COMPAQ

White Paper

Contents

Managing Compaq Servers with Novell ZENworks for Servers 1.0

Abstract: This white paper describes management of your Compaq servers using ZENworks for Servers from Novell. The document covers the distribution of the Compaq Management Agents for Servers and the Compaq Survey Utility using ZENworks for Servers. It also discusses configuring the Compaq Management Agents for Servers using ZENworks for Servers policies.

This document targets network administrators with a knowledge of installation and setup of ZENworks for Servers as well as the Compaq Management Agents and Compaq Survey Utility.

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Notice

Overview

Novell ZENworks for Servers, a directory-enabled distribution, configuration, and behavioral management system for servers, provides the means to manage all servers from one workstation using ConsoleOne.

ZENworks for Servers has three components: Server Policies, Tiered Electronic Distribution (TED), and Server Software Packages (SPKs).

This paper discusses how to manage Compaq Servers using Novell ZENworks for Servers.

Note: The terms Distributor and Subscriber are used throughout this document. These terms refer to the ZENworks Distributor and Subscriber systems. The ZENworks Distributor object (Distributor) is an NDS container object that defines the properties and policies for the distributor agent hosted on a NetWare server. The ZENworks Subscriber object is an NDS container object that defines the properties and policies for the subscriber agent hosted on a NetWare server.

Requirements

Before installing the Compaq Management Agents or the Compaq Survey Utility using ZENworks for Servers, the following components must be installed or available:

- Novell NetWare 5.0 (NW5SP4 or later) or NetWare 5.1 on the Distributor and Subscriber systems.

- Compaq Management Agents for Servers for NetWare version 4.80

- Compaq Survey Utility from the 4.80 management CD

Note: The procedures described in this paper also apply to earlier versions of the Compaq Management Agents for Servers. However, the Server Software Packages (SPKs) provided are only for the versions from the 4.80 management CD, and earlier versions are not supported. For use with other versions of the Compaq Management Agents, the SPKs must be rebuilt by the user.

Distributing Compaq Management Agents for Servers Using ZENworks for Servers

The Compaq Management CD version 4.80 ships with two SPKs for ZENworks for Servers. The first SPK distributes and installs the Compaq Management Agents for Servers for NetWare. The second SPK distributes and installs the Compaq Survey Utility. Figure 1 shows both of these SPKs listed under Server Software Packages in ConsoleOne.

These SPKs use the Compaq Management CD as the source for the installation files and assume the Compaq Management CD is in the local workstation CD drive. By default, files copy to the following directory on the subscribing nodes for installation: SYS:SYSTEM\INSTALL.

Note: Both the source and destination directories can be changed by editing the SPK. See the "Using a Different Source/Destination Path with the Compaq SPKs" section of this document.
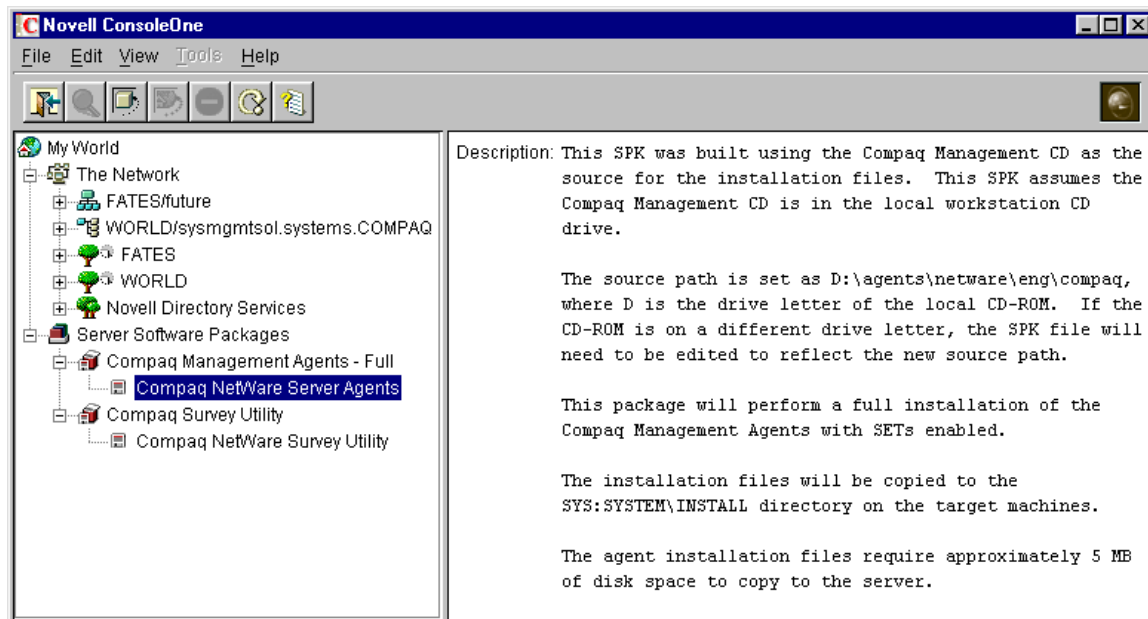
Figure 1: Compaq Management Agents and Survey Utility Server Software Packages

Compaq Management Agents SPK

The Compaq Management Agents SPK performs a full installation of the Compaq Management Agents for Servers for NetWare with the SNMP SET capability enabled. The SPK, named *CPQAGNTS.SPK,* can be found in the [CD DRIVE]:\TOOLKIT\ZENWORKS\SERVERS directory on the Compaq Management CD.

The default source path for the SPK is D:\AGENTS\NETWARE\ENG\COMPAQ. If the CDROM resides on a different drive, the SPK file must be edited to reflect the new source path. See the "Using a Different Source/Destination Path with the Compaq SPKs" section of this document.

By default, the installation files copy to the SYS:SYSTEM\INSTALL directory on the target machines. The agent installation files require approximately 5 MB of free disk space to copy to the SYS:SYSTEM\INSTALL directory. Once the files are copied to the target machines, the installation automatically runs in unattended mode and installs the Compaq Management Agents.

Compaq Survey Utility SPK

The Compaq Survey Utility SPK installs the Compaq Survey Utility so that it automatically loads every time you boot the server. By default, this utility takes snapshots at every boot and every Wednesday at noon. The default schedule sets up during the automatic installation. Refer to the Survey Utility documentation for information on how to configure the snapshots on a different schedule.

The Compaq Survey Utility SPK, named *CPQSURVY.SPK,* is located in the [CD DRIVE]:\TOOLKIT\ZENWORKS\SERVERS directory on the Compaq Management CD. The default source path used when creating the compiled software package from the SPK is D:\SURVEY\NETWARE. If the CDROM resides on a different drive, the SPK file must be edited to reflect the new source path. See the "Using a Different Source/Destination Path with the Compaq SPKs" section of this document.

