COMPAQ

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Updating Compaq System Software from an Integration Server

Compaq TechNote

Includes information on:

- Overview of the Integration Server

- Using the Compaq Integration Maintenance Utilities

- Using Systems Management Server or
  Norton Administrator for Networks to Distribute Compaq System Software

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NOTICE

The information in this publication is subject to change without notice.

Updating Compaq System Software from an Integration Server

Contents

Chapter 1
Integration Server Overview

This chapter gives an overview of what an Integration Server is, and introduces three methods for using an Integration Server for system updates.

Integration Server Description

An Integration Server acts as a focal point for internal system standards, based on tested and proven systems software versions and hardware/software configurations. Because it is a repository of software products on the network, it helps to streamline the processes of setting up and maintaining distributed systems consistent with the established system standards. The new generation of SmartStart and Compaq Insight Manager enable an administrator to set up and maintain an Integration Server.

Any Compaq server running Windows NT 3.51, NetWare 3.12, or NetWare 4.1x can be designated as an Integration Server. It must have sufficient storage space for the selected system software, have Insight Management Server Agents installed so it can be managed from an Insight Manager console, and be accessible over the network by new servers being installed and existing servers for maintenance. It can be a multi-function server or it can be dedicated to function as an Integration Server. An Integration Server can be set up and loaded automatically when using SmartStart at initial setup, or an administrator can establish the appropriate directory structure and access rights on an existing server. The Integration Server Maintenance task in Compaq Insight Manager allows software to be added or removed from an Integration Server.

To be truly effective in an ever-changing environment, internal system standards must be stable, but not static. Recognizing this, Compaq provides innovative tools and services for managing an Integration Server. These tools provide timely and easy access to the latest system software and the information needed to determine what updates are appropriate to a given environment.

Access to the latest software for the update of an Integration Server is enabled through a dedicated Compaq Support Software Server on the World Wide Web and through the Compaq SmartStart Subscription Service -- with periodic releases of CD updates. Through Integration Server Maintenance in Compaq Insight Manager, the administrator can compare the latest software versions available via the Internet or CD to those stored on the Integration Server and use the information provided to assess the need for any new versions. The administrator can then select the versions desired for download to the Integration Server. Once the Integration Server is updated, the new software is available for both new SmartStart installs and for update of production servers.

This document references the Compaq Systems Management Toolkit, which is located on the Compaq Management CD. The Systems Management Toolkit can also be downloaded via the Internet onto an Integration Server.

NOTE: This TechNote presumes the Systems Management Toolkit resides on an Integration Server.

Using an Integration Server

Three different approaches can be used for update of production servers. These are the Local Method, Remote Attended Method, and the Remote Unattended Method.

Local Method

For fully attended updates, the Integration Maintenance Utility provides the ability to perform updates at each production server. This utility is installed automatically when SmartStart is used to install the operating system, or it can be installed manually at a later time. It can be accessed locally at the server. The Integration Maintenance Utility accesses the Integration Server (or SmartStart-enabled CD) for application of updates to the production server. When performing an update of the system software, the Integration Maintenance Utility provides the best means for ensuring that the upgrade is completed successfully. It provides a level of system integrity, ease of use, and optimization comparable to that achieved when using SmartStart at setup.

Remote Attended Method

This method is similar to the Local Method except that remote control software is used to access the Integration Maintenance Utility on a production server. This allows access to servers that are on other LAN/WAN segments or servers across an asynchronous link. In addition to the remote capabilities, this method provides the same benefits as the Local Method.

Remote Unattended Method

Alternatively, for greater automation of system updates, leading third-party distribution tools, Microsoft Systems Management Server or Symantec Norton Administrator for Networks can be used to distribute updates, such as drivers, from the Integration Server to production servers. Compaq tools assist the administrator in selecting appropriate updates based on the approved versions of software stored on the Integration Server; the Microsoft and Symantec tools enable automation of the process. This enables administrators to effectively support multiple servers without requiring technical staff to travel to each server.

The efficiencies achieved through greater automation of the update process also enable the administrator to proactively maintain distributed systems and avoid potential problems.

Compaq provides scripting files for use with both Systems Management Server and Norton Administrator for Networks. These files can be found in the Systems Management Toolkit, which is located on the Integration Server, in the \TOOLKIT\<version> directory.

Where <version> is a version of the Systems Management Toolkit

Reference Sources

Use the following resources for more information:

■ *Compaq Integration Server User Guide* (part number 185748-001)

■ *Compaq Insight Manager User Guide* (part number 133394-010)

■ Internet

This service is available to interact with other users and support engineers or to get product information.

❏ To access the Compaq home page on the Internet:
http:// www.compaq.com

❏ To access the Microsoft home page on the Internet:
http:// www.microsoft.com

❏ Symantec home page on the Internet:
http://www.symantec.com

Chapter 2

Updating Compaq Software on Windows NT Servers

This chapter describes three ways to update a Windows NT server from an Integration Server: locally, remote attended, and remote unattended.

Updating a Windows NT Server Locally

With Compaq SmartStart 3.0, Compaq has created a program called the Compaq Integration Maintenance Utility to assist in the process of updating Compaq software on a Windows NT server. This utility presents a list of available software and updates the server from software stored on a Compaq Integration Server or SmartStart-enabled CD. This method of updating a Windows NT server calls for using a copy of the Integration Maintenance Utility on a server-by-server basis.

Using the Compaq Integration Maintenance Utility for Windows NT

The following images are supported by the Integration Maintenance Utility for Windows NT on an Integration Server operating in a Microsoft Windows NT 3.51 environment:

■ Windows NT Support Software Diskette 1.18 and later

■ Compaq Insight Management Server Agents for Windows NT 3.00 and later

■ Compaq Survey Utility for Windows NT 1.00

■ Windows NT 3.51

■ ARCserve 2.01 for Windows NT

■ ARCserve Changer Option for Windows NT

■ ARCserve for Windows NT 2.0 to 2.01 Upgrade

■ ARCserve Agent for Microsoft SQL Server

■ ARCserve Agent for Oracle

■ ARCserve Agent for SAP

■ ARCserve Windows NT Push Agent

■   Adobe Acrobat Reader for Windows NT

■   Microsoft Service Pack 4 for Windows NT 3.51

The Compaq Integration Maintenance Utility is automatically loaded on the
server during the initial SmartStart process. It may also be manually installed
by running the *SETUP.EXE* located in the \CIMU\ENG directory on the
Windows NT SmartStart CD. An icon is created for the tool.
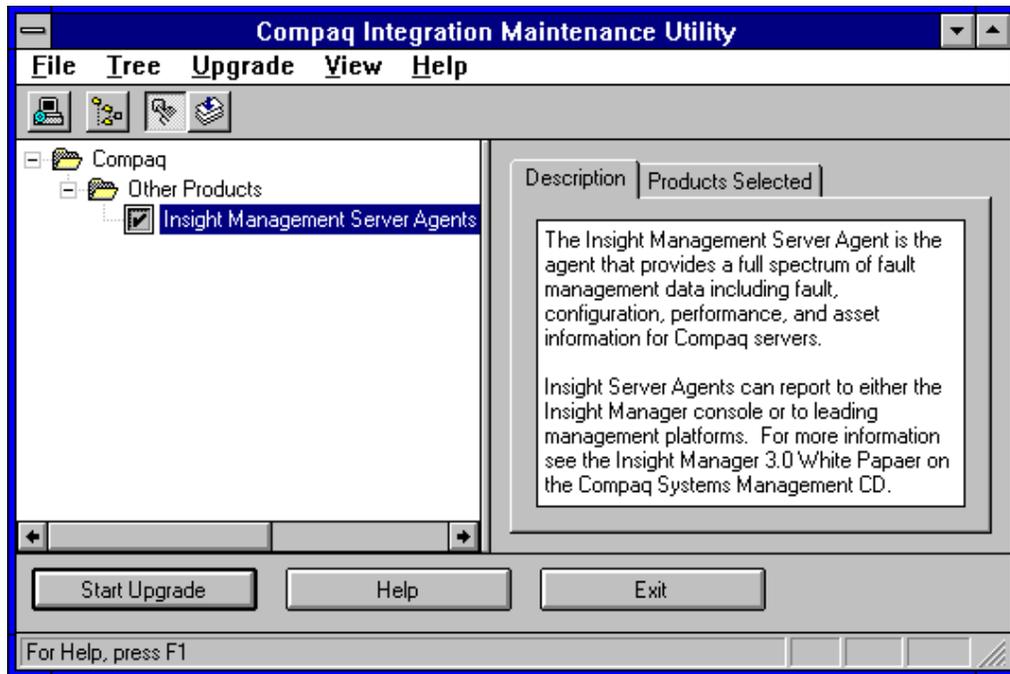
Figure 2-1.   Compaq Integration Maintenance Utility

To update an existing server from an Integration Server, follow these steps:

1. From the Compaq Products and Services group box, select the *Compaq Integration Maintenance Utility* icon.

2. Select the source and location for the Compaq products, either a SmartStart-enabled CD or an Integration Server. A list of selected updates then displays. The images listed in italics are available to be installed or upgraded.

