

WHITE PAPER

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CONTENTS

Overview..... 3

Windows NT Features
Not Affected by the
Migration..... 4

Considerations Before
Migrating..... 4

Compaq Migration
Scenarios..... 5

Outline of the Migration
Process..... 5

Backup the Server..... 5

Determine Hard Drive

Space Requirements 5

Disable Startup Settings 6

Compaq Software Support

Diskette Installation

Overview 8

Migration Scenario 1 10

Migration Scenario 2 14

Migration Scenario 3 17

Migration Scenario 4 20

Upgrading the Compaq

Insight Management Agents ... 23

Summary..... 25

Migrating to Microsoft Windows NT Server 4.0 on Compaq Servers

The information presented in this White Paper provides guidelines and requirements to migrate Compaq Servers running Microsoft Windows NT Server Version 3.51 to Microsoft Windows NT Server Version 4.0. This document presumes that you have a thorough knowledge of Compaq Server products and the Microsoft Windows NT operating system.

This White Paper includes information on:

- *New features and enhancements for Windows NT Server 4.0*
- *Migration considerations*
- *Four test migration scenarios*

NOTE: Compaq highly recommends that you read this White Paper from cover-to-cover BEFORE proceeding with the upgrade process.

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Migrating to Microsoft Windows NT Server 4.0 on Compaq Servers

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OVERVIEW

There are many reasons for migrating to Windows NT Server 4.0. Enhancements and new features for Windows NT Server 4.0 provide an ideal platform to support file-and-print, application server, and internet/intranet computing environments.

New features and enhancements include:

- Better performance and ease-of-use in TCP/IP networks
- User interface more consistent with Microsoft Windows 95 and Windows NT Workstation 4.0
- Remote Boot (RIPL) support for diskless Windows and DOS clients
- Improved support for remote clients with Remote Access Services (RAS)
- Improved interoperability with NetWare servers through Gateway (and Client) Services for NetWare
- Expanded support for graphics and multimedia
- Better networking and security management
- New application and file system support
- Expanded printing and font capabilities
- The Administrative wizards group the common server management tools into a single place making it easier for an administrator to manage user accounts and other function.
- Microsoft Internet Information Server is included in the Windows NT Server 4.0 kit/license.

The Windows NT Server 4.0 operating system now provides better wide-area networking tools and a powerful internet/intranet server platform. Refer to the Microsoft Windows NT Server 4.0 reference documentation for more detailed information.

NOTE: This White Paper does not cover upgrading from Windows NT Workstation 3.51 to Windows NT Server 4.0.

WINDOWS NT FEATURES NOT AFFECTED BY THE MIGRATION

Windows NT Server 4.0 upgrade process uses the setting from the following features of Windows NT Server 3.51 to ease the upgrade process:

- Local security accounts
- Custom settings in the registry
- Preferences set for administrative tools and accessories
- Network adapter settings
- Network protocol and service configuration settings

You are not required to perform any special preparation to maintain these features.

CONSIDERATIONS BEFORE MIGRATING

Before you begin the migration, decide what you want to accomplish and what method you want to use. The method you choose affects the procedures you must perform to accomplish your goals.

No matter which method you choose, Compaq highly recommends that you backup your system BEFORE you begin the upgrade process.

Compaq has identified some considerations that might affect your configuration and migration method. These considerations are as follows:

- If you intend to keep a copy of Windows NT Server 3.51 on the server with Windows NT Server 4.0, you must:
 - Maintain the data integrity in current file systems and partitions.
 - Completely backup your server.

This White Paper does not cover running dual versions of Windows NT on your server. However, if you decide to maintain dual versions, Compaq recommends that you refer to the documentation set provided with the Microsoft Windows NT Server 4.0 software.

- If your installation consists of domain controllers and multiple servers, you might need to perform a sequence of upgrades. Microsoft recommends that you upgrade the Primary Domain Controller (PDC) on a Windows NT Server 3.51 network to Windows NT Server 4.0 before upgrading the Backup Domain Controller(s) (BDC). If you upgrade a server that is not the PDC first, all the new security information installed for Windows NT Server 4.0 is replaced when the server restarts. The server automatically replicates all information from the Windows NT Server 3.51 Domain controller. You can eliminate this problem by first upgrading the Primary Domain Controller.
- If you are upgrading without Compaq SmartStart, you must install the Compaq Support Software, (which updates or installs Compaq device drivers and support software) after installing the Windows NT Server 4.0 operating system.

COMPAQ MIGRATION SCENARIOS

Compaq tested four migration scenarios. Each migration scenario was performed as an in-place upgrade. The Windows NT Server 4.0 replaces the Windows NT Server 3.51 operating system.

Details on the migration configuration are located before the text describing the scenarios.

NOTE: If you want to maintain dual installations, Compaq recommends that you refer to the documentation set provided with the Windows NT Server 4.0 software.

OUTLINE OF THE MIGRATION PROCESS

The following list contains the basic tasks involved in the migration process:

- Backup the server
- Determine hard drive space requirements
- Obtain current Windows NT 3.51 support (SSD)
- Disable startup options /services
- Upgrade Windows NT Server
- Upgrade non-Microsoft drivers
- Re-install disabled options/services
- Install the SSD
- Re-install the Compaq Insight Manager Agents
- Install the Microsoft Service Pack

Backup the Server

Compaq highly recommends that you backup your server BEFORE you begin the upgrade process.

Determine Hard Drive Space Requirements

The Windows NT Server 4.0 Setup program requires that you reserve temporary hard drive space on the server to perform the upgrade from Windows NT 3.51. The amount of temporary space you need depends on the Setup method you choose. Installing from a network requires more space than installing from CD-ROM.

The following provides an estimate of the temporary hard drive space required by the Windows NT Server 4.0 migration process using either installation method.

- Migrating Windows NT Server 4.0 source files from a network directory - Approximately 100 Megabytes
- Migrating using the Windows NT Server 4.0 installation CD from Microsoft - Approximately 10 Megabytes

NOTE: Windows NT Server 4.0 displays a warning message if the server does not have sufficient hard drive space.

Disable Startup Settings

It is only necessary to make modifications to the device and/or service setting if any of the devices or services mentioned in the following sections were previously installed or enabled.

