HP ProLiant Essentials
Rapid Deployment Pack—Windows Edition
Installation Guide

January 2004 (Second Edition)
Part Number 352869-002
Product Version 1.50

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Contents

About This Guide

This guide provides detailed information about installing the Rapid Deployment Pack—Windows Edition, configuring the Deployment Server and the provided scripted installation jobs and files, and upgrading to newer versions of software.

Audience Assumptions

To install and configure the Rapid Deployment Pack, it is assumed that you have knowledge of:

- Installing Microsoft® Windows®, either from CD or the network, using the unattend.txt mechanism
- Basic Windows management and administration, such as manipulating files and folders in Windows Explorer, creating users and groups in Computer Management, and setting share permissions
- (For Linux® deployments only) Installing Linux either from CD or a network
- (For Linux deployments only) Basic Linux command line interface operations; for example, mounting and unmounting floppy and CD-ROM drives, creating directories, and copying files
- Network infrastructure

To perform tasks after the installation is complete, it is assumed that you have knowledge of editing files within Windows and Linux.

Related Documents

HP recommends reviewing the following documentation before reading this guide:

- *HP ProLiant Essentials Rapid Deployment Pack Planning Guide*
- *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition Support Matrix*

HP recommends reviewing the following documentation after reading this guide:

- *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition User Guide*

All of the documents can be found in .pdf format at http://www.hp.com/servers/rdp, from the Rapid Deployment Pack CD autorun utility, at \pim-ds\docs on the product CD, and at .\docs on the Deployment Server.

Where to Go for Additional Help

Refer to the following sources for additional information about the Rapid Deployment Pack.

Online Resources

- HP ProLiant Essentials Rapid Deployment Pack website at http://www.hp.com/servers/rdp
- HP ProLiant Essentials Rapid Deployment Pack Knowledge Base at http://www.hp.com/servers/rdp
- HP ProLiant Essentials Rapid Deployment Pack What's New at http://www.hp.com/servers/rdp
- *ITRC User Forum "ProLiant Deployment & Provisioning"* at http://forums.itrc.hp.com
- Altiris website at http://www.altiris.com

Telephone Numbers

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518.
- In Canada, call 1-800-263-5868.

For HP technical support:

- In the United States and Canada, call 1-800-652-6672.
- Outside the United States and Canada, refer to http://www.hp.com.

1

Licensing

Overview

A license allows a server to be deployed and managed by the Altiris Deployment Solution. One license is required for each server being managed. After a license is applied to a specific server, the license cannot be removed or transferred to another server.

A license file contains licenses for a predetermined number of servers. License files are applied without reference to the Rapid Deployment Pack version and are not specific to Rapid Deployment Pack—Windows Edition or Rapid Deployment Pack—Linux Edition, as long as the one license per server requirement is met.

Licensing Options

The Rapid Deployment Pack offers five license purchasing options:

- One-node license—Use this license to deploy and manage one server through the Deployment Server.
- 10-node license—Use this license to deploy and manage 10 servers through the Deployment Server.
- Flexible Quantity license—These kits are available to obtain an exact quantity of licenses in the purchase of a single software option kit.
- Activation Key Agreement—This option provides the ability to order a key in the quantity desired and for a specific time and purchase a license for each server deployed over time.
- Blade enclosure bundle—A bundle of eight or 20 licenses are available with a ProLiant BL server enclosure.

For more information about Flexible Quantity license and Activation Key Agreement options, refer to the ProLiant Essentials Licensing Options at http://www.hp.com/servers/rdp.

Obtaining Licenses

The following sections explain how to obtain evaluation or purchased licenses for your servers.

Evaluation Licenses

Two types of evaluation licenses are available for use:

- A 10-node, seven-day evaluation license is built into the Deployment Solution. No license file is required. The evaluation license can be applied during the Deployment Solution installation.
- To obtain and use a 10-node, 30-day evaluation license:
  a. Access http://www.hp.com/servers/rdp/eval.
  b. Follow the online instructions to complete the registration process. An evaluation license file will be e-mailed to you.

Purchased Licenses

To register your product and obtain your license file:

1. Locate the unique 20-character product registration number on the label **on the back** of the software packaging box. The registration number is in the form:

   xxxxx-xxxxx-xxxxx-xxxxx

   IMPORTANT: Keep your product registration number for future reference.

2. Access http://www.hp.com/servers/rdp/register.
3. Follow the online instructions to complete the registration process. A license file will be e-mailed to you.

Additional purchased licenses can be transferred or combined with already registered licenses. Refer to the instructions at http://www.hp.com/servers/rdp/register.

Applying a License File

The following sections explain how to apply evaluation or purchased licenses to your servers and how to add or replace existing licenses.

Applying License Files During a First-Time Installation

A 10-node, seven-day evaluation license is built into the Deployment Server. To apply this license, select **Free 7 day license or maintenance upgrade** during the first-time installation at the Deployment Server Client Access Point Information screen.

To apply a purchased or evaluation license file, enter the path to the license file in the License File field during the installation at the Deployment Server Client Access Point Information screen.

To view the number of licensed nodes from the console, click **Help>About.**

Applying License Files During an Upgrade Installation

To continue using existing licenses after performing an upgrade, select **Free 7 day license or maintenance upgrade** during the installation at the Deployment Server Client Access Point Information screen.

To view the number of licensed nodes from the console, click **Help>About.**

Adding Licenses to an Existing Installation

To apply additional purchased licenses to an existing installation, add the new license file to your Deployment Server:

1. Run the Altiris License utility by clicking **Start>Programs>Altiris>Altiris eXpress>Deployment Server>Product Licensing Utility.**
2. Enter the path to the new license file path in the Activation Key File Information field, and then click **Next.**
3. Follow the online instructions to apply your additional licenses.

To view the number of additional licensed nodes from the console, click **Help>About.**

Replacing Licenses in an Existing Installation

If you have previously purchased, returned, or transferred licenses and have obtained a new license file to replace your existing license file:

1. Run the Altiris License utility by clicking **Start>Programs>Altiris>Altiris eXpress>Deployment Server>Product Licensing Utility.**
2. Enter the path to the new license file path in the Activation Key File Information field, and then click **Next.**
3. Follow the online instructions to apply your additional licenses, ensuring that the **Replace all existing license Activation Keys with this new Activation Key** checkbox is selected.

To view the number of licensed nodes from the console, click **Help>About.**

2

First-Time Installation

Deployment Infrastructure

The following sections describe basic and multi-server deployment infrastructures, and the components of each.

Basic Deployment Infrastructure

In a basic deployment infrastructure, all the server components (the Altiris Deployment Solution components and the ProLiant Integration Module for Deployment Server) are installed on one Windows-based server. This infrastructure is recommended for first-time installations.

The Altiris Deployment Solution components include:

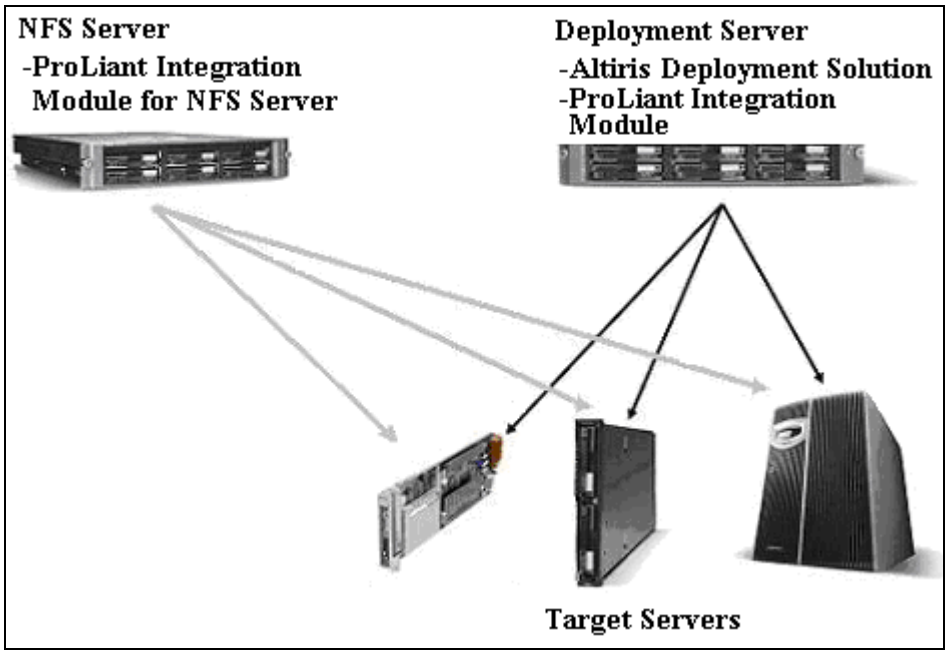
- Deployment Server Console
- Deployment Server
- Preboot eXecution Environment (PXE) server
- Client Access Point (file share)

IMPORTANT: Database management software is no longer automatically installed with the Rapid Deployment Pack, but is required. MSDE 2000 with Service Pack 3a is provided on the Rapid Deployment Pack CD and can be installed with the new Local Computer Install Helper or manually from [*CD-ROM drive*:]\extras\msde.

The ProLiant Integration Module for NFS is installed on a Linux-based server. The Rapid Deployment Pack uses NFS as the Linux installation method because:

- The NFS installation method works best across the various Linux distributions.
- Advanced Linux users can use a Linux server running NFS to build kernels, drivers, or other components that can be installed along with the distribution.

The following graphic illustrates a basic deployment setup.

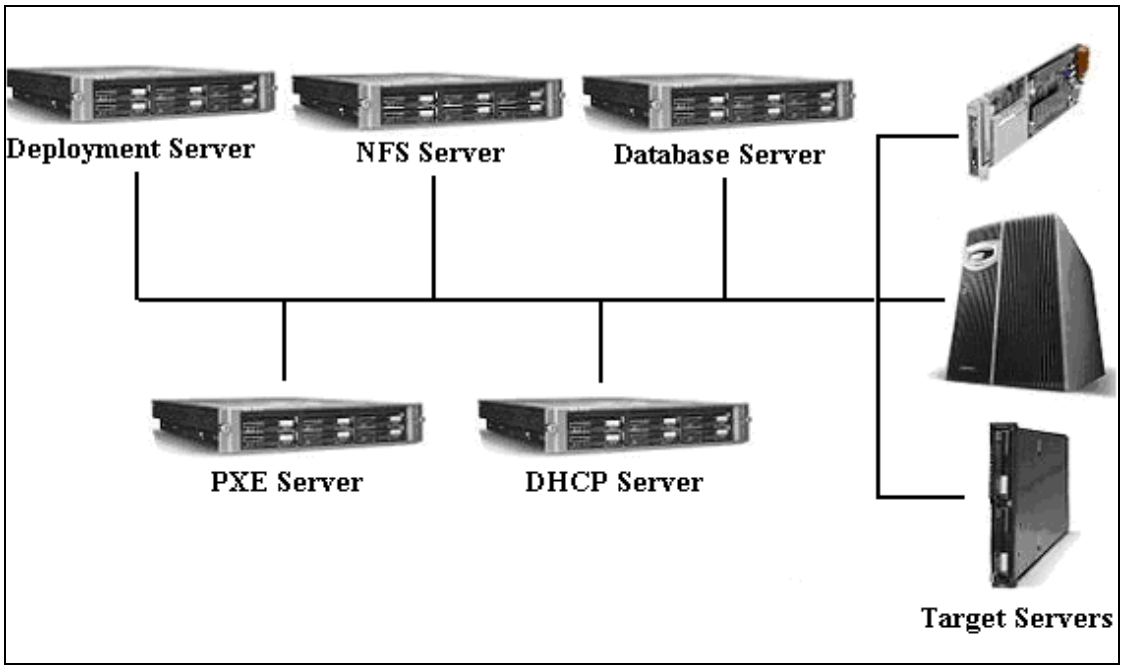


Multi-Server Deployment Infrastructure

A multi-server deployment infrastructure installation enables you to select which server components to install on multiple Windows-based servers. For example, you can assign another file server as the Client Access Point or another server as the database.

As with the basic installation method, the ProLiant Integration Module for Deployment Server is installed on the intended deployment server, and the ProLiant Integration Module for NFS Server used for Linux scripted installations is installed on the NFS server.

The following graphic depicts the multi-server deployment infrastructure.



Installation Requirements

This section describes the requirements to successfully install each component of the Rapid Deployment Pack.

NOTE: The Rapid Deployment Pack cannot be installed through a Terminal Services or remote shell connection.

Network Infrastructure Requirements

The Rapid Deployment Pack is designed to perform optimally with DHCP and PXE in the network environment. If PXE is used to perform remote deployment of servers, DHCP must be installed and accessible on the network before the Altiris Deployment Solution installation to ensure correct installation of PXE services.

System Requirements

The following system requirements for the deployment server, NFS server, and target servers must be met before installing the Rapid Deployment Pack.

Deployment Server

The deployment server hardware and network configuration must meet the following requirements:

- Intel® Pentium® III or higher processor
- At least 256 MB RAM
- CD-ROM drive
- Network connection, configured with a static IP address

  IMPORTANT: It is difficult to change the IP settings to point to a different NIC after the Deployment Solution is installed on a system. Changing these settings could cause the Deployment Server to function incorrectly.

- Current date and time for the Deployment Server set using ROM-Based Setup Utility (RBSU).

The deployment server software and configuration must meet the following requirements:

- A supported Windows operating system installed (for supported operating systems, refer to the *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition Support Matrix)*
- 1.5 GB of disk space available, plus additional space to store any captured disk images, additional Windows operating systems, or application installation files
- ProLiant Support Pack for Windows installed to provide the latest supported network drivers for the Deployment Server

HP recommends having the following items available:

- A license file for purchased licenses or 30-day evaluation licenses (for information about licensing, refer to Chapter 1 of this guide)
- Windows 98 Second Edition boot diskette or CD (required for creating PXE images and boot diskettes)
- Windows 2000 and/or Windows Server 2003 operating system CDs
- Red Hat Enterprise Linux distribution CD #1 (required for populating boot files if certain Red Hat Enterprise Linux jobs are selected)

For additional information about requirements for the Deployment Server, refer to the *Altiris Deployment Solution 6.0 Product Guide,* which can be found at http://www.hp.com/servers/rdp.

NFS Server

The NFS server hardware and network configuration must meet the following requirements:

- CD-ROM drive
- A network connection configured with a static IP address and DNS available on the network (if a host name is used in the provided jobs)

The NFS server software and configuration must meet the following requirements:

- A supported Linux operating system installed (for supported operating systems, refer to the *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition Support Matrix)*
- ProLiant Support Pack for Linux installed to provide the latest supported network drivers for the NFS server
- At least 1.9 GB of disk space available on the /usr directory for each distribution installed from the Linux NFS server
- NFS software installed and configured (if a firewall is installed on the server, the configuration must allow incoming NFS connections; for example, UDP port 2049 for a typical NFS port)

For the Rapid Deployment Pack installation, HP recommends having Red Hat Linux or UnitedLinux distribution CDs available.

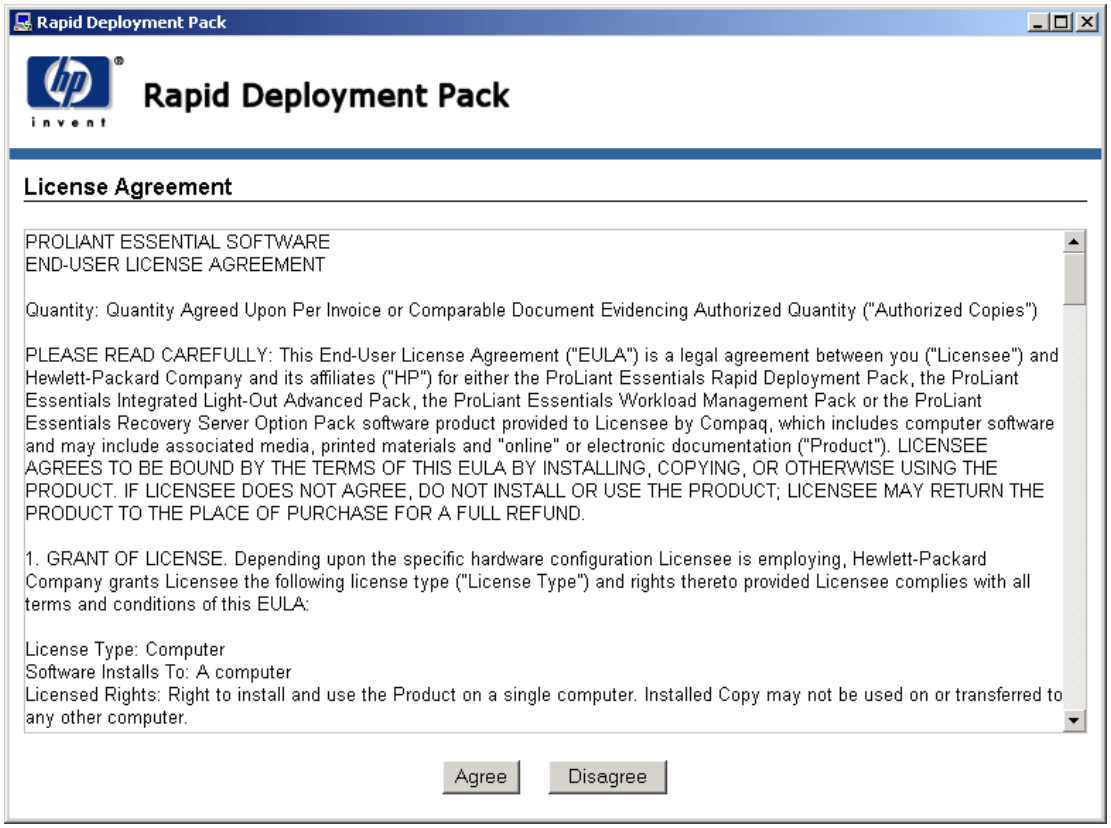
Target Servers

The Rapid Deployment Pack supports ProLiant BL servers and select ProLiant ML/DL servers. For details on target server requirements, refer to the *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition Support Matrix* for your version of Rapid Deployment Pack.

Basic Installation

To install software from the Rapid Deployment Pack—Windows Edition CD to the deployment server:

1. Insert the Rapid Deployment Pack—Windows Edition CD into the intended deployment server.
2. Read the license agreement displayed by the autorun. If you agree to the terms of the license agreement, click **Agree** to continue.



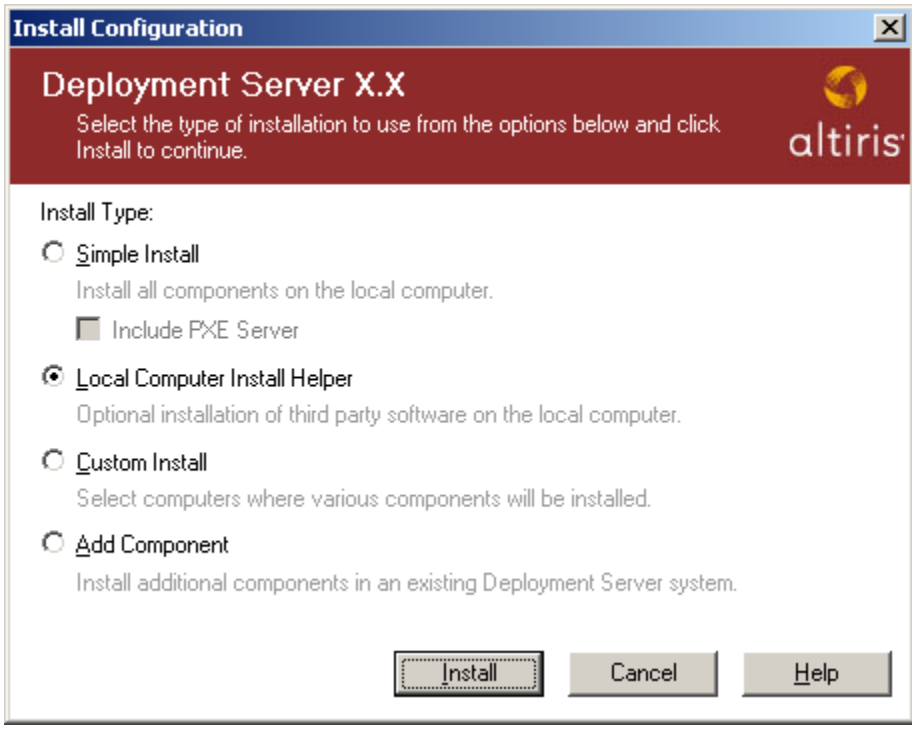
3. Review the pre-installation steps before installing the Rapid Deployment Pack software.

Altiris Deployment Solution

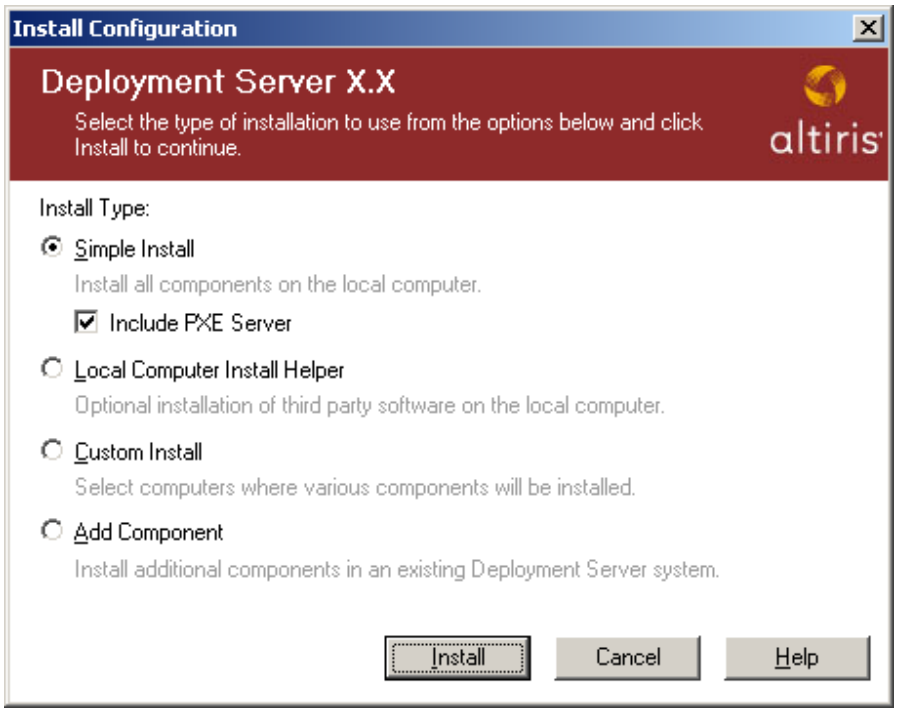
1. Click **(1) Altiris Deployment Solution** from the left pane of the autorun menu, and then click **Altiris Deployment Solution *X.X,*** where *X.X* is the software version.

2. If you do not have an existing local database management system, either:
   - Cancel the installation and install MSDE 2000 with Service Pack 3a.
   - Select **Local Computer Install Helper,** click **Install,** and follow the on-screen instructions to install MSDE with Service Pack 3a.

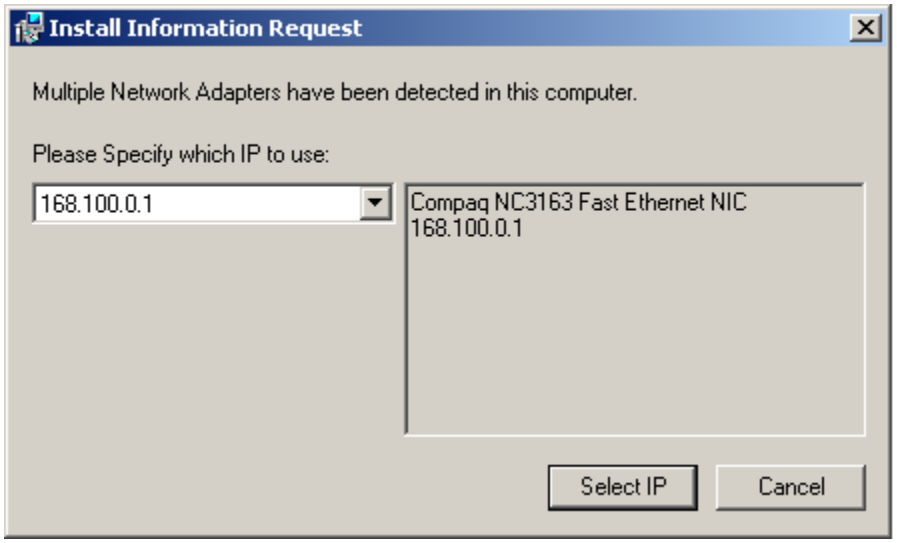
   After the installation is complete, reboot the server and restart the installation.