3. Select one of the products from the list by selecting the box next to the name. Select the *Start Upgrade* button to launch the install program.

4. Answer any questions that may arise for the product.

5. Repeat steps 1 through 4 for each update you want to perform.

Updating a Windows NT Server Using the Remote Attended Method

Using the Compaq Maintenance Utility located on that server, a Windows NT Server can be updated using a remote, unattended method. This requires the use of a third-party Windows NT remote control program such as Symantec pcANYWHERE32 or Remotely Possible from Avalan.

NOTE: Depending on the capabilities of the remote control software, this update may be performed over the network or via an asynchronous connection.

To perform an upgrade in this mode, connect to the target server with the remote control software. Next, use the Compaq Maintenance Utility as described in the previous section, *Updating a Compaq NT Server Locally.* The operation of the Integration Maintenance Utility is the same as in Local Method.

Updating a Windows NT Server Using the Remote Unattended Method

Microsoft Systems Management Server or Norton Administrator for Networks may be used to update servers using the remote unattended method. These products allow a user to update several Windows NT servers at once via the distribution capabilities built into each product. For more information on how Systems Management Server and Norton Administrator for Networks perform distribution, see *Appendix A*. The next two sections detail the use of Systems Management Server and Norton Administrator for Networks with an Integration Server.

Updating Compaq Servers via Systems Management Server

This section details the issues involved in using Systems Management Server to distribute software and how to distribute Compaq software to Windows NT servers from an Integration Server.

Considerations for Using Systems Management Server

Systems Management Server is designed to work with Windows NT systems; it has facilities to distribute software directly to Windows NT systems. Ideally, the distribution process should allow for an unattended, background installation of software to a Windows NT server at a login prompt. There are some limitations surrounding the distribution of software to Windows NT machines. These limitations are apparent in two areas: background installation and fault recovery.

Background Installation

A key feature of Systems Management Server is the ability to distribute files to Windows NT clients. There is also a facility to install software on a server while the server (not a Windows NT workstation) is at a login prompt. This facility allows for the unattended, background installation of software.

There are a few restrictions on this process which make it difficult to distribute software in the background. These restrictions are:

■   The install application must not open any windows and it must not require user input.

■   The Package Command Manager does not allow a server to be rebooted while at a login prompt. This forces the system administrator to shutdown and reboot the target server to have the changes to system files take effect.

   NOTE: Use Windows NT Service Pack 4 to allow a server to be rebooted while at a login prompt.

These limitations might affect the Compaq Insight Management Server Agents for Windows NT (Insight Server Agents) and the Compaq Support Software for Microsoft Windows NT (Windows NT SSD).

The Insight Server Agents use the *SETUP.EXE* install application which comes with Windows NT. This allows the Compaq install process to use the same framework as Microsoft applications. However, the Microsoft SETUP application opens windows during the install process, causing unpredictable results during a background install and usually resulting in a failed installation.

The Insight Server Agents require an administrator-level user context for the install application to run. Since the Insight Server Agents do not meet the first requirement for background installs, an administrator-level user must be logged in to the target Windows NT server. This can cause a security problem, if the server is located in a unsecured location. A solution is to have a password-protected screen saver set to run during installation. This allows the Insight Server Agent installation program to run normally.

NOTE: The Windows NT SSD uses a different install program which does not open any windows or require user input. As a result, you can distribute the Windows NT SSD to a Windows NT server which is at a login prompt. However, you cannot update with reboot while the server is at a login prompt.

Fault Recovery

Systems Management Server has no built-in facility to detect and recover from errors during distributions. The system administrator must take care of this inside any distribution scripts.

Compaq has two .CMD files, distributed in the Systems Management Toolkit, located in the following directories on an Integration Server for use with the Insight Server Agents and the Windows NT SSD:

\CPQIS\TOOLKIT\<version>\SMS\PDF\NTCMA

\CPQIS\TOOLKIT\<version>\SMS\PDF\SSD

Where <version> is a version of the Systems Management Toolkit

These .CMD files perform a rudimentary backup and restore of the appropriate files. The backup .CMD file makes backup copies of existing files that are overwritten during an install. The restore .CMD file can used to clean up after an incomplete install.

NOTE: Both the Windows NT SSD and the Insight Server Agent install process make changes to the Windows NT registry. This registry can not be backed up easily from the command line. Compaq recommends backing up any server that will have software distributed to it and having an Emergency Repair diskette that contains the current system configuration information.

Using Systems Management Server
to Distribute Compaq Software

This section explains how to use Systems Management Server to distribute the
Insight Server Agents and Compaq Support Software Diskette products to
Windows NT servers.

Files Supplied by Compaq

Compaq supplies .PDF files and other files for Insight Server Agents and the
Windows NT SSD in the Systems Management Toolkit. The .PDF files describe
the command lines to run to install the respective software. Each package can have
more than one command line for each piece of software (one for manual install,
one for automated install, and so on). It can also describe any inventory
information for that application.

The other files are a set of Windows NT command files (each pair is included in
each directory for the Windows NT SSD and the Insight Server Agents) called
INSTALL.CMD and *RESTORE.CMD*. These files perform rudimentary backup
and restore for the Windows NT SSD and the Insight Agents. The following
sections are a reference for each .PDF file.

Windows NT SSD

The Windows NT SSD .PDF file is designed for use with versions 1.18 and
later of the Windows NT SSD. Earlier versions use a different install process
and are incompatible with the command lines in this .PDF file. This .PDF file
can be found on the Integration Server, in the following subdirectory:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\SSD

Where: <servername> is the name of an Integration Server

    <version> is a version of the Systems Management Toolkit

The name of the file is *CPQSETUP.PDF*. This file contains the following four
command lines:

Install /SMS

This command line performs an automated install of the Windows NT SSD on a target Windows NT server. This will check for new hardware, add new drivers, and update existing drivers. It does not perform a reboot when finished.

Install /SMS /REBOOT

This command line performs an automated install of the Windows NT SSD on a target Windows NT server. This will check for new hardware, add new drivers, and update existing drivers. It performs a reboot when finished.

Install /REFRESH

This command line performs an automated refresh of the Windows NT SSD on a target Windows NT server. This will update existing drivers.

Install /REFRESH /REBOOT

This command line performs an automated install of the Windows NT SSD on a target Windows NT server. This will update existing drivers. It performs a reboot when finished.

The default chosen by Systems Management Server will be Automated Driver Installation for SSD without reboot.

Insight Server Agents

The Insight Server Agents .PDF file is designed for use with version 2.60 and later of the Insight Server Agents. In addition, because the agents use the setup program supplied by Microsoft with Windows NT, the agents cannot be installed in an unattended, background mode (server at a login prompt). The agents can only be installed to a server that has an administrator-level user logged in to it.

The .PDF file can be found on an Integration Server in the following subdirectory:

\\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\NTCMA

Where: <servername> is the name of an Integration Server

<version> is a version of the Systems Management Toolkit

The file, *CPQMGMT.PDF*, contains the following command lines:

install auto

This command line performs an automated install or upgrade of the agents on a Windows NT server. It does not perform a reboot when finished.

install

This command line launches the setup program and waits for user interaction. It does not perform a reboot when finished.