NOTE: Disabling or enabling the startup services does NOT have a detrimental effect on the upgrade process issues; the upgrade process can continue with all of the appropriate services enabled.

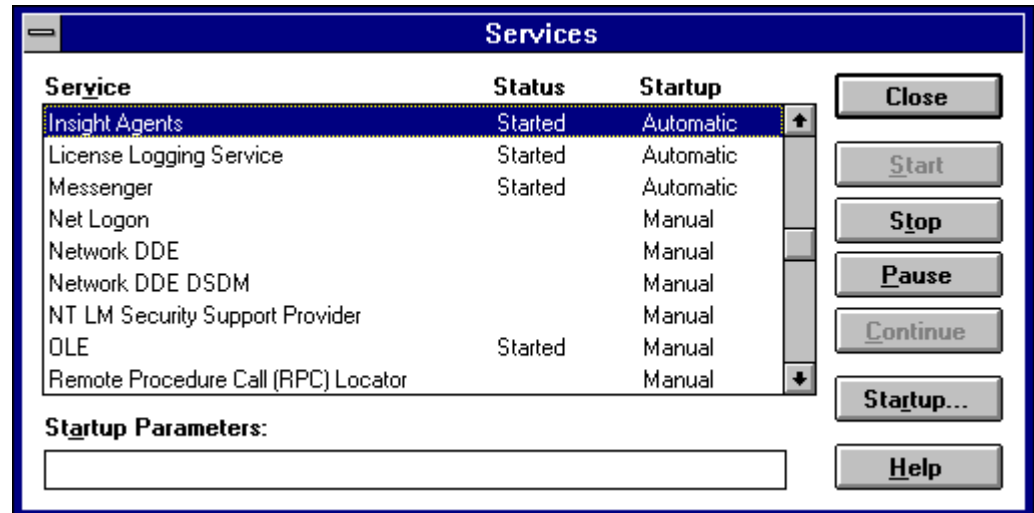
Compaq recommends that you disable certain Service and Device Startup settings before beginning a Windows NT Server 4.0 migration. This can reduce the number of warnings similar to the following message from displaying during the installation process:

At least one service or driver failed during system startup. Use the Event Viewer to examine the Event Log for details.

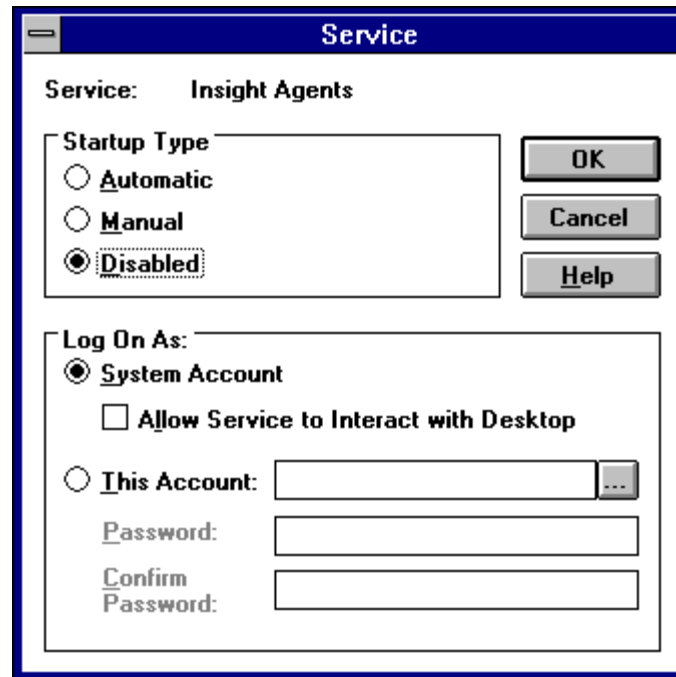
Disabling Insight Agents and SNMP Services

Follow these steps:

1. Select the *Main Window*.
2. Select the *Control Panel* applet.
3. Open the Services applet. The following screen displays:



4. Highlight *Insight Agents* then select *Startup*.
The Services dialogue screen displays (shown on next page).



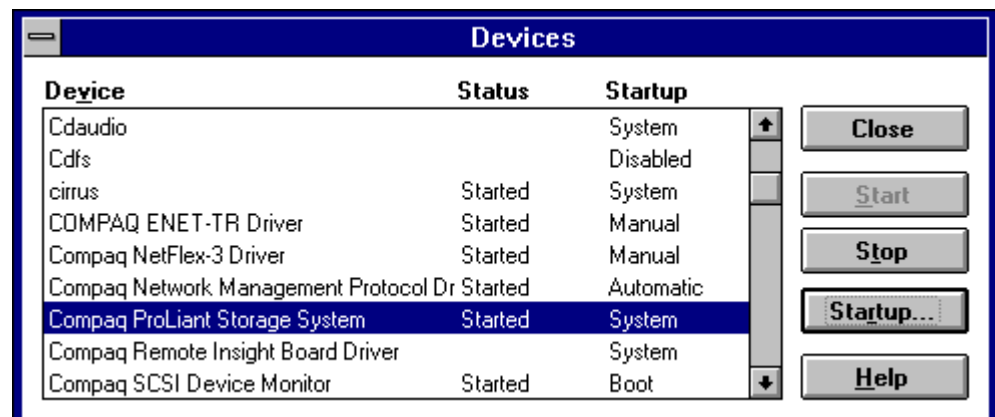
5. Change the “Startup Type” to *Disabled*. Select *OK* to accept the setting.
6. Select “Close” to exit the service applet.

If you previously installed the SNMP Service, it should also be disabled via the Control Panel Services applets. To disable the SNMP Service, repeat steps 1-5, replacing Insights Agents with SNMP Service in step #4.