By default, the installation files copy to the SYS:SYSTEM\INSTALL directory on the target machines. The Survey installation files require approximately 4 MB of free disk space to copy to the SYS:SYSTEM\INSTALL directory. Once the files are copied to the target machines, the installation script for Survey automatically runs in unattended mode and installs the Compaq Survey Utility.

Note: An installation script for the Compaq Survey Utility (SRVYINST.NCF) *also copies to the* SYS:SYSTEM\INSTALL *directory from the* [CD DRIVE]:\TOOLKIT\ZENWORKS\SERVERS *directory on the Compaq Management CD. If the path for the installation files changes, the installation script must be edited to reflect the new location of the Survey install program* (SINSTALL.NLM).

Adding the Compaq Server Software Packages to ZENworks for Servers

To use the Compaq Server Software Packages with Novell ZENworks for Servers, copy *CPQAGNTS.SPK* and *CPQSURVY.SPK* from the Compaq Management CD to the ZENworks for Servers distribution server. In the following examples, the SPKs were copied to the root of the SYS volume on the distribution server.

Once the Server Software Packages have been copied to the distribution server, they must be added to the list of available packages. Follow these steps to add the package for the Compaq Management Agents to ZENworks for Servers.

1. Use the right mouse button to select (right click on) Server Software Packages in the ConsoleOne tree view.

2. Select Insert Software Package (see Figure 2).

3. Browse to the package for the distribution (for example, *CPQAGNTS.SPK*) from this window.
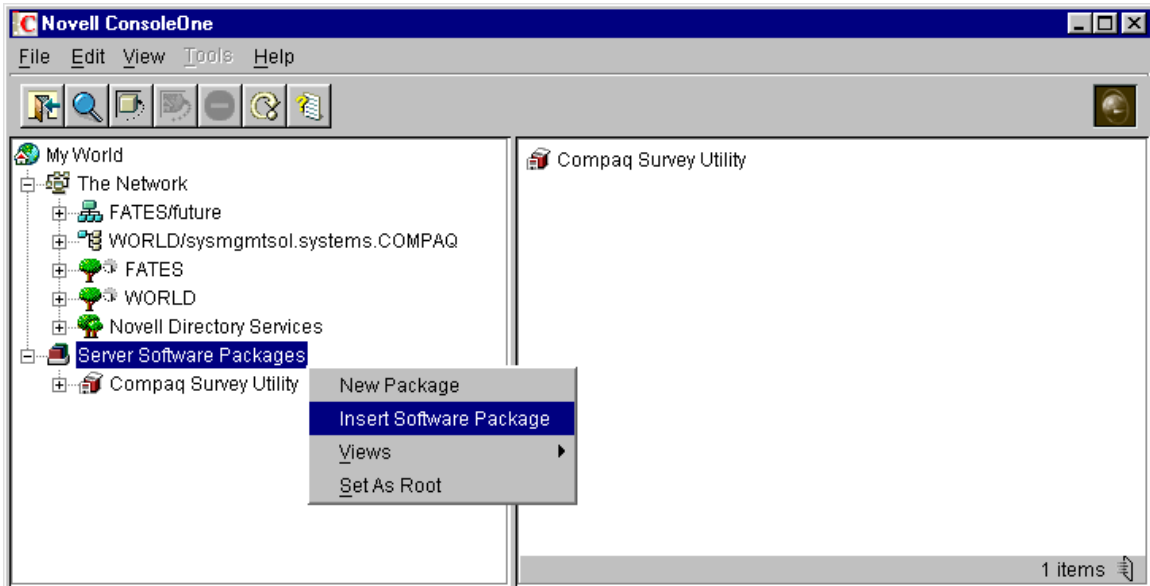

Figure 2: Inserting the Compaq Server Software Packages

4. Select the package and select Open. The new package appears in ConsoleOne under Server Software Packages.

5. Repeat steps 1-4 to add the Compaq Survey Utility Server Software Package.

In some situations, the Server Software Packages may be listed in ConsoleOne by the filename of the SPK files, for example, *V:\CPQAGNTS.SPK*. In this situation, remove the Server Software Package and then insert it as described above. See Figure 3 for an example of removing the Server Software Package.
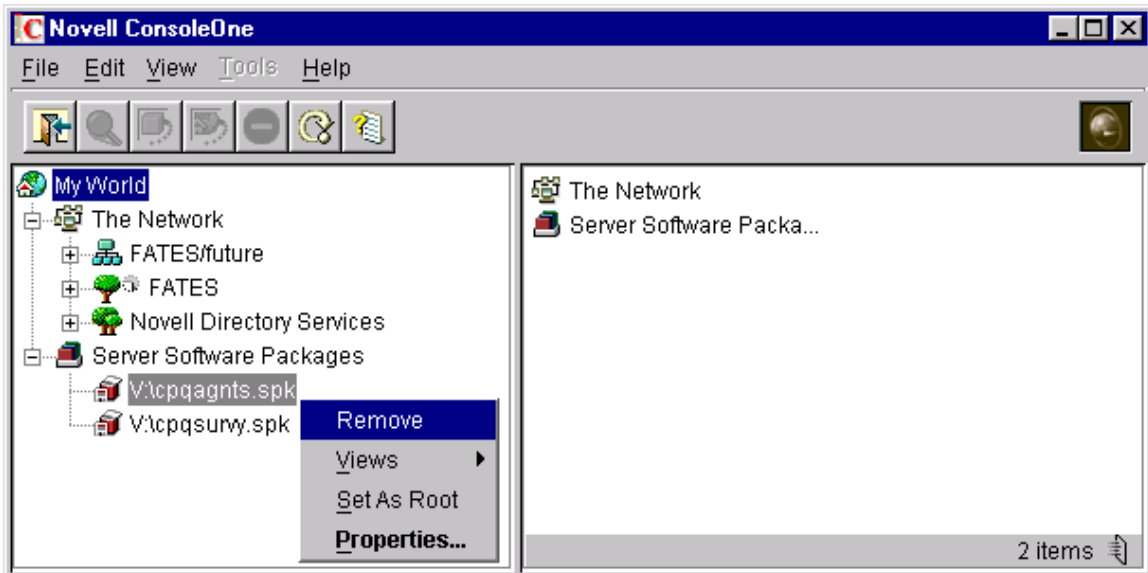
Figure 3: Removing the Server Software Package

Once these steps are completed, ConsoleOne lists the Server Software Packages by the package name instead of the filename for the SPK, for example Compaq Survey Utility instead of *CPQSURVY.SPK*.