The default chosen by Systems Management Server will be the automated install or upgrade of Insight Server Agents.

Distributing the Windows NT SSD

The Windows NT SSD contains various drivers and other specific software for Compaq hardware running Windows NT. The Windows SSD updates the Windows NT software on Windows NT servers to take advantage of Compaq hardware. The software can be found on an Integration Server in the following directory:

\\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

Where: <servername> is the name of an Integration Server

<version> is a version of the Windows NT SSD

To distribute the software via Systems Management Server, use the following procedure:

1. Copy all files located in the following directory on the Integration Server:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\SSD

    to the directory:

    \\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

    Where: <servername> is the name of an Integration Server

    <version> is a version of the Windows NT SSD

    This is now the source directory Systems Management Server uses to access the Windows NT SSD files.

The files being copied are:

❏   *CPQSETUP.PDF* - used by Systems Management Server to distribute the Windows NT SSD. This file runs *INSTALL.CMD*.

❏   *INSTALL.CMD* - backs up existing Windows NT SSD files, then launches the Windows NT SSD setup program.

❏   *RESTORE.CMD* - restores previous Windows NT SSD files from backups made by *INSTALL.CMD*.

2.   Create a package under Systems Management Server for the Windows NT SSD. Use the *Import* button to load the *CPQSETUP.PDF* for the Windows NT SSD which is now located in the directory:

\\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

Where: <servername> is the name of an Integration Server

         <version> is a version of the Windows NT SSD

You can do this by typing the full UNC pathname for *CPQSETUP.PDF* or by mapping a drive and using the selection box to select the correct directory.

3.   Configure the source directory for the Windows NT SSD. This is located under the Workstation button. The source directory for the Windows NT SSD is the source directory specified in step 1. You can enter this path by using the UNC name or by mapping a drive and selecting the appropriate directory.

NOTE: Both the Systems Management Server service account on the primary site server and the user ID running the Admin Tool must have at least read-access rights to this directory.

4.   If you are performing an automated, background install, make sure the following properties are set:

         Automated Command Line, System Task, Windows NT (x86)

If you are performing an automated job only, the target server is
running a screen saver with a password, the properties should be:

Automated Command Line, Windows NT (x86)

Make sure the command line properties for each command line are set
as follows:

Automated Driver Installation for SSD

(install /SMS)

Automated Driver Installation for SSD (with reboot)

(install /SMS /REBOOT)

Automated Driver Refresh for SSD

(install /REFRESH)

Automated Driver Refresh for SSD (with reboot)

(install /REFRESH /REBOOT)

Distribution Considerations

The Windows NT SSD is now ready to be distributed to Windows NT servers.
To do this, create a job to send the package to target Windows NT servers.
There are several factors to consider when creating a distribution job:

■   Which machines will receive the job?
    You can use either a query or a Machine Group to specify the target
    Windows NT machines. Consult the *Systems Management Server
    Administrator Guide* for more information on creating queries and
    Machine Groups. If you are using the Compaq Inventory Collector, you
    can use the extended Compaq information in the SMS database to create
    queries. For more information on how to use the Collector, consult the
    Compaq TechNote, *Integrating Compaq Insight Manager with Microsoft
    Systems Management Server* (part number 184720-002).

■ Will the job perform a reboot?
   If the job will perform a reboot, try to schedule the job for late at night to
   impact as few users as possible. Schedule enough down time after the
   scheduled time in Systems Management Server to account for execution
   lag due to the polling interval in the Package Command Manager. If the
   job is scheduled for 1 a.m., the Package Command Manager might not run
   the job until almost an hour later due to its polling interval. The default
   value is once an hour, but you can change this interval by running the
   Admin Tool and performing the following steps:

   1. For each primary site, open the Properties window and select the
       Clients button.

   2. Select the *Proposed* Properties button and enter the new polling
       interval in the box, *Package Command Manager Polling Interval
       (minutes).*

   3. Select *OK*, and then select *Yes*. Systems Management Server now
       updates all clients for that site.

■ Is the job an unattended, background install?
   If this is an unattended, background install, you must mark the job as
   mandatory in the Job Details window which you reach from the Job
   Properties dialog box. This allows the Package Command Manager to run
   the job when the server is at a login prompt.

   The job is now created and Systems Management Server begins the
   distribution process.

Distributing the Insight Server Agents

The .PDF file for the Insight Server Agents is designed for use with versions 2.60 and later of the agents. Due to the nature of the installation program, the agents can not be distributed to a server that is running at the login prompt. They can only be distributed to a server that has an administrator security-level user logged in at the console. However, if you use a password-protected screen saver, you minimize the possibility of unauthorized access to the server.

The agent files are on an Integration Server in the subdirectory:

> \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

Where: <servername> is the name of an Integration Server

> <version> is a version of the Insight Server Agents

To install the agents, follow these steps:

1. Copy all files located in the directory:

> \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\NTCMA

on an Integration Server to the directory:

> \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

Where: <servername> is the name of an Integration Server

> <version> is a version of the Insight Server Agents

This is now the source directory Systems Management Server uses to access the Insight Server Agents files. The files to copy are:

❏ *CPQMGMT.PDF* - used by Systems Management Server to distribute the Insight Server Agents. This file runs *INSTALL.CMD*.

❏ *INSTALL.CMD* - backs up existing Insight Server Agent files, then launches the Insight Server Agent setup program.

❏ *RESTORE.CMD* - restores previous Insight Server Agent files from backups made by *INSTALL.CMD*.

2. Create a package under Systems Management Server for the Insight Server Agents. Select the *Import* button to load the *CPQMGMT.PDF* for the Insight Server Agents which is now located in the following directory:

   \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

   Where: <servername> is the name of an Integration Server

   <version> is a version of the Insight Server Agents

   You can do this by entering the full UNC pathname for *CPQMGMT.PDF* or by mapping a drive and using the selection box to select the correct directory.

3. Configure the source directory for the agents. This is located under the Workstation button. The source directory for the agents is the source directory specified in step 1. You can enter this path by using the UNC name or by mapping a drive and selecting the appropriate directory.

   NOTE: Both the Systems Management Server service account on the primary site server and the user ID running the Admin Tool must have at least read-access rights to this directory.

4. If you are performing an automated job (target server running a password-protected screen saver), make sure the command line properties are set as follows:

   Automated Command Line, Windows NT (x86)

   (install auto)

   If you are distributing the agents as a manual job only, the command line properties should be:

   Windows NT (x86)

   (install)

   NOTE: The agents do not perform a reboot of the server after they have been installed. The system administrator must perform this.

Distribution Considerations

The Insight Server Agents are now ready to be distributed to Windows NT
servers. To do this, create a job to send the package to target Windows NT
servers. There are several factors to consider when creating a distribution job:

■   Which machines will receive the job?
    You can use either a query or a Machine Group can be used to specify the
    target Windows NT machines. Consult the *Systems Management Server
    Administrator Guide* for more information on creating queries and Machine
    Groups. If you are using the Compaq Inventory Collector, you can use the
    extended Compaq information in the Systems Management Server database
    to create queries. For more information on how to use the Collector, consult
    Compaq TechNote, *Integrating Compaq Insight Manager with Microsoft
    Systems Management Server* (part number 184720-002).

■   Is the job an unattended install?
    If this is an unattended install, you must mark the job as *mandatory* in the Job
    Details window you can reach from the Job Properties dialog box. This allows
    the Package Command Manager to run the job without a user starting the job.

The job is created and Systems Management Server begins the distribution
process.

Using the RESTORE.CMD *File*

The *RESTORE.CMD* file restores the previous version of either the Insight Server Agents or the Windows NT SSD. This file only restores the previous files, not the Windows NT registry. If the registry is corrupted, you must restore the Windows NT registry from a tape backup.

To use the *RESTORE.CMD* file, follow these steps:

1. Copy *RESTORE.CMD*, located in the directory for the Insight Server Agents:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\NTCMA

    or the directory for the Windows NT SSD:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\SMS\PDF\SSD

    to a temporary directory on the Systems Management Server primary site server.

    Where: <servername> is the name of an Integration Server

    <version> is a version of the Systems Management Toolkit

2. Create a package that has a source directory as the temporary directory named in step 1. Also, create a command line that runs *RESTORE.CMD* with no command line arguments.