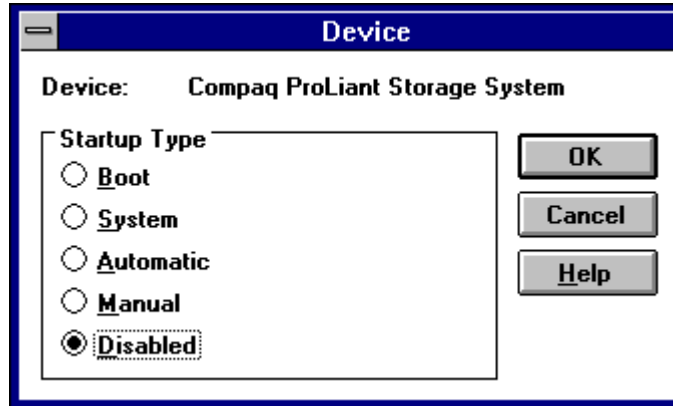
Disabling Compaq ProLiant Storage System and Compaq Systems Management Services Devices

You must disable the Compaq ProLiant Storage System setting before you upgrade to Windows NT 4.0 to avoid Service Management errors.

1. Access the Windows NT Server Control Panel, then select *Devices*. The following screen displays:



2. Highlight *Compaq ProLiant Storage System* then select *Startup*. The Compaq SCSI Device Monitor dialogue screen displays:



3. Change the “Startup Type” to *Disabled*. Select *OK* to accept the setting and select *Yes* to confirm the selection.

NOTE: A message displays warning you that changing these settings might cause the system to become unstable. Ignore the message and select *Yes* to continue.

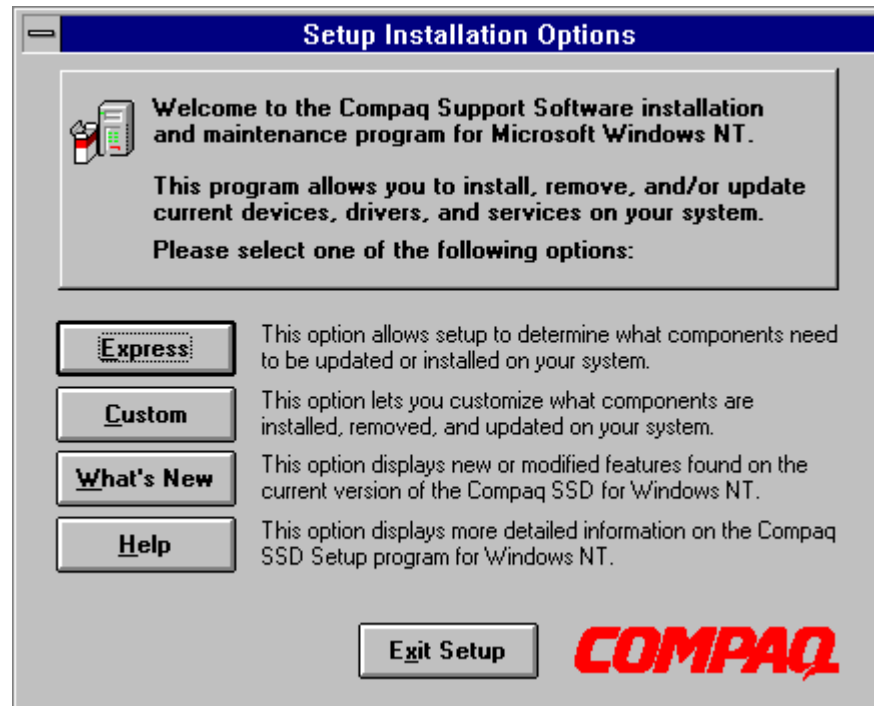
4. To disable the Compaq Systems Management Service, repeat steps 1-3, replacing Compaq ProLiant Storage System with Compaq Systems Management Service in step #2.
5. Select *Close* to exit the Devices applet.

NOTE: If you plan on maintaining both versions of Windows NT on your server, do not disable the Compaq SCSI Device Monitor. If a warning message displays after the upgrade process is complete, select *OK* to continue with the installation process. You can return to the Event Viewer later to view the Event Log and make any necessary modifications.

Compaq Software Support Diskette Installation Overview

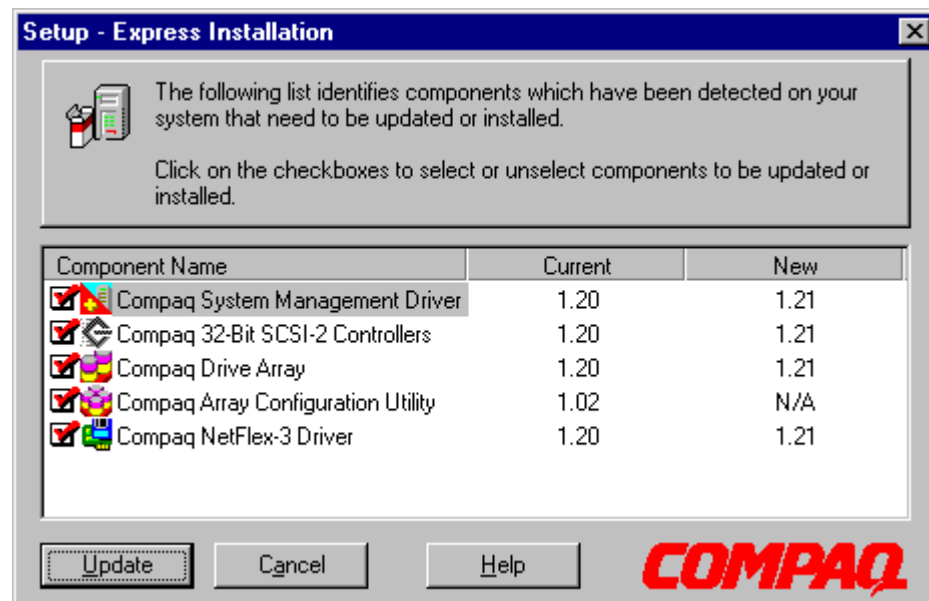
Compaq recommends that you upgrade to the latest SSD version if your SSD version is earlier than 1.18.

The following screen displays after you run Setup on the Compaq Software Support Diskettes:



Select the **Express** button, which installs or upgrades the appropriate drivers depending on your hardware configuration.

The following screen is a sample display of the SSD **Express** selection. Select the **update** button to continue the SSD installation or upgrade process.



Migration Scenario 1

Windows NT 4.0 Set-Up Method

The following steps describe the process and when upgrading from an installation of Windows NT Server 3.51 CD from Compaq SmartStart (SSD 1.18B) on a Compaq ProLiant 5000 directly from the Windows NT 4.0 CD-ROM.