Using a Different Source/Destination path for the Compaq SPKs

The SPKs shipped on the Compaq Management CD provide a starting point for users of ZENworks for Servers. These SPKs may be edited for the users' own environment. The example provided in this section provides steps for changing the source and/or destination path for the Compaq Management Agents SPK. The Compaq Survey Utility SPK can be edited in a similar manner.

Note: Selecting the group name displays the destination path, and selecting an individual file displays the source path for that file.

To change the source for the files in the Compaq Management Agents SPK, perform the following steps:

1. Use the right mouse button to select the component under the software package (for example, Compaq NetWare Server Agents).

2. Select Properties.

3. Select the Copy File tab in the window that appears.

4. Select the root folder (Compaq under the Compaq Agents group) and select Remove (see Figure 4). This removes the current file information.
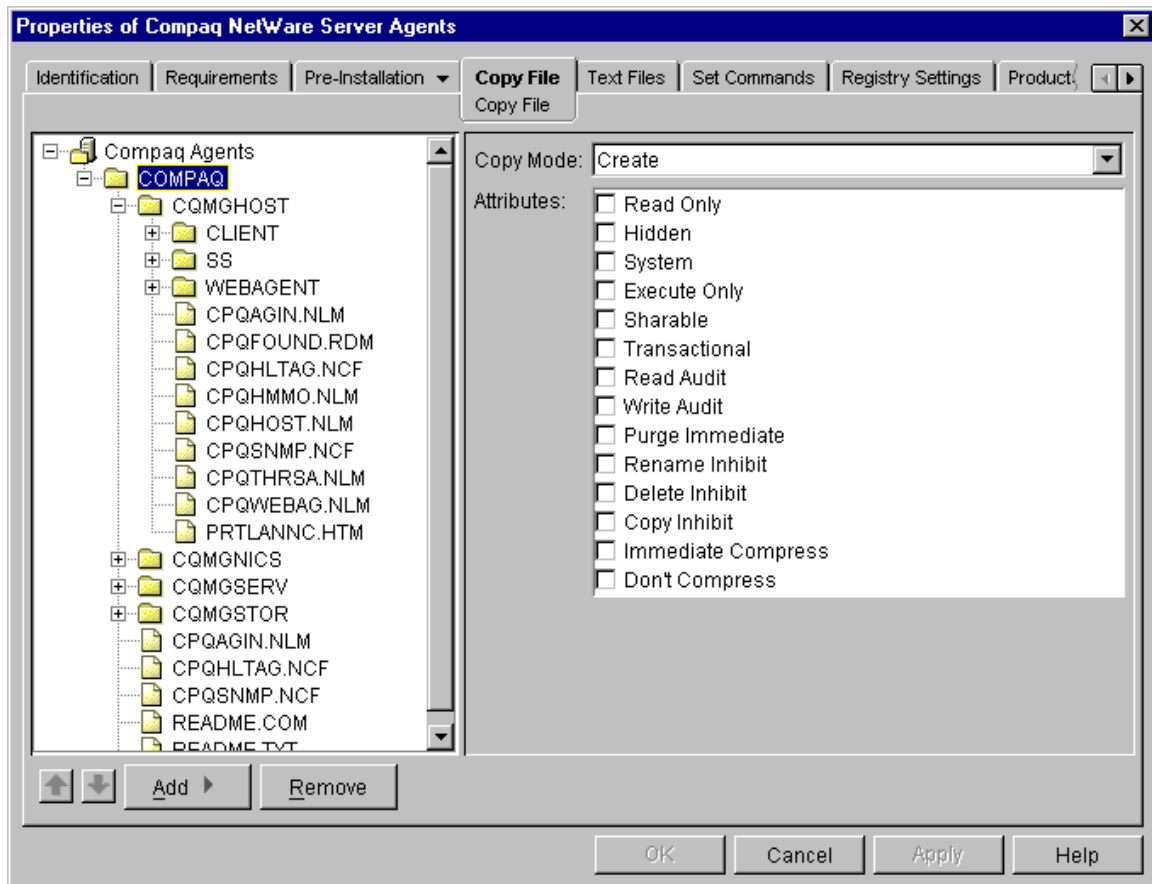
Figure 4: Properties page for the Compaq NetWare Management Agents SPK

5. Select the File Group Name (Compaq Agents), select Add and then File to add a new set of files to the package.

6. Browse to the Compaq Management Agent source directory (for example, [CD DRIVE]:\AGENTS\NETWARE\ENG\COMPAQ*)* and select the root directory (Compaq in this example).

7. Be sure the Recurse Subdirectories box is checked then select Open. This adds the files to the group. The Copy Mode for the files can be changed according to the user's preferences.

8. Select OK to close the window and save your changes

Note: If the source path for the Compaq Survey Utility changes, verify that all the installation files remain in the modified SPK. Be sure to include the Survey installation script from the toolkit directory ([CD DRIVE]:\TOOLKIT\ZENWORKS\SERVERS\SRVYINST.NCF) *with the rest of the installation files.*

To change the destination for the files in the Compaq Management Agents SPK, perform the following steps:

1. Use the right mouse button to select the component under the Server Software Package (for example, Compaq NetWare Server Agents).

2.   Select Properties.

3.   Select the Copy File tab in the window that appears.

4.   Select the group name (Compaq Agents).

5.   Edit the Target Path field with the new destination for the install files.

6.   Select the Post-Installation tab after you specify the new destination.

7.   Select Load/Unload on the Post-Installation tab.

8.   Select Run *CPQAGIN.NLM* in the left frame. Be sure that the File Name field displayed on the right reflects the new destination path. The full path to *CPQAGIN.NLM* must be specified.

9.   Select OK to close the window and save your changes.

Note: An installation script for the Compaq Survey Utility (SRVYINST.NCF) *also copies to the* SYS:SYSTEM\INSTALL *directory from the* [CD DRIVE]:\TOOLKIT\ZENWORKS\SERVERS *directory on the management CD. This installation script contains the default path for the Survey installation files. If the path for the installation files changes, the installation script must be edited to reflect the new location of the Survey install program* (SINSTALL.NLM).

Compiling the Compaq Server Software Packages

After the server software package has been loaded, it can be compiled for distribution. This section guides you through compiling the Compaq Management Agents Server Software Package. The same procedure can be used for the Compaq Survey Utility Server Software Package.

To compile the server software package, follow these steps:

1.   If not already there, copy the Server Software Package to the distribution server and add it to the list of available packages.

2.   Use the right mouse button to select the name of the package and select Compile from the menu.

3.   Select Next then enter the filename for the compiled package. For example, the *CPQAGNTS.SPK* file compiles as *CPQAGNTS.CPK*. Be sure to specify the path and extension when entering the filename. For example, enter F:\CPQAGNTS.CPK when compiling the package for the Compaq Management Agents, where F: maps to the SYS volume of the Distributor.