3. Create a job to distribute the package to the server(s) in question. Because *RESTORE.CMD* is a batch file, it can be run as a Automated, System Task and sent to servers running at a login prompt. You must mark the job as *mandatory* for it to work properly at the target server.

Updating Compaq Servers via Norton Administrator for Networks

This section details the issues involved in using Norton Administrator for Networks for distribution, how to use Norton Administrator to stage software distribution, and how to distribute Compaq software using Norton Administrator.

Considerations for Using Norton Administrator for Networks

Norton Administrator for Networks is designed to work with a variety of operating systems, including Windows NT systems; it has facilities to distribute software directly to Windows NT systems. Ideally, the distribution process should allow for an unattended, background installation of software to a Windows NT server at a login prompt.

Because Norton Administrator for Networks is evolving from a system designed for use with 16-bit Windows systems, it does have some limitations surrounding the distribution of software to Windows NT machines. Norton Administrator also has a limitation when dealing with fault detection and recovery. Finally, because of the way Norton Administrator distributes files, there are a few things to be aware of, especially in a WAN environment, before distributing software via Norton Administrator.

Background Installation

Norton Administrator for Networks distributes software to Windows NT machines via a 16-bit agent running on the target machine. Because this code is 16-bit, the agent cannot run as a service on a Windows NT server. This means that there is no way to distribute software to a Windows NT server while that server is at a login prompt. The server must have someone logged in to it. In the case of the Insight Server Agents and the Windows NT SSD, this user must have administrator-level security rights.

Because there must be a user logged in to the Windows NT server, there is a potential security risk if the target server is not in a secure environment. A solution is to configure a screen-saver with a password. This will effectively lock anyone out who does not have the password.

Fault Recovery

Norton Administrator for Networks does not incorporate complete fault detection and recovery features. It does have a file backup feature, but only if each file is copied one at a time using the Norton Administrator for Networks *File Copy* command. Files are not backed up during an install from an install program such as the ones used by the Insight Server Agents or the Windows NT SSD.

Compaq has written two .CMD (INSTALL and RESTORE) files for use with Norton Administrator for Networks that perform a file backup of existing Compaq software and perform a restore from the backup files. The use of these files is detailed in the following sections.

NOTE: Both the Windows NT SSD and the Insight Server Agent install process make changes to the Windows NT registry. This registry can not be backed up easily from the command line. Compaq recommends backing up any server that will have software distributed to it and having an Emergency Repair diskette containing the current system configuration information.

Strategy for Updating Windows NT Servers via Norton Administrator for Networks

Norton Administrator for Networks (NAN) does not use distribution servers to distribute software. A distribution server is basically a holding area for the software and allows access by each target server. Each target server must have access to the source files, wherever those files are located. This can cause problems, especially in a WAN environment when the source files might reside on the opposite side of the WAN link or where the server is on a busy LAN segment.

Compaq recommends a two-step process for distributing the listed Compaq software to Windows NT servers. First, copy the source files from an Integration Server to a target machine across the WAN link or to a machine that resides in a domain with target clients. This machine acts as a distribution server. Second, configure a separate job for each WAN/domain to update the servers at that site.

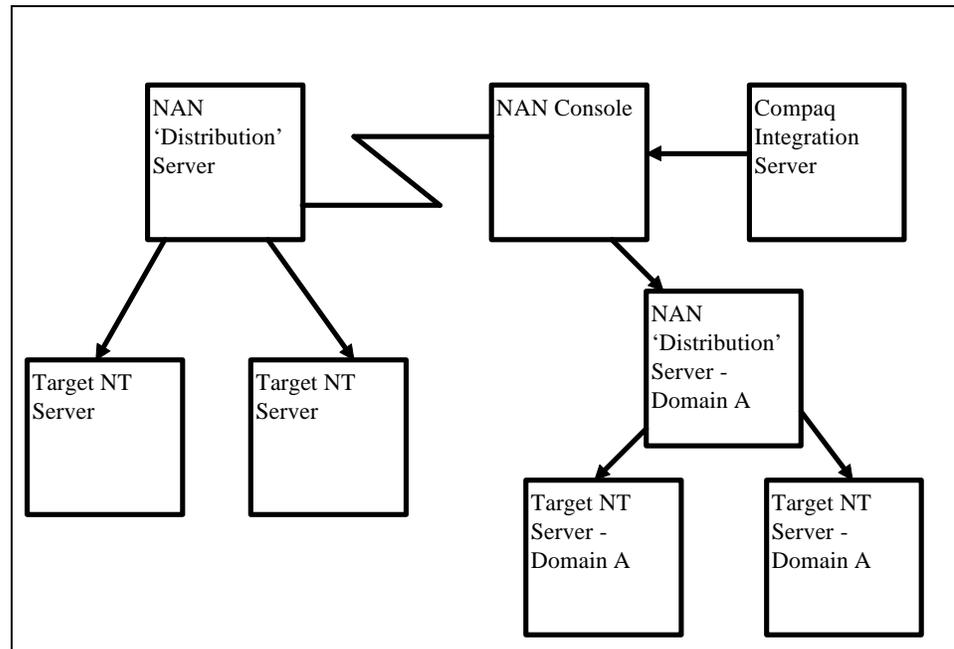**Figure 2-2.** Using "Distribution" Servers in a NAN Environment

This process keeps network traffic isolated to the segments where the target machines reside.

NOTE: The distribution server can also be a target Windows NT server for the job.

Using Norton Administrator for Networks to Distribute Compaq Software

This section explains how to use Norton Administrator for Networks to distribute the Insight Server Agents and Compaq Support Software Diskette products to Windows NT servers.

Compaq Files for Norton Administrator for Networks

Compaq supplies several files for use with Norton Administrator. These files install the Insight Server Agents for Windows NT and the Windows NT SSD. Each package has the same two .CMD files associated with it. These files are:

■ *INSTALL.CMD*
This file makes a backup copy of any existing version and then launches the setup program to install the files.

■ *RESTORE.CMD*
This file restores the previous version's files from the backups made by the *INSTALL.CMD* file.

   NOTE: This does not restore the Windows NT registry.

Windows NT SSD

The files for Norton Administrator for Networks are in the following directory:

   \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\NAN\SCRIPTS\SSD

Where: <servername> is the name of an Integration Server

   <version> is a version of the Systems Management Toolkit

Insight Server Agents for Windows NT

The files for Norton Administrator for Networks are in the following directory:

   \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\NAN\SCRIPTS\NTCMA

Where: <servername> is the name of an Integration Server

   <version> is a version of the Systems Management Toolkit

Distributing the Source Files to a Distribution Server

This section describes how to use Norton Administrator for Network to distribute the source files for the Insight Server Agents and the Windows NT SSD to intermediate servers, called distribution servers, to facilitate the distribution to target Windows NT servers.

NOTE: This step might not be required if you have a small site or a small number of servers. Skip to the section, "Distributing the Windows NT SSD Using an Integration Server", or the section, "Distributing the Windows NT Insight Server Agents Using an Integration Server", if you do *not* plan on using a distribution server.

1. Copy the Norton Administrator for Networks *INSTALL.CMD* file and the *RESTORE.CMD* file located in the directory:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\NAN\SCRIPTS\NTCMA

    OR

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\NAN\SCRIPTS\SSD

    to the source directory on the Integration Server:

    \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

    OR

    \\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

    Where: <servername> is the name of an Integration Server

    <version> is a version of the respective product

2. Open the Software Distribution window from the Norton Administrator for Networks console. Click on the *ADD* button to add a new distribution job.

3. Give this job a name and select the *ADD/DELETE* button.

4. Add all the intermediate servers receiving the software copies.

    NOTE: The User IDs logged on to these target servers must have read access to the directory on the Integration Server where the source files reside.

5. From the Distribution Job window, select the *ADD* button to add the
    action to be performed during this install. In the Execute File box, enter
    the following command, using the information specific to your network:
    For the SSD enter:

    xcopy \\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version> \<tempdir> /e/s/i/h

    For the Insight Server Agents enter:

    xcopy \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version> \<tempdir> /e/s/i

    Where: <servername> is the name of an Integration Server

    <version> is a version of the respective product

    <tempdir> is a temporary directory to be used to store source files
    on the distribution server. This can be anything you want. For
    example, c:\temp. The /i option will automatically create this
    directory.