TABLE 1
COMPAQ PROLIANT 5000 SERVER MIGRATION
SCENARIO 1 CONFIGURATION

System Processor(s)	Four 166-MHz Pentium Pro
Memory	128 MB
Disk Controller	Compaq SMART-2/P Controller
Drive Configuration	Two 4-GB (RAID1)
Network Controller	Compaq NetFlex-3 100 VG Controller
Operating System	Compaq SmartStart Windows NT Server 3.51, Windows NT Server 4.0
Software	Windows NT SSD, version 1.19 and Compaq Insight Management Agents, version 3.10 or later

1. Backup your server completely, including the Registry.
2. Obtain the latest Compaq Support Software Disk (SSD 1.20 or higher). Obtain the latest SmartStart CD to obtain the latest Compaq Support utilities or consult the Compaq Web site (www.compaq.com).

If you previously installed SNMP Service, disable it. See pages 6 - 7.

If you previously installed the Compaq Insight Manager Agents, disable them. See pages 6 - 7.

If you currently have the Compaq ProLiant Storage System installed, disable it. See pages 7 - 8.

3. You can choose from the following Windows NT 4.0 installation methods:
 - Direct CD-ROM install
 - Boot-up floppies

NOTE: This scenario used the direct CD-ROM method.
4. Insert the Windows NT 4.0 CD into the CD-ROM drive.
 - a) From the file manager, select the drive letter that represents the CD-ROM drive.
 - b) Change to the i386 directory. Select *File* then select *Run* from the menu.
 - c) Type: **winnt32 /b** (To create boot floppies, you would type **winnt32 /ox** in the same i386 directory.)

5. The “Windows NT 4.0 Installation/Upgrade” screen displays. Press **Enter** when you are prompted; this starts the installation of Windows NT Server 4.0. Follow the instructions and remove the CD from the drive when you are prompted.
6. When the system re-starts, the Microsoft install might detect a CPQARRAY or another type of hard disk controller. You are then asked to enter additional driver information. Your available choices are:

- Press the **Enter** key to continue, or
- Press the letter **S** to specify additional drivers, or
- Press **F3** to exit.

Select **Enter**. If you choose to specify additional drivers, you must have the latest Compaq Support Software.

7. Press the **Enter** key to continue. The licensing screen displays. After reading the licensing agreement, press **F8** for “I agree” or press **ESC** for “I do not agree”.
8. The next screen asks if you want to:
 - Press **Enter** to upgrade, or
 - Press the letter **N** to install a new version, or
 - Press **F3** to exit.

Select **Enter** to upgrade.

9. You may then choose to scan the hard drive or skip detection.
 - Press **Enter** to scan the hard drive, or
 - Press **ESC** to skip detection.

Press **Enter** to scan your hard drive.

10. After your disk scan completes, a rectangular bar displays in the lower half of the screen or monitor, indicating files are being copied to your hard disk. At some point during the file copy process, the following message might display:

Setup has determined the following file did not originate from Microsoft:
oemnadf.inf

This file may have been provided by your hardware manufacturer.

Your choices are:

- Press **Enter** to replace the file, or
- Press **ESC** to skip file, or
- Press **F1** for help.

Press **ESC** to skip the file.

11. A similar message displays again at some point in the file copy process:

Setup has determined the following file did not originate from Microsoft:
netflix.dll

This file may have been provided by your hardware manufacturer.

Press **ESC** to skip the file; the setup process continues to completion.

NOTE: If you have the Compaq Smart SCSI Array Controller installed, a similar message might display. Press **ESC** to skip the file in each case encountered.

12. When you are prompted, re-start the computer and the set up process continues.
13. Re-insert the Windows NT 4.0 CD when prompted. Wait several seconds before pressing the *OK* button, otherwise a message repeatedly displays requesting that you insert the Windows NT 4.0 CD in the CD-ROM drive.
14. You are asked to verify that the hardware configuration listed matches your computer. If your hardware matches, press **Enter** to continue, otherwise select the correct hardware configuration.
15. When requested, enter your registration ID or number.
16. Setup prompts you to create an Emergency Repair Diskette at this point. Insert a blank, formatted diskette into the drive and select *OK*.
IMPORTANT: Compaq and Microsoft recommend that you create an Emergency Repair Diskette.
17. The next screen asks you to select the most common components. The Accessories, Communications, Games, Multimedia and Accessibility Options are selected by default. You may alternatively choose the option, "Show me the list of components so I can choose."
18. Press **Enter** to continue or choose additional components.
19. Select the *next* button to upgrade the Windows Network Services.
20. Select the *Finish* button.

The system restarts when the file copying and basic upgrade process is completed.

21. After you log on the first time in the Windows NT 4.0 environment, several error messages might display. The following table lists these messages and some comments about them.

Error Message	Comment
SNMP.EXE unable to locate SNMPAPI.DLL in specified path	The SNMP error usually occurs if you fail or disable the service before starting.
DHCP Server will now terminate because existent database needs conversion to NT SVR format. DHCP will auto start after conversion.	The DHCP error only occurs if you previously installed DHCP.
WINS cannot come up because it needs conversion to Windows NT SVR format. Click OK to terminate WINS, WINS will auto start after conversion.	The WINS error only occurs if you previously installed WINS.
Service Control Manager states that at least one service or driver failed during start-up.	There can be multiple causes of this error message, check the event viewer or log under Administration Tools and correct any issues that might have been overlooked.

22. Remove SNMP and re-install the SNMP Services from the Control Panel icon, select the *NETWORK* applet, select the Services tab (next to the Identification tab), double click on the *SNMP Service*, follow the instructions. It is necessary first to remove the SNMP services and then re-install them.
23. Install SSD 1.20, or later, select *Express*, update all the necessary components, and reboot the server.
24. Reboot the server.
25. Re-install the Compaq Insight Manager Agents (version 3.10 or higher), if they were previously installed, from the Compaq System Manager CD. Select *Update* to load the latest version of the Compaq Insight Manager Agents. Reboot the computer or server. If you choose to re-install a pre-existing version, remove the Agents before re-installing.
NOTE: Always install the Compaq SSD program and reboot the server before installing the Compaq Insight Manager Agents.
26. You can optionally install Microsoft Service Pack 2.
27. Your upgrade should be complete. However, check the Event Viewer for additional information.

