellreporting\zeninventory30
\reporting\canned\novellreporting\zeninventory32
\reporting\canned\novellreporting\zeninventory3x
```

- 3** If you have not installed the Remote Management ConsoleOne snap-ins on the same workstation or server, delete the following files:

\bin\desktop4.exe
\bin\mssql.ini
\bin\msvp60.dll
\bin\ndsaccess.dll
\bin\oracle.ini
\bin\remagent.ini
\bin\sybase.ini
\help\novellzeninven.hs
\help\novellzenrmtg.hs
\help\en\novell_zfd_inventory
\help\en\novell_zfd_remotemgmt
\lib\zen\desktop.jar
\lib\zen\desktop3x.jar
\lib\zen\desktopcommonutility.jar
\resources\resources.jar
\snapins\zen\commonsnapins.jar

Removing the Inventory Server Registry

To remove the Inventory Server registry, delete the MyServer\Software\Novell\ZENWORKS\ZFD\Inventory server registry key from all the cluster nodes.

Removing the Inventory Database Registry

To remove the Inventory database registry, delete the myserver\software\novell\zenworks\zfd\inventorydatabaseserver registry key from all the cluster nodes.

Removing XMLProxy Registry

To remove the XML Proxy registry, delete the 'My Server\Software\Novell\ZENWORKS\Zfd\XMLProxy Server' registry key from all the cluster nodes

IMPORTANT: You can delete the registry using the web browser, by specifying `http://server_ip_address:8008`.

Reinstalling ZfD 4.0.1 Workstation Inventory on a NetWare Cluster

Because of a failure to install correctly, data corruption, or inadvertent file deletion, you might need to reinstall the ZfD 4.0.1 Workstation Inventory.

IMPORTANT: A reinstallation does not require the schema to be extended again.

This section includes information that focuses on reinstalling the ZfD Workstation Inventory component.

IMPORTANT: During reinstallation, you do not need to extend the schema again.

The following sections provide information on reinstalling the ZfD 4.0.1 Workstation Inventory:

- ◆ “Preparing to Reinstall Workstation Inventory” on page 25
- ◆ “Reinstalling Workstation Inventory” on page 25
- ◆ “Determining if Reinstalling Workstation Inventory Was Successful” on page 25

Preparing to Reinstall Workstation Inventory

- 1** Identify the cluster server where you need to reinstall ZfD 4.0.1 Workstation Inventory.
- 2** Stop the Inventory services. To stop the Inventory services, on the Inventory server, at the server console prompt of the active node, enter **stopser ***.
- 3** Stop the Inventory database. To stop the Inventory database, at the Sybase console prompt of the active node, press **Q** to stop Sybase.
- 4** If Java has not been unloaded on the target NetWare servers, unload Java.nlm. To unload, at the server console prompt of the active node, enter **java -exit**.

IMPORTANT: This command stops all Java processes running on the server. Verify that all the Java processes can be stopped while you are reinstalling ZfD 4.0.1.
- 5** Login to the Novell eDirectory™ tree that has the servers where you want to reinstall ZfD 4.0.1.
- 6** Continue with Installing the ZfD Server Software in the *ZENworks for Desktops 4.0.1 Installation Guide*.

Reinstalling Workstation Inventory

If you reinstall ZfD 4.0.1 Workstation Inventory over a prior installation, the ZfD 4.0.1 Workstation Inventory will use the existing configured policies and the \scandir directory.

Determining if Reinstalling Workstation Inventory Was Successful

- 1** After installing ZfD 4.0.1, review the installation log file to determine whether any of the components failed to install.
- 2** If you reinstalled to fix a missing file or because some files were corrupted, ensure to verify if the problem has been fixed.

Remote Management

This section provides information to uninstall ZfD 4.0.1 Remote Management snap-ins. This section includes the following:

- ◆ “Removing the ConsoleOne Files” on page 25
- ◆ “Removing the Wake-on-LAN Files” on page 26
- ◆ “Removing Remote Server Registry” on page 27

Removing the ConsoleOne Files

Removing the ConsoleOne files will uninstall the Remote Management agent and the server-side Remote Management components. You need to remove the ConsoleOne components from all the cluster nodes.

To uninstall the ConsoleOne files, you need to manually remove few directories and files.

Uninstalling or Reinstalling ZfD 4.0.1 Workstation Inventory or Remote Management in a

- 1** Delete the following files from the \bin directory:

- remagent.ini
- drishtitype.ini
- ipxcomm.dll
- ipxuseragentping.dll
- multport.dll
- rmports
- zencutil.dll

- 2** Delete the following directories:

- \bin\zen\remcon
- \bin\zen\rclaunch
- \help\novellzenrmgh.hs
- \help\en\novell_zfd_remotemgmt
- \lib\zen\desktop.jar
- \lib\zen\desktop3x.jar
- \reporting\canned\novellreporting\rmaudit
- \snapins\zen\desktopsnapins.jar

Removing the Wake-on-LAN Files

- 1** Stop the Wake-on-LAN service.

- ◆ On NetWare:

At the server console prompt of the active node, enter **stopWol**.

- ◆ On Windows NT:

In the Control Panel, double-click Services > Select Novell Zfd Wake on LAN service, click Stop.

- ◆ On Windows 2000:

In the Control Panel, double-click Administrative Tools > Select Novell Zfd Wake on LAN service, click Stop.

- 2** Note the value of the RMPATH key from the sys:\system\zenworks.properties file from any of the cluster node,

- 3** Delete the directories where the Remote Management components are installed.

- 3a** Delete the following directories:

- install_path\remmgmt\server\logs
- install_path\remmgmt\server\lib
- install_path\remmgmt\server\properties
- sys:\system

- 3b** Delete the following directories from the sys:\system directory of all the cluster nodes:

- wolenv.ncf
- wolsetenv.ncf
- startwol.ncf
- stopwol.ncf
- wolstatus.log

- 4** Modify the query.properties file.
 - 4a** Delete the rmver entry from the sys:\public\mgmt\consoleone\1.2\bin\query.properties file.
 - 4b** Modify the rmver entry to `rmver=zfs` in the sys:\public\mgmt\consoleone\1.2\bin\query.properties file for all the cluster nodes if the entry is `rmver=both`.
- 5** Delete the Wake-on-LAN service object (SERVERNAME_WOLSERVICE) from eDirectory.
- 6** Use ConsoleOne to delete all instances of the Wake-on-LAN policy from eDirectory.

Removing Remote Server Registry

- 1** Delete the myserver\software\novell\zenworks\zfd\Remote Management server registry key from all the cluster nodes.

IMPORTANT: You can delete the registry using the web browser, by specifying `http://server_ip_address:8008`.