    Make sure the *Use UNC Names Only* box and the *Delay Job Until
    Command Completes* box are checked.

6. Select the *ADD* button, then the *Execute File* action. Enter the following:

    net share <sharename>=\<tempdir> /y

    <sharename> - This is the name used by other machines to map a
    drive to this directory. Adding a dollar sign ($) will make this
    share invisible to normal users.

    <tempdir> is the temp directory specified in step 5.

    Make sure the *Use UNC Names Only* box is checked.

    NOTE: Both the Insight Server Agents and the Windows NT SSD must be installed
    from a mapped drive. This step facilitates this drive mapping during installation by
    creating a share for the source files on the distribution server.

7. Click on *OK* to return to the Distribution Job window, and click *OK* to
    begin the job.

The job is now ready to execute. The next time the distribution agent on a target machine runs, it will see the waiting job and execute it. For more information on creating a distribution job, consult the *Norton Administrator for Networks User's Guide*.

Distributing the Windows NT SSD
Using a Distribution Server

The Windows NT SSD contains various drivers and other specific software for Compaq hardware running Windows NT. The Windows NT SSD updates the Windows NT software on Windows NT servers to take advantage of Compaq hardware. The source files will be found on a distribution server under the sharename share specified in step 6 of the section, "Distributing the Source Files to a Distribution Server".

To distribute the software via Norton Administrator for Networks, use the following procedure:

1. From the NAN console, open the Software Distribution window and select the *Add* button to add a new job.

2. Give the job a title, such as "SSD Install" and select the *ADD/DELETE* button to select the target Windows NT servers to receive this job.

3. Use the *Add/Delete* button to add the specific Windows NT servers to the list. For information on how to use queries to specify target machines, consult the *Norton Administrator for Networks User's Guide*.

4. Select the *OK* button to return to the Distribution Job windows. From here, select the *Add* button under the *Actions to Perform* box.

5. Select *Execute File*. Select the *Specify File To Execute* button and enter one of the following command lines, depending on how you want the install to behave:

\\<servername>\<sharename>\install.cmd \\<servername>\<sharename> /SMS

Where: <servername> is the name of the distribution server

<sharename> is the Windows NT file share without the dollar sign ($) created by step 6 in the section, "Distributing the Source Files to a Distribution Server".

This installs Windows NT SSD in the background, but does not reboot.

\\<servername>\<sharename>\install.cmd \\<servername>\<sharename> /SMS /REBOOT

Where: <servername> is the name of the distribution server

<sharename> is the Windows NT file share without the dollar sign ($) created by step 6 in the section, "Distributing the Source Files to a Distribution Server".

This installs the Windows NT SSD in the background and reboots.

Make sure the *Use UNC Names Only* box is checked.

6. Select the *OK* button, then select the *OK* button to end.

The job is now ready for distribution. The next time the Norton Administrator for Networks Distribution Agent is run, the Windows NT SSD will be installed or upgraded on that server.

Distributing the Insight Server Agents
Using a Distribution Server

The Insight Server Agents consist of various hardware component agents for use with Compaq Insight Manager. The source files will be found on a distribution server under the sharename share specified in step 6 of the section, "Distributing the Source Files to a Distribution Server".

To distribute the software via Norton Administrator for Networks, use the following procedure:

1. Open the Software Distribution window and select the *Add* button to add a new job.

2. Give the job a title, such as "Insight Agent Install," and select the *ADD/DELETE* button to select the target Windows NT servers to receive this job.

3. Use the *Add* button to add the target Windows NT servers to the list. For information on how to use queries to specify target machines, consult the *Norton Administrator for Networks User's Guide*.

4. Select the *OK* button to return to the Distribution Job windows. From here, select the *Add* button under the *Actions to Perform* box.

5. Select *Execute File*. Select the *Specify File To Execute* button and
    enter one of the following command lines, depending on how you want
    the install to behave:

    \\<servername>\<sharename>\install.cmd \\<servername>\<sharename> auto

    This command is for an automated install and no reboot.

    \\<servername>\<sharename>\install.cmd \\<servername>\<sharename>

    This command is for a manual install and no reboot.

    Where: <servername> is the name of the distribution server

    <sharename> is the Windows NT file share without the dollar sign
    ($) created by step 6 in the section, "Distributing the Source Files
    to a Distribution Server".

    Make sure the *Use UNC Names Only* box is checked.

6. Select *OK* twice.

The job is now ready for distribution. The next time the Norton Administrator
for Network Software Distribution Agent is run, the agents will be installed or
updated on that server.

Distributing the Windows NT SSD
Using an Integration Server

The Windows NT SSD contains various drivers and other specific software for Compaq hardware running Windows NT. The Windows NT SSD updates the Windows NT software on Windows NT servers to take advantage of Compaq hardware. The software can be found in the following directory on an Integration Server:

\\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

Where: <servername> is the name of an Integration Server

<version> is a version of the Windows NT SSD

Before you can install the Windows NT SSD from this directory, this directory must be shared because the Windows NT SSD requires a drive mapping to these files. To share this directory, you can either go to the Integration Server and use File Manager to share the directory, or you can use Norton Administrator for Networks to distribute a job to the Integration Server that executes the following command:

net share <sharename>=\\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

Where: <servername> is the name of an Integration Server

<version> is a version of the Windows NT SSD

<sharename> is the name other computers will use to access this directory

NOTE: The target Windows NT servers must be granted read access to this directory. This can be done by granting access to the User ID that will be logged into the target servers.

To distribute the software via Norton Administrator for Networks, use the following procedure:

1. Copy the *INSTALL.CMD* and *RESTORE.CMD* files located in the directory:

   \\<servername>\CPQIS1\TOOLKIT\<version>\NAN\SCRIPTS\SSD

   to the directory:

   \\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>

   Where: <servername> is the name of an Integration Server

   <version> is a version of the respective product

   The *INSTALL.CMD* file backs up any existing Windows NT SSD files and performs the drive mapping needed for the installation.

2. Open the Software Distribution window and select the *Add* button to add a new job.

3. Give the job a title, such as "SSD Install" and select the *ADD/DELETE* button to select the target Windows NT servers to receive this job.

4. Use the *Add* button to add the specific Windows NT servers to the list. For information on how to use queries to specify target machines, consult the *Norton Administrator for Networks User's Guide*.

5. Select the *OK* button to return to the Distribution Job windows. From here, select the *Add* button under the *Actions to Perform* box.

6. Select *Execute File*. Select the *Specify File To Execute* button and enter one of the following command lines, depending on how you want the install to behave:

   \\<servername>\<sharename>\install.cmd \\<servername>\<sharename> /SMS

This installs Windows NT SSD in the background, but does not reboot.

`\\<servername>\<sharename>\install.cmd \<servername>\<sharename>/SMS /REBOOT`

This installs Windows NT SSD in the background and reboots.

Where: <servername> is the name of an Integration Server

<sharemane> is the Windows NT file share created in the opening paragraph

Make sure the *Use UNC Names Only* box is checked.

7. Select the *OK* button, then select the *OK* button to end.

The job is now ready for distribution. The next time you run the Norton Administrator for Networks Distribution Agent, the Windows NT SSD will be installed or upgraded on that server.

Distributing the Insight Server Agents Using an Integration Server

The Insight Server Agents Diskette contains various hardware component agents for use with Insight Manager. The agents are on an Integration Server in the following directory:

`\\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>`

Where: <servername> is the name of an Integration Server

<version> is a version of the Insight Server Agents

Before you can install the agents from this directory, this directory must be shared because the agent install requires a drive mapping to these files. To share this directory, you can either go to the Integration Server and use file manager to share the directory, or you can use Norton Administrator for Networks to distribute a job to the Integration Server that executes the following command:

net share <sharename>=\\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

Where: <servername> is the name of an Integration Server

<version> is a version of the Insight Server Agents

<sharename> is the name other computers see for this directory

NOTE: The target Windows NT servers must be granted access to this directory. This can be done by granting access to the User ID that will be logged into the target server.