Migration Scenario 2

The following steps outline the process when upgrading to Windows NT 4.0 from Windows NT Server 3.51 CD from Compaq SmartStart (SSD 1.18B) on a Compaq ProLiant 4000 using boot floppies. The server migration to Windows NT Server 4.0 was performed using Microsoft Windows NT Server 4.0 CD.

TABLE 2
COMPAQ PROLIANT 4000 SERVER MIGRATION
SCENARIO 2 CONFIGURATION

System Processor(s)	Four 166-MHz Pentium Pro
Memory	64 MB
Disk Controller	Compaq SMART-2/P Controller
Drive Configuration	Three 4-GB (RAID0) - No Fault Tolerance
Network Controller	Compaq NetFlex-3 100 VG Controller
Operating System	Compaq SmartStart Windows NT Server 3.51, Windows NT Server 4.0
Software	Windows NT SSD, version 1.19 and Compaq Insight Management Agents, version 3.10 or later

If you previously installed the SNMP Service, disable it. See pages 6 - 7.

If you previously installed the Compaq Insight Manager Agents, disable them. See pages 6 - 7.

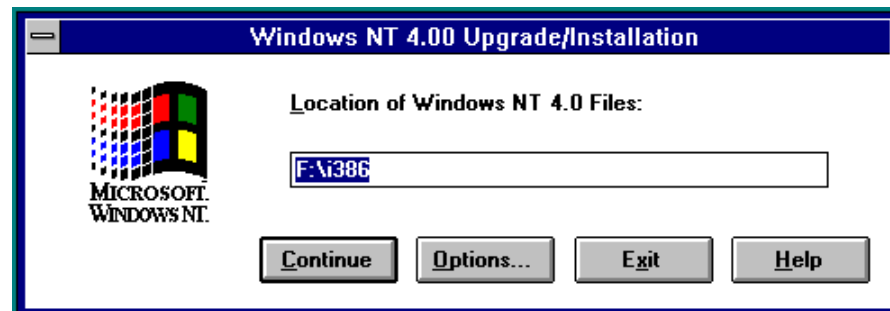
If you currently have the Compaq ProLiant Storage System installed, disable it. See pages 7 - 8.

NOTE: Before you migrate your server to Windows NT Server 4.0, read the topic, "Considerations Before Migrating" on page 4. It contains important information that affects your installation regardless of the method you choose.

Creating Windows NT 4.0 Boot Diskettes

The Microsoft Windows NT 4.0 CD is bootable. However, there may be instances where creating boot diskettes is desirable. The following steps outline the boot diskettes creation process using the Setup program included with the Windows NT Server 4.0 CD:

1. While the Windows NT 3.51 Server is live or active, place the Windows NT 4.0 CD into the appropriate drive.
2. Change to the drive letter of the CD-ROM. From the I386 directory, through the File Manager RUN command, type **WINNT32 /OX** (not case sensitive), then press **ENTER**. This command starts the boot diskette creation process. The following is a screen shot example which displays the I386 directory.



NOTE: You must have three formatted high-density diskettes.

3. Insert a formatted, blank diskette when requested.
4. Reboot your system when your diskette creation process is complete. The boot diskette (number one disk) should already be loaded in your primary diskette drive (also, the Windows NT 4.0 CD-ROM should already be inserted in the drive). Follow all instructions.
5. You are asked either to press **Enter** to detect a hard disk controller or to press the letter **S** to skip hard disk detection, press **Enter**. Follow the instructions as in Scenario 1, steps 7 - 10.

At some point during the file copy process, the following messages might display:

The file oemnadm.inf did not originate from the Microsoft CD.

netflx.dll did not originate from the Microsoft CD.

cpqarray.sys did not originate from the Microsoft CD.

For each message, press **ESC** to skip. Do NOT replace these files or any others that are detected. Follow the instruction on the screen.

6. Follow the on-screen instructions. Wait several seconds before pressing the *OK* button, otherwise a message displays requesting that you insert the Windows NT 4.0 CD in the CD-ROM drive.
7. The setup process continues. The following error messages might display:

Unable to open the file x:\1386\netflx3.sys...a non-critical error has occurred

This error may occur for OEMSETUP.INF, NETFLX3.EXE, NETFLX3.HLP, and NETFLX3.CPL or other Compaq files.

In each case, press **ESC** to ignore. These errors are non-critical, as was previously stated.
8. Continue the upgrade or install process by following instructions and choosing the software component you want to install.
9. Follow the instructions and reboot the system when you are prompted.

IMPORTANT: Compaq and Microsoft recommend that you create an Emergency Repair Diskette.
10. When you are prompted, remove the diskette from the drive and restart the server.

After you log on the first time in the Windows NT 4.0 environment, several error messages might display. These messages depend on whether DHCP, WINS, SNMP were installed or enabled previously on Windows NT 3.51. There might also be a "Dr. Watson error." This occurs when *SNMP.EXE*, *CPQMGMT.EXE* and others could not be located, which causes an access violation (0x00000000) error to display. This error might not occur if SNMP was disabled prior to the upgrade process.

The following table lists several error messages and comments about them.

Error Message	Comments
SNMP.EXE unable to locate SNMPAPI.DLL in specified path.	The SNMP error only occurs if you enabled the service before starting.
DHCP Server will now terminate because existent database needs conversion to Windows NT SVR format. DHCP will auto start after conversion.	The DHCP error only occurs if you previously installed DHCP.
WINS cannot come up because it needs conversion to Windows NT SVR format. Click OK to terminate WINS, WINS will auto start after conversion.	The WINS error only occurs if you previously installed WINS.
Service Control Manager states that at least one service or driver failed during start-up.	There can be multiple causes of this error message. Check the event viewer or log under Administration Tools and correct any issues that might have been overlooked.