3. Select **Simple Install,** select the **Include PXE Server** checkbox, and then click **Install** to begin the installation process

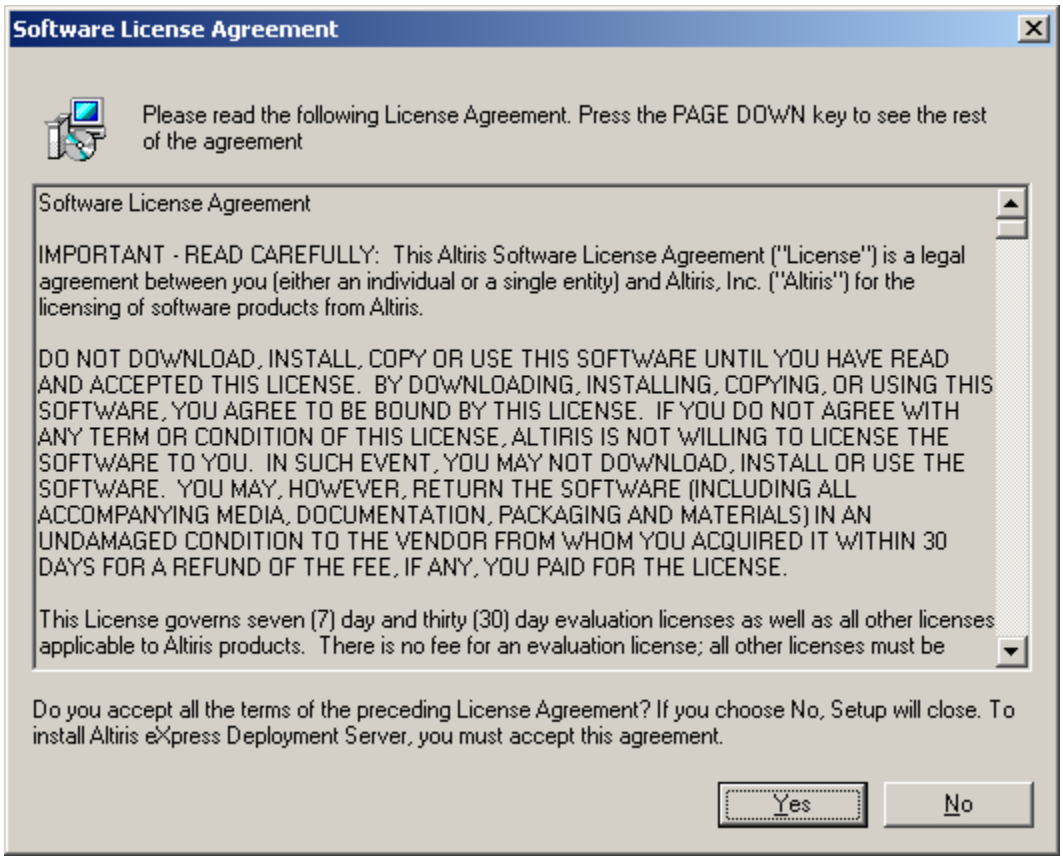


4. If installing on a system with multiple network interface cards (NICs), select the NIC to use as the Deployment Server interface, then click **Select IP.**



IMPORTANT: It is difficult to change the IP settings to point to a different NIC after the Deployment Server software is installed on a system. Changing these settings could cause the Deployment Server to function incorrectly.

5. Read the license agreement. If you agree to the terms of the license agreement, click **Yes** to continue.



6. At the Deployment Server Client Access Point Information screen, enter the user-specified information as appropriate, and then click **Next.**

   — **File server path**—This is the default installation directory. Accept the default path of .\program files\altiris\express\deployment server.

   NOTE: Specify a drive with enough available space to hold the disk images to be captured and deployed.

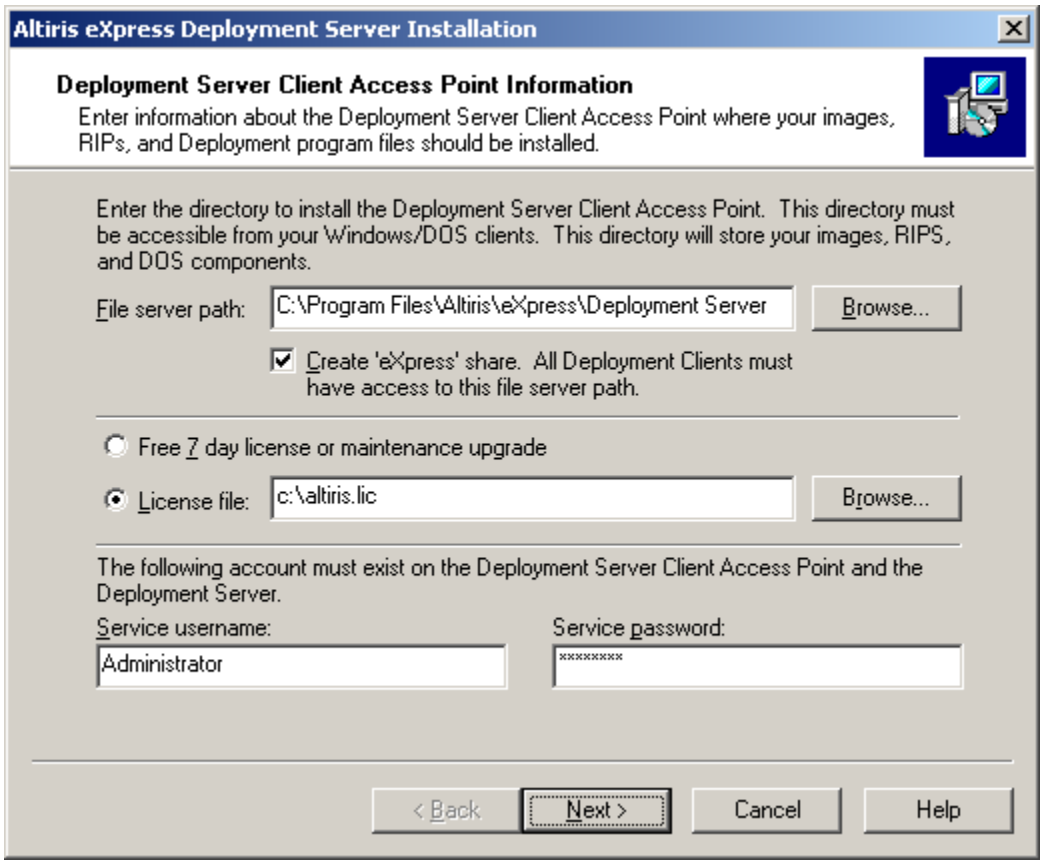
   — **Create eXpress share**—Be sure that this checkbox is selected (default).

   — **License file**—Select **Free 7 day license or maintenance upgrade,** or enter the license file path and name. For more information, refer to Chapter 1 of this guide.

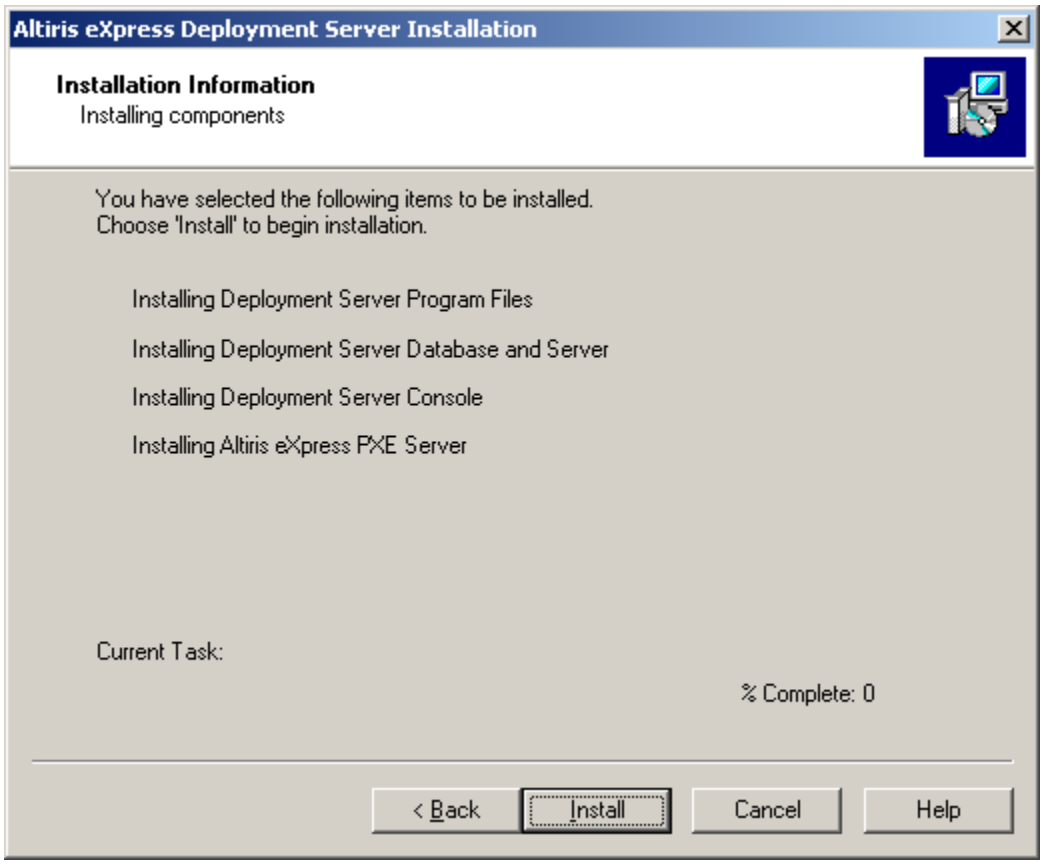
   — **Service username**—Accept the default user name (be sure it has administrator privileges).

   — **Service Password**—Enter the appropriate password for the **Service username.**

NOTE: The Service password is used for running the services and accessing the file share. The DOS agent environment stores the password in an encrypted file.



7. Click **Install** at the Installation Information screen. The Deployment Solution installation begins.

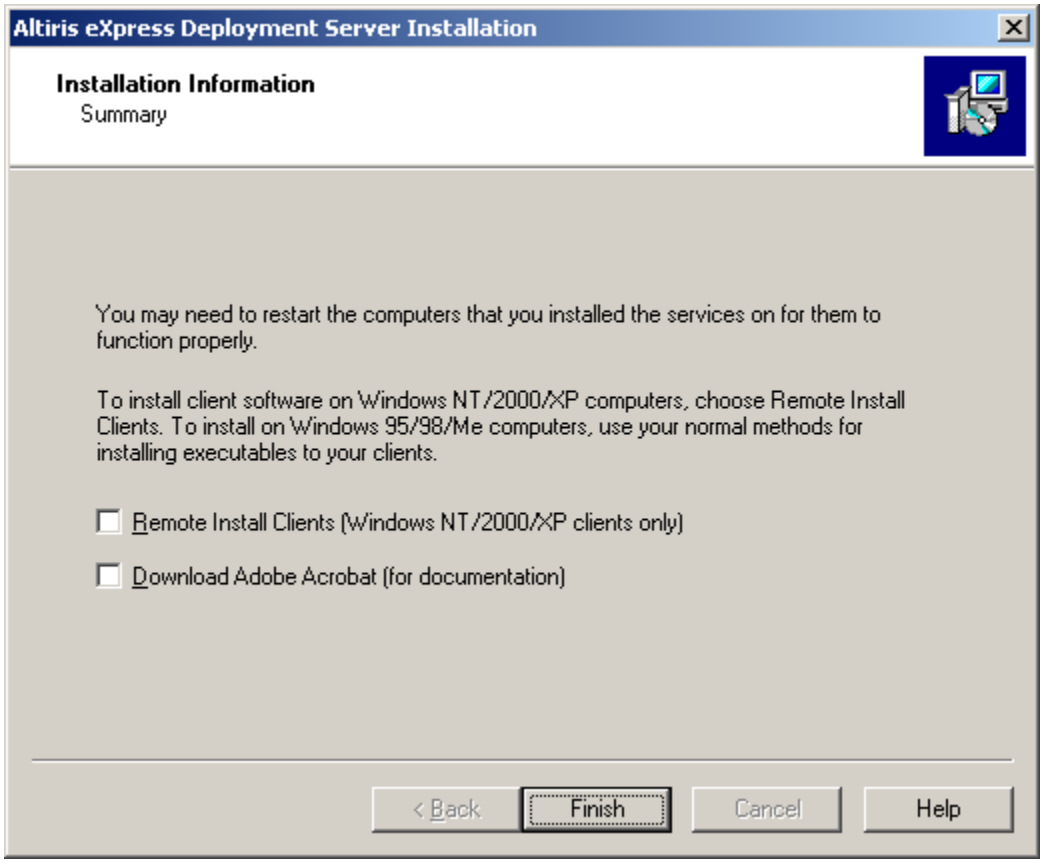


8. During the installation, you are prompted for either a Windows 9*x* boot diskette, CD, or a location from which to extract several DOS® files to create PXE images and boot diskettes. Specify the appropriate location from which to extract files, and then click **Next.** Follow the prompts to install the DOS files.

IMPORTANT: If DOS files are provided from a diskette, the installation program might also prompt for optional DOS files. To omit copying the optional DOS files, select **No longer prompt for optional files,** and then click **Finish.**

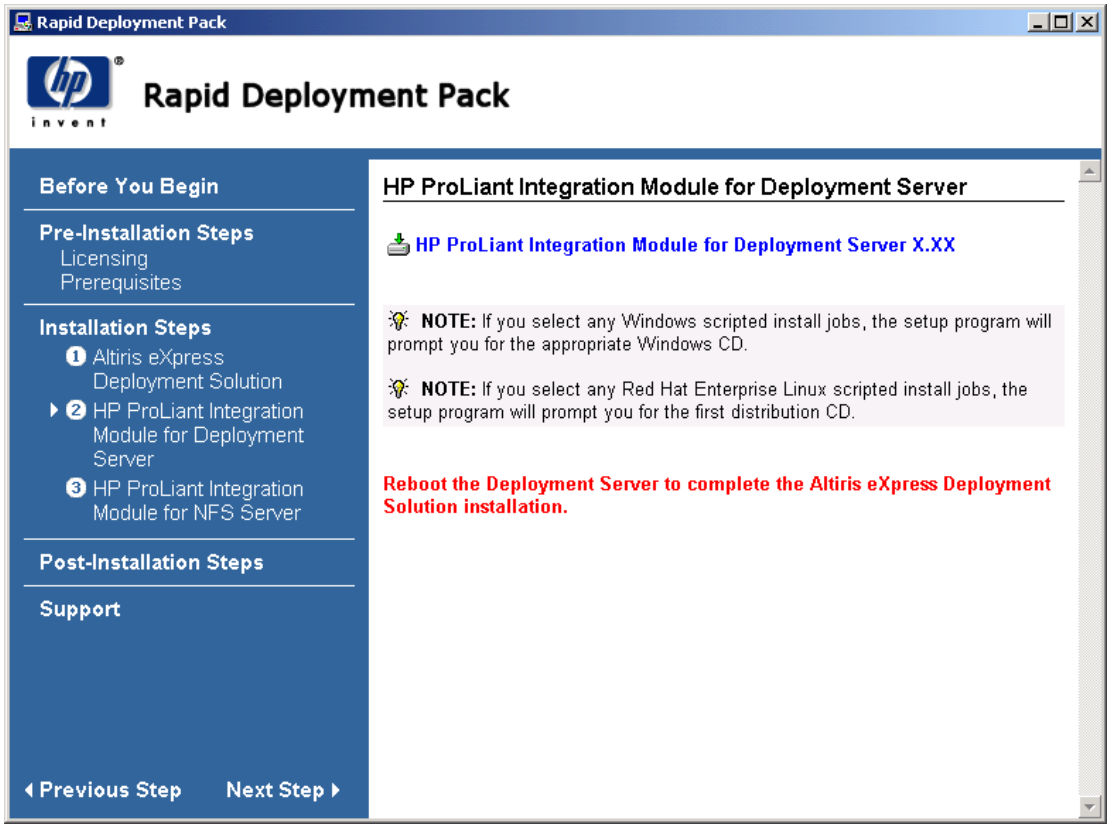
9. If the Windows 9*x* CD is used to install DOS files, reinsert the Rapid Deployment Pack—Windows Edition CD back into the CD-ROM drive when prompted to continue the Deployment Solution installation.

10. Click **Finish** at the Installation Information Summary screen.

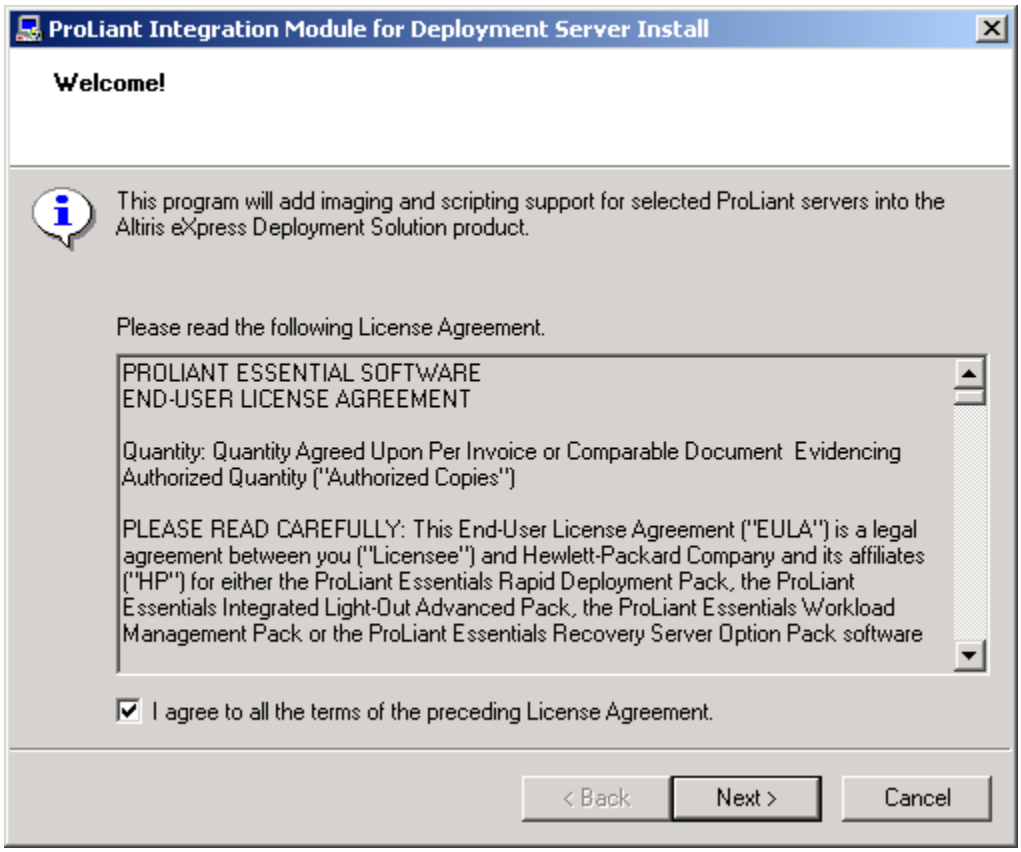


ProLiant Integration Module for Deployment Server

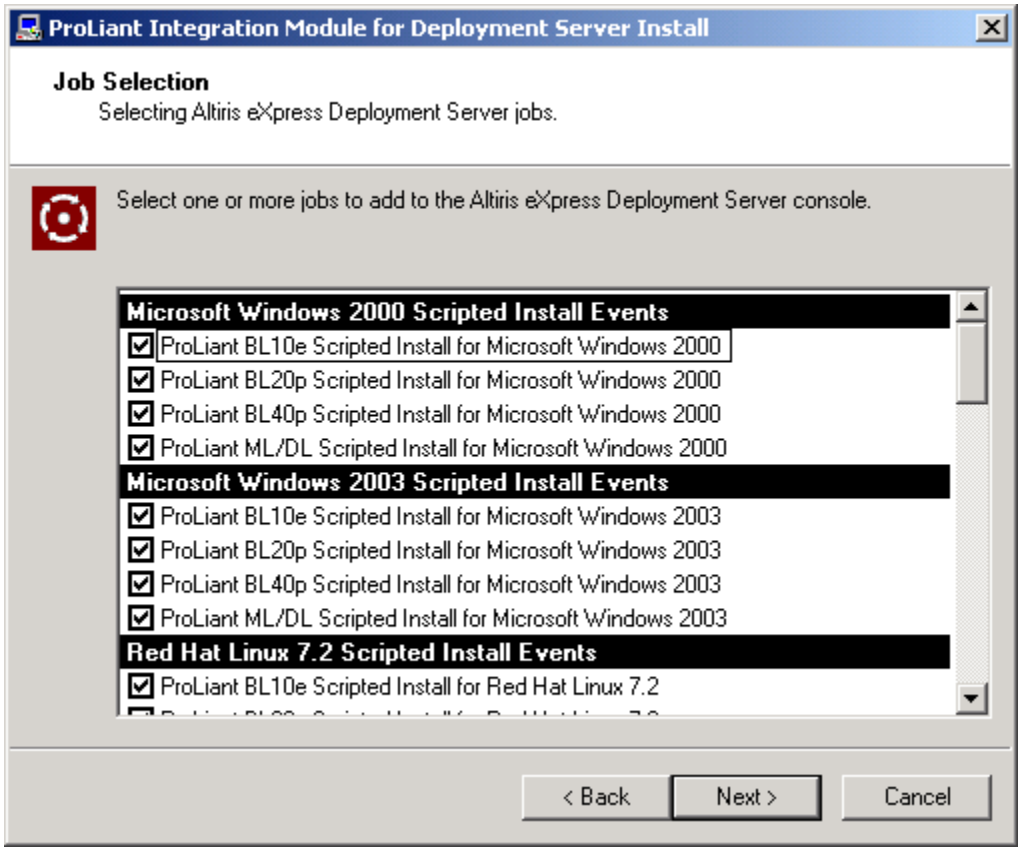
1. Click **(2) HP ProLiant Integration Module for Deployment Server** from the left pane of the autorun menu, and then click **HP ProLiant Integration Module for Deployment Server *X.XX,*** where *X.XX* is the software version.



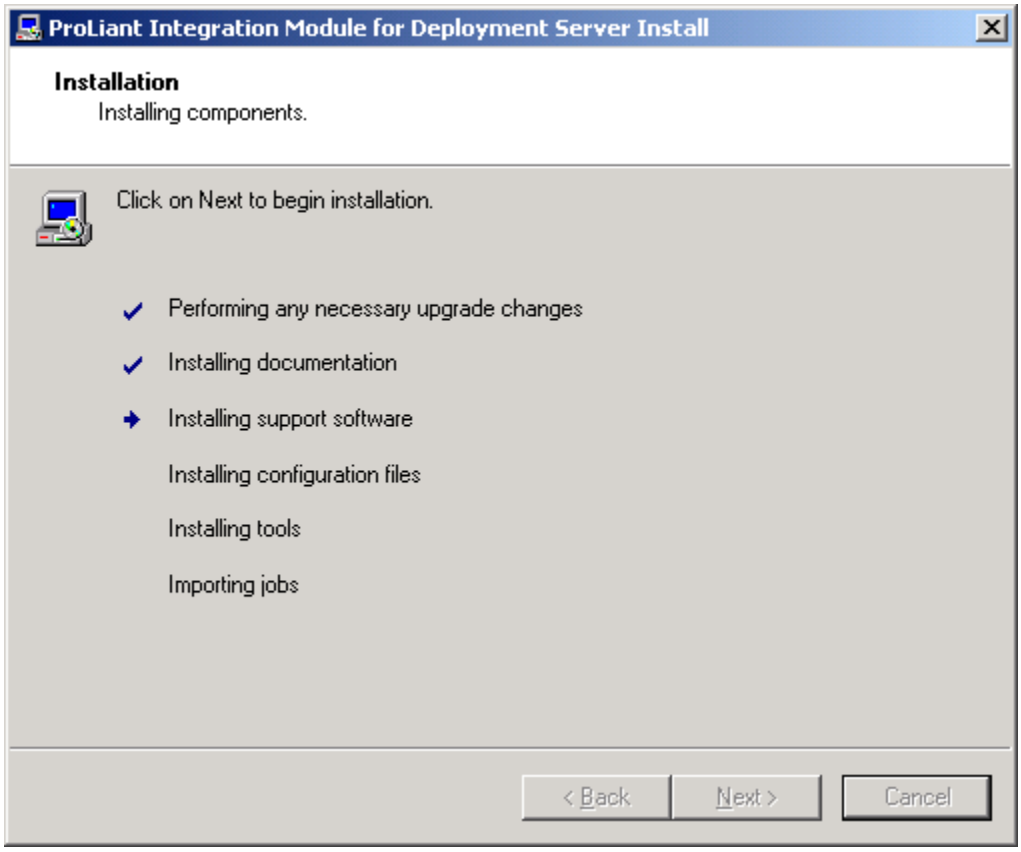
2. Read the license agreement. If you agree to the terms of the license agreement, select **I agree to all the terms of the preceding License Agreement,** and then click **Next** to continue.



3. A list of available deployment jobs appears. Select the deployment jobs that you want to import into the Deployment Server Console based on your deployment needs, and then click **Next.** The provided deployment jobs consist of:
   - Scripted Install Jobs—Enable a scripted hardware configuration and operating system installation of Windows, Red Hat Linux, or UnitedLinux to be performed on an unconfigured ProLiant server
   - Imaging Jobs—Enable the capture of the hardware configuration of a server and an image of a server hard drive, including the operating system and software applications, and deploy this hardware configuration and image to unconfigured ProLiant servers
   - Hardware Configuration Jobs—Enable the capture of the hardware configuration of an existing server and deploy that configuration to other servers
   - Packaged Cluster Deployment Jobs for Windows—Enable deployment of ProLiant DL380 Packaged Clusters using either imaging or scripting



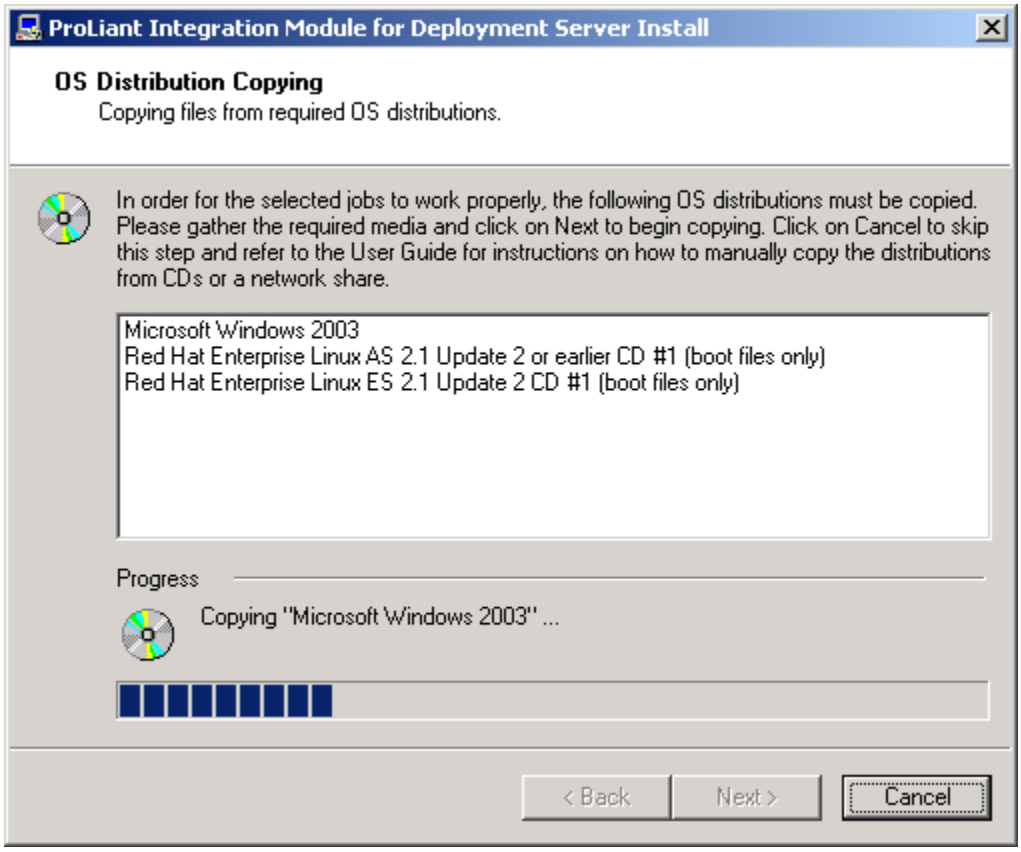
4. At the Installation screen, click **Next** to start the installation.