4.   Select Next to create the compiled package. A progress screen displays while the package creates.

5.   Select Finish when the process completes.

Note: The user enters the compiled package name when creating the distribution, so the location of the compiled package should be noted.

Note: When changes are made to the Server Software Packages, such as changing the path for the files, the packages must be recompiled.

Distributing the Compaq Server Software Packages

The new software package can be added to a current distribution channel or a separate distribution channel can be created for Compaq software, as shown in Figure 5.
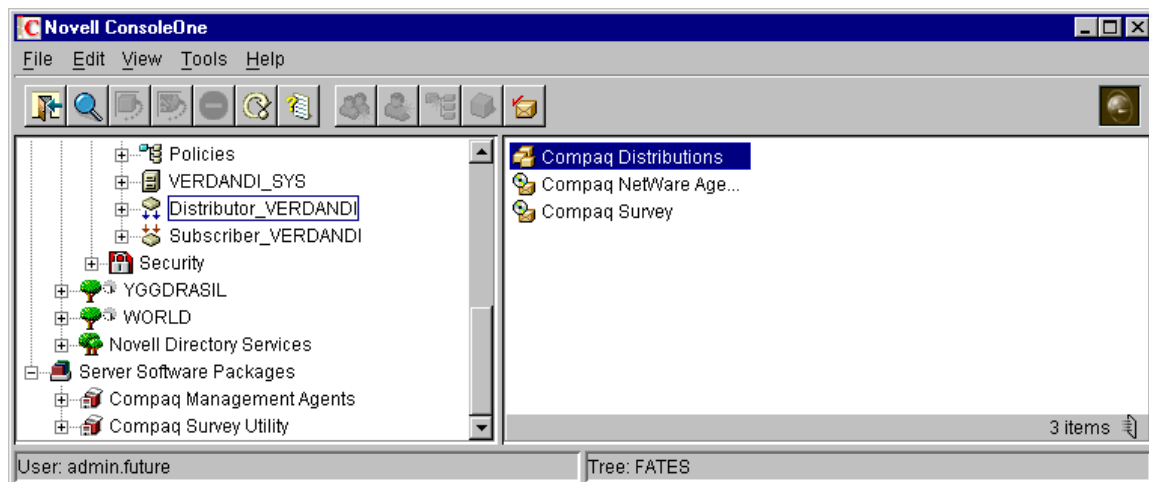

Figure 5: Software Distribution Channel for Compaq Software

To create a distribution channel for Compaq software, perform the following steps:

1. Use the right mouse button to select (right click on) the Distributor Object and select New - Object.

2. In the next window, select ZENworks Channel.

3. Type Compaq Distributions for the channel name and select OK.

To distribute the new software package, you must create a ZENworks Distribution:

1. Use the right mouse button to select the Distributor Object and select New - Object.

2. In the next window, select ZENworks Distribution and select OK.

3. Type the distribution name. For example, Compaq NetWare Management Agents.

4. Check the Define Additional Properties box and select OK. (If the Configuration Change Notification screen appears, select No).

5. Select the Contents tab and then select Add Grouping.

6. In the window that displays, enter a name for the group and under the Grouping Type select Server Software Package. Select OK to continue.

7. In the next window that displays, browse to the *compiled* Server Software Package (CPK) for the Compaq Management Agents (in this example, the compiled package was copied to the root of the SYS volume so select SYS:\CPQAGNTS) and select OK.

8. Select the Schedules tab.

9. Modify the schedule to suit your distribution needs.

10. Select OK to close the window.

11. Select OK to close the properties window.

After the ZENworks Distribution for the Compaq Management Agents has been created, it must be associated with the appropriate distribution channels. In this example, we used Compaq Distributions as the channel for sending out the software.

1. Use the right mouse button to select the distribution channel and select properties in ConsoleOne.

2. Select the Distributions tab.

3. Select the Add button.

4. Select the appropriate Server Software Package, in this case Compaq NetWare Agents, and select OK.

5. Select OK to close the properties window.

6. Select Yes if the Configuration Change Notification screen appears.

At the scheduled time, the Compaq Management Agents for Servers for NetWare distribute to the Subscriber server(s). Once distribution completes, the installation utility for the agents (*CPQAGIN*) automatically runs in unattended mode to install and configure the Compaq Management Agents. While the installation utility runs, the server console screen flashes various messages; however, the agent install requires no user action. Do not interrupt the install utility.

Configuring the Compaq Management Agents for Servers for NetWare Using ZENworks for Servers

The Compaq Management Agents for Servers for NetWare can be configured using ZENworks for Servers. This section discusses how to use the *CPQSMNP.NCF* file and ZENworks for Servers to configure this file.

The ability to modify the *CPQSNMP.NCF* file and apply the changes through ZENworks for Servers policy allows the user to configure multiple Compaq servers at once.

Using the CPQSNMP.NCF file

CPQSNMP.NCF file loads the various pieces of the Compaq Management Agents after they are installed. The contents of this file vary depending on which agent components are being loaded.

*Note: The Compaq Management Agents installation program (*CPQAGIN.NLM*) reads the* CPQSNMP.NCF *file when it runs. It changes the* CPQSNMP.NCF *file based on selections through the user interface. You can change this file outside of the* CPQAGIN *utility (by using policy files for example). However, care should be taken to maintain the format and structure of the file to be sure it can always be accessed by* CPQAGIN.NLM.

An example of the *CPQSNMP.NCF* file follows:

```
#
# CPQSNMP.NCF
#
# Compaq Insight Management Agents NCF file
```

```
#
# This NCF file is used by SmartStart and the NetWare Console
# Installation NLM (CPQAGIN.NLM). Detailed information on the command #
line arguments can be obtained in the Compaq Insight Management
# Agents for NetWare document available on SmartStart or as a printed
# manual.
#

LOAD SNMP  CONTROLCOMMUNITY=public  MONITORCOMMUNITY=public
LOAD CPQBSSA /S
#LOAD CPQRISA /S
#LOAD CPQDSKSA /S
LOAD CPQHTHSA /S /U60
LOAD CPQTHRSA /S /U60 /T32
#LOAD CPQUPSSA /S
LOAD CPQNCSA /S
LOAD CPQHOST /U60
LOAD CPQIDESA /S /U60
LOAD CPQDASA /S /U60
LOAD CPQSCSA /S /U60
#LOAD CPQWEBAG /S /U60
```

This example shows the agent components being loaded. The *CPQRISA, CPQDSKSA, CPQUPSSA*, and *CPQWEBAG* components are not installed in this particular example.

- /S – This option enables the SNMP SET capability in the Compaq Management Agents.

- /B – This option on *CPQBSSA* enables the remote reboot option through the Compaq agents.

- /U60 – This option sets the desired agent-polling interval in seconds.