11. Remove SNMP and re-install the SNMP Services from the Control Panel icon, select the *NETWORK* applet, select the Services tab (next to the Identification tab), double click on the *SNMP Service*, follow the instructions. Remove the SNMP services and then re-install.
 12. Install SSD 1.20, or later, select *Express*, update all the necessary components, and reboot the server. Do NOT update the HAL using the Compaq SSD program with version 1.20.
 13. Reboot the server.
 14. Re-install the Compaq Insight Manager Agents (version 3.10 or higher), if they were previously installed, from the Compaq System Manager CD. Select *Update* to load the latest version of the Compaq Insight Manager Agents. Reboot the computer or server. If you choose to re-install a pre-existing version, remove the Agents before re-installing.
- NOTE:** Always install the Compaq SSD program and reboot the server before installing the Compaq Insight Manager Agents.
15. You can optionally install Microsoft Service Pack 2.

Your upgrade should be complete. However, check the Event Viewer for additional information.

Migration Scenario 3

Windows NT 4.0 Set-up Method

The following steps outline the process when upgrading from an installation of Windows NT Server 3.51 CD to Windows NT 4.0 on a Compaq ProLiant 5000 directly from the Windows NT 4.0 CD-ROM.

TABLE 3
COMPAQ PROLIANT 5000 SERVER MIGRATION
SCENARIO 3 CONFIGURATION

System Processor(s)	Four 166-MHz Pentium Pro
Memory	128 MB
Disk Controller	Compaq SMART-2/P Controller
Drive Configuration	Two 4-GB (RAID1)
Network Controller	Compaq NetFlex-3 100 VG Controller
Operating System	Compaq SmartStart Windows NT Server 3.51, Windows NT Server 4.0
Software	Windows NT SSD, version 1.19 and Compaq Insight Management Agents, version 3.10 or later

1. Backup your server completely.
2. Obtain the latest Compaq Support Software Disk (SSD 1.20 or higher). Secure the latest SmartStart CD to obtain the latest Compaq Support utilities or consult the Compaq Web site (www.compaq.com).

If you previously installed the SNMP Service, disable it. See pages 6 - 7.

If you previously installed the Compaq Insight Manager Agents, disable them. See pages 6 - 7.

If you currently have the Compaq ProLiant Storage System installed, disable it. See pages 7 - 8.

NOTE: Before you migrate your server to Windows NT Server 4.0, read the topic, "Considerations Before Migrating" on page 4. It contains important information that affects your installation regardless of the method you choose.
3. You can choose from the following Windows NT 4.0 installation methods:
 - Direct CD-ROM install
 - Boot-up floppies

NOTE: For this scenario, the Direct CD-ROM method was chosen.
4. Insert the CD into the CD-ROM drive.
 - a) From the file manager, select the drive letter that represents the CD-ROM drive.
 - b) Change to the i386 directory.
 - c) Type in **winnt32 /b** (to create boot floppies you would type **winnt32 /ox** in the same i386 directory).

5. The “Windows NT 4.0 Installation/Upgrade” screen displays. Press **Enter** when you are prompted; this starts the installation of Windows NT Server 4.0. Follow the instructions and remove the CD from the drive when you are prompted.
6. When the system re-starts, the Microsoft install might detect a CPQARRAY, SymbioLogic C810 PCI SCSI Host Adapter, or another type of hard disk controller. You are then asked to enter additional driver information. You should have the latest Compaq Software Support Diskette (SSD 1.20 or higher) available to insert into the floppy drive when prompted. Your available choices are:
 - Press the **Enter** key to continue, or
 - Press the letter **S** to specify additional drivers, or
 - Press **F3** to exit.

Select **Enter** if you choose to specify additional drivers you must have the latest Compaq Support Software.

7. Press the **Enter** key to continue. The licensing screen displays. After reading the licensing agreement, press **F8** for “I agree” or press **ESC** for “I do not agree”.
8. The next screen asks if you want to
 - Press **Enter** to upgrade, or
 - Press the letter **N** to install a new version, or
 - Press **F3** to exit.

Select **Enter** to upgrade.

9. You may then choose to scan the hard drive or skip detection;
 - Press **Enter** to scan the hard drive, or
 - Press **ESC** to skip detection.

Press **Enter** to scan your hard drive.

10. After your disk scan completes, a rectangular bar displays in the lower half of the screen or monitor, indicating files are being copied to your hard disk. At some point during the file copy process, the following message might display:

Setup has determined the following file did not originate from Microsoft:
oemdnf.inf

This file may have been provided by your hardware manufacturer.

Your choices are:

- Press **Enter** to replace the file, or
- Press **ESC** to skip file, or
- Press **F1** for help.

Press **ESC** to skip the file.

11. The following message displays again at some point during the file copy process:
 Setup has determined the following file did not originate from Microsoft: *netflx.dll*
 This file may have been provided by your hardware manufacturer.

 Press **ESC** to skip the file; the setup process continues.

NOTE: If you have the Compaq Smart SCSI Array Controller installed, a similar message might display. Press **ESC** to skip the file in each case encountered.
12. When you are prompted, re-start the computer and the set up process continues.
13. Re-insert the Windows NT 4.0 CD when prompted. Wait several seconds before pressing the *OK* button, otherwise a message displays requesting that you insert the Windows NT 4.0 CD in the CD-ROM drive.
14. You are asked to verify that the hardware configuration listed matches your computer. If your hardware matches, press **Enter** to continue.
15. The next screen asks you to select the most common components. The Accessories, Communications, Games, Multimedia and Accessibility Option are selected by default. You may press **Enter** to continue or change any options.
16. Select the *Next* button to upgrade the Windows Network Services.
17. A *Finish Setup* button displays; select this button.
18. The system restarts when the file copying process is completed.
19. After you log on the first time in the Windows NT 4.0 environment, several error messages might display. The following table lists these messages and comments about them:

Error Messages	Comments
SNMP.EXE unable to locate SNMPAPI.DLL in specified path.	The SNMP error only occurs if you enabled the service before starting.
DHCP Server will now terminate because existent database needs conversion to Windows NT SVR format. DHCP will auto start after conversion.	The DHCP error only occurs if you previously installed DHCP.
WINS can not come up because it needs conversion to Windows NT SVR format. Click OK to terminate WINS, WINS will auto start after conversion.	The WINS error only occurs if you previously installed WINS.
Service Control Manager states that at least one service or driver failed during start-up.	There can be multiple causes of this error message. Check the event viewer or log under Administration Tools and correct any issues that might have been overlooked.