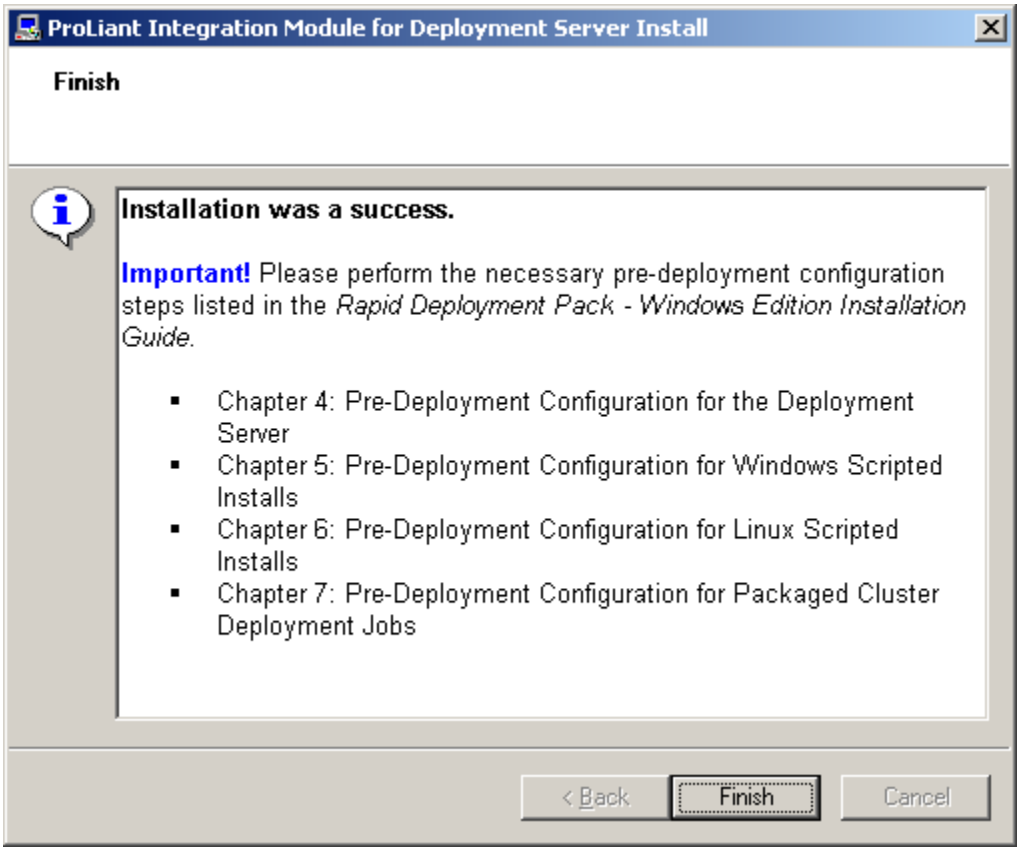
5. If necessary, you are prompted to insert operating system CDs to allow appropriate files required for scripted install jobs to be copied to the Deployment Server directory. Click **Next** to begin the copy process.

   IMPORTANT: If you omit the Windows operating system CD and/or Red Hat Enterprise Linux boot file copying steps at this time by clicking **Cancel,** you can manually install these files at a later time. For instructions, refer to the appendices of this guide.

   NOTE: You are prompted for a Red Hat Enterprise Linux CD #1 to copy only the Linux boot files to the Deployment Server. The Red Hat Enterprise Linux distribution CDs are still installed on the Linux NFS server. The version and Update of the CDs used during the installation of the NFS server and the Deployment Server must match.



6. Read the post-installation information displayed at the Finish screen, and then click **Finish.**



7. Reboot the deployment server to complete the ProLiant Integration Module for Deployment Server installation.

The Deployment Server installation is complete. However, before attempting to use the Deployment Server to perform scripted installations, complete the appropriate pre-deployment procedures in this guide.

ProLiant Integration Module for NFS Server

A Linux NFS server is required to deploy Linux using the provided scripted install jobs. To install the Rapid Deployment Pack on the Linux NFS server:

1. Log in as `root` at the intended NFS server.
2. Mount the CD:

   `mount /mnt/cdrom` (Red Hat)

   or

   `mount /media/cdrom` (UnitedLinux)

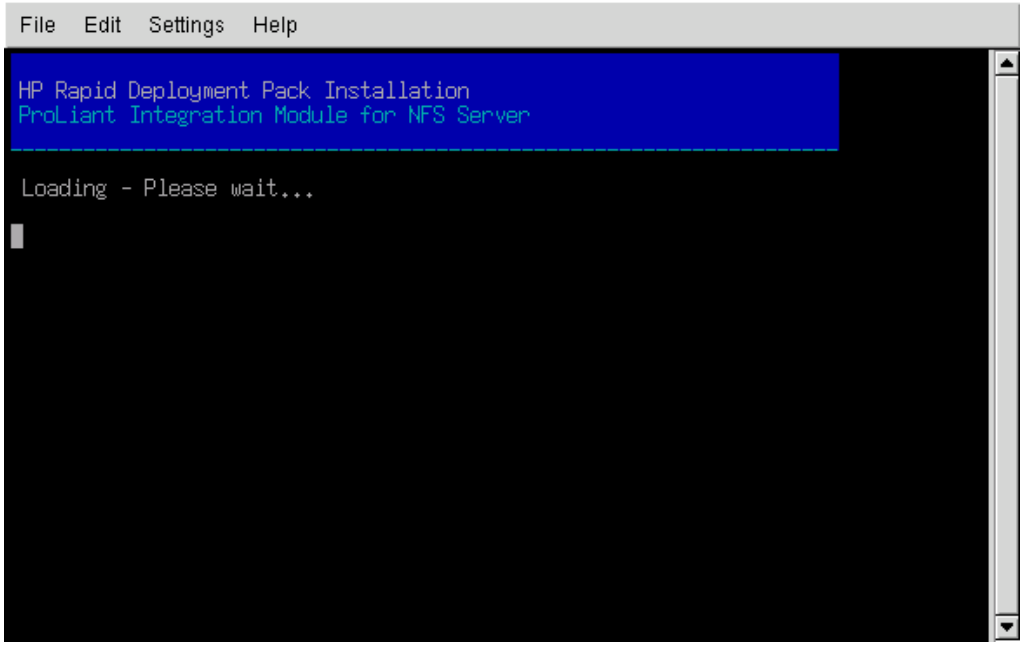
3. Run the setup script:

   `/mnt/cdrom/pim-nfs/setup-pimnfs.sh` (Red Hat)

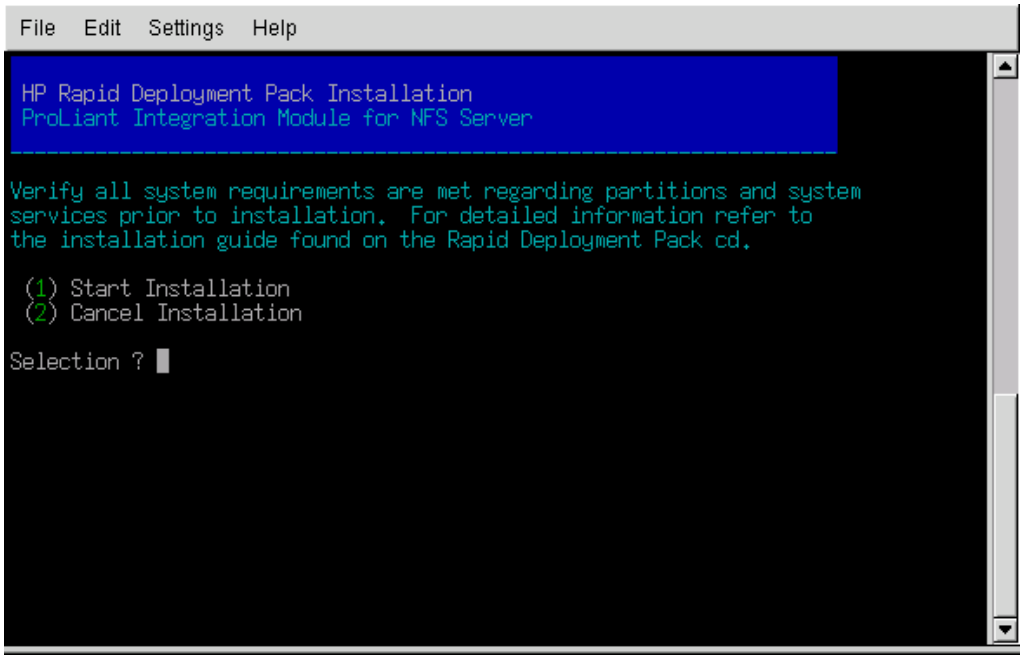
   or

   `/media/cdrom/pim-nfs/setup-pimnfs.sh` (UnitedLinux)

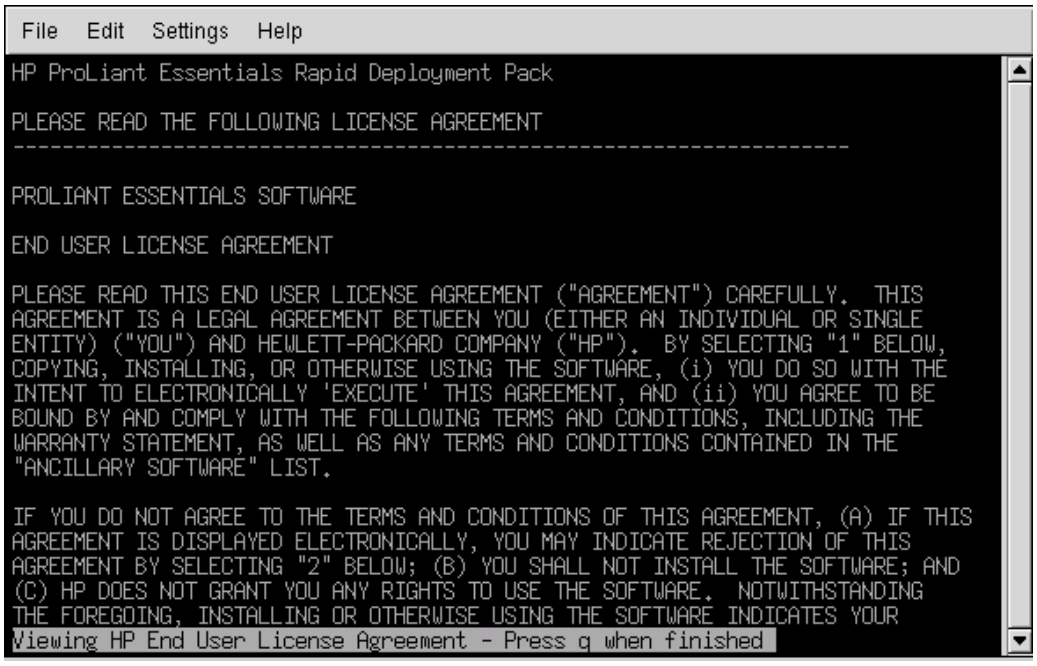
NOTE: Do not change directory to the CD-ROM directory to run the setup script.



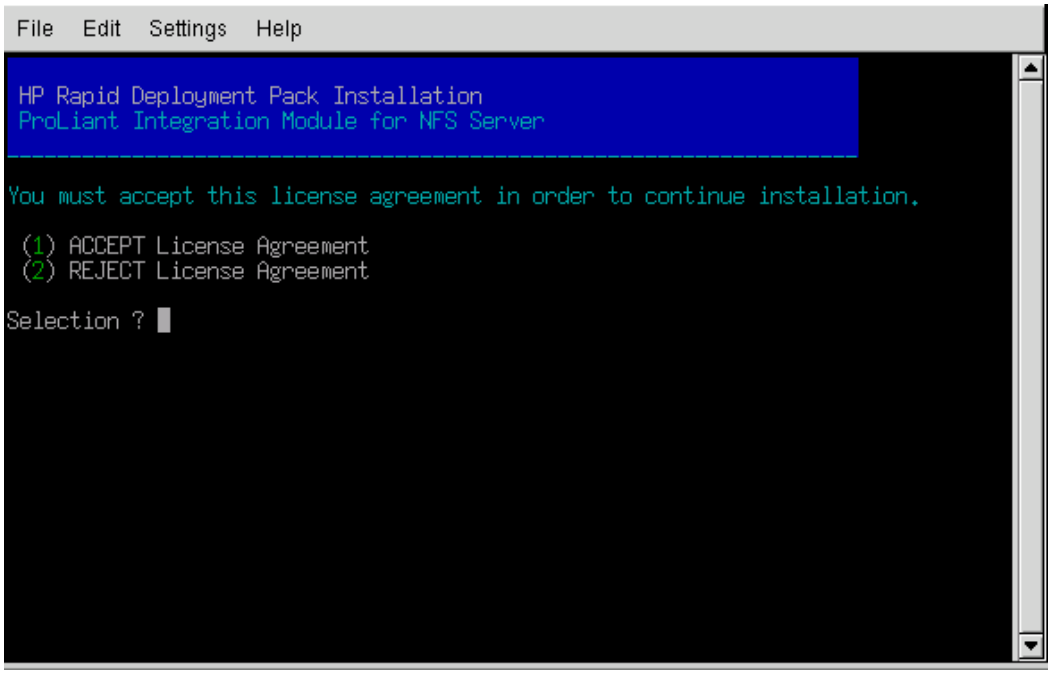
4. Enter `1` to start the installation, and then press the **Enter** key.



5. Read the license agreement displayed, and then enter `q`.



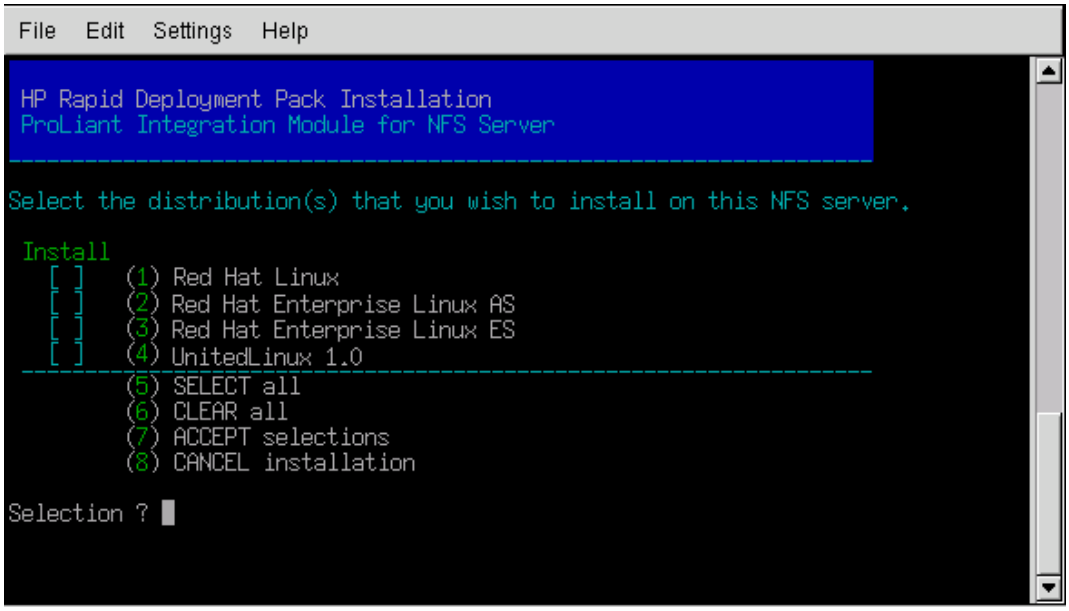
6. If you agree to the terms of the license agreement, enter `1` to accept the license agreement, and then press the **Enter** key.



A list of the supported Linux distributions that can be deployed with Rapid Deployment Pack appears. Selecting a Linux distribution copies the ProLiant Support Pack files for that distribution and starts the Linux distribution CD query process to copy the Linux files onto the NFS server.

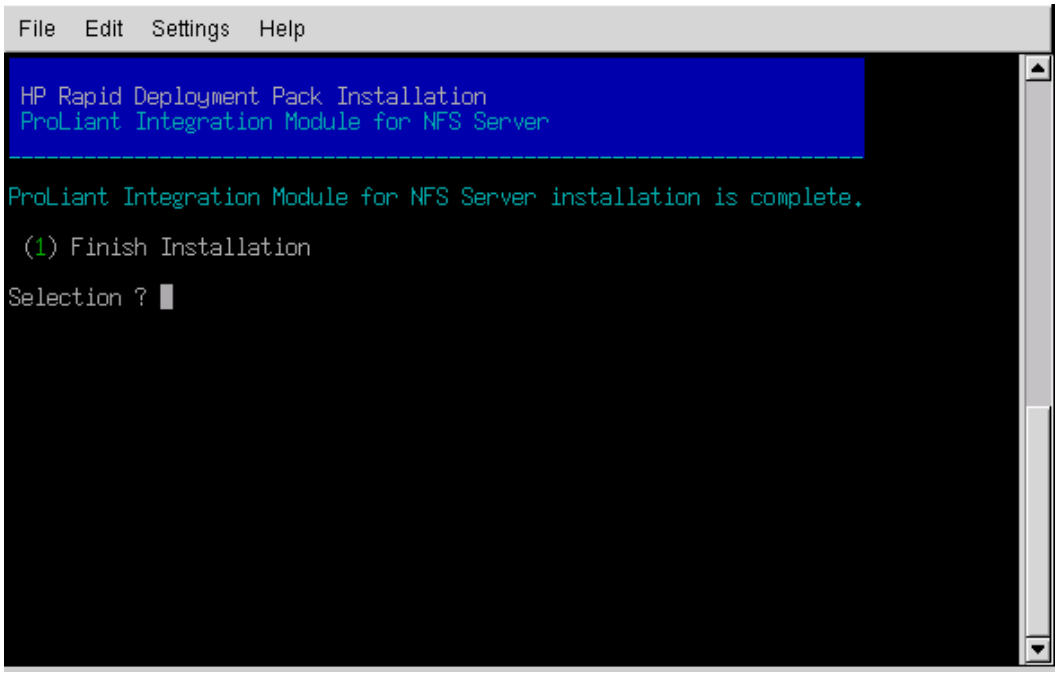
7. For each distribution to be installed, enter the corresponding selection number for the distribution and press the **Enter** key. To select all distributions, enter the appropriate number to **SELECT all** and press the **Enter** key.

   NOTE: Selection numbers vary depending on the number of available distributions.



8. When you have selected all the Linux distribution to be installed, enter the appropriate number to **ACCEPT selections** and press the **Enter** key. The file copy and CD query process begins.
9. After the ProLiant Support Pack files and distributions files are copied and you are prompted for the Rapid Deployment Pack—Windows Edition CD, insert the CD into the CD-ROM drive.

10. The following screen confirms the ProLiant Integration Module for NFS Server installation is complete. Enter `1` to finish the installation, and press the **Enter** key.



The ProLiant Integration Module for NFS Server installation is complete. However, before attempting to use the Deployment Server to perform Linux distribution scripted installations, complete the appropriate pre-deployment procedures in this guide.

Multi-Server Installation

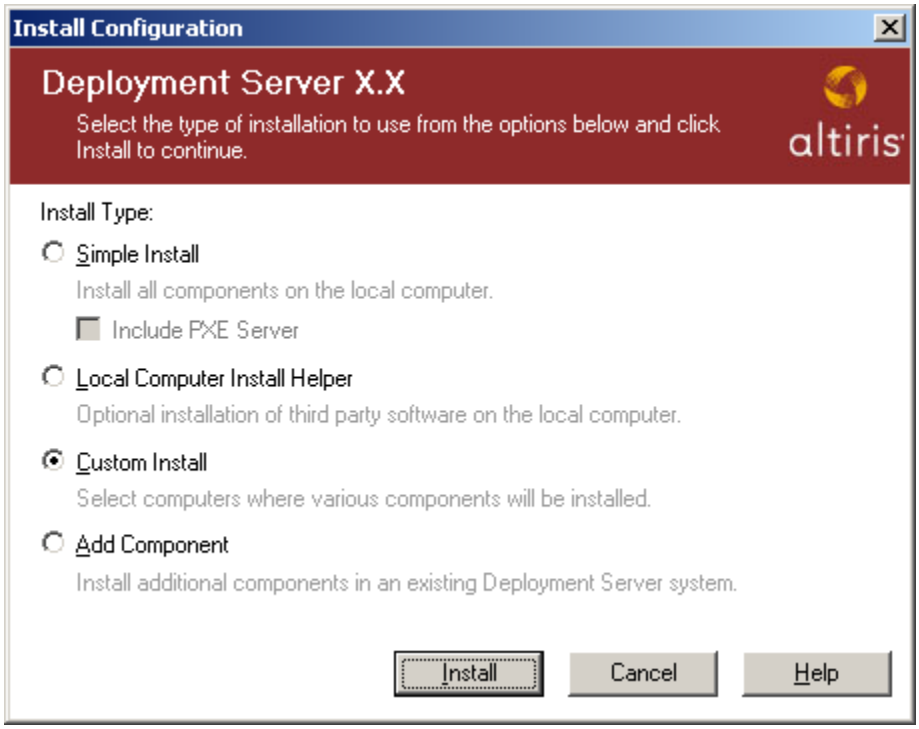
A multi-server deployment infrastructure installation enables you to select if and where you want to install each component of the Altiris Deployment Solution. As with the basic installation method, the ProLiant Integration Module for Deployment Server is installed on the intended Deployment Server, and the ProLiant Integration Module for NFS Server used for Linux scripted installations is installed on the NFS server. :

Altiris Deployment Solution

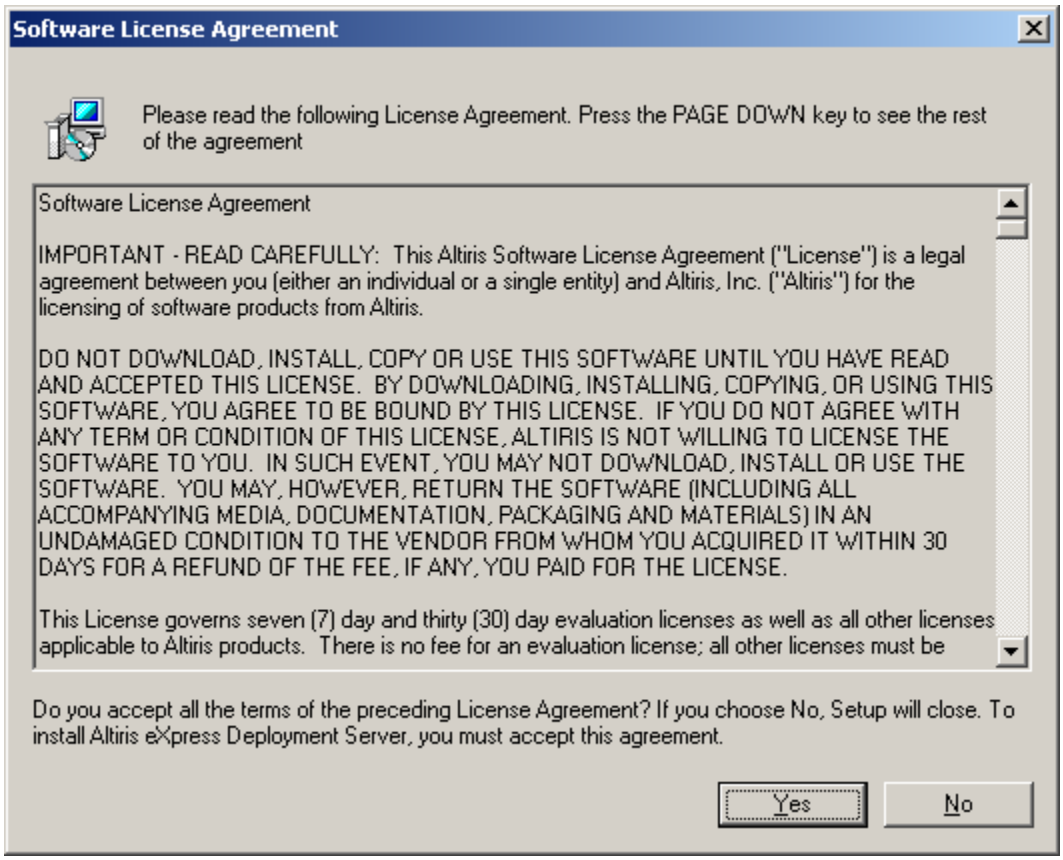
To install the Altiris Deployment Solution in a multi-server deployment infrastructure:

1. Click **(1) Altiris Deployment Solution** from the left pane of the autorun menu, and then click **Altiris Deployment Solution *X.X,*** where *X.X* is the software version.