To distribute the software via Norton Administrator for Networks, use the following procedure:

1. Copy the *INSTALL.CMD* and the *RESTORE.CMD* files located in the directory:

    \\<servername>\CPQIS1\CPQIS\TOOLKIT\<version>\NAN\SCRIPTS\NTCMA

    to the directory:

    \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>

Where: <servername> is the name of an Integration Server

<version> is a version of the respective product

This file backs up any existing agent files and performs the drive mapping needed for the agent installation.

2. Open the Software Distribution window and select the *Add* button to add a new job.

3. Give the job a title, such as "Insight Agent Install," and select the *ADD/DELETE* button to select the target Windows NT servers to receive this job.

4. Use the *Add* button to add the target Windows NT servers to the list. For information on how to use queries to specify target machines, consult the *Norton Administrator for Networks User's Guide*.

5. Select the *OK* button to return to the Distribution Job windows. From here, select the *Add* button under the *Actions to Perform* box.

6. Select *Execute File*. Select the *Specify File To Execute* button and enter one of the following command lines, depending on how you want the install to behave:

    \\<servername>\<sharename>\install.cmd \\<servername>\<sharename> auto

    This command is for an automated install and no reboot.

    \\<servername>\<sharename>\install.cmd \\<servername>\<sharename>

    This command is for a manual install and no reboot.

Where: <servername> is the name of an Integration Server

<sharename> is the Windows NT file share as described in the opening paragraph of this section.

Make sure the *Use UNC Names Only* box is checked.

7. Select *OK* twice.

The job is now ready for distribution. The next time the Norton Administrator for Network Software Distribution Agent is run, the Insight Server Agents will be installed or updated on that server.

Using the RESTORE.CMD File

The *RESTORE.CMD* restores the previous version of either the Insight Server Agents or the Windows NT SSD. This file only restores from the previous backup files, not the Windows NT Registry. If the registry is corrupted, you must restore your Windows NT system from a tape backup.

To use the RESTORE.CMD file, use the following steps:

1. From the Norton Administrator Console, open the Software Distribution window and select the *Add* button to add a new job.

2. Give the job a title and select the *Add/Delete* button to select the target Windows NT servers.

3. Use the *Add* button to add specific servers to the distribution list. Select *OK* to return to the previous window.

4. In the *Actions to Perform* box, select the *Add* button, select *Execute File*, and enter one of the following lines:

    \\<servername>\<sharename>\restore.cmd

    (if you are using a distribution server)

    Where: <servername> is the name of an distribution server

    <sharename> is the Windows NT file share without the dollar sign ($) created in step 6 in the section, "Distributing the Source Files to a Distribution Server".

    \\<servername>\CPQIS1\CPQIS\CPQSUPSW\NTSSD\<version>\ restore.cmd
        or
    \\<servername>\CPQIS1\CPQIS\AGENTS\WIN-NT\ENG\<version>\restore.cmd

    (if you are using an Integration Server)

    Where: <servername> is the name of an Integration Server

    <version> is a version of the respective product

    Make sure the *Use UNC Name Only* box is marked.

5. Select *OK* twice.

The job is now ready to run. The next time the Distribution Agent runs on one of the target Windows NT servers, *RESTORE.CMD* will be run.

Chapter 3
Updating Compaq Software on NetWare Servers

This chapter describes three ways to update a NetWare server from an Integration Server: locally, remote attended, and remote unattended.

Updating a NetWare Server Locally

Compaq has created a program called the Compaq Integration Maintenance Utility to assist in the process of updating Compaq software on a NetWare server. This utility presents a list of available software and updates the server from software stored on a Compaq Integration Server. This method of updating a Compaq NetWare server calls for using the local copy of the Integration Maintenance Utility on a server-by-server basis.

Using the Compaq Integration Maintenance Utility on a NetWare Server

The following table lists the prerequisites necessary for the Integration Maintenance Utility for NetWare running on NetWare version 3.12 or 4.1x:

Table 4-1
Prerequisites for NetWare Operating System

CPQMAINT.NLM - Integration Maintenance Utility v3.0.

NWSNUT.NLM - NetWare NLM Utility User Interface 4.11

The following images are supported by the Integration Maintenance Utility for NetWare on an Integration Server operating in a Novell NetWare 3.12 and 4.1 environment:

■ NetWare Programs from Compaq (for English and Japanese)

■ Compaq Insight Management Server Agents for NetWare

■ NetWare additive licenses (4.1 only)

■ Cheyenne ARCserve 6 for NetWare

■ Cheyenne JETserve 3.3 for NetWare

■ Compaq Survey Utility for NetWare

■ NetWare 4.1 (for English and Japanese)

■ Novell Web Server 2.0 (for English and Japanese)

■ Compaq Insight Asynchronous Management for NetWare

The Integration Maintenance Utility is automatically loaded on the server during the initial SmartStart process or you may manually install it by loading *CPQMAINT.NLM* from the \INSTALL\CPQMAINT directory on the NetWare Operating System CD.
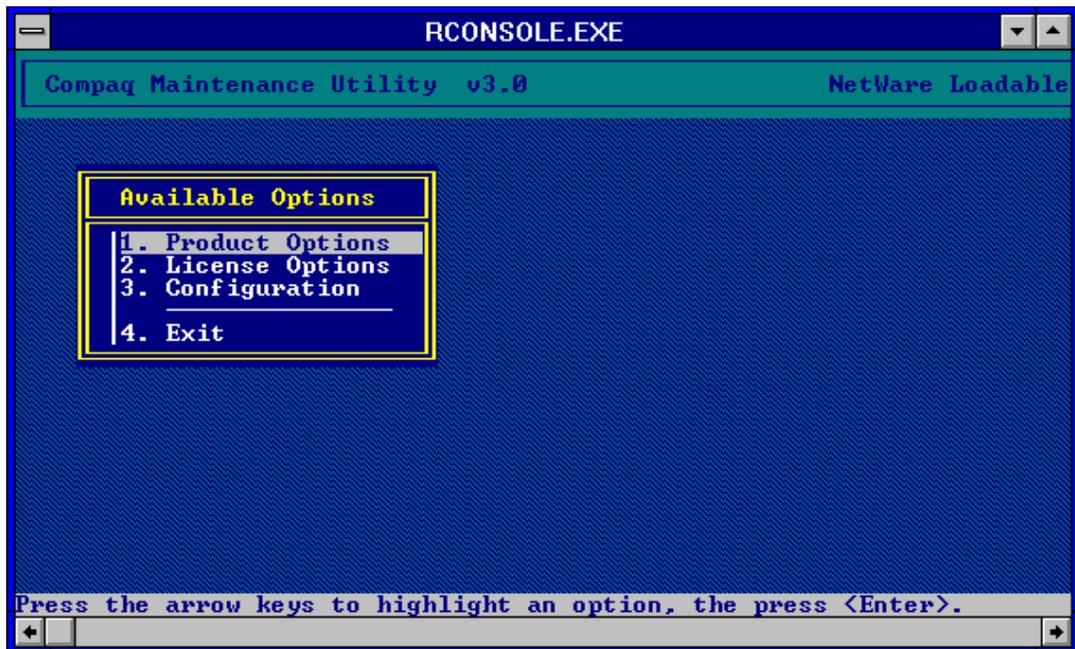
Figure 3-1. Compaq Maintenance Utility Screen

To update an existing server from an Integration Server, follow these steps:

1. From the Available Options screen, select *Product Options*. A list of available products for updating is then displayed.

2. Confirm the location of your *SERVER.EXE*. You will be prompted for this later. SmartStart places this file in the \NWSERVER directory on the boot drive of the server.

3. Select one of the products for updating from the list.

4. If an Activation Key is required, you will be asked for it now.

5. Select the source for the update (either Integration Server or CD-ROM). Once you have made the selection, the update is performed.

6. Repeat steps 3, 4 and 5 for each update you want to perform.

Updating a NetWare Server with the Remote Attended Method

A Compaq NetWare server can be updated using a remote, attended method. This method uses RCONSOLE to remotely access a server's console, to launch the Integration Maintenance Utility to perform the software update. This section describes how to use RCONSOLE and the Integration Maintenance Utility to perform software updates. It will cover how to use RCONSOLE from Compaq Insight Manager 3.0 and from an icon under Windows.