20. Remove SNMP and re-install the SNMP Services from the Control Panel icon, select the *NETWORK* applet, select the *Services* tab (next to the Identification tab), double click on the *SNMP Service*, follow the instructions.
21. Install SSD 1.20, or later, select *Express*, update all the necessary components.
22. Reboot the server.

23. Re-install the Compaq Insight Manager Agents (version 3.10 or higher), if they were previously installed, from the Compaq System Manager CD. Select *Update* to load the latest version of the Compaq Insight Manager Agents. Reboot the computer or server. If you choose to re-install a pre-existing version, remove the Agents before re-installing.
24. **NOTE:** Always install the Compaq SSD program and reboot the server before installing the Compaq Insight Manager Agents.
25. You can optionally install Microsoft Service Pack 2.
26. Your upgrade should be complete. However, check the Event Viewer for additional information.

Migration Scenario 4

Windows NT 4.0 Set-up Method

The following steps outline the process when upgrading from an install of Windows NT Server 3.51 CD from Microsoft on a Compaq ProLiant 5000 directly from the Windows NT 4.0 CD-ROM.

TABLE 4
COMPAQ PROLIANT 4000 SERVER MIGRATION
SCENARIO 4 CONFIGURATION

System Processor(s)	Four 166-MHz Pentium Pro
Memory	64 MB
Disk Controller	Compaq SMART-2/P Controller
Drive Configuration	Three 4-GB (RAID0) - No Fault Tolerance
Network Controller	Compaq NetFlex-3 100 VG Controller
Operating System	Compaq SmartStart Windows NT Server 3.51, Windows NT Server 4.0
Software	Windows NT SSD, version 1.19 and Compaq Insight Management Agents, version 3.10 or later

The following is step-by-step instructions on upgrading to Window NT 4.0 on a Compaq ProLiant 5000. SSD 1.20 and **Service Pack 5** were installed before the upgrade.

1. Backup your server and registry completely.
2. Obtain and install the latest Compaq Support Software Disk . Secure the latest SmartStart CD to obtain the latest Compaq Support utilities or consult the Compaq Web site (www.compaq.com).

If you previously installed the SNMP Service, disable it. See pages 6 - 7.

If you previously installed the Compaq Insight Manager Agents, disable the Agents via the Control Panel Services applets. See pages 6 - 7.

If you currently have the Compaq ProLiant Storage System installed, disable it. See pages 7 - 8.

3. You can choose the following Windows NT 4.0 installation methods:
 - Direct CD-ROM install
 - Boot-up floppies

NOTE: For this scenario, the Direct CD-ROM method was chosen.
4. Insert the Windows NT 4.0 CD into the CD-ROM drive.
 - a) From the file manager, select the drive letter that represents the CD-ROM drive.
 - b) Change to the i386 directory.
 - c) Type in **winnt32 /b** (to create boot floppies, you would type **winnt32 /ox** in the same i386 directory).
5. The “Windows NT 4.0 Installation/Upgrade” screen displays. Press **Enter** when you are prompted; this starts the installation of Windows NT Server 4.0. Follow the instructions and remove the CD from the drive when you are prompted.
6. The system re-starts, the Microsoft install detects a CPQARRAY and Symbio Logic C810 PCI SCSI Host Adapter, (or another type of hard disk controller might be detected depending on your hardware configuration). You are then asked to enter additional driver information. Your available choices are:
 - Press the **Enter** key to continue, or
 - Press the letter **S** to specify additional drivers, or
 - Press **F3** to exit.

Select or press **Enter**, if you choose to specify additional drivers you must have the latest Compaq Support Software.
7. Press the **Enter** key to continue. The licensing screen displays. After reading the licensing agreement, press **F8** for “I agree” or **ESC** for “I do not agree”.
8. The next screen asks if you want to
 - Press **Enter** to upgrade, or
 - Press the letter **N** to install a new version, or
 - Press **F3** to exit.

Select or press **Enter** to upgrade.
9. You may then choose to scan the hard drive or skip detection;
 - Press **Enter** to scan the hard drive, or
 - Press **ESC** to skip detection.

Press **Enter** to scan your hard drive
10. After your disk scan completes, a rectangular bar displays in the lower half of the screen or monitor, indicating files are being copied to your hard disk. At some point during the file copy process, the following message might display:

Setup has determined the following file did not originate from Microsoft:
oemnadf.inf

This file may have been provided by your hardware manufacturer

Your choices are:

- Press **Enter** to replace the file, or
- Press **ESC** to skip file, or
- Press **F1** for help.

Press **ESC** to skip the file.

11. The following message displays again at some point during the file copy process:

Setup has determined the following file did not originate from Microsoft:
netflx.dll

This file may have been provided by your hardware manufacturer.

Press **ESC** to skip the file; the setup process continues to completion.

NOTE: If you have the Compaq Smart SCSI Array Controller installed a similar message might be display. Press **ESC** to skip the file in each case encountered.

12. When you are prompted, re-start the computer and the set up process continues.
13. Re-insert the Windows NT 4.0 CD when prompted. Wait several seconds before pressing the *OK* button, otherwise a message displays requesting that you insert the Windows NT 4.0 CD in the CD-ROM drive.
14. Windows NT performs a setup a hardware configuration verification. Press the *Next* button to continue. You may encounter a series of **non-critical errors**, in each press the *Ignore* button in each case described below:

An error occurred... Unable to open the file D:\I386\netflx3.sys....

An error occurred... Unable to open the file D:\I386\netflx3.dll....

An error occurred... Unable to open the file D:\I386\oemsetup.inf....

An error occurred... Unable to open the file D:\I386\netflx3.exe....

An error occurred... Unable to open the file D:\I386\netflx3.hlp....

An error occurred... Unable to open the file D:\I386\netflx3.cpl....

17. The next screen asks you to select the most common components. The Accessories, Communications, Games, Multimedia and Accessibility Option are selected by default. You may press **Enter** to continue, or change any options.
18. Press **Enter** to continue or choose additional components.
19. Select the *Next* button to upgrade the Windows Network Services.