2. Select **Custom Install,** and then click **Install** to begin the installation process.



3. Read the license agreement. If you agree to the terms of the license agreement, click **Yes** to continue.



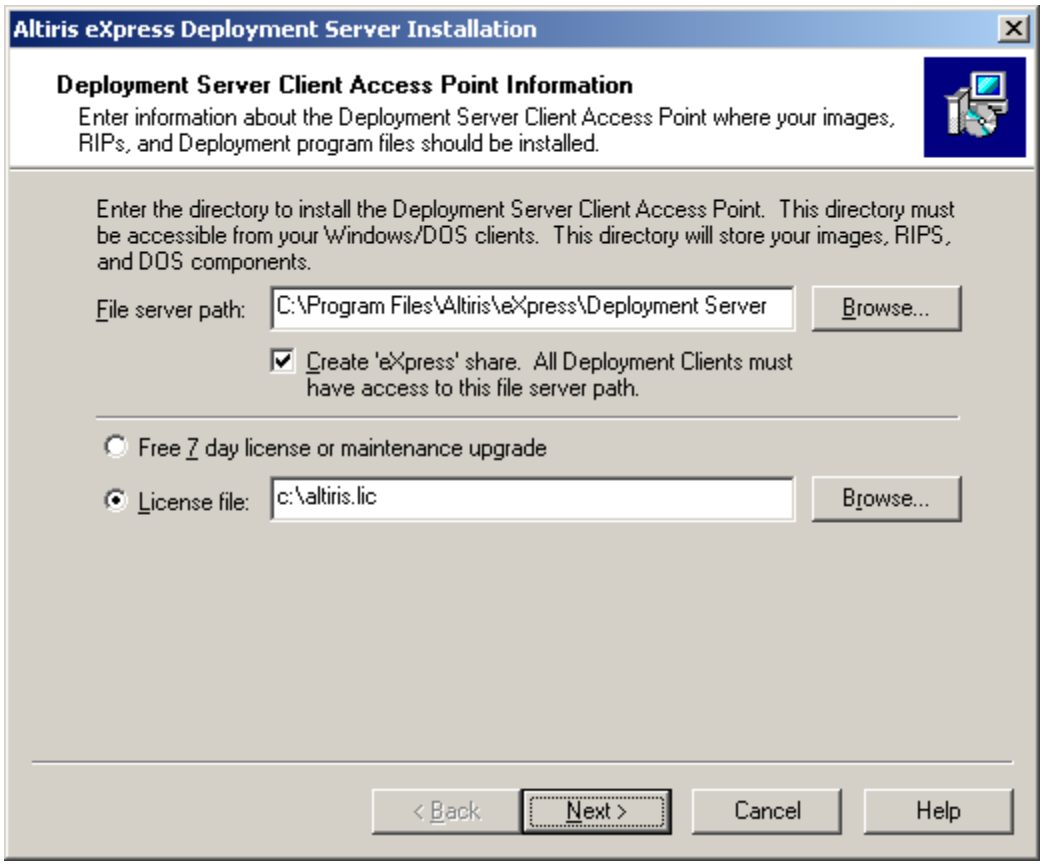
4. At the Deployment Server Client Access Point Information screen, enter the user-specified information as appropriate, and then click **Next.**

   — **File server path**—This is the Altiris default installation directory. Accept the default path of .\program files\altiris\express\deployment server.

   NOTE: Specify a drive with enough available space to hold the disk images to be captured and deployed.

   — **Create eXpress share**—Be sure that this checkbox is selected (default).

   — **License file**—Select the **Free 7 day license or maintenance upgrade** option, or enter the license file path and name. For more information, refer to Chapter 1 of this guide.



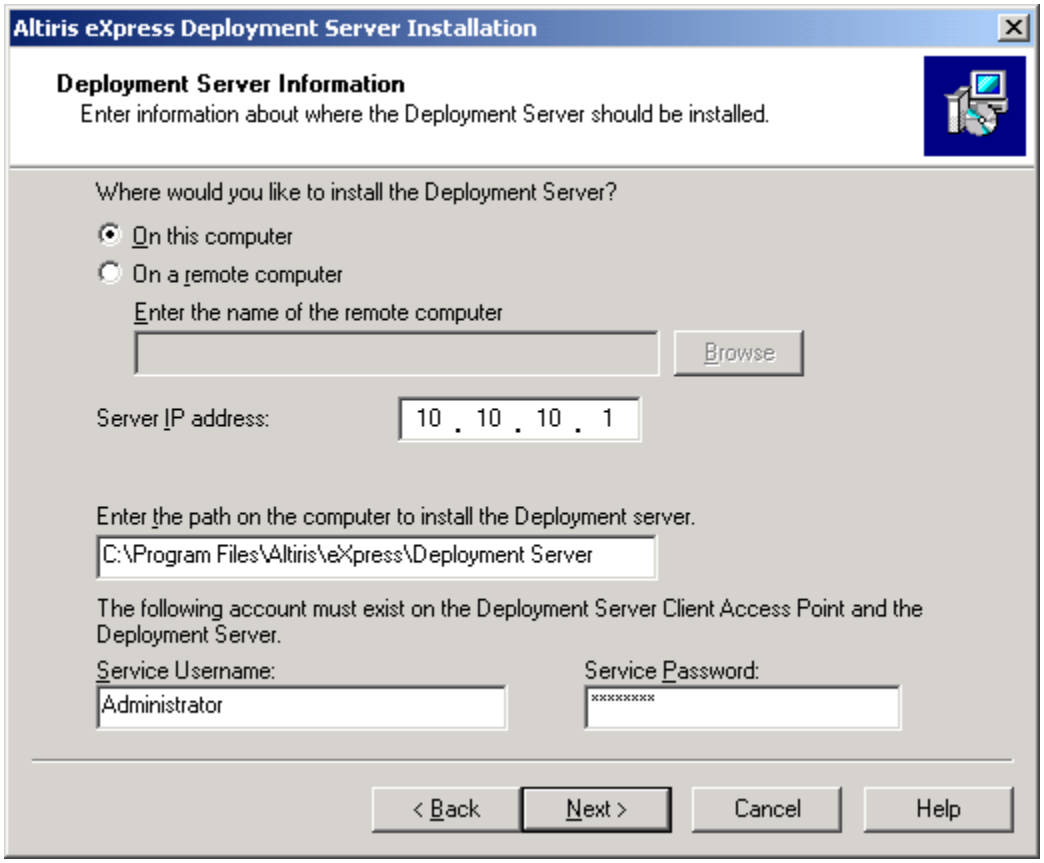
5. At the Deployment Server Information screen, enter the user-specific information as appropriate, and then click **Next.**

   a. Select **On this computer** to install the Deployment Server on the local computer, or select **On a remote computer** and enter the computer name of the remote computer to install the Deployment Server on an existing server.

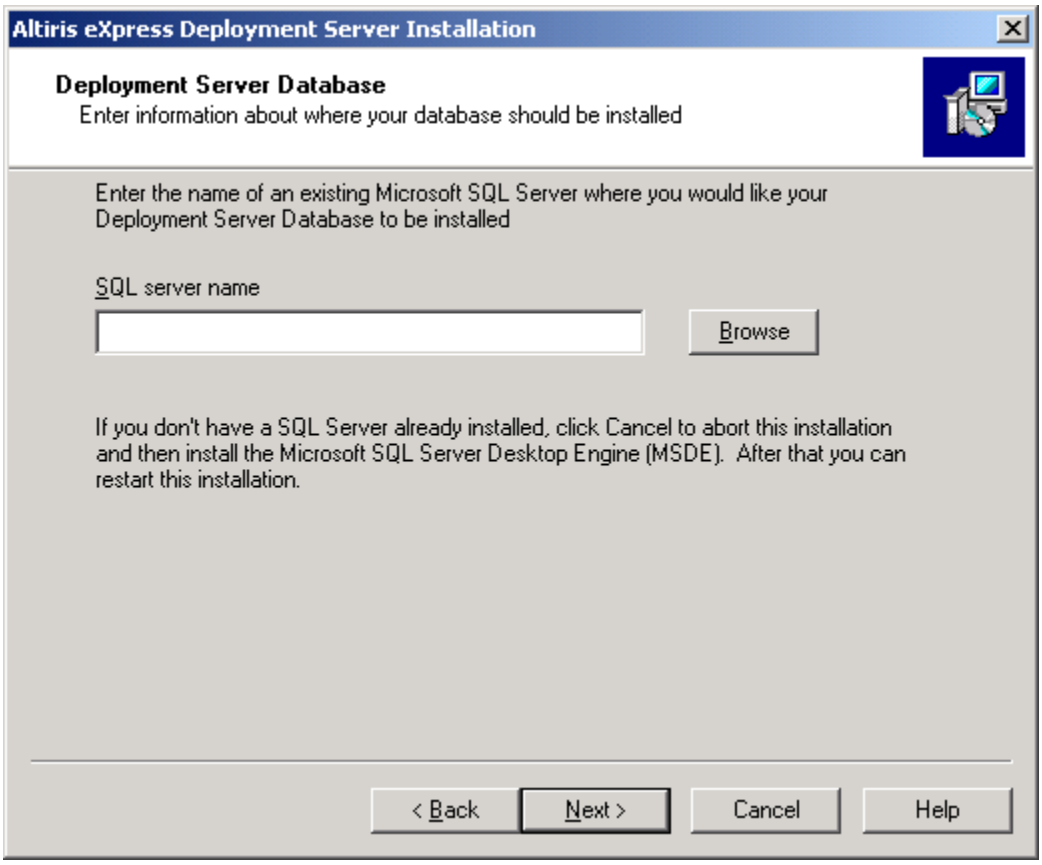
   b. Enter the IP address of the interface that the Deployment Server will use.

   c. Enter the directory path where the Deployment Server files are installed. This should be the same location as used in the previous screen (accept the default).

   d. Enter the **Service Username** and **Service Password** of the Administrator account.

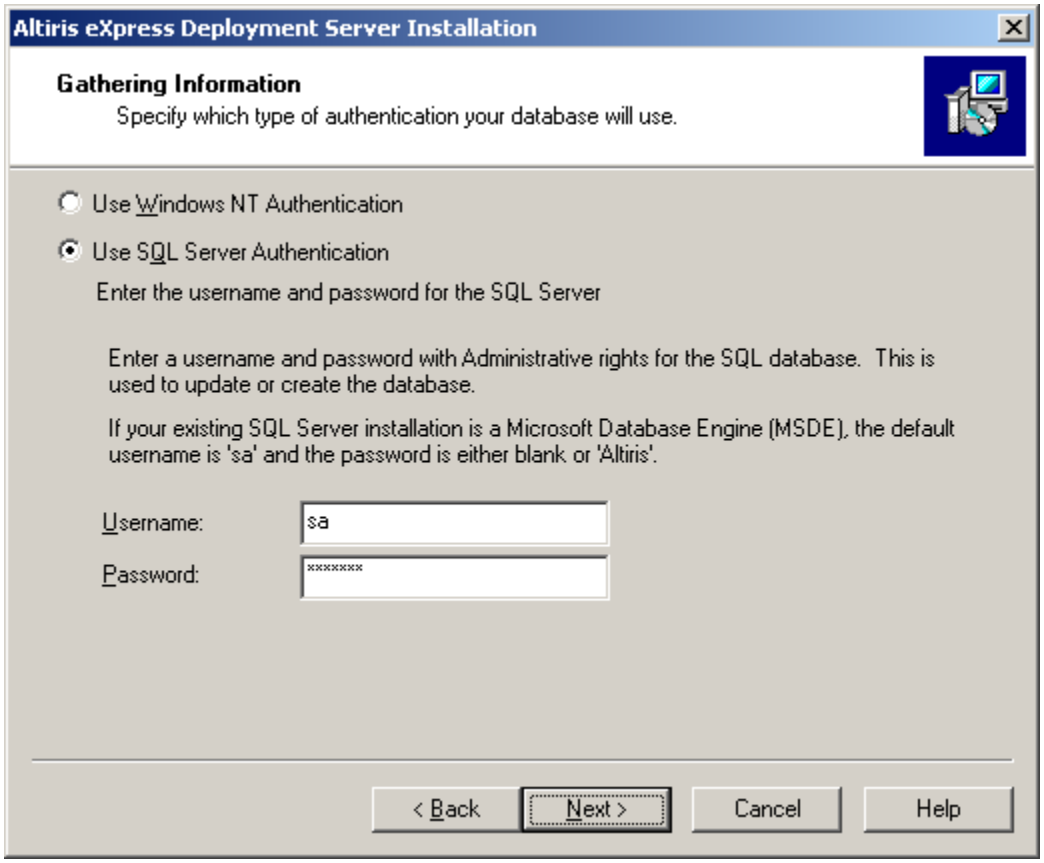


6. At the Deployment Server Database screen, enter the name of the server where the database is located, and then click **Next.** If the database is located on the Deployment Server, the server name appears by default.

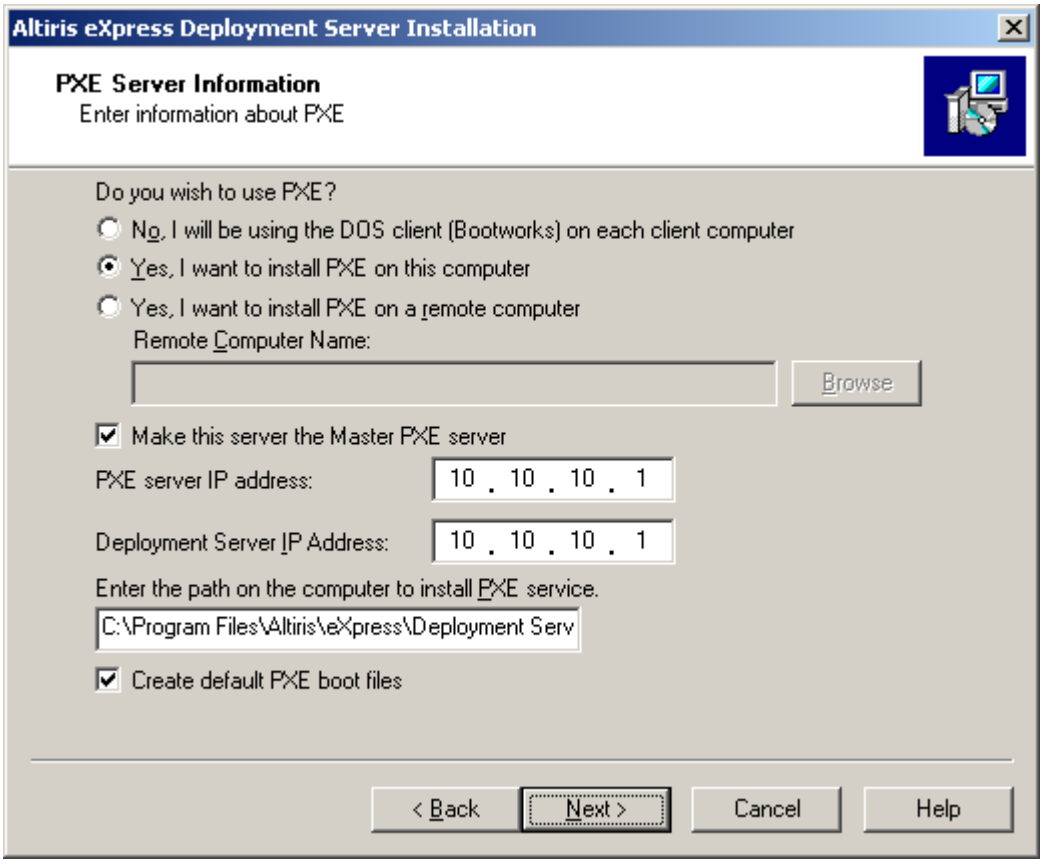


NOTE: If the database is located on a remote server, you might be prompted for authentication. Enter a user name and password with administrative rights.

7. If you selected to install to an existing SQL database, the Gathering Information screen appears, allowing the name and password for accessing the SQL server to be entered. If a unique name and password has been specified during SQL install, it can be entered here. Enter the appropriate SQL user name and password in the fields provided, and then click **Next** to continue.



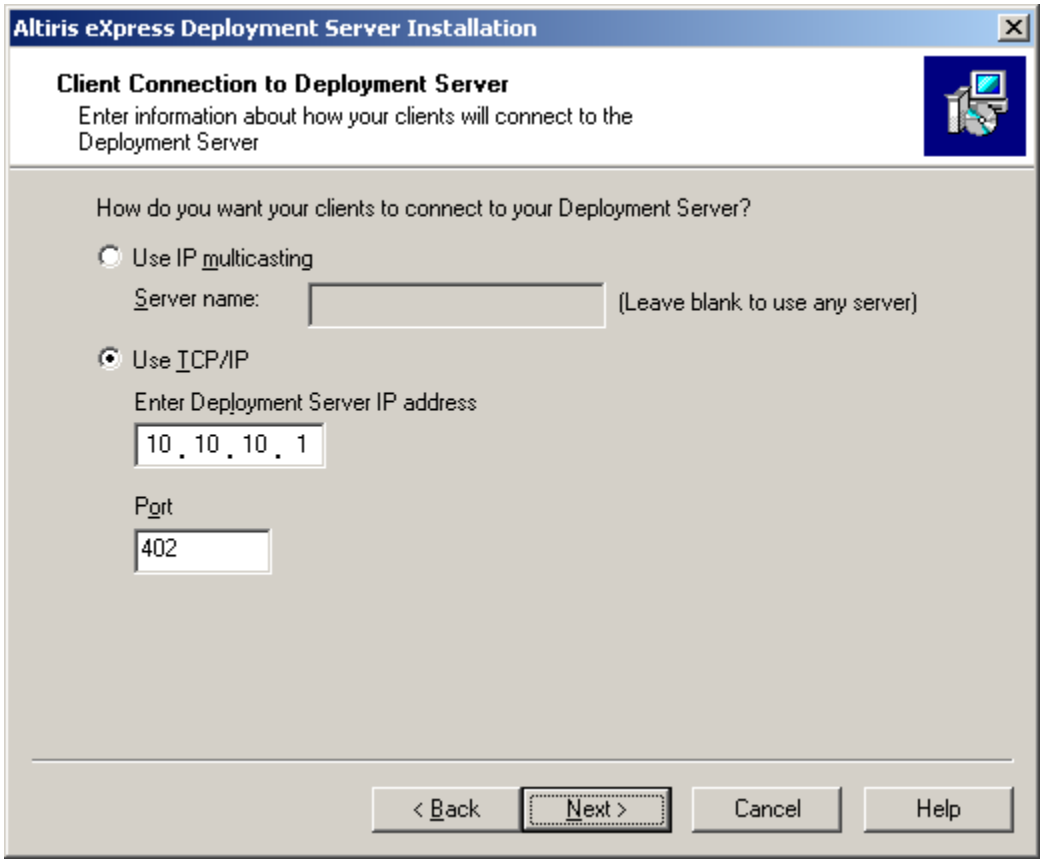
8. At the PXE Server Information screen, select your PXE options. Be sure that **Make this server the Master PXE server** and **Create default PXE boot files** are selected, and then click **Next** to continue..



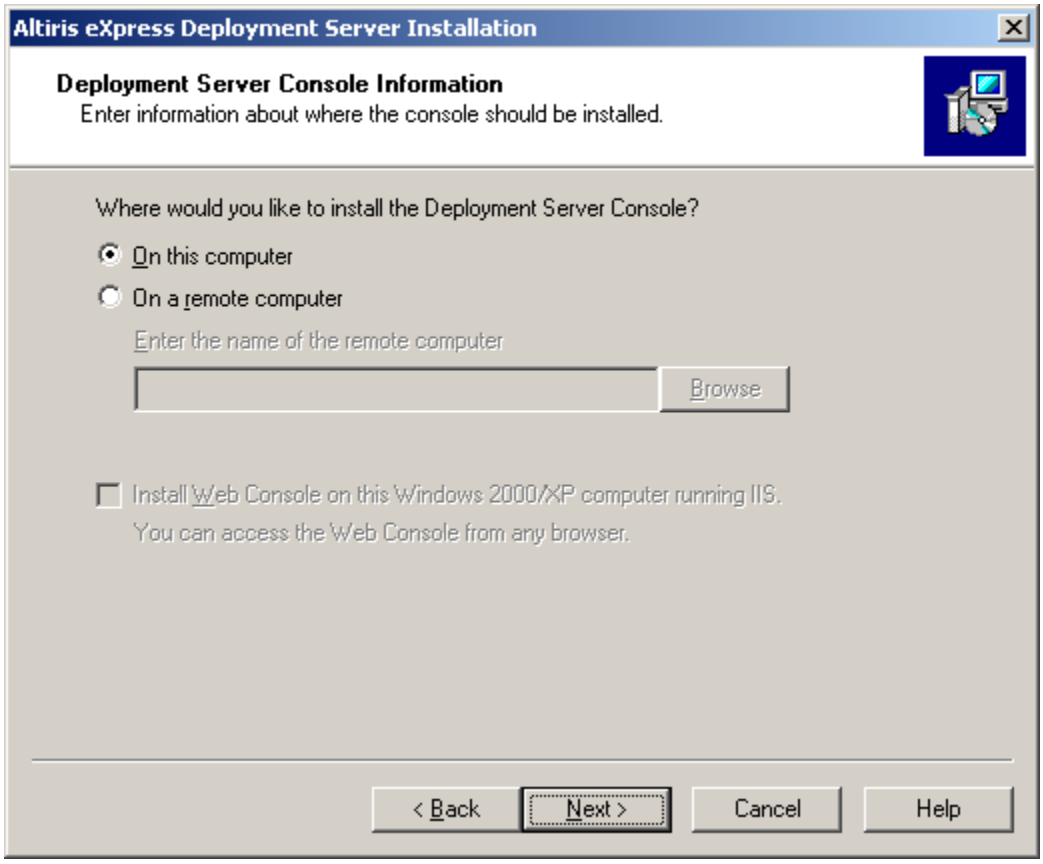
9. At the Client Connection to Deployment Server screen, specify how the client will connect to the Deployment Server, and then click **Next** to continue.

   a. Select **Use TCP/IP** to be sure that the clients connect directly to the Deployment Server.

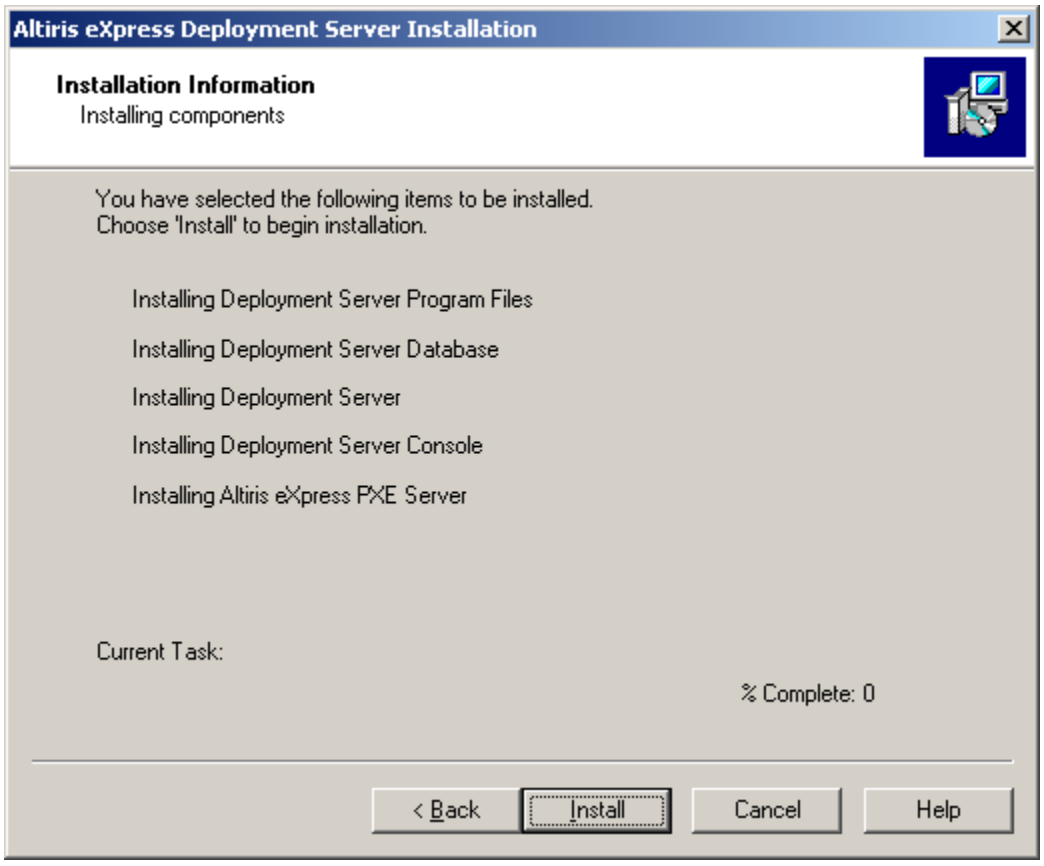
   b. Be sure that the IP address is correct for the Deployment Server.



10. At the Deployment Server Console Information screen, determine the GUI console location, and then click **Next** to continue.
    a. If the console will be on the current Deployment Server, select **On this computer.**
    b. If the console will be on a remote computer, select **On a remote computer,** and enter the name of the remote computer.