- /T32 – This option on *CPQTRHSA* sets the number of thresholds allowed on the system.

Note: In order to communicate between the managed system and the management console, the SNMP Community Strings must be setup on both the managed system and the console, and they must match. This example shows the community strings set in the file CPQSNMP.NCF. *If you configure your system using* INETCFG, *you must use* INETCFG *to configure your SNMP Community Strings.*

Configuring CPQSNMP.NCF using ZENworks for Servers

The text policy engine in ZENworks for Servers can be used to modify the *CPQSNMP.NCF* file. These modifications change the configuration of the Compaq Management Agents. For example, a text policy in ZENworks for Servers could be used to remove the /B option from the line that loads *CPQBSSA*. This would disable the remote reboot option on servers subscribing to the policy.

As another example, the comment could be removed from the line that loads *CPQWEBAG*. Removing this comment would load the Compaq web-enabled Management Agents on servers subscribing to the policy.

To create a text policy in ZENworks for Servers that loads the Compaq web-enabled Management Agents, follow these steps:

1. Right click on the Policy container, if one is in use, and select New – Policy Package.

2. On the Policy Package Wizard screen (see Figure 6), select Server Package and Text File Changes.
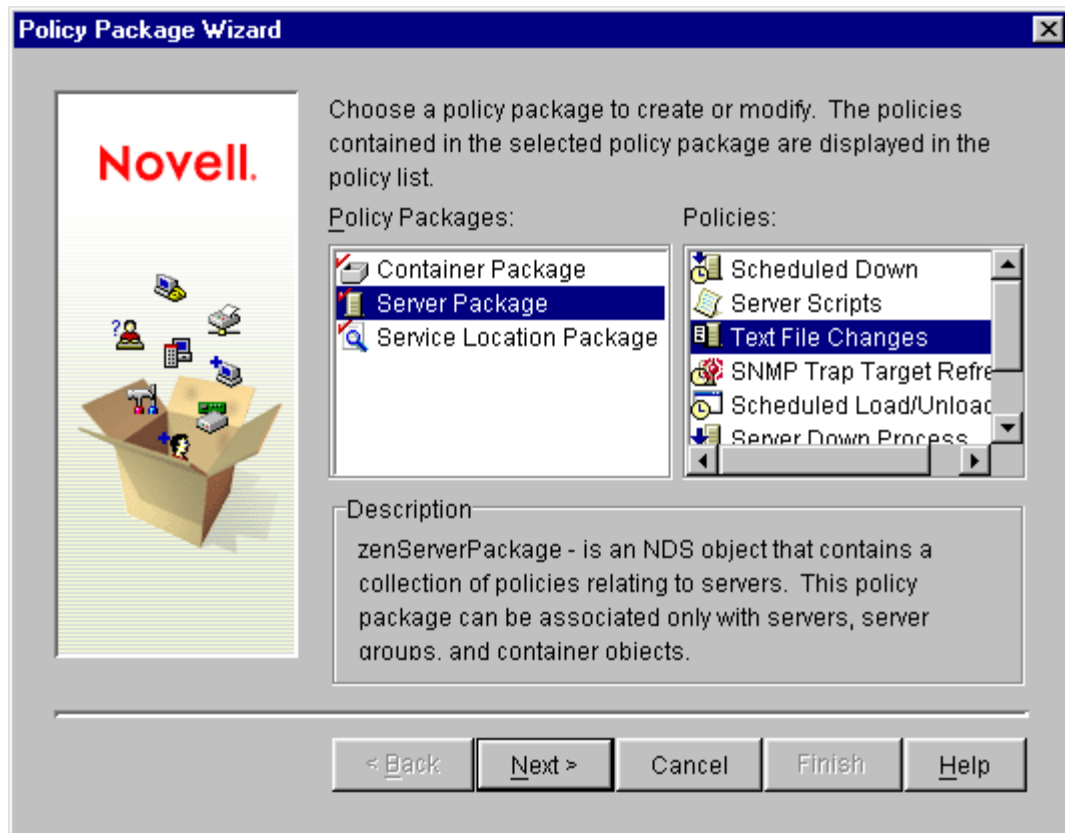
3. Select Next to continue.

Figure 6: Creating a new Text Policy

4. Create a name for the new policy object and edit the Container field, if necessary. Server Package is the default policy package name.

5. Select Next to continue.

6. Select Define Additional Properties and select Finish. The properties window opens.

7. Select the Policies Tab and select NetWare (see Figure 7).
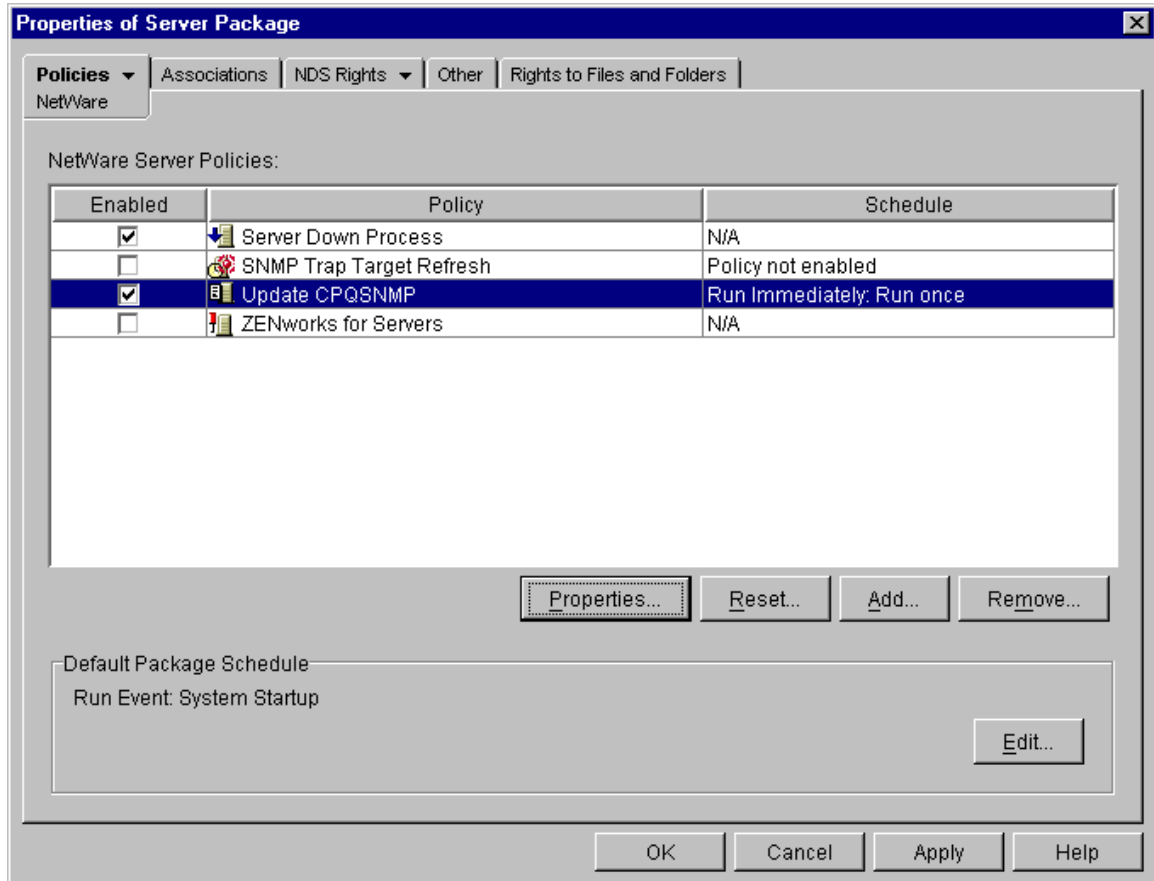
Figure 7: Adding the Update CPQSNMP Policy