Setup prompts you to create an Emergency Repair Diskette at this time. Insert a blank, formatted diskette into the drive and select *OK*.

IMPORTANT: Compaq and Microsoft recommend that you create an Emergency Repair Diskette.
20. A *Finish Setup* button displays; select this button.
21. The system restarts when the file copying and basic upgrade process is completed.

22. After you log on the first time in the Windows NT 4.0 environment, several error messages might display. The following table lists these messages and comments about them:

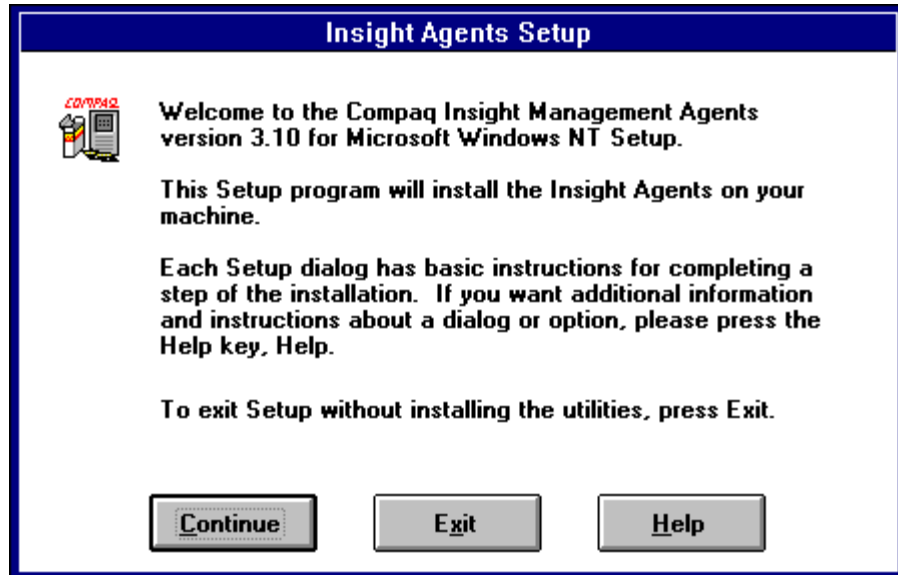
Error Messages	Comments
SNMP.EXE unable to locate SNMPAPI.DLL in specified path	The SNMP error only occurs if you previously installed SNMP.
DHCP Server will now terminate because existent database needs conversion to Windows NT SVR format. DHCP will auto start after conversion.	The DHCP error only occurs if you previously installed DHCP.
WINS can not come up because it needs conversion to Windows NT SVR format. Click OK to terminate WINS, WINS will auto start after conversion.	The WINS error only occurs if you previously installed WINS.
Service Control Manager states that at least one service or driver failed during start-up.	There can be multiple causes of this error message, check the event viewer or log under Administration Tools and correct any issues that might have been overlooked.

23. Install SSD 1.20, or later, select *Express*, update all the necessary components, and reboot the server.
24. Remove the SNMP Service. From the Control Panel icon, select the *NETWORK* applet, select the *Services* tab (next to the Identification tab), double click on the *SNMP Service*, follow the instructions. Re-install the SNMP Service. Reboot the Server.
25. Reboot the server.
26. Re-install the Compaq Insight Manager Agents (version 3.10 or higher), if they were previously installed, from the Compaq System Manager CD. Select *Update* to load the latest version of the Compaq Insight Manager Agents. Reboot the computer or server. If you choose to re-install a pre-existing version, remove the Agents before re-installing.
- NOTE:** Always install the Compaq SSD program and reboot the server before installing the Compaq Insight Manager Agents.
27. You can optionally install Microsoft Service Pack 2.
28. Your upgrade should be complete. However, check the Event Viewer for additional information.

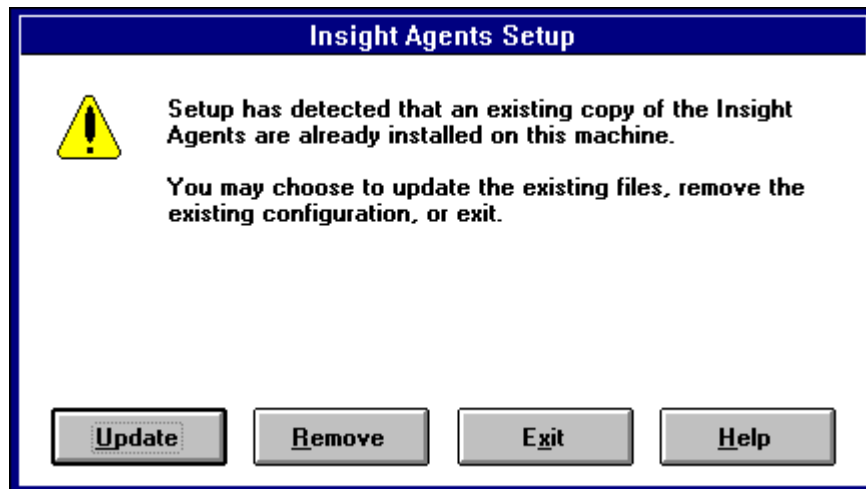
Upgrading the Compaq Insight Management Agents

The procedures that follow outline the necessary steps to update your system with the Compaq Insight Management Agents 3.10 or later software. From the Windows *My Computer* applet, perform the following steps:

1. Insert the Insight Agent Setup CD into your CD-ROM drive.
2. Locate the Agent directory, (the path is x:\agents\win-nt\eng\setup.cmd; where x is the CD-ROM drive letter) then locate the Windows NT directory, then choose the setup.cmd or setup.exe.
3. Select *Continue* at the Insight Agents Setup screen.



4. Setup prompts that it detects a copy of the Insight Agents on your system.



5. Select *Update* on this screen to upgrade the Insight Agents on your Windows NT 4.0 platform.
6. The next screen displays a list of Manage Agents and Remote Log Destinations. You have the option to:
 - Add or Remove Agents
 - Add or Remove Remote Event Log DestinationsSelect *OK* when complete to accept changes.
7. Select *Exit to Windows NT*, remove the CD from the CD-ROM drive.
8. Restart the server to implement the latest Compaq Insight Manager Agents.