11. Click **Install** at the Installation Information screen. The Deployment Server software installation begins.

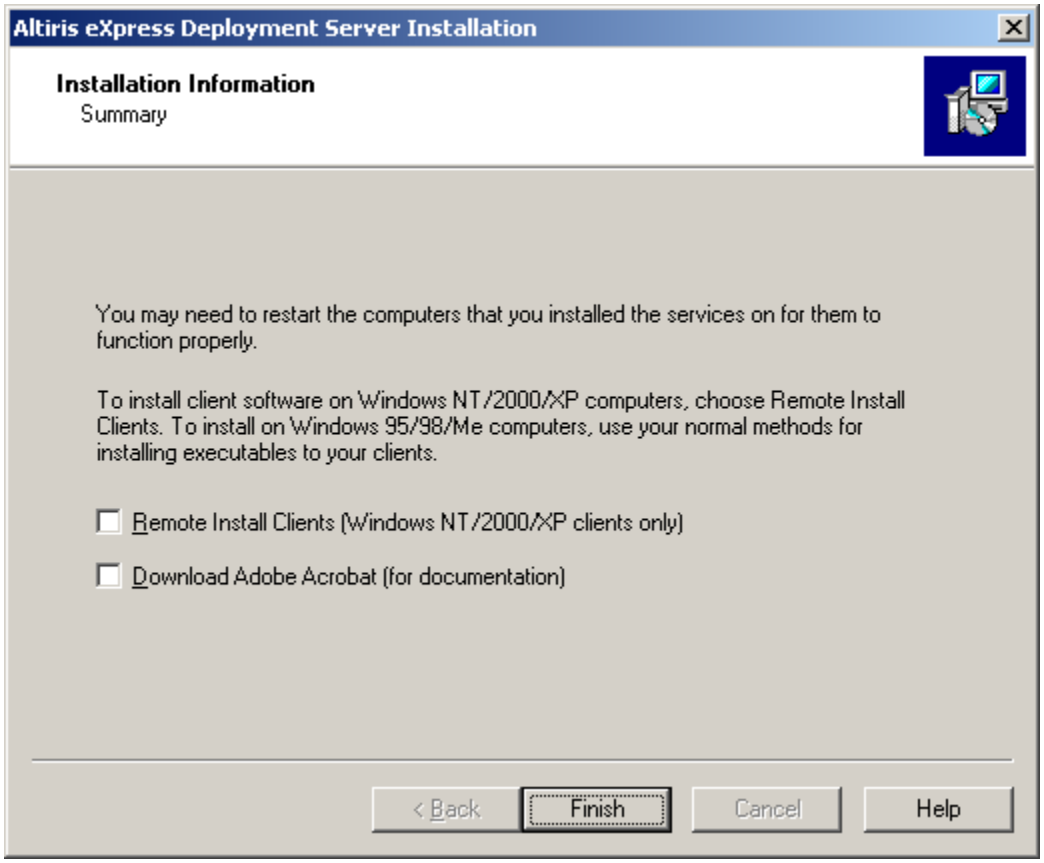


12. During the installation, you are prompted for either a Windows 9*x* boot diskette, CD, or a location from which to extract several DOS files to create PXE images and boot diskettes. Specify the appropriate location from which to extract files, and then click **Next.** Follow the prompts to install the DOS files.

IMPORTANT: If DOS files are provided from a diskette, the installation program might also prompt for optional DOS files. To omit copying the optional DOS files, select **No longer prompt for optional files,** and then click **Finish.**

13. If the Windows 9*x* CD was used to install DOS files when prompted, reinsert the Rapid Deployment Pack—Windows Edition CD in the CD-ROM drive when prompted to continue the Deployment Solution installation.

14. Click Finish.



ProLiant Integration Module for Deployment Server

To install the ProLiant Integration Module for Deployment Server on the Deployment Server, follow the steps in the "ProLiant Integration Module for Deployment Server" section under "Basic Installation."

IMPORTANT: When a custom installation of the Altiris Deployment Solution is performed, the ProLiant Integration Module for Deployment Server must be installed on the same machine on which the Deployment Server Console component was installed.

ProLiant Integration Module for NFS Server

To install the ProLiant Integration Module for NFS server on a Linux server for Linux scripted installations, follow the steps in the "ProLiant Integration Module for NFS Server" section under "Basic Installation."

3

Upgrading

IMPORTANT: Shut down the Deployment Server Console before attempting to upgrade the Rapid Deployment Pack software.

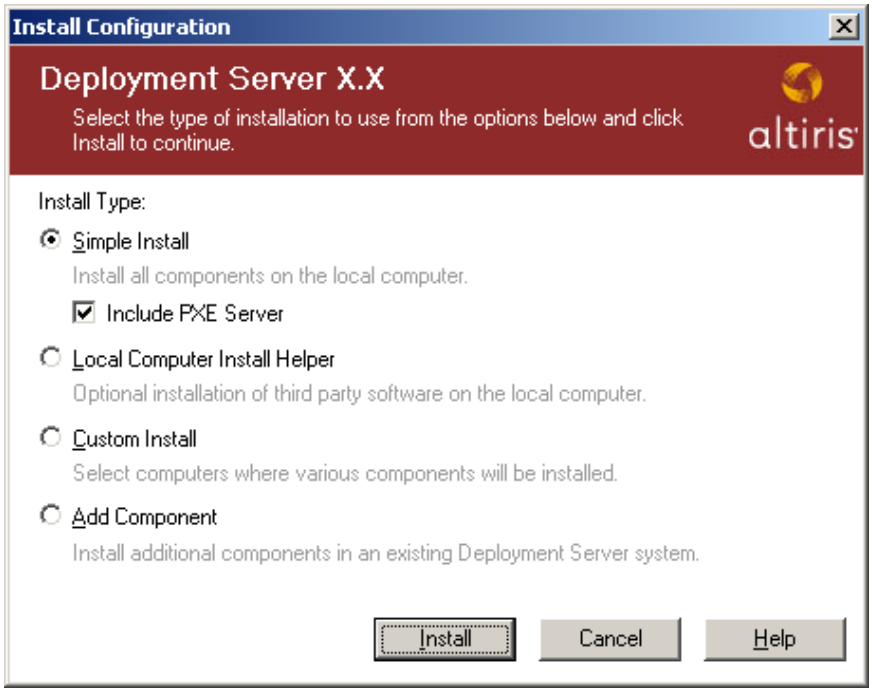
To upgrade the Rapid Deployment Pack software currently installed on the Deployment Server, insert the Rapid Deployment Pack—Windows Edition CD into the Deployment Server. An autorun menu appears.

Altiris Deployment Solution

IMPORTANT: If you obtained your existing licenses before 11/20/2003, you should have received a new license file validating your licenses for an Altiris 6.0 software upgrade and providing 10-year Annual Upgrade Protection. Apply this new license file with the Altiris License Utility before upgrading to the Rapid Deployment Pack 1.50. If you did not receive this license file, contact HP support before upgrading. Upgrading before applying a new license file can cause your existing licenses to become invalid, resulting in a reduced license count (possibly to zero).

1. From the Software Upgrades page, click **Altiris Deployment Solution *X.XX,*** where *X.XX* is the software version.

2. Select the same installation method used for the initial installation (either **Simple Install** or **Custom Install**).

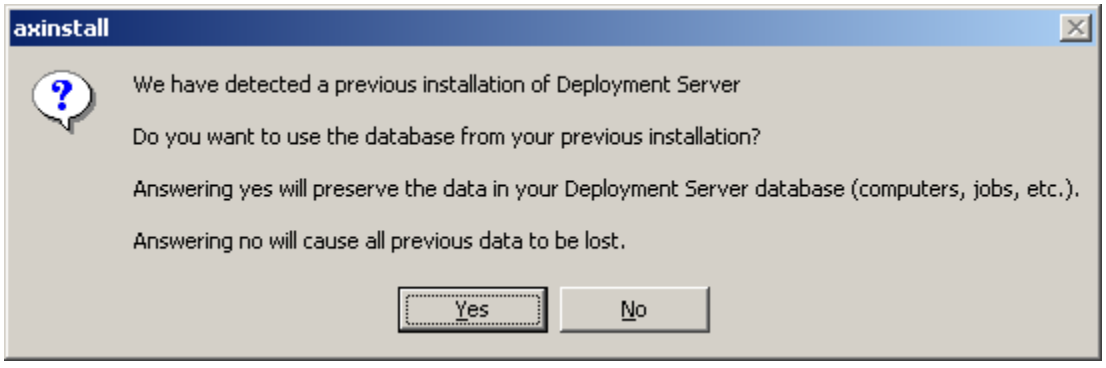


3. Click **Install** to begin the upgrade process. Refer to "Simple Install" or "Custom Install" to complete the Deployment Solution upgrade.

Simple Install

1. When prompted to select if you want to use the database from the previous version of the Altiris Deployment Solution, click **Yes** to keep all of the data intact.

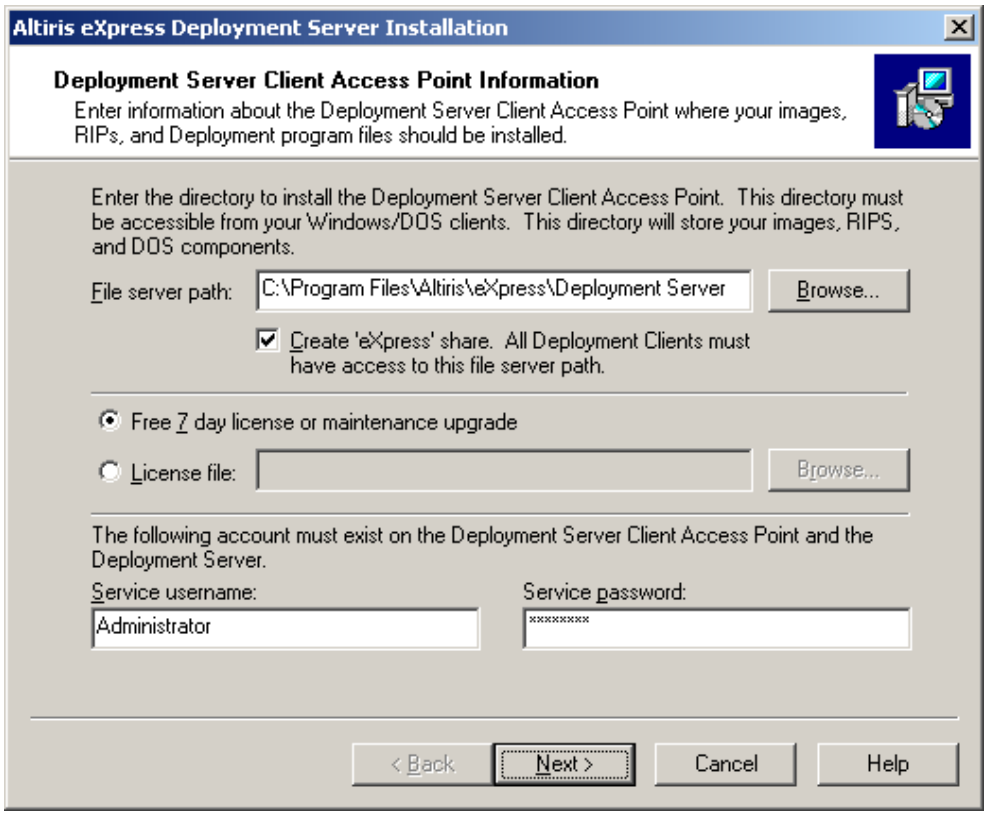
   IMPORTANT: If you do not keep the existing database, all deployment history, customized jobs, and servers listed in the Deployment Server Console are lost.



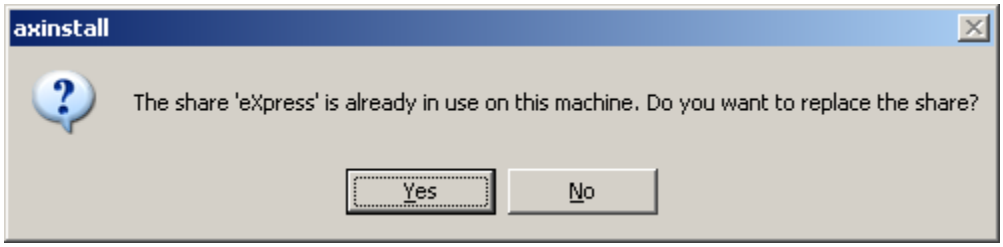
2. Read the license agreement. If you agree to the terms of the license agreement, click **Yes** to continue.

3. At the Deployment Server Client Access Point Information screen, select **Free 7 day license or maintenance upgrade** to use your current licenses, enter the appropriate Service username and Service password, and then click **Next.**

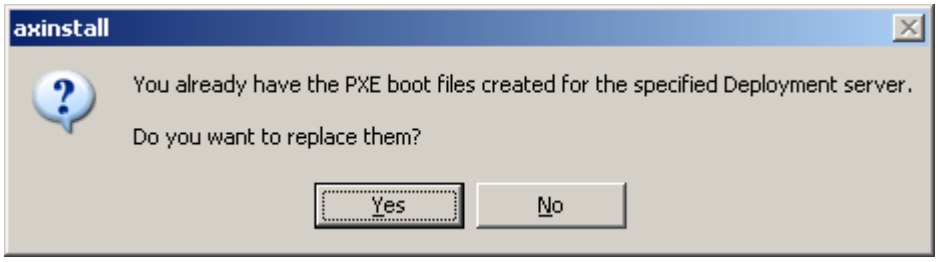
IMPORTANT: If you obtained your existing licenses before 11/20/2003, you should have received a new license file validating your licenses for an Altiris 6.0 software upgrade and providing 10-year Annual Upgrade Protection. Apply this new license file with the Altiris License Utility before upgrading to the Rapid Deployment Pack 1.50. If you did not receive this license file, contact HP support before upgrading. Upgrading before applying a new license file can cause your existing licenses to become invalid, resulting in a reduced license count (possibly to zero).



4. Click **Install** at the Installation Information screen to begin the software installation.
5. When prompted to replace the eXpress share, click **Yes.**



6. When prompted to recreate the boot images, click **Yes.**

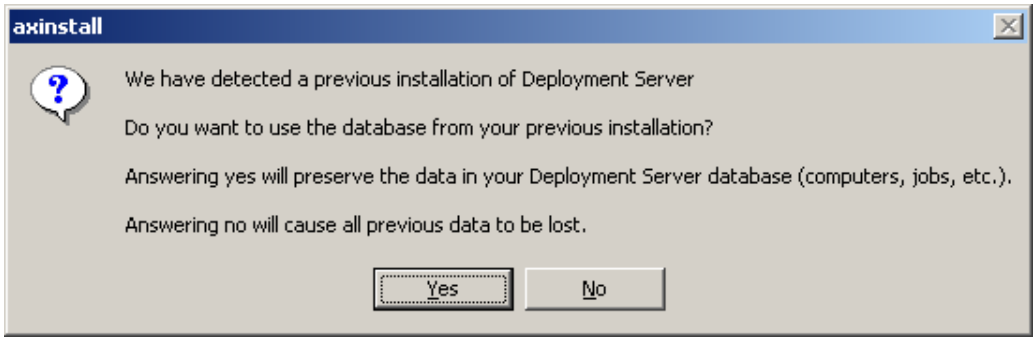


7. Click **Finish** at the Installation Information Summary screen.

Custom Install

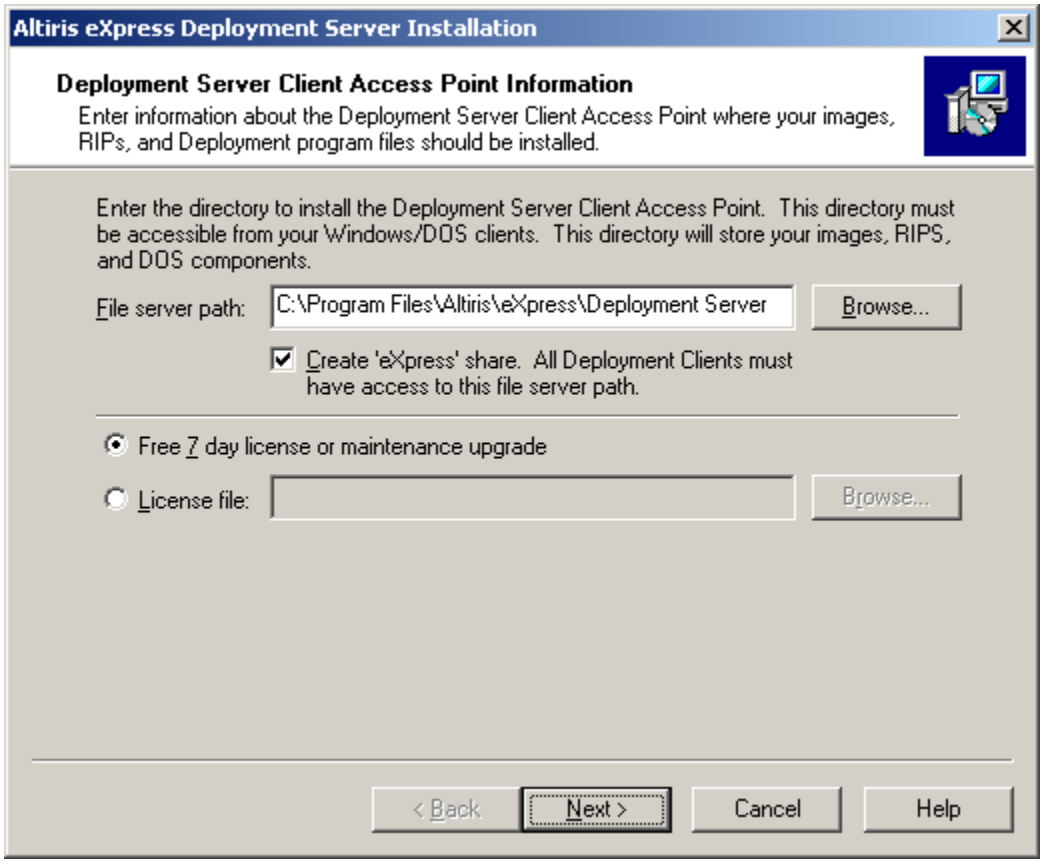
1. When prompted to select if you want to use the database from the previous version of the Altiris Deployment Solution, click **Yes** to keep all of the data intact.

   IMPORTANT: If you do not keep the existing database, all deployment history, customized jobs, and servers listed in the Deployment Server Console are lost.

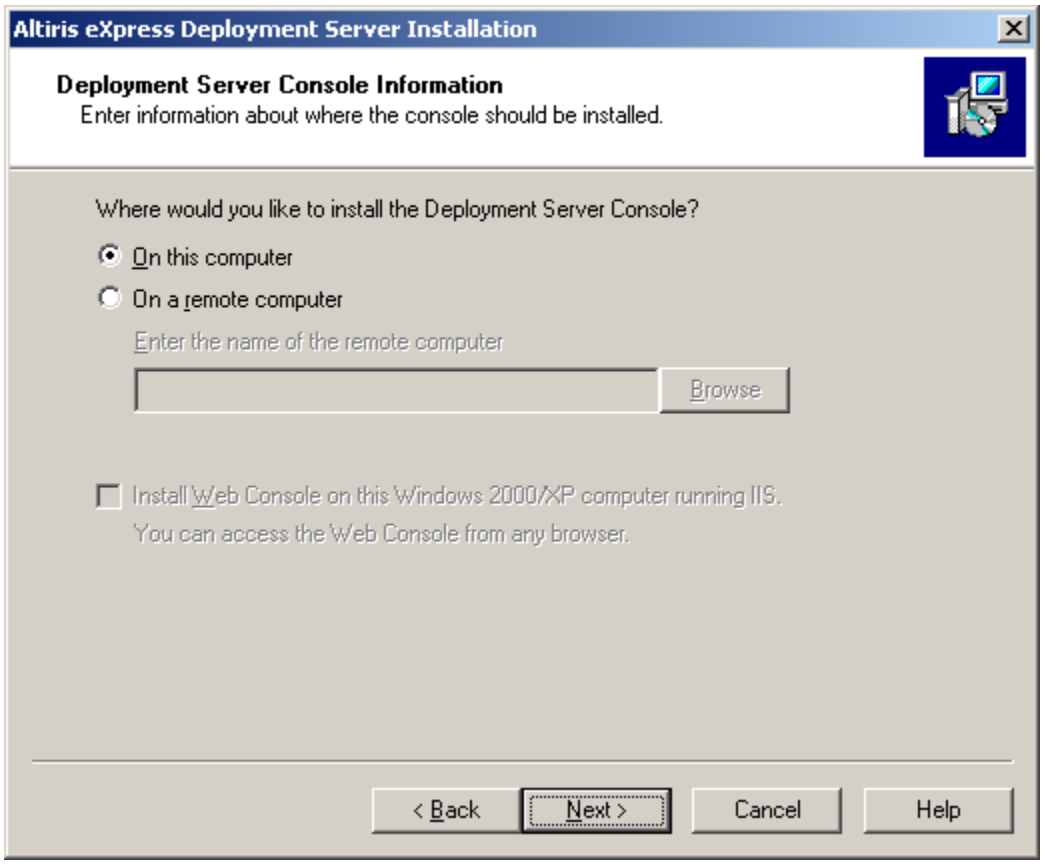


2. Read the license agreement. If you agree to the terms of the license agreement, click **Yes** to continue.

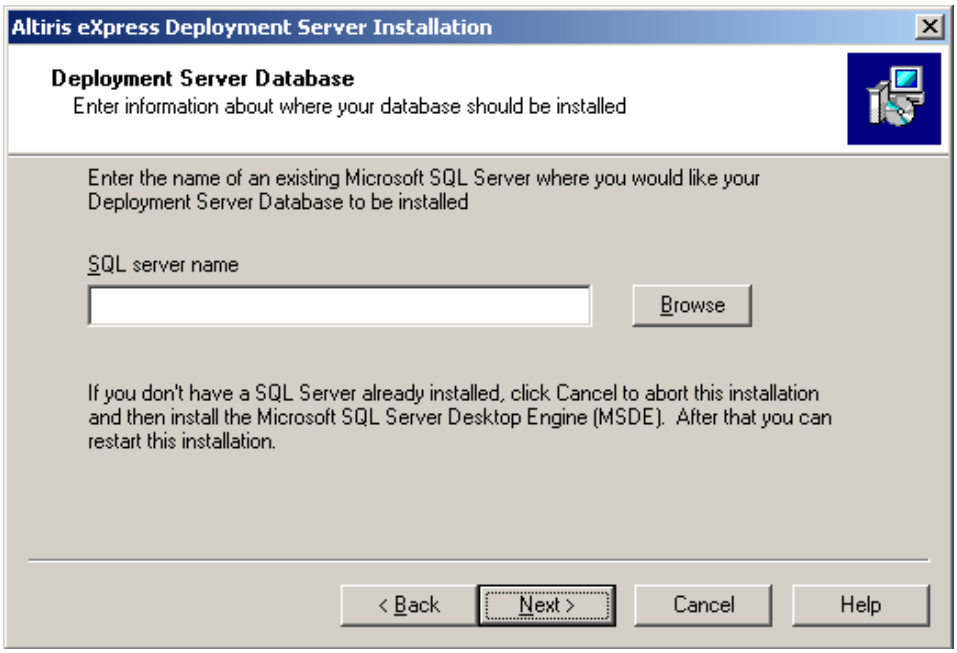
3. At the Deployment Server Client Access Point Information screen, select **Free 7 day license or maintenance upgrade** to use your current licenses, and then click **Next.**



4. At the Deployment Server Information screen, complete the console location information as appropriate, and then click **Next.**

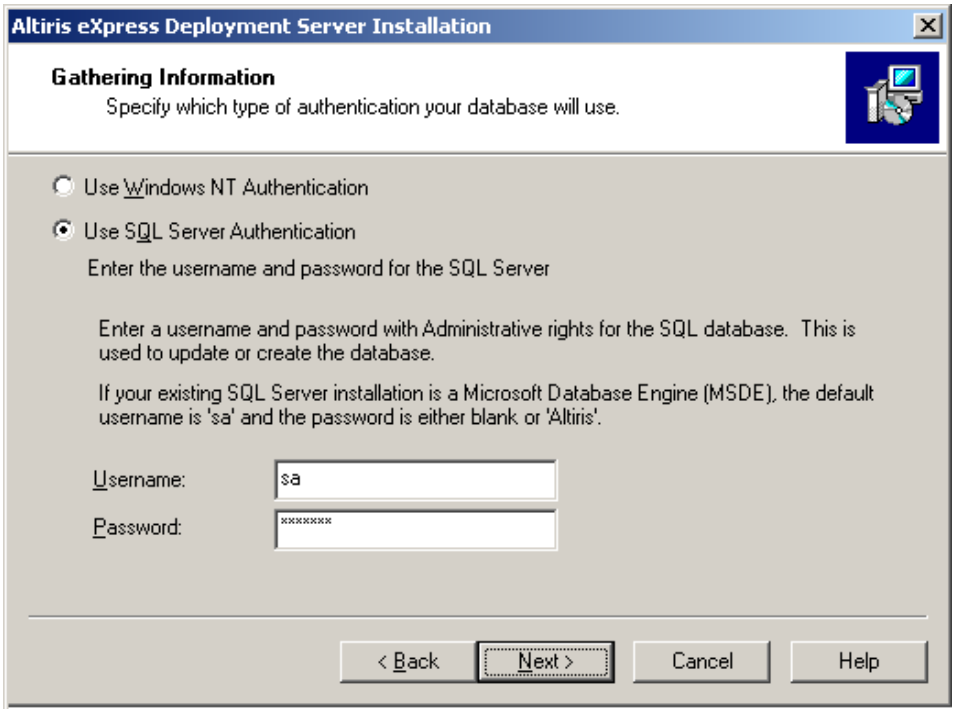


5. At the Deployment Server Database screen, enter the name of the server where the database is located, and then click **Next.**

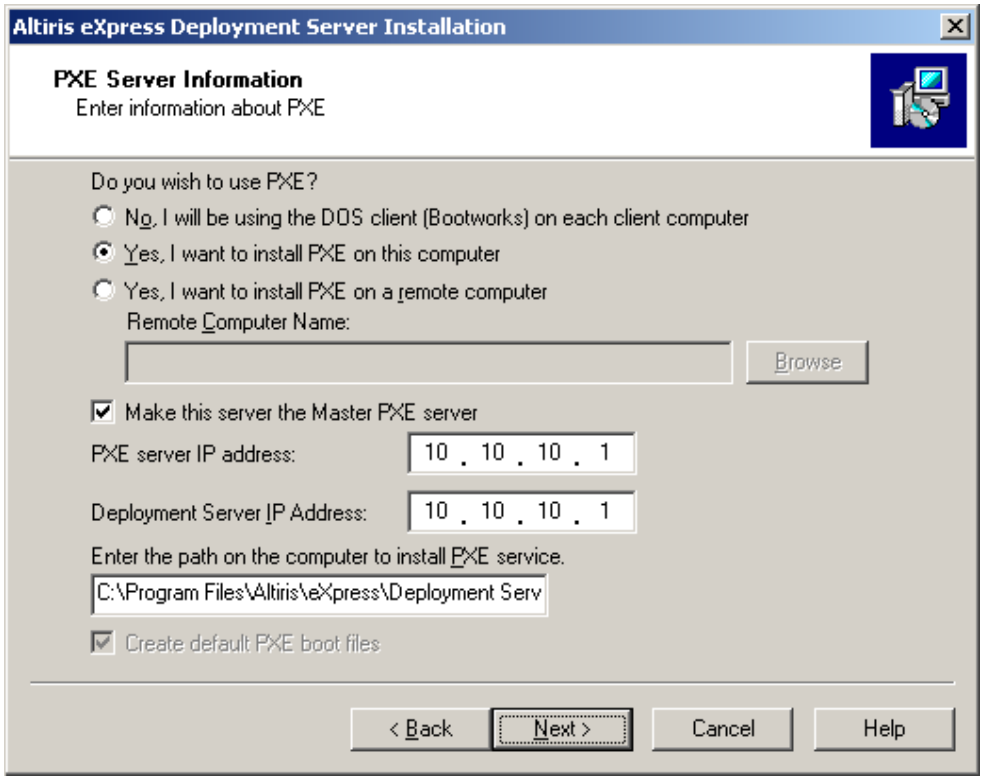


NOTE: If the database is located on a remote server, you might be prompted for authentication. Enter a user name and password with administrative rights.