8. Select the Add button. In the Add Policy pop-up window, select Text File Changes and enter a name for the policy. Select OK to return to the properties window.

9. Select the new policy and select the Properties button to enter the changes the policy should make.

10. In this case, select the Add button to add a new Text File Policy.

11. Enter SYS:SYSTEM\CPQSNMP.NCF as the file to be changed.

12. Type "Load Web Agents" in the change description field and select OK to return to the properties window.

13. Select Load Web Agents and enter the appropriate text file changes. In this case, search for
    "#LOAD CPQWEBAG" and replace it with "LOAD CPQWEBAG" (see Figure 8). This loads
    the web agents when the Compaq agents are restarted.

14. Select the Policy Schedule tab to set the default schedule for the new policy.
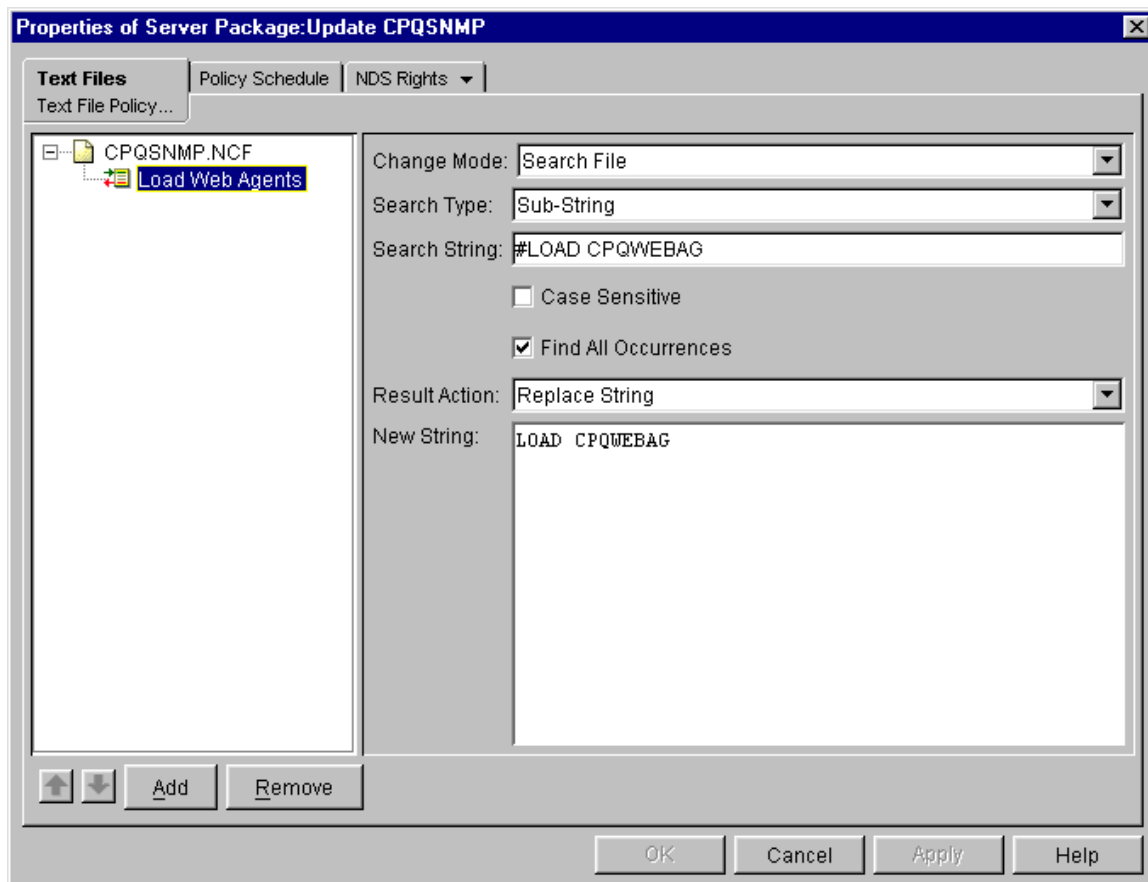
15. Select OK to close the window.

Figure 8: Editing the Update CPQSNMP Policy

16. Once the necessary changes are made, you should be returned to the Server Package
    Properties window. Select OK to close the properties window and return to ConsoleOne.

Accessing Management Information Using a Web Browser

The information provided by ZENworks for Servers can be accessed using a web browser. For
browser-based access to this information on NetWare 5.1, the HTTP stack must be loaded. The
HTTP stack (*HTTPSTK.NLM*) installs as part of the NetWare Management Portal. For
information on browser-based management with NetWare 4.x or NetWare 5.0, refer to the
ZENworks for Servers *README* file.