NOTE: RCONSOLE is not the only means to run the Integration Maintenance Utility using the remote attended method. Insight Manager allows for a remote attended session to NetWare servers running TCP/IP and *XCONSOLE.NLM.* Additionally, the Compaq Remote Insight Board also allows a remote attended session to be established. Refer to the *Compaq Insight Manager User Guide* for more information on these methods for accessing a remote NetWare console.

Adding an RCONSOLE Button to the Insight Manager Button Bar

The easiest way to access RCONSOLE from inside Insight Manager is by adding a button that launches RCONSOLE to the Insight Manager button bar. To do this, follow these steps:

1. Map a drive to a NetWare server's SYS volume.

2. Locate the [BUTTONBAR] entry in the *CIM20.INI* file located in the Windows root directory (default: \WINDOWS or \WINNT35).

3. Under this section add the following:

   Button<x>=<k>:\public\rconsole.exe

   Where <x> is the next number between 1-9 and <k> is the drive mapped to the NetWare SYS volume.

   For more information on adding buttons and other entries in *CIM20.INI*, consult the *CIM20.TXT* file located in the Insight Manager directory (default: \INSIGHT). For example:

   Button1=d:\public\rconsole.exe

4. Start Insight Manager. You should now see a button called RCONSOLE on the button bar. If you do not see this button, close Insight Manager and re-start it. Also check to see that the path is listed correctly in *CIM20.INI* and that the line is spelled correctly.

Adding an RCONSOLE Icon to a Windows Program Group

You can add RCONSOLE as an icon to a program group to all versions of Windows. This allows you to launch RCONSOLE without using Insight Manager. Follow these steps to add an icon:

1. Map a drive to a NetWare server's SYS volume.

2. Select the program group where you want to add the RCONSOLE icon.

3. Add a new icon to this group that points to the *RCONSOLE.EXE* file located in the PUBLIC directory of the drive mapped in step 1.

4. The icon should now be visible in the program group.

Using RCONSOLE to Update a NetWare Server

You can use the Integration Maintenance Utility for NetWare to update a NetWare server with the latest versions of the Insight Server Agents and the NetWare Programs from Compaq. To access this utility, perform the following steps:

1. If you have added a button to Insight Manager, click on the RCONSOLE button. Otherwise, double-click on the RCONSOLE icon. This will launch RCONSOLE.

2. If you launched RCONSOLE from a NetWare 4.x server, the first screen asks you to choose between ASYNCHRONOUS and SPX servers (3.x server users can skip this step). The next screen presents a list of available servers. Only those servers running *RSPX.NLM* and *REMOTE.NLM* are shown.

3. Select the server to be updated. You can use the arrow keys or type the first letter of the server name to jump to the first server with that letter. In other words, pressing **S** jumps to the first server that starts with the letter "S".

4. Press the **Enter** key. Enter the RCONSOLE password for this server. The server's console screen displays.

5. If you launched RCONSOLE from a NetWare 3.1x server, the gray **+** and **-** keys cycle through the available console screens, the gray ***** key displays a list of available options and **SHIFT**+**ESC** ends the session. If you launch RCONSOLE from a NetWare 4.x server, the **ALT**+**F1** keys show a list of available options, **ALT**+**F3** and **ALT**+**F4** cycle through the available screens and **ALT**+**F2** ends the session.

You are now ready to use the Integration Maintenance Utility. For information on how to use the Integration Maintenance Utility, consult the section, "Using the Integration Maintenance Utility on a NetWare Server" on page 3-1.

Updating a NetWare Server with the Remote Unattended Method

The remote, unattended method relies on using third-party distribution packages to update multiple remote Compaq servers for NetWare servers. Compaq does not recommend using this method for the following reasons. Currently, both Microsoft Systems Management Server and Norton Administrator for Networks support NetWare servers to some degree. Systems Management Server can inventory a NetWare server and uses the NetWare server as a distribution server. Systems Management Server does not provide an easy way for users to copy files to a NetWare machine in a user specified directory. Norton Administrator for Networks will inventory a NetWare server, and it allows users to copy files to a NetWare server in a user-specified directory. However, neither product allows a distribution job access to the NetWare console.

This access is necessary to the updating of a NetWare machine. Once the new files have been copied to a NetWare server, the server must be either rebooted or the old NLMs must be unloaded, and the new NLMs loaded. Either action allows the changes made by the new software to take effect. NetWare does not allow remote access to a server's console except through a remote console application. For security reasons, these applications do not accept command line arguments to send to a server's console. In addition, remote console applications only work on one server at a time. For these reasons, neither Systems Management Server nor Norton Administrator for Networks can update multiple NetWare servers with a distribution job. Compaq is continuing to research the capabilities of various packages to distribute software to NetWare servers and will update our recommendations as capabilities improve.

Appendix A
Third-Party Distribution Tools Overview

This appendix gives a high-level overview of how the distribution process works for Microsoft Systems Management Server and Norton Administrator for Networks.

The distribution process differs between Systems Management Server and Norton Administrator for Networks. The basic difference lies in the way each application distributes software to target machines. This difference changes the access rights each target machine needs to access the distributed software.

Systems Management Server

The distribution process for Systems Management Server is as follows (see Figure A-1):

1. The Administrator creates a package, located anywhere the Systems Management Server machine has access, then creates a job to distribute this package.

2. Systems Management Server compresses the source files and sends them to distribution servers.

3. The distribution servers decompress the package and place the source files in the Systems Management Server share directory structure.

4. The Package Command Managers on the target machines detect a new job and start the job located on the target machine's distribution server.
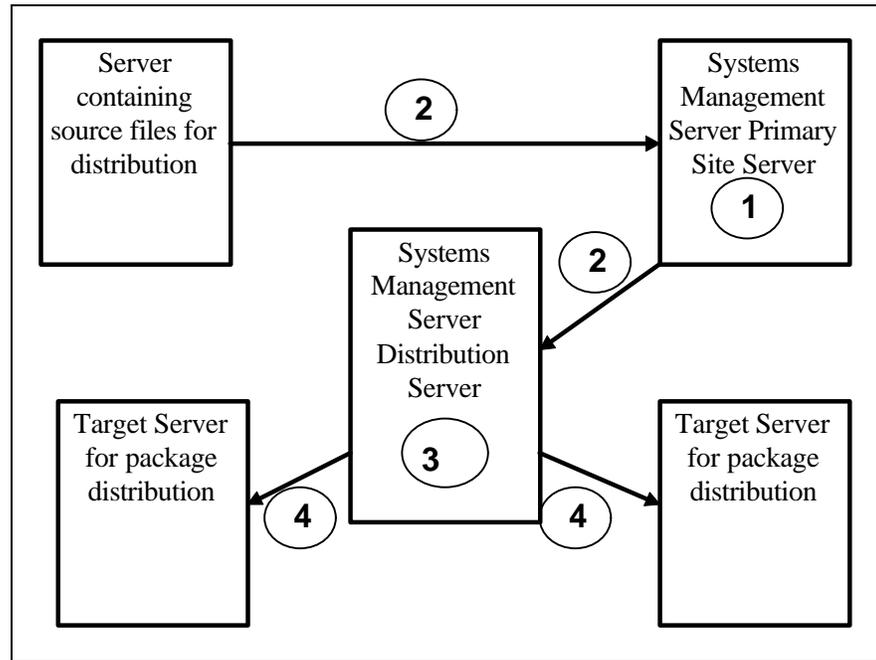
Figure A-1.   Systems Management Server Distribution Process

Because Systems Management Server uses a distribution server as an intermediary location for the package, a target machine only needs access to the distribution server's Systems Management Server share. This configuration is automatically set up by Systems Management Server.

The key item to remember is this: the Systems Management Server Primary Site Server initiating the distribution must have access to the source files. These files can be located on any machine running any operating system to which Windows NT can connect as long as the access rights permit the Primary Site Server to access the files. These source machines can include an Integration Server running Windows NT or NetWare.