6. If you have an existing SQL database, enter the appropriate SQL user name and password in the fields provided, and then click **Next** to continue.



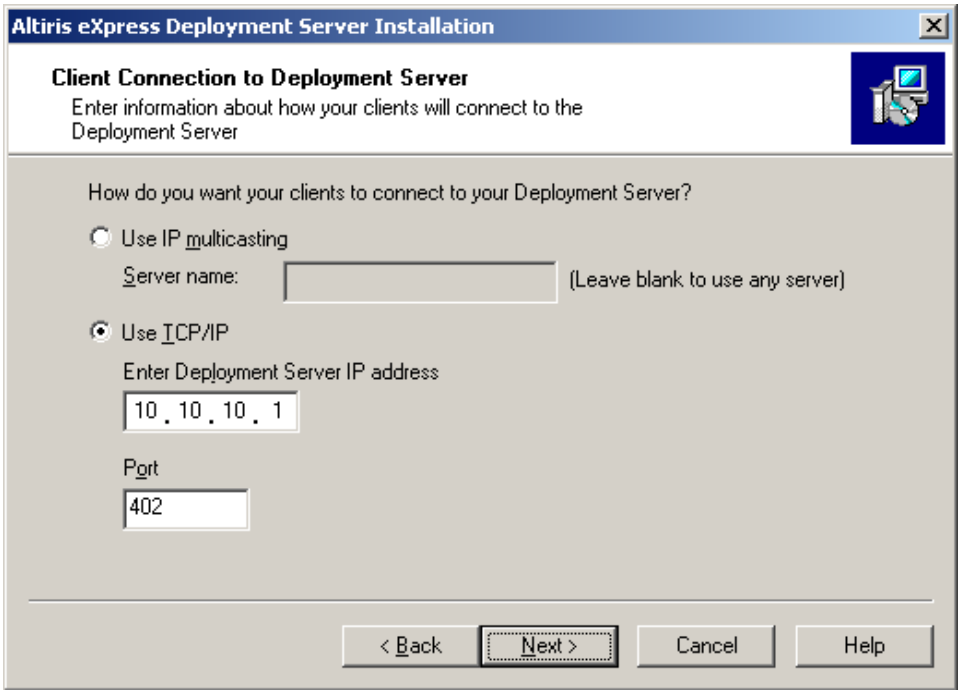
7. At the PXE Server Information screen, select your PXE options. Be sure that **Make this server the Master PXE server** and **Create default PXE boot files** are selected, and then click **Next** to continue.



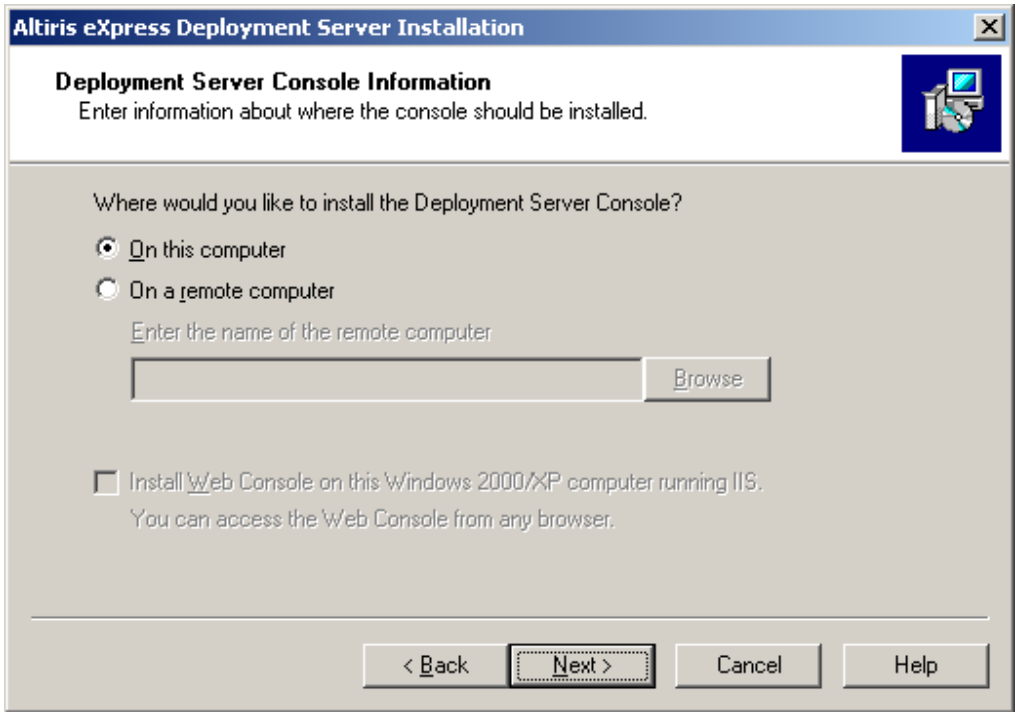
8. At the Client Connection to Deployment Server screen, specify how the client connects to the Deployment Server, and then click **Next** to continue.

   a. Select **Use TCP/IP** to be sure that the clients connect directly to the Deployment Server.

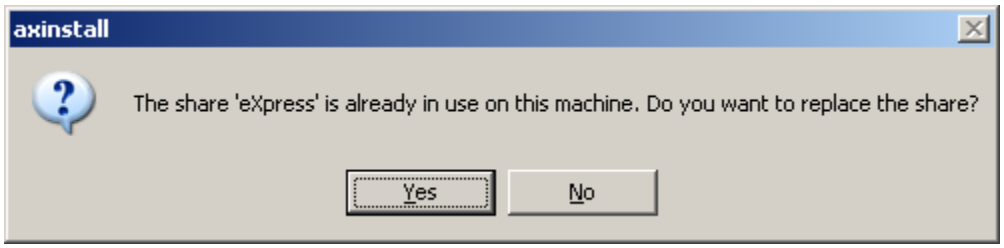
   b. Be sure that the IP address is correct for the Deployment Server.



9. At the Deployment Server Console Information screen, determine the graphical user interface (GUI) console location, and then click **Next** to continue.
   a. If the console will be on the current Deployment Server, select **On this computer.**
   b. If the console will be on a remote computer, select **On a remote computer,** and enter the name of the remote computer.



10. Click **Install** at the Installation Information screen. The Deployment Server software installation begins.
11. When prompted to replace the eXpress share, click **Yes.**

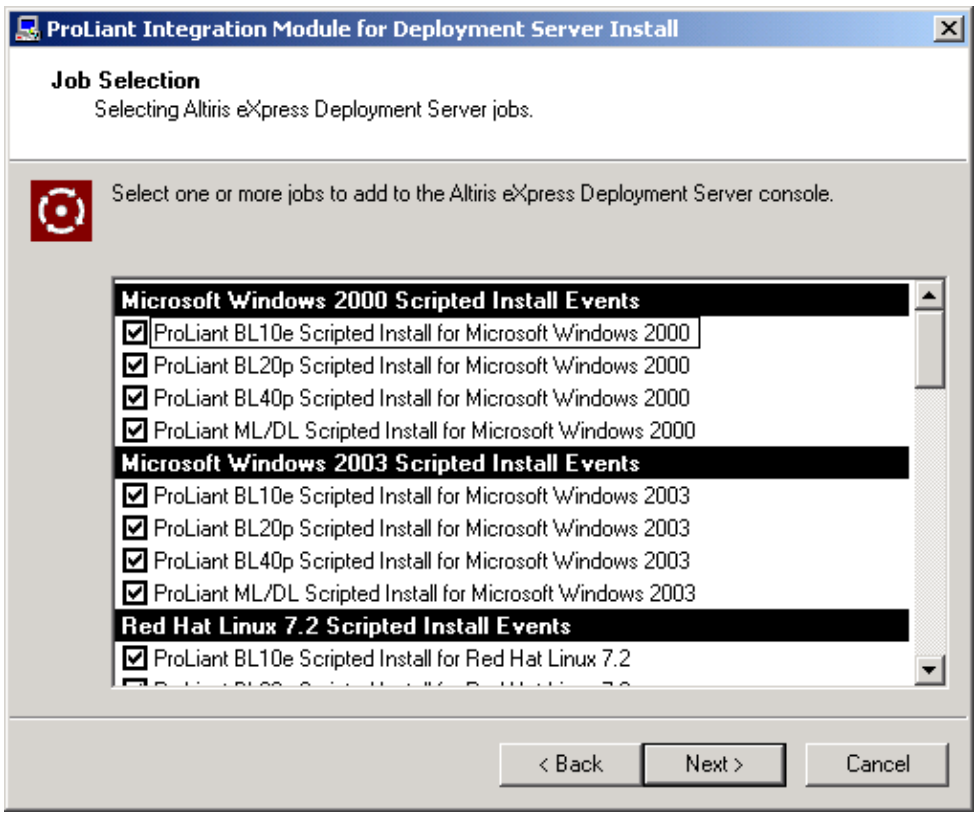


12. Click **Finish** at the Installation Information Summary screen.

ProLiant Integration Module for Deployment Server

IMPORTANT: If you have modified any of the provided batch files, be sure you have made backup copies of these altered batch files (located in .\deploy\tools\scripts), because the upgrade program overwrites these files with new files.

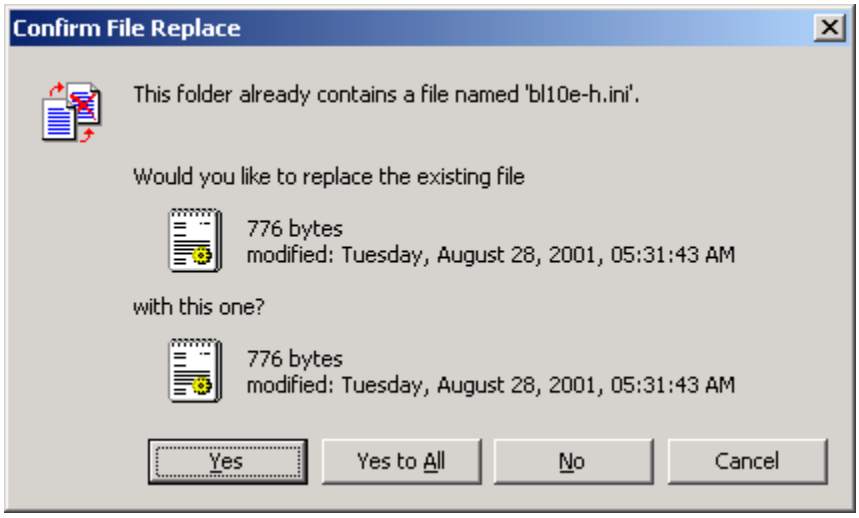
1. From the Software Upgrades page, click **HP ProLiant Integration Module for Deployment Server *X.XX,*** where *X.XX* is the software version.
2. Select the deployment jobs to import into the Deployment Server Console, and then click **Next.**



3. Click **Next** at the Installation screen to begin the software installation.

   New versions of the Rapid Deployment Pack might contain updated versions of the ProLiant Support Pack files. The new files are added to .\deploy\cds\compaq\ss.*xxx*, where *xxx* represents the new support file version. Any jobs added during installation reference the new support files. You are prompted to select whether you want to overwrite the existing provided jobs.

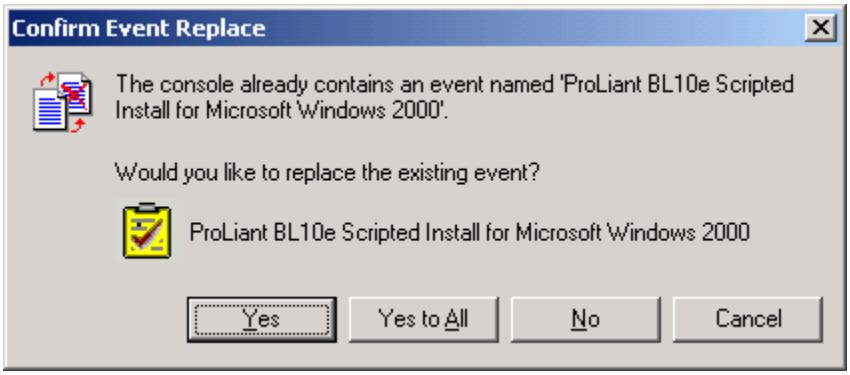
4. When prompted, select whether to skip or overwrite existing configuration files, located in .\deploy\configs. All files other than the configuration files are overwritten automatically, including documentation, the SmartStart Scripting Toolkit, and batch files used by the jobs.



5. When prompted, select whether to omit or overwrite any existing jobs in the Deployment Server Console with updated jobs.

   If you choose not to overwrite the existing provided jobs, you must manually edit the jobs to use the latest ProLiant Support Pack version. For complete instructions to edit the jobs to use updated support files, refer to the *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition User Guide.*

IMPORTANT: If you have modified any of the provided jobs, be sure you have renamed these jobs and made backup copies before overwriting the existing jobs.

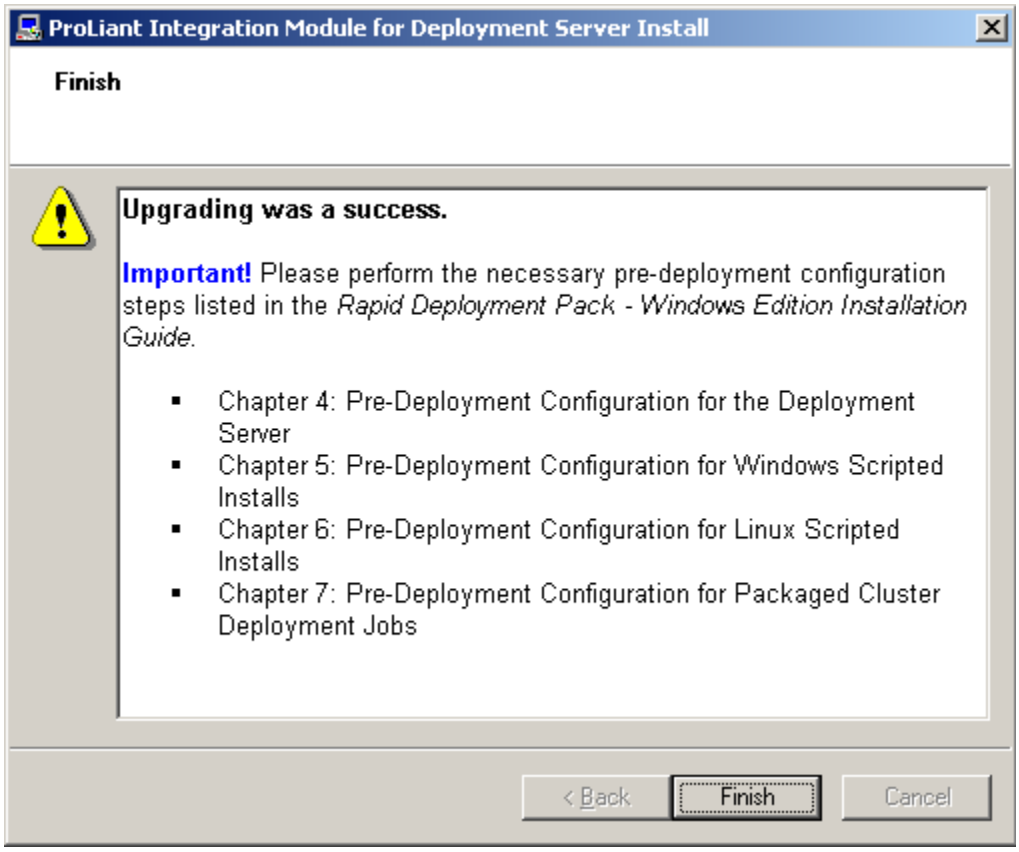


6. If necessary, you are prompted to insert operating system CDs to allow appropriate files required for scripted install jobs to be copied to the Deployment Server directory. Click **Next** to begin the copy process.

   IMPORTANT: If you omit the Windows operating system CD and/or Red Hat Enterprise Linux boot file copying steps at this time by clicking **Cancel,** you can manually install these files at a later time. For instructions, refer to the appendices of this guide.

   NOTE: You are prompted for a Red Hat Enterprise Linux CD #1 to copy only the Linux boot files to the Deployment Server. The Red Hat Enterprise Linux distribution CDs are still installed on the Linux NFS server. The version and Update of the CDs used during the installation of the NFS server and the Deployment Server must match.

7. Click **Finish** when the software installation is complete.



The Deployment Server upgrade is complete. For necessary configuration modifications, refer to the appropriate pre-deployment procedures in this guide.

ProLiant Integration Module for NFS Server

1. Insert the Rapid Deployment Pack—Windows Edition CD into the NFS server.
2. Log in as `root` at the NFS server.
3. Mount the CD using the command:

   `mount /mnt/cdrom` (Red Hat Linux)

   or

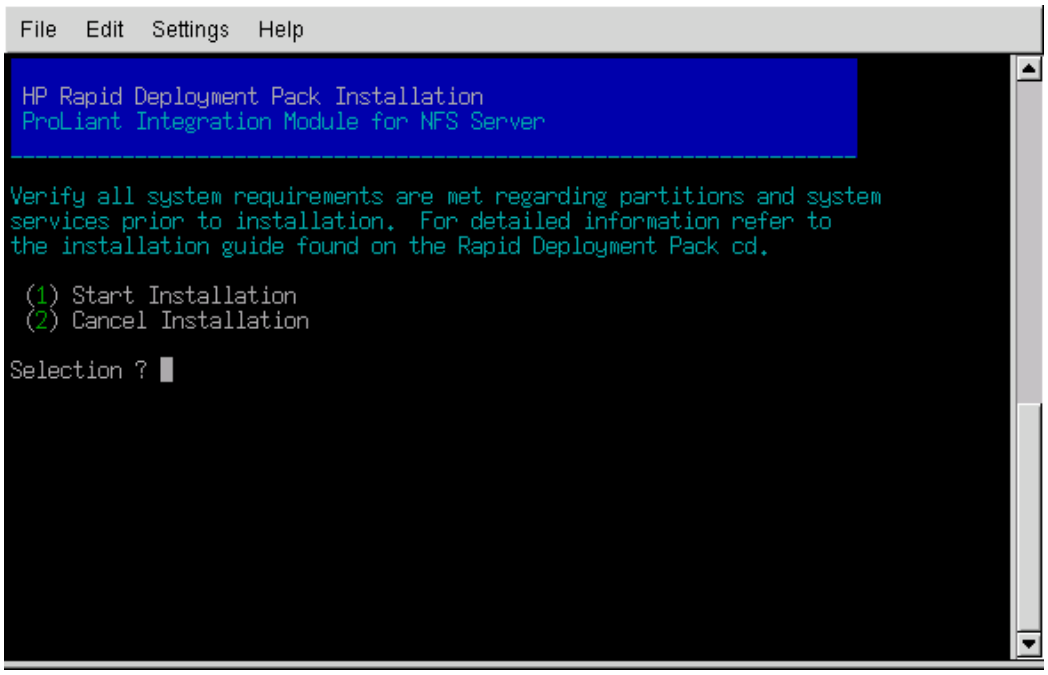
   `mount /media/cdrom` (UnitedLinux)
4. Run the setup script:

   `/mnt/cdrom/pim-nfs/setup-pimnfs.sh` (Red Hat)

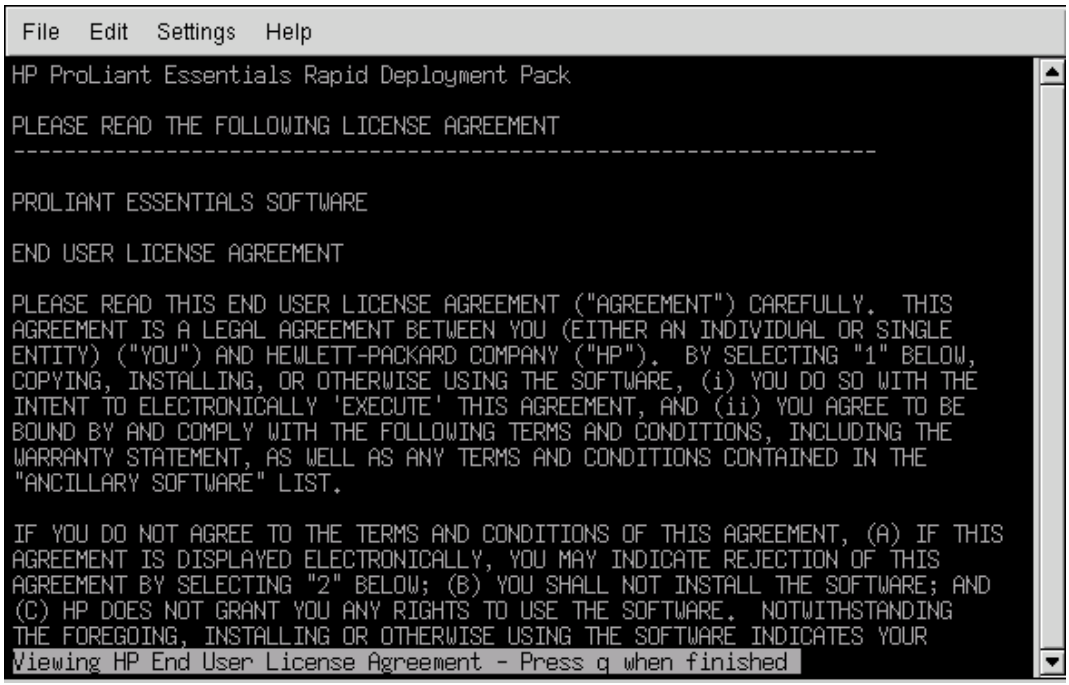
   or

   `/media/cdrom/pim-nfs/setup-pimnfs.sh` (UnitedLinux)

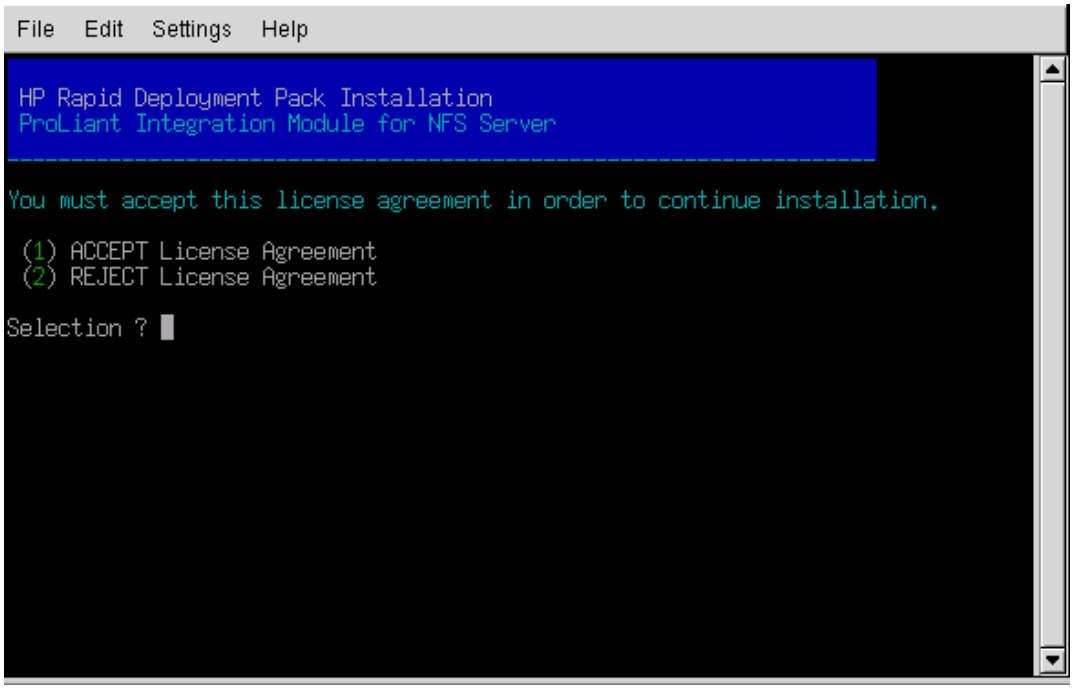
   NOTE: Do not change the directory to the CD-ROM directory to run the setup script.
5. Enter `1` to start the installation, and press the **Enter** key.