Browsing to the NetWare Management Portal provides information on ZENworks for Servers
through a new link on the page added by ZENworks for Servers. A link to the Compaq
Management Agents (version 4.60 or greater) can be added on the NetWare Management Portal

when the user installs the Compaq agents (see Figure 9). In addition, Compaq Insight Manager XE discovers the NetWare Management Portal running on the default port of 8008. This discovery allows access to the NetWare Management Portal and the ZENworks for Servers information from Compaq Insight Manager XE.
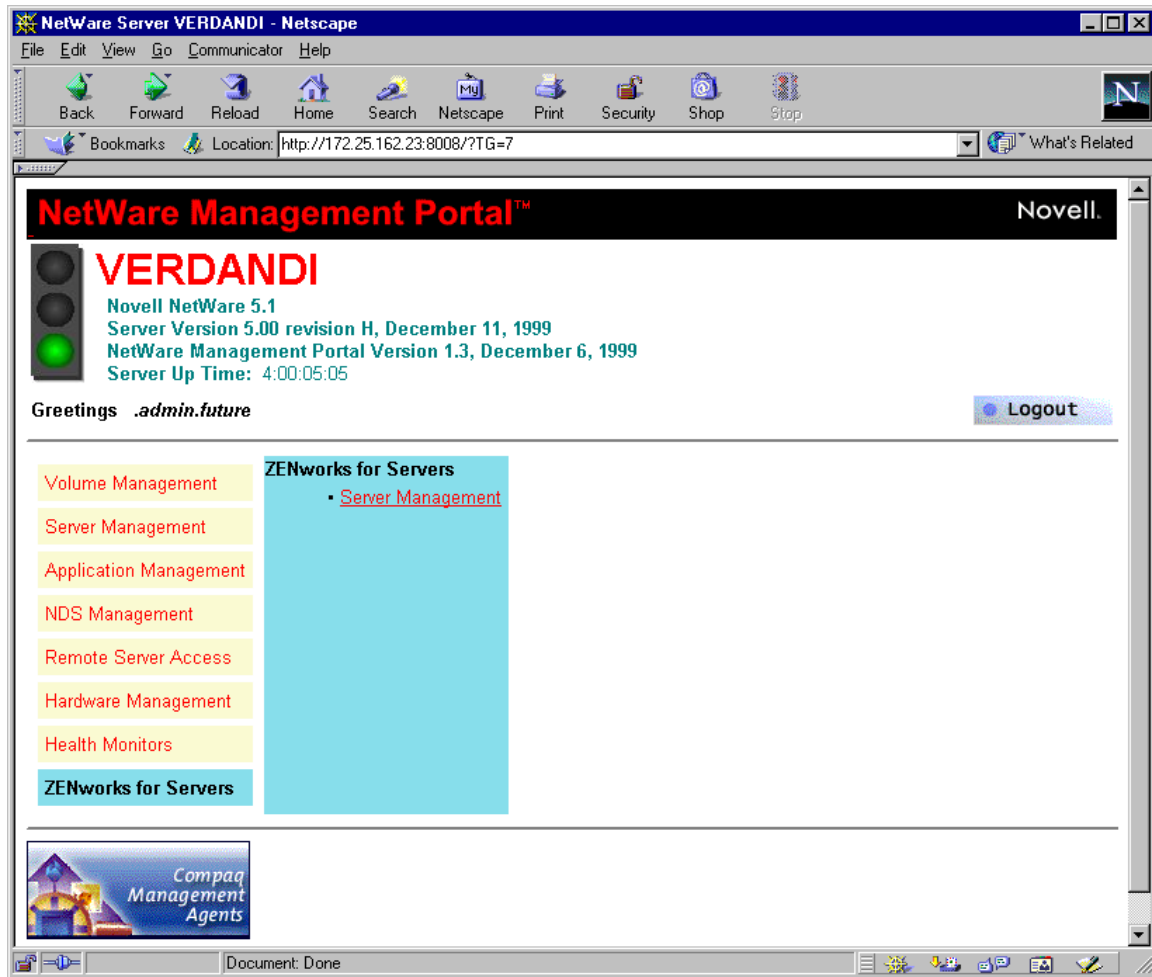

Figure 9: The NetWare Management Portal

The browser interface to ZENworks for Servers, as seen in Figure 10, provides access to these functions:

- Scheduled Run (Java, a Script, or an NLM)

- Server Policies

- Server Software Packages

- Down Server Options
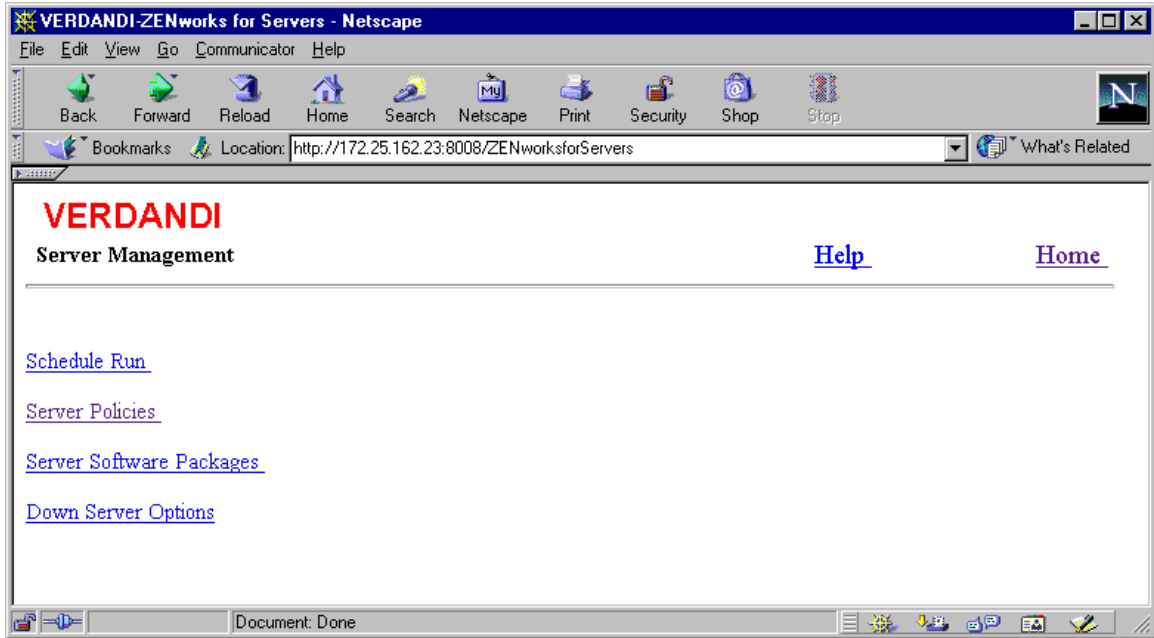
Figure 10: ZENworks for Servers through the NetWare Management Portal

Through the web interface, the user can enforce ZENworks for Servers policies. For example, the policy created to update the *CPQSNMP.NCF* file for configuration of the Compaq Management Agents can be enforced immediately through the browser interface, as shown in Figure 11.

Figure 11: Enforcement of the Compaq policy through the web browser

The ability to access these functions through a web browser provides another management option to the user and enables further integration between the Compaq and Novell management tools.