Norton Administrator for Networks

The distribution process for Norton Administrator for Networks 2.x (NAN) is as follows: (see Figure A-2):

1. The administrator creates an install script and then creates a job to send this script to target machines via the NAN console.

2. The target machine runs the script, which points to the machine where the source files reside. This machine can be an Integration Server.

3. The script installs the application on the target machine.

4. There is an exception in the case of distributing files to servers. In this case, the NAN console must have access to the source server and the files are copied directly to the target server. This process can be used to implement distribution servers and to copy files to NetWare servers.

Normally, Norton pushes the install commands to the target machine and requires the target machines to access the source files directly.
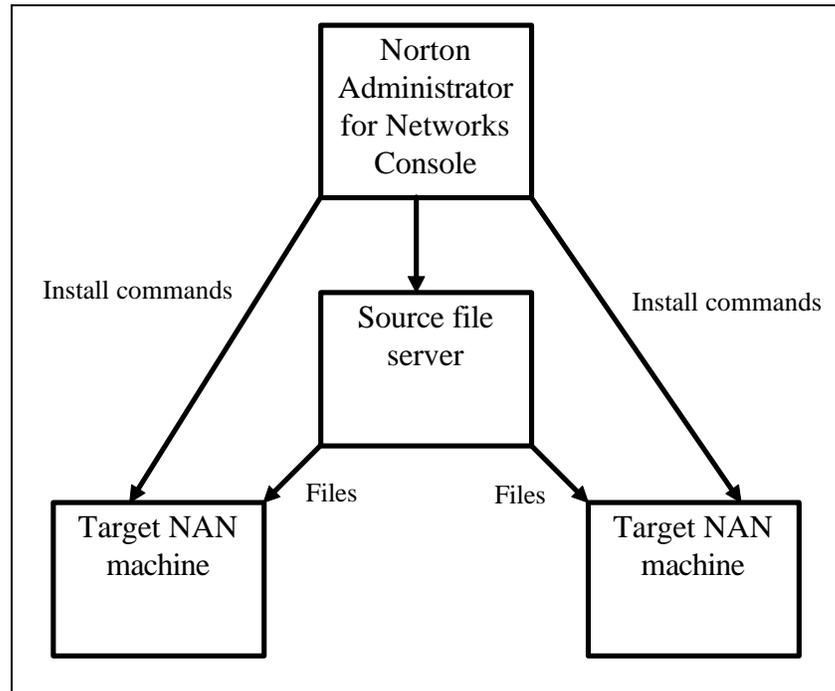
Figure A-2. Norton Administrator for Networks Distribution Process

The key item to remember for Norton Administrator for Networks is that each target machine (or user logged on to a target machine) must have access to the source files. In the case of copying files to a NetWare server, the user ID at the console must have access to the source files. The console allows a user ID to be specified to permit access to the NetWare server.

Because of the way NAN works, there might be difficulties in accessing files from a source server over a WAN link when the network is busy. Identify one machine in each domain where target machines reside and distribute the source files to these machines first. This effectively creates a source file server in that domain. Then create different jobs for each domain that pull the source files off of these distribution servers. This localizes the traffic to the network segments where the particular domain resides. This is the best course of action in WAN environments.

Appendix B
Multivendor Integration
from Compaq

To help you successfully integrate and optimize your network or multivendor system, Compaq has developed a library of systems integration TechNotes for the NetWare, Microsoft Windows NT, SCO UNIX, and OS/2 operating system environments. TechNotes provide you with important information on topics such as network performance management, server management, and operating system interconnectivity.

To get a copy of a particular TechNote in electronic format, you can access:

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                     Richmond Hill, ON L4B 1L5

                     FAX: 1-800-668-1835

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                     Compaq Computer S.A.R.L.
                     5, Avenue de Norvege
                     91959 LES ULIS Cedex
                     France

                     FAX: 1-331-64-46-51-81

Current TechNotes

The current TechNotes available are listed in Table B-1.

Table B-1
Compaq TechNotes

TechNote Name	Part Number
Compaq Insight Management	
Integrating Compaq Insight Manager with Enterprise Management Platforms (8/95)	145806-003
Integrating Compaq Insight Manager with Microsoft Systems Management Server (5/96)	184720-002
Integrating Compaq Insight Manager with ManageWise (8/95)	182074-001
NetWare	
Performance Management in a NetWare v3.1x Environment (4/93)	133399-002
NetWare Tape Backup Management Using ARCserve from Compaq (4/93)	137535-001
NetWare 4 Performance Management (7/94)	137989-001
ORACLE Server Planning in a NetWare v3.11 Environment (5/93)	145143-001
NetWare Server Management (9/92)	145231-001
Compaq IDA-2 Configuration for NetWare (12/92)	145536-001
Compaq ProSignia Configuration Guidelines for NetWare v3.x (12/92)	145537-001
Compaq Answers to Technical Support Questions for NetWare Environments (2/95)	145710-002
NetWare SFT III v3.11 Installation (9/93)	145905-001
NetWare Migration from 2.x to 3.12 (6/94)	181069-001

continued

Compaq TechNotes *continued*

TechNote Name	Part Number
NetWare (continued)	
NetWare Migration from 3.12 to 4 (11/94)	181152-001
SYBASE SQL Server 4.2.2 for NetWare: Tuning and Performance (2/95)	184429-001
Performance of Lotus Notes 3.1 on Compaq ProLiant Servers with NetWare 3.1x (2/95)	184430-001
Configuration and Tuning of Oracle7 for NetWare on Compaq Servers (1/96)	185450-001
Microsoft	
Implementing Lotus Notes on Compaq Servers with Microsoft LAN Manager (9/92)	145201-001
Microsoft SQL Server and Novell NetWare Requester for OS/2 (9/92)	145376-001
Drive Subsystem Performance with Microsoft LAN Manager 2.1 (11/92)	145517-001
Configuration and Tuning of Microsoft SQL Server for Windows NT on Compaq Servers (7/94)	184207-001
Migrating from Microsoft Windows NT Advanced Server 3.1 to Microsoft Windows NT Server 3.5 (2/95)	184669-001
Compaq Backup and Recovery for Microsoft SQL Server (3/95)	184489-001
Configuration and Tuning of Oracle7 for Windows NT on Compaq Servers (7/95)	184853-001
Implementing Microsoft Windows NT Server RAS, DHCP, and WINS on Compaq Servers (9/95)	184488-001
Migrating to Microsoft Windows NT Server 3.51 on Compaq Servers (8/95)	185026-001

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Compaq TechNotes *continued*

TechNote Name	Part Number
UNIX	
SCO UNIX in an SNA Environment Using CLEO DataTalker U/X (5/92)	145081-001
SCO UNIX in an SNA Environment Using Computone LYNX (7/92)	145116-001
SCO UNIX Database Servers in Novell Networks (10/92)	145402-001
Printing in SCO UNIX and NetWare Integrated Environments (3/93)	145538-001
SCO UNIX Connectivity to SNA Environments Over X.25 Networks (1/93)	145583-001
Disk Mirroring with VERITAS VxMirror (12/93)	145656-001
SCO UNIX IP Routing Over X.25 Networks (4/93)	145711-001
Performance Tuning for SCO UNIX on Compaq Systems (5/93)	145730-001
Performance Tuning for ORACLE7 on Compaq Systems Running SCO UNIX (7/93)	145942-001
Configuration and Tuning of Oracle7 for SCO UNIX on Compaq Servers (11/94)	184329-001
Configuration and Tuning of Sybase System 10 for Novell UnixWare 2.0 on Compaq Servers (7/95)	184943-001
The Compaq, SCO UNIX, and ORACLE7 Database Server (9/93)	195818-001
Configuration and Tuning of Sybase System 10 for SCO UNIX Open Server 3.0 on Compaq Servers (9/95)	185111-001

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TechNote Name	Part Number
IBM	
Compaq Answers to Technical Support Questions for OS/2 Environments (11/94)	Not available in bound format
Performance of Lotus Notes 3.1.5 on Compaq ProLiant Servers with OS/2 2.11 (3/95)	184655-001
Technology Overview	
Configuring Compaq RAID Technology for Database Servers (7/94)	184206-001