6. Read the license agreement, and then enter `q`.



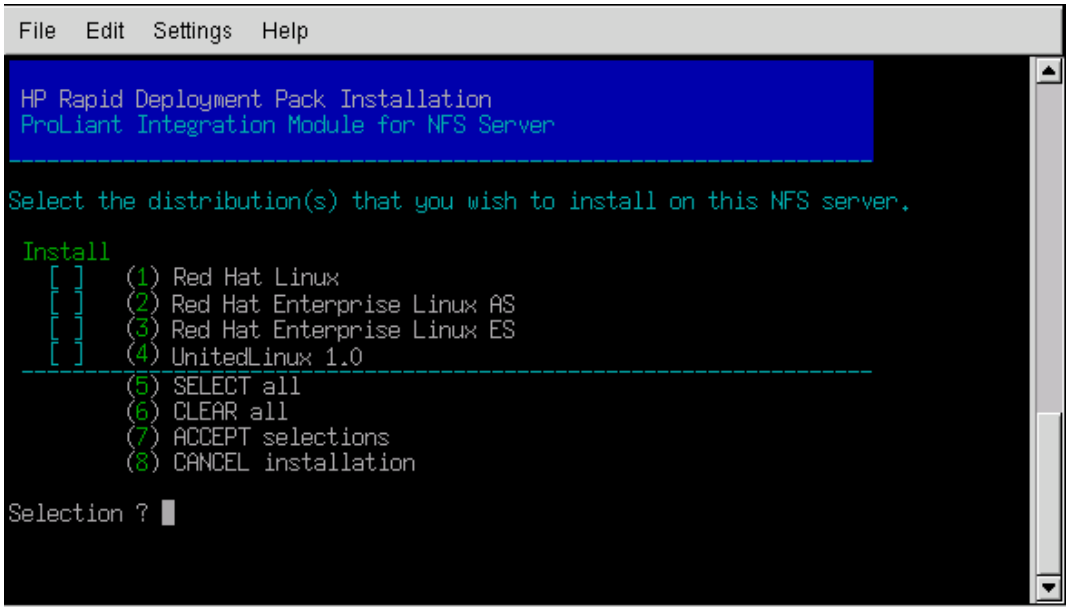
7. If you agree to the terms of the license agreement, enter `1` to accept the license agreement, and then press the **Enter** key.



8. A list of the supported Linux distributions that can be deployed with Rapid Deployment Pack appears. Selecting a Linux Distribution copies the ProLiant Support Pack files for that distribution and starts the Linux distribution CD query process to copy the Linux files onto the NFS server.

   To select a distribution to install, enter the corresponding selection number for the distribution, and then press the **Enter** key. To select all the distributions, enter the appropriate number to **SELECT all,** and then press the **Enter** key.

   NOTE: Selection numbers will vary depending on the number of available distributions.

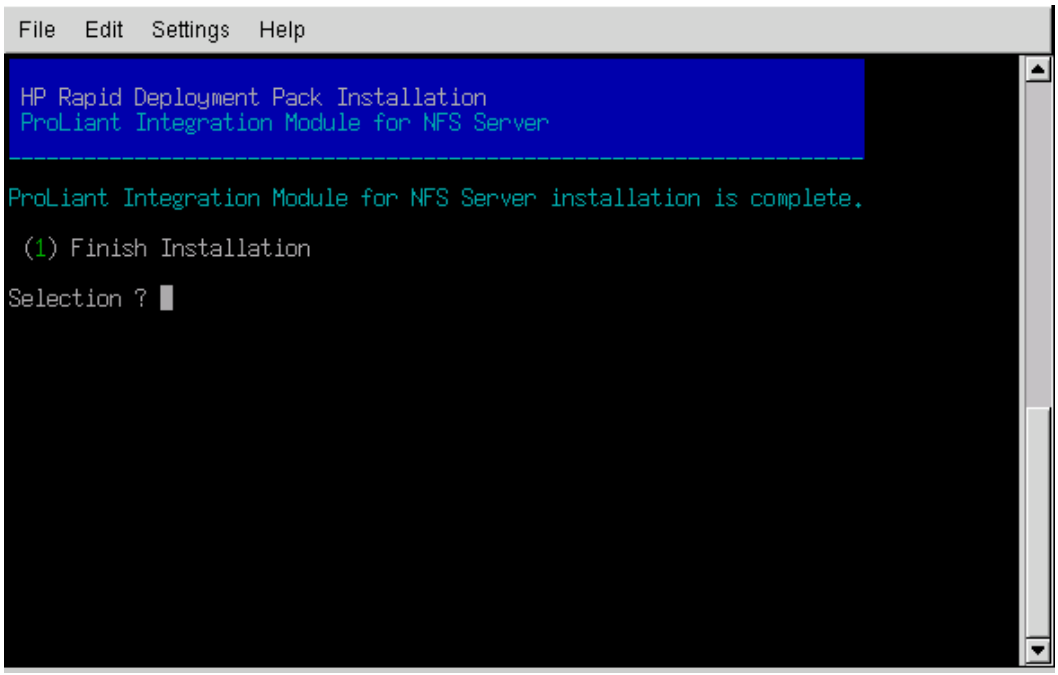


9. After selecting all the Linux distribution to be installed, enter the appropriate number to **ACCEPT selections,** and then press the **Enter** key. The file copy and CD query process begins. If the Linux distribution CDs have already been copied to the NFS server, you are prompted to select whether you want to copy the files again.

   IMPORTANT: The version and Update of the Red Hat Enterprise Linux CDs used during the installation of the NFS server and the Deployment Server must match.

10. After the ProLiant Support Pack files and distributions files are copied, you are prompted for the Rapid Deployment Pack—Windows Edition CD. Insert the CD into the CD-ROM drive.

11. The following screen appears confirming that the ProLiant Integration Module for NFS Server installation is complete. Enter `1` to finish the installation, and then press the **Enter** key.



Before attempting to use the Deployment Server to perform Linux distribution scripted installations, complete the appropriate pre-deployment procedures in this guide

4

Pre-Deployment Configuration for the Deployment Server

These required and optional configuration modifications are only necessary after a first-time installation of the Rapid Deployment Pack.

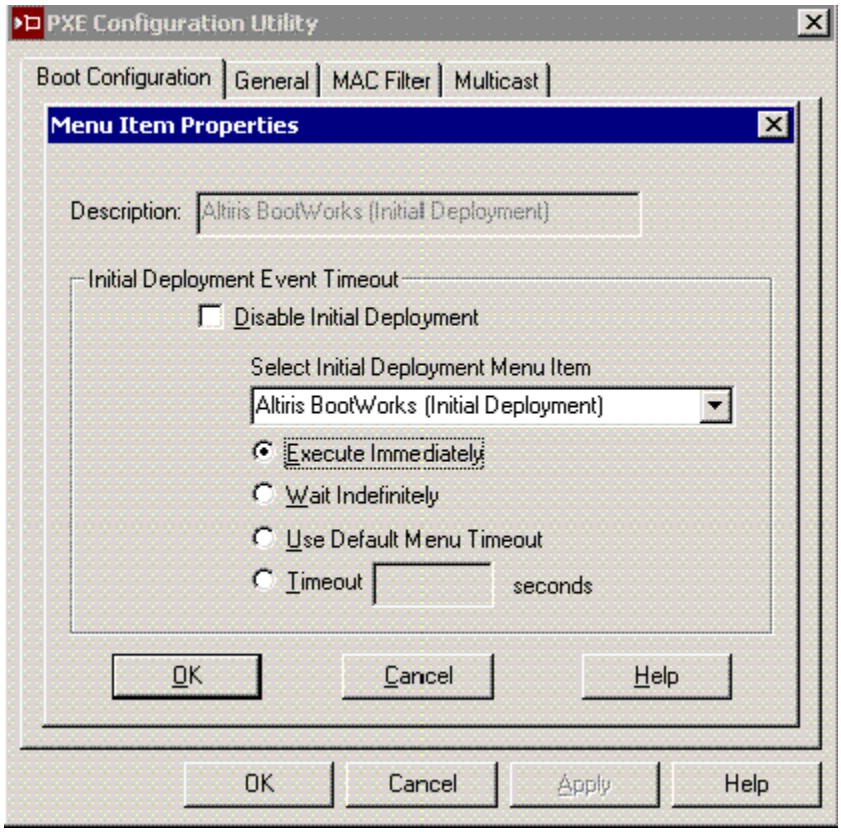
Configuring PXE to Automatically Process New Computers

By default, when a new computer (a computer not listed in the Deployment Server database) performs a PXE boot, the PXE server sends the computer the PXE menu and waits for manual selection of the Initial Deployment option. This behavior is designed for desktops and is not practical for servers, especially server blades with no local keyboard, mouse, or display.

To configure PXE to automatically select the Initial Deployment menu item and continue without user interaction:

1. From the Deployment Server Console menu, select **Tools>PXE Configuration.**
2. Select the PXE server from the dropdown list, and then click **OK.**

3. Click **Altiris Bootworks (Initial Deployment)>Edit** to display the Menu Item Properties screen.



4. Select **Execute Immediately.**
5. Click **OK** to close both windows.

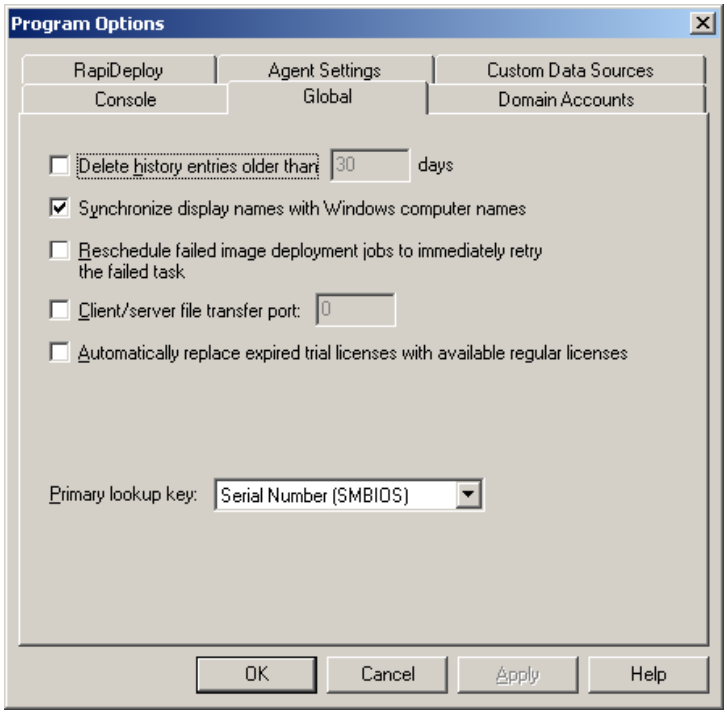
CAUTION: Do **not** reorder the boot menu located on the Menu Items list on the Boot Configuration tab. The Altiris Deployment Solution selects the top menu item as the default action when there is no task for a computer to perform. Moving another selection, such as Initial Deploy, to the top of the list causes the server to never boot locally, and to cycle in an endless loop of reboots.

Synchronizing the Deployment Server Console Name with the Windows Name

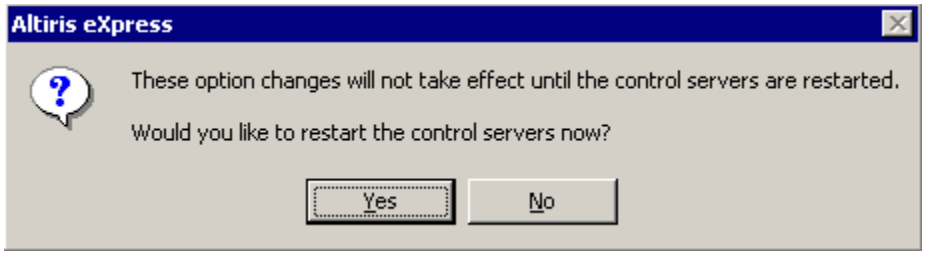
The Deployment Server can use a console display name that is different from the actual computer name. However, you can select to have the console always reflect the same name as the computer name.

To synchronize the Deployment Server Console and operating system names:

1. At the Deployment Server Console, select **Tools>Options.**
2. At the Program Options window, select the **Global** tab.



3. Select the Synchronize display names with Windows computer names checkbox.
4. Click **OK.**
5. Click **Yes** when prompted to restart the control servers.



NOTE: This capability is currently only available for Windows servers running the Altiris Deployment Agent for Windows.

Modifying the Primary Lookup Key

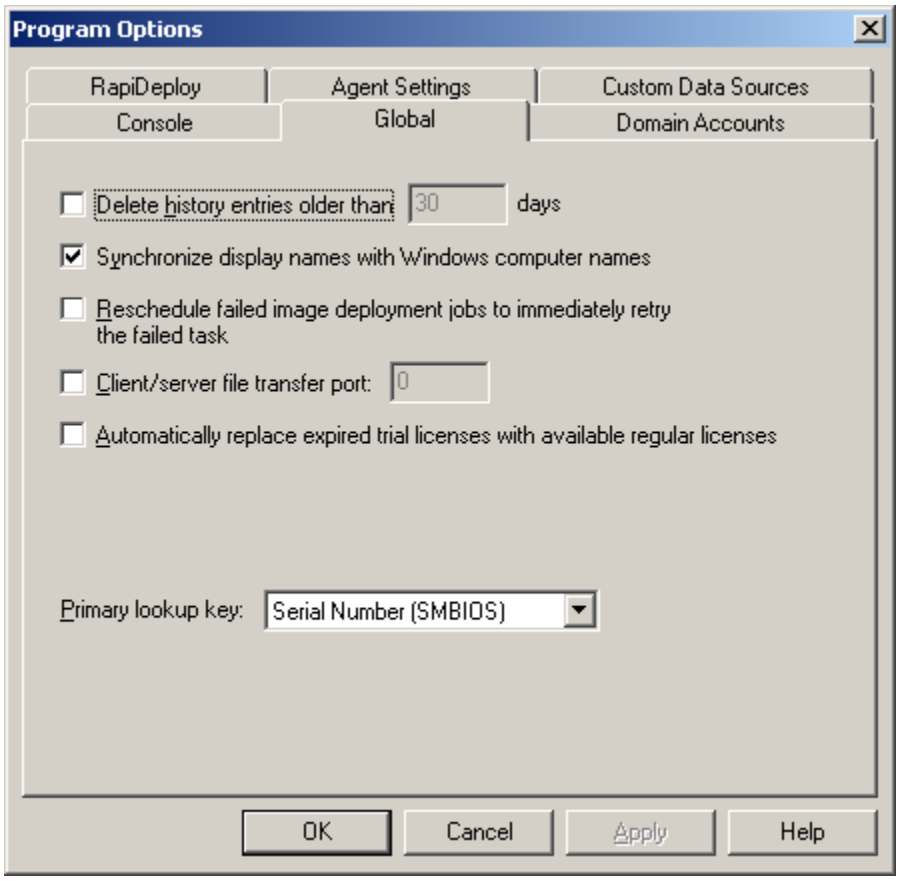
The Deployment Server uses the primary lookup key to determine if a server is already in the database.

HP recommends setting the primary lookup key as the server serial number. Setting the primary lookup key as the server serial number has two benefits:

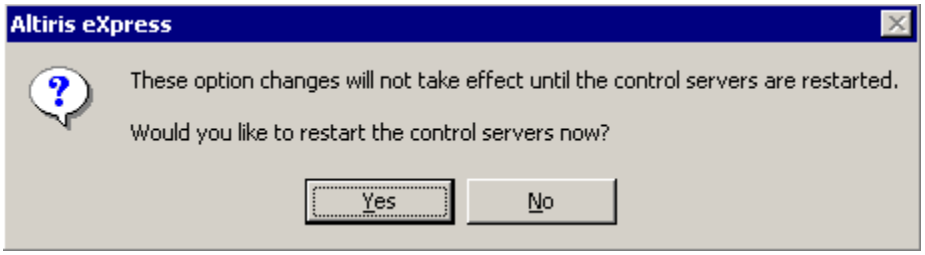
- It enables servers to be imported by their serial number, rather than keys that are more difficult to determine, such as the MAC address.
- It prevents duplicate database entries from occurring when servers have two or more NICs.

To change the primary lookup key to the server serial number:

1. At the Deployment Server Console, select **Tools>Options.**
2. At the Program Options window, select the **Global** tab.



3. From the **Primary lookup key** dropdown list, scroll up and select **Serial Number (SMBIOS).**
4. Click **OK.**
5. Click **Yes** when prompted to restart the control servers.



Configuring ProLiant BL Server Enclosures

The Physical Devices view in the Deployment Server Console displays the physical relationship among the racks, enclosures, and server blades using the rack name and enclosure name for each ProLiant BL server. The default name for the server rack is "UnnamedRack," and the default name for the BL e-Class server enclosure is the MAC address of the NIC associated with the Integrated Administrator.

Setting the rack name and enclosure name is recommended before the first server in an enclosure connects to the Deployment Server. After ProLiant BL servers are powered up for the first time and the rack and enclosure names are recorded in the Deployment Server database, the servers must be rebooted for new rack and enclosure names to be discovered. In addition, the default-named rack and enclosure must be manually deleted from the console.

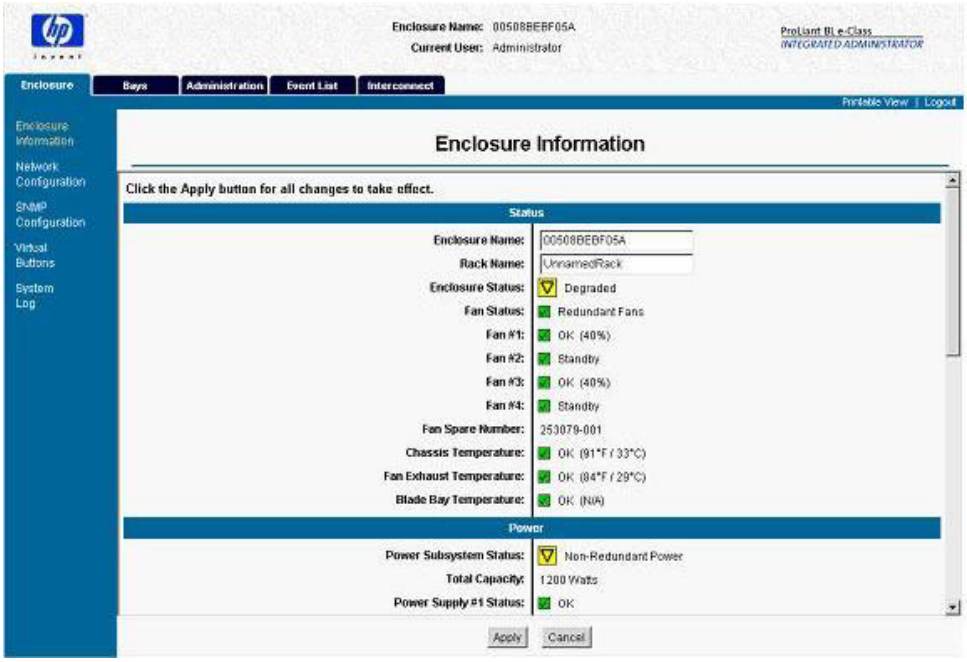
ProLiant BL e-Class Servers

To change the rack and enclosure names if the Integrated Administrator port is connected to a network with DHCP:

1. Browse to the DNS name located on the tag attached to the interconnect tray on the enclosure.
2. Log in to the Integrated Administrator using the user name and password located on the tag.

3. At the Enclosure Information screen, change the **Enclosure Name** and **Rack Name,** and then click **Apply.**

IMPORTANT: Do not use the same enclosure name for multiple enclosures. Using the same enclosure name results in multiple server blades displayed in each bay for an enclosure and duplicate default server names.



If the Integrated Administrator port is not connected to a network with DHCP, refer to the documentation shipped with the product for details concerning how to access the Integrated Administrator using other methods, such as the serial console.

After configuring the enclosure, install the ProLiant BL e-Class servers into the enclosure by following the instructions provided with the server hardware.

For more information regarding ProLiant BL e-Class servers, refer to the documentation shipped with the product.

ProLiant BL p-Class Servers

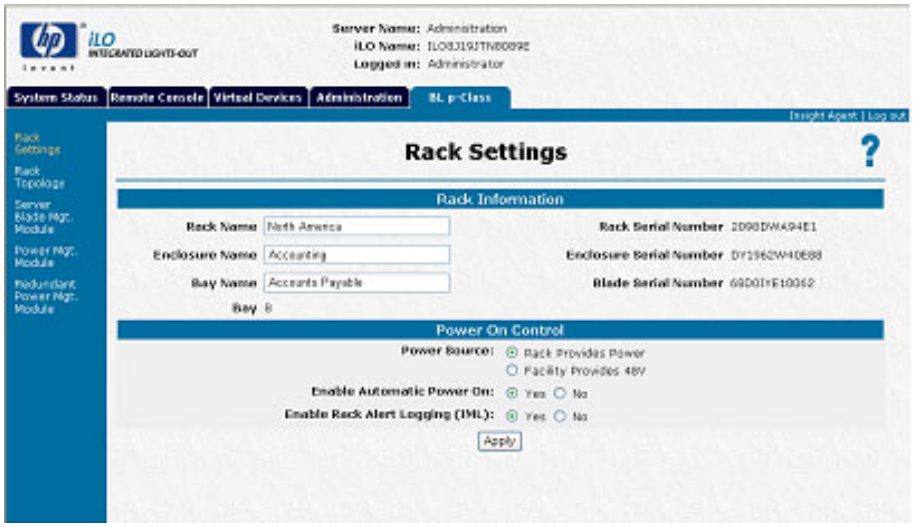
To configure all racks and the ProLiant p-Class enclosure properly, at least one server blade must be placed in each enclosure. The server blade should not be powered on until the desired rack and enclosure names are set using the Integrated Lights-Out (iLO) interface. Otherwise, the server blade will boot to PXE (if enabled), and the default rack and enclosure name will be placed in the Deployment Server database.

To change the rack and enclosure names if the iLO port is connected to the network with DHCP services available:

1. Browse to the DNS name located on the tag attached to the ProLiant BL p-Class server.
2. Log on to iLO using the credentials on the tag.

   NOTE: Users that do not have the Administrator ProLiant BL p-Class privilege can only view the settings.

3. Select the **BL p-Class** tab.
4. At the Rack Settings screen, change the **Rack Name** and **Enclosure Name.**



IMPORTANT: Do not use the same enclosure name for multiple enclosures. Using the same enclosure name results in multiple server blades displayed in each bay for an enclosure and duplicate default server names.

5. Click **Apply.**
6. After the parameter changes have been made, click **Apply** to complete the changes.
7. Log out, and log back on to iLO.

For more information regarding iLO, refer to the documentation shipped with the product.

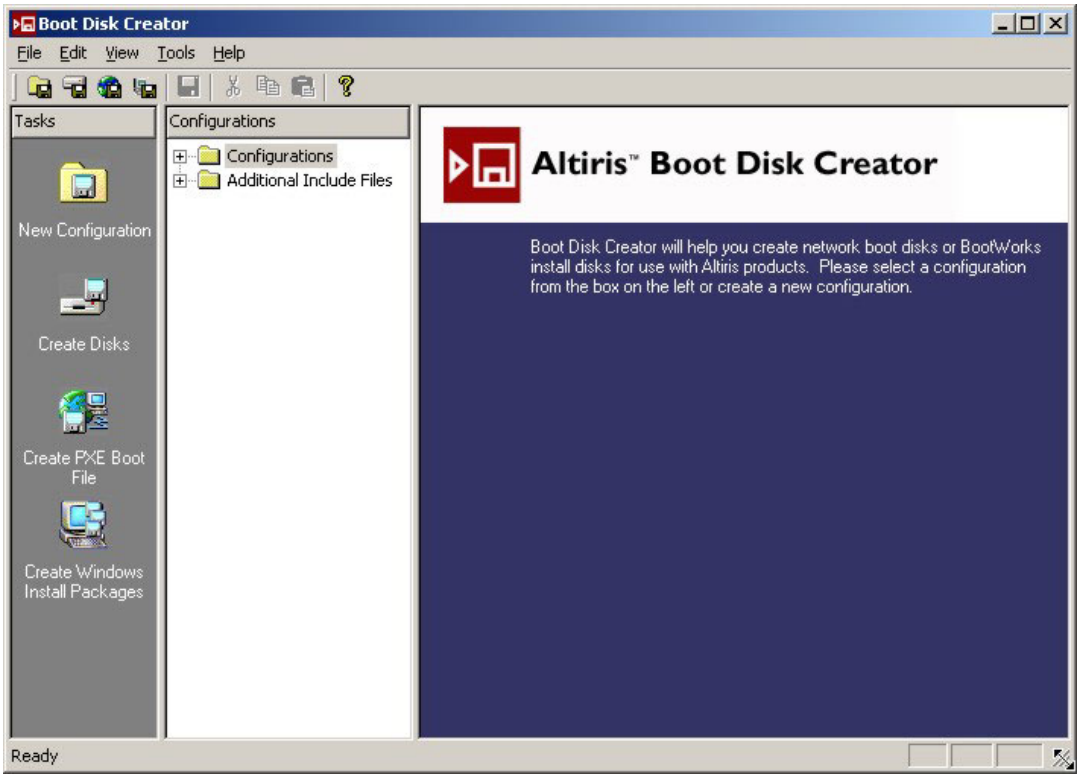
If the iLO port is not connected to a network with DHCP services available, refer to the documentation provided with your server blade for details about accessing iLO from the front panel of the server blade.