Summary

Users can deploy the Compaq Management Agents and the Compaq Survey Utility using ZENworks for Servers and Server Software Package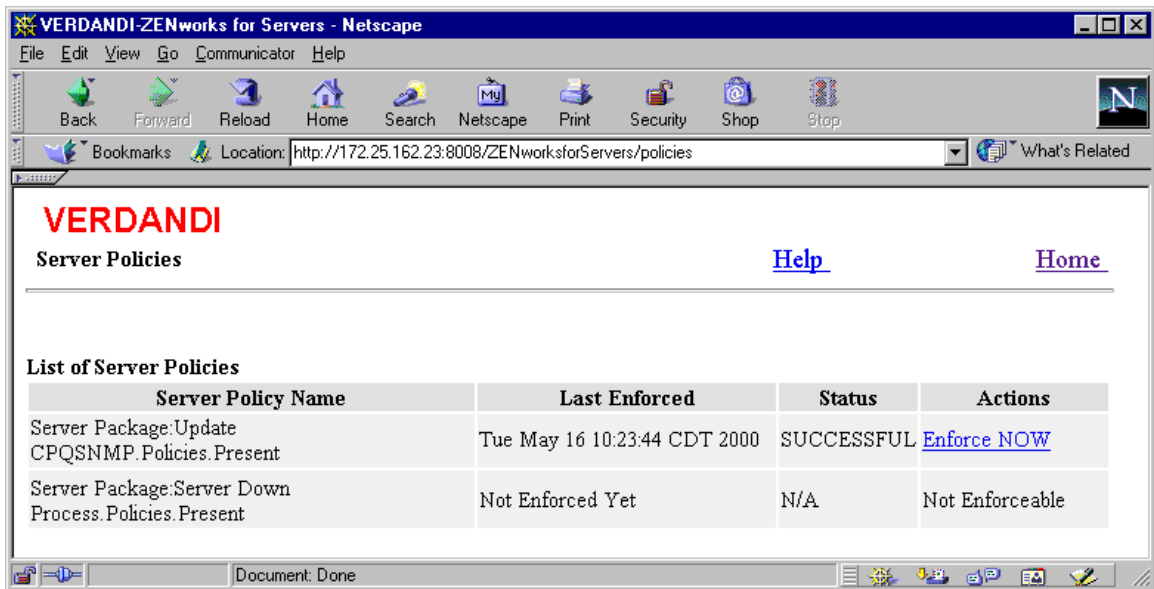s (SPKs) to multiple servers simultaneously. ZENworks for Servers text policies allow users to configure the Compaq Management Agents for their particular environment. The use of policies saves administrators time and effort when updating and configuring their Compaq servers running Novell NetWare.

Appendix A - Compaq Information Products

In addition to hardware and software products, Compaq also provides information enabling you to stay current on the latest developments and assisting you in making deployment decisions.

Compaq *ActiveAnswers*™ gives you the benefit of our experience to help manage your system and reduce the time, risks, and complexity associated with deploying solutions.

If you require more timely access to information products, Compaq provides a service called Compaq Info Messenger, which can be accessed through the Compaq website. If you submit a profile to Compaq Info Messenger, telling it what platforms and operating systems you are interested in, the service tracks your areas of interest and advises you when related information products are released.

Customer Advisories inform you of any known problems and workarounds because of a Service Pack release.

Communiqués and press releases announce the availability of new products and versions.

Service Advisories notify Compaq resellers and retailers of any known service-related issues and provide them with the information they need to effectively support their customers.

Solution Stories describe how Compaq customers have addressed their business needs through the combination of Compaq products and third-party software products.

TechNotes and Tech Briefs update customers on the latest developments in Compaq products.

White papers inform you of ways to optimize your environment and obtain the maximum benefit from software enhancements.

These information products range from those with no specific OS focus to those that address specific OS issues and answers. Information products specific to Novell are also collected and distributed as part of the Compaq Resource Paq for Novell produced twice a year.

Table 1 lists Compaq resources.

Table 1. Compaq Resources With Web Addresses

Item	Web Location
Compaq *ActiveAnswers*	http://www.compaq.com/activeanswers
Compaq Intelligent Manageability	http://www.compaq.com/manage
Compaq Info Messenger	http://www.compaq.com/infomessenger
Compaq Systems Management	http://www.compaq.com/products/servers/management/index.html
Compaq Management CD	http://www.compaq.com/support/files/server/MGMTSOL/index.html
Compaq Option ROMPaq	http://www.compaq.com/support/files/server/NetWare/index.html

Compaq Resource Paq for Novell	http://www.compaq.com/partners/novell/resourcepaq-order.html
Compaq SmartStart Subscription Service	http://www.compaq.com/products/servers/smartstart/quickrefguide.html
Compaq SSD for Novell	http://www.compaq.com/support/files/server/NetWare/index.html
Compaq Survey Utility	http://www.compaq.com/support/files/server
Compaq System ROMPaq	http://www.compaq.com/support/files/server/NetWare/index.html
Customer Advisories	http://www.compaq.com/support/techpubs/customer_advisories/Customer_Advisories_novell.html
Press releases	http://www.compaq.com/newsroom/pr
SoftPaqs (complete listing)	http://www.compaq.com/support/files/server/NetWare/index.html
White Papers and other technical document (complete listing)	http://www.compaq.com/support/techpubs/whitepapers/index.html

Novell Information Products

Novell supplies updates and product information through its website. Products available through the Novell website include the following items.

Customer Services supplies information on training, consulting, development, and support. It also lists the top 100 documents and contains Novell Client downloads.

Free software downloads allow you to test products before you purchase; many of the products discussed in this document are available through the Novell website.

Knowledgebase provides answers to your questions via a search engine with the capability to look for information by product type, document type, or key word.

The NetWare 5 portion of the Novell website includes links to product information, product resources, standard literature, press releases, success stories, support, and downloads.

Online product documentation provides you quick and easy access to the data needed to make your products perform optimally.

The product support pages list documents that describe Novell products.

The Support Connection includes the minimum patch lists, special services, access to forums, the latest information on patches and updates, and additional information regarding support for your Novell product.

The Support Connection CD supplies technical information in a CD format on a subscription basis. This is useful when you cannot or do not want to access the Internet for support.

Table 2 lists Novell resources.

Table 2. Novell Resources With Web Addresses

Item	Web Address
Customer Services	http://services.novell.com
Free software downloads	http://www.novell.com/download
Knowledgebase	http://support.novell.com/servlet/Knowledgebase

NetWare 5	http://www.novell.com/netware5/index.html
NetWare 5 product documentation	http://www.novell.com/documentation/lg/nw5/docui/index.html
Online product documentation	http://www.novell.com/documentation
Product documentation (hard copy)	http://www1.fatbrain.com/documentation/novell/home.asp
Product support pages	http://support.novell.com/products
Support Connection	http://support.novell.com
Support Connection CD	http://support.novell.com/additional/nsc-cd.htm
ZENworks Web Site	http://www.novell.com/products/zenworks/
ZENworks Cool Solutions Site	http://www.novell.com/coolsolutions/zenworks/
ZENworks FAQ	http://developer.novell.com/dev_resources/faq/zenfaq.htm