Creating Physical Boot Diskettes for Server Deployment

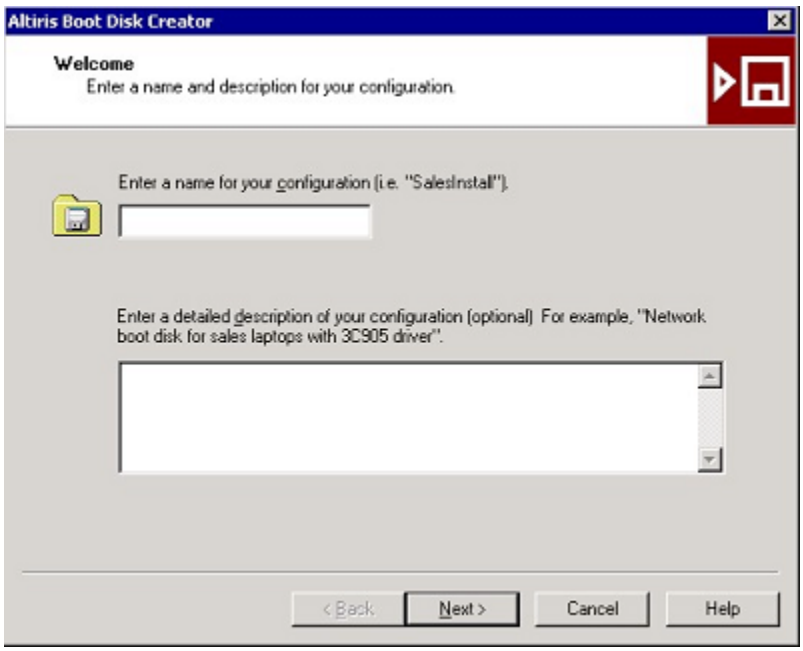
If PXE will not be used in the deployment infrastructure, one or more physical boot diskettes must be created to enable the target servers to communicate with the Deployment Server.

To create an MS-DOS boot diskette using the Boot Disk Creator within Altiris:

1. At the Deployment Server Console, select **Tools>Boot Disk Creator.**
   The Boot Disk Creator application appears.

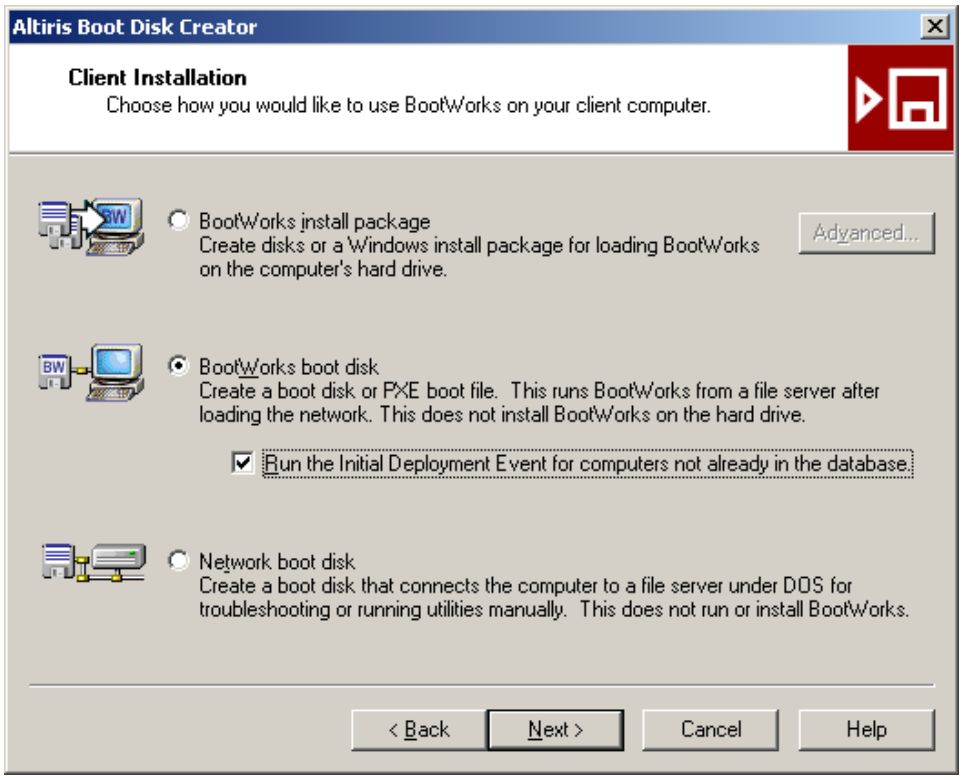


2. Click the **New Configuration** icon in the Tasks pane on the left. Enter a name for the configuration, such as DOS Boot Disk, and a description in the window that appears, and then click **Next.**

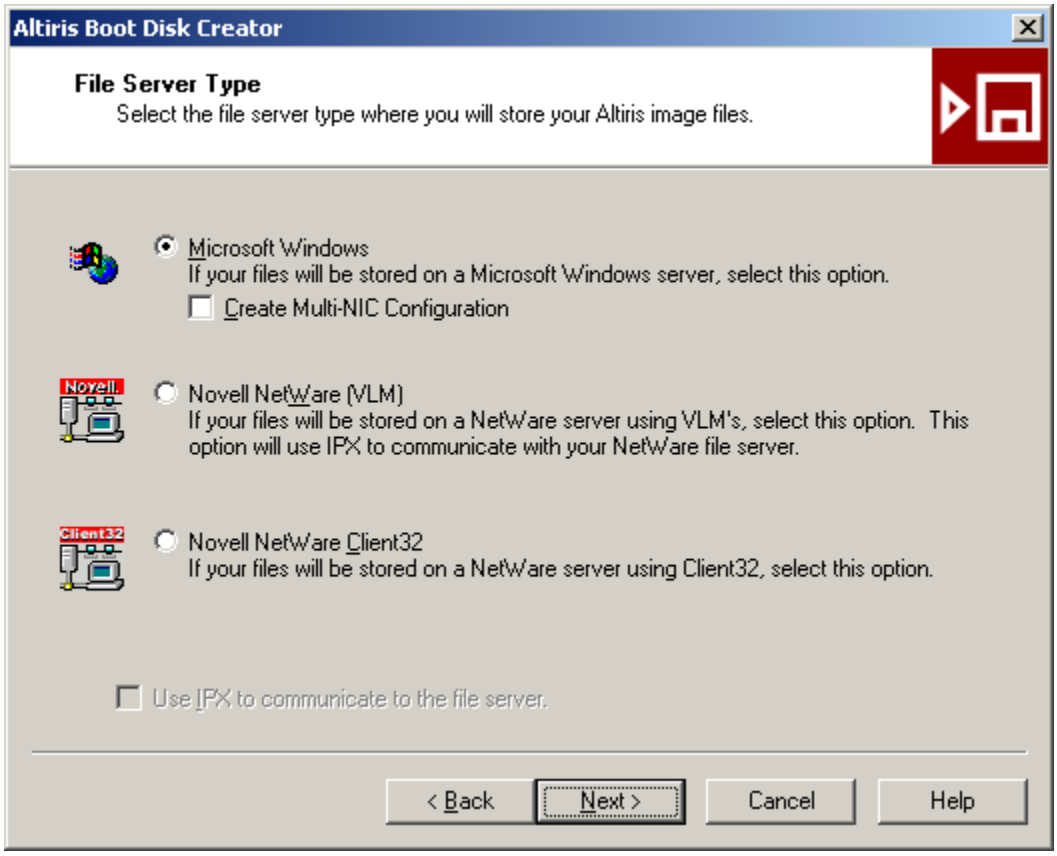


3. Select **BootWorks boot disk** from the available choices, select the **Run the Initial Deployment for computers not already in the database** checkbox, and then click **Next.**

NOTE: The Initial Deployment selection can be used on boot diskettes even when the computer is a managed computer, and Initial Deployment only runs the first time a computer appears in the Deployment Server Console.



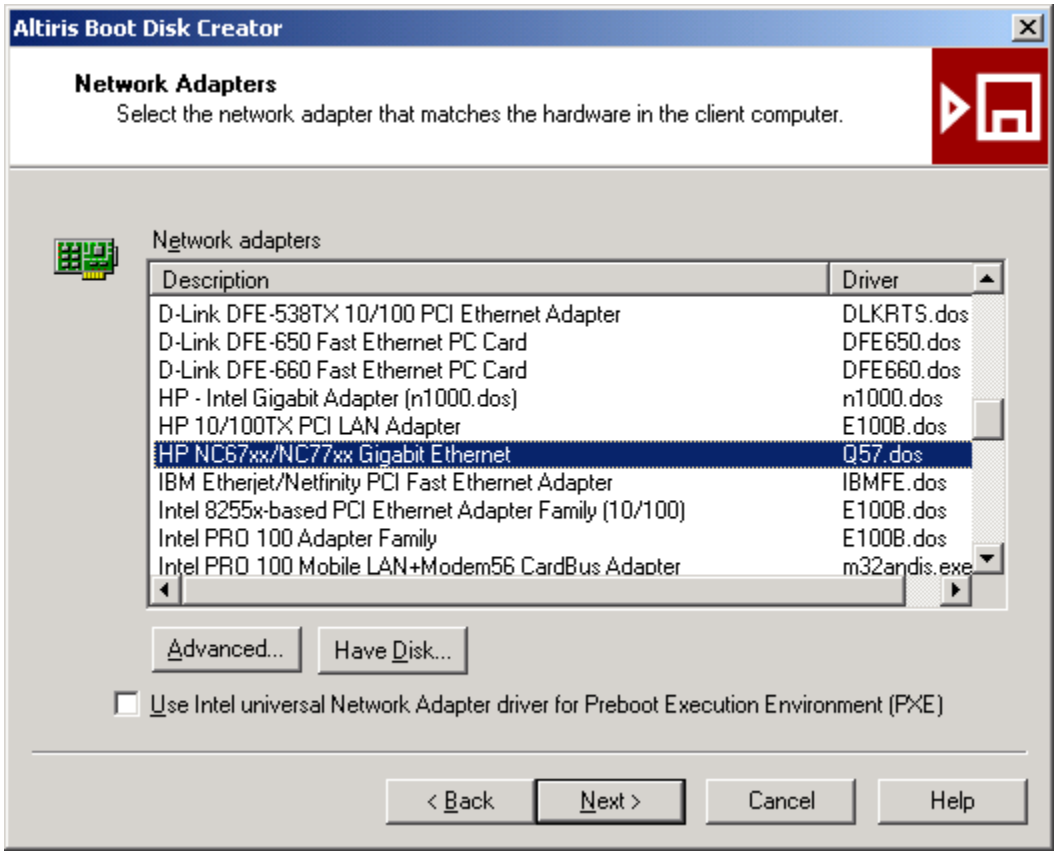
4. Click **Next** to accept the default selection of **Microsoft Windows.**



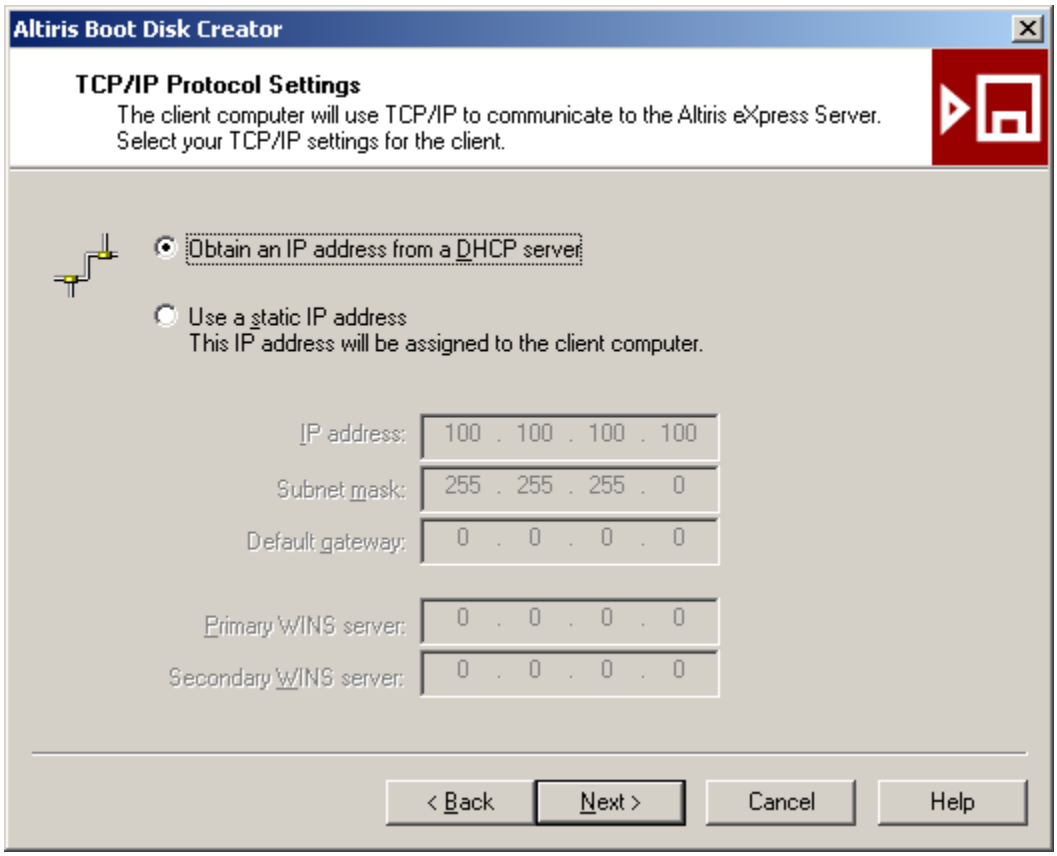
5. Select the appropriate driver for the target server NIC:
   - For Intel-based Gigabit NICs, select **HP –Intel Gigabit Adapter (n1000 .dos).**
   - For Intel 10/100 NICs, select **HP 10/100TX PCI LAN Adapter.**
   - For Broadcom-based NICs, select **HP NC67xx/NC77xx Gigabit Ethernet.**

   NOTE: Be sure the **Use Intel universal Network Adapter driver for Preboot eXecution Environment (PXE)** checkbox is not selected.

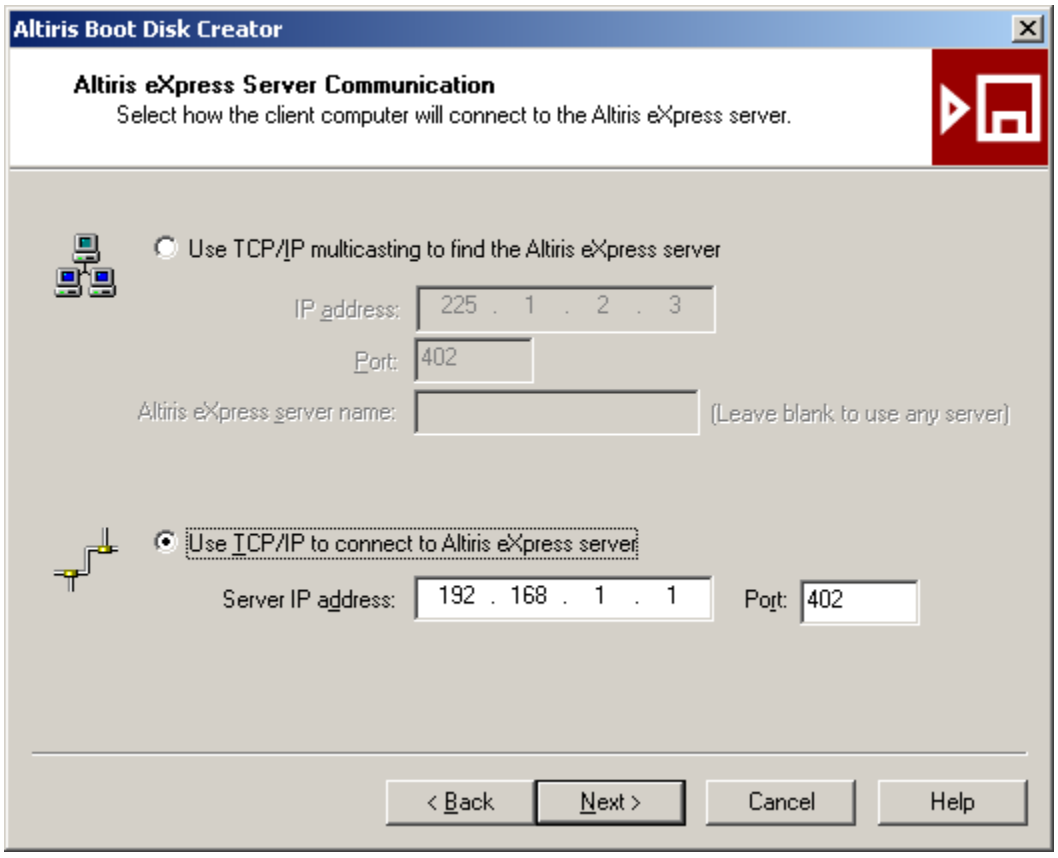
6. Click **Next.**



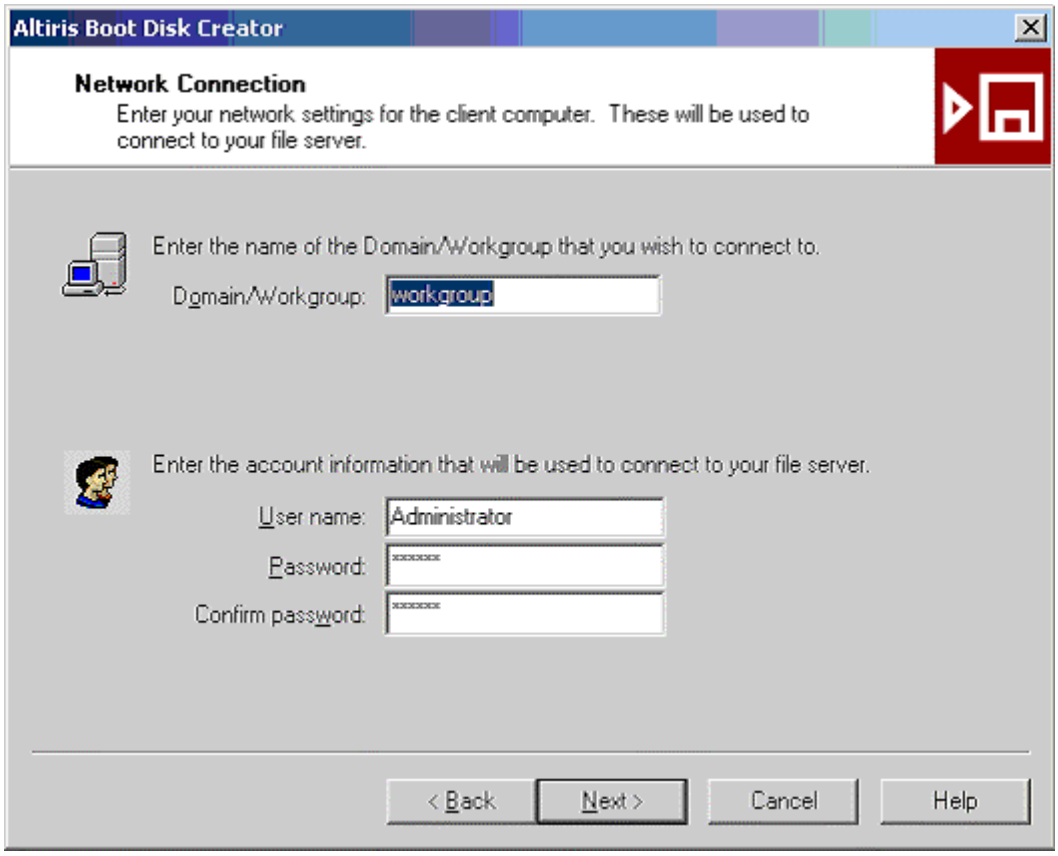
7. If static IP addresses are required, enter the appropriate information, and then click **Next** to accept the IP settings.



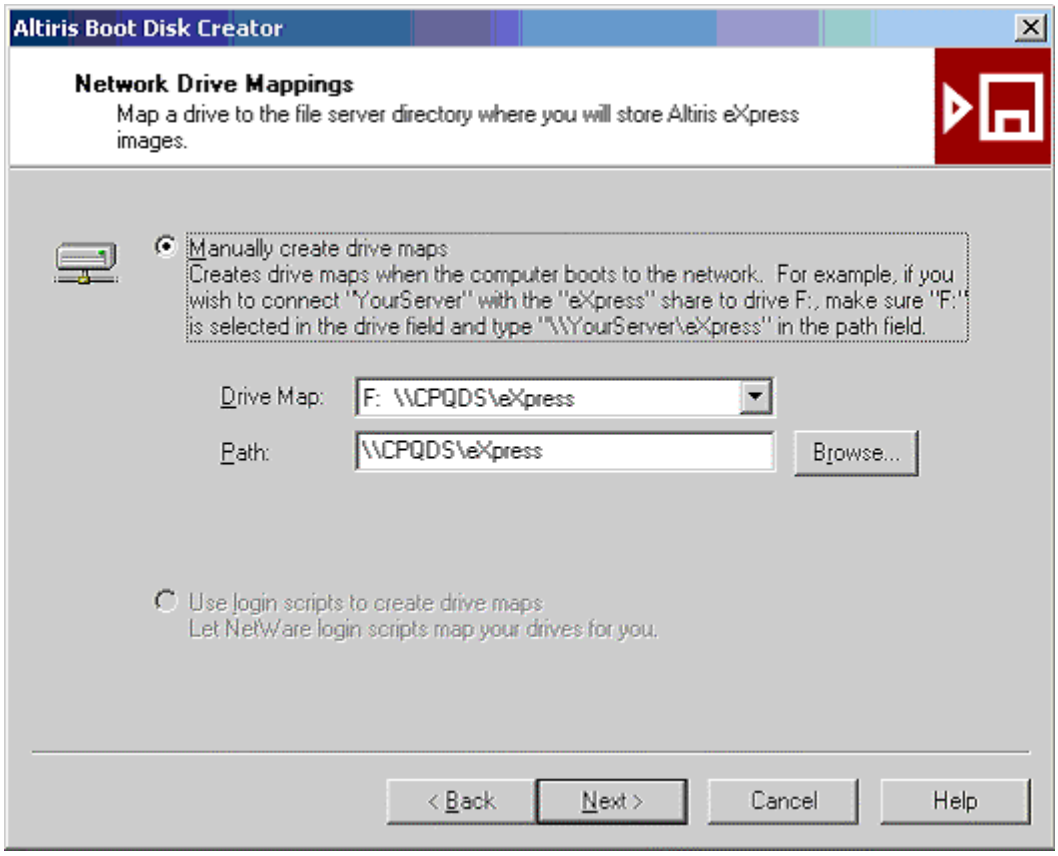
8. In the Use TCP/IP to connect to Altiris eXpress server field, verify the Server IP address setting reflects the IP address of your Deployment Server, and then click **Next.**



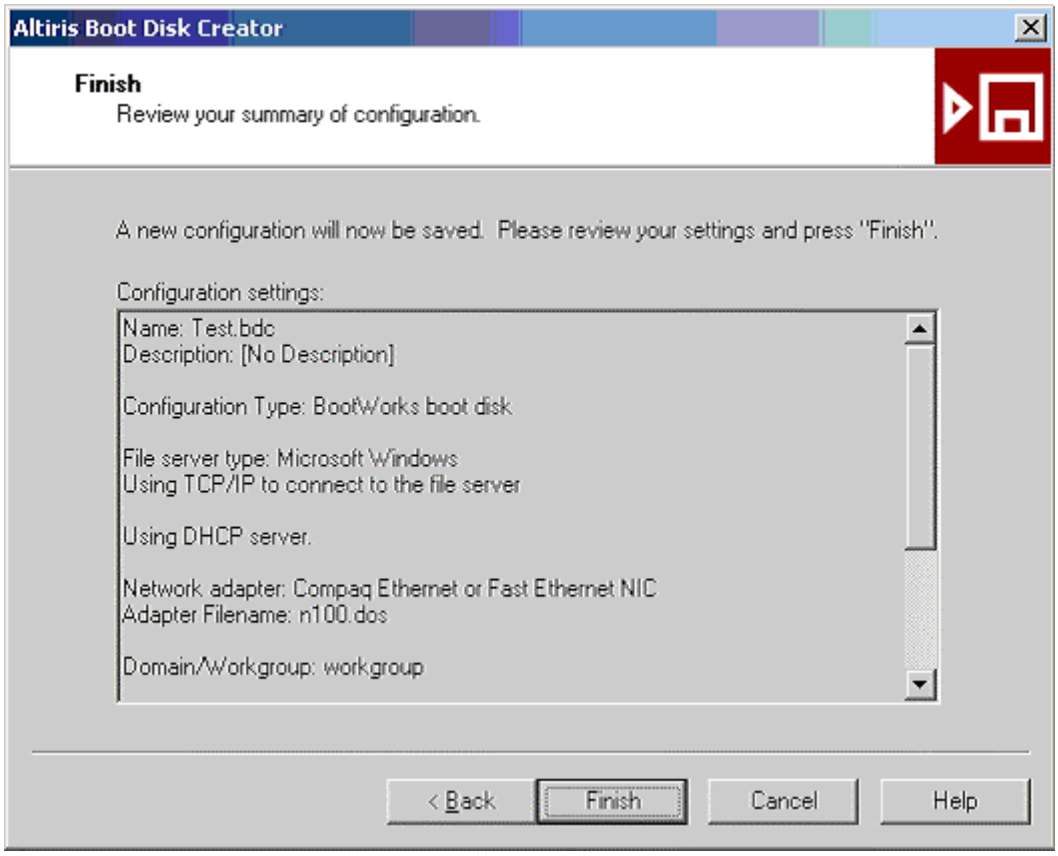
9. Click **Next** to accept the default workgroup name and login account settings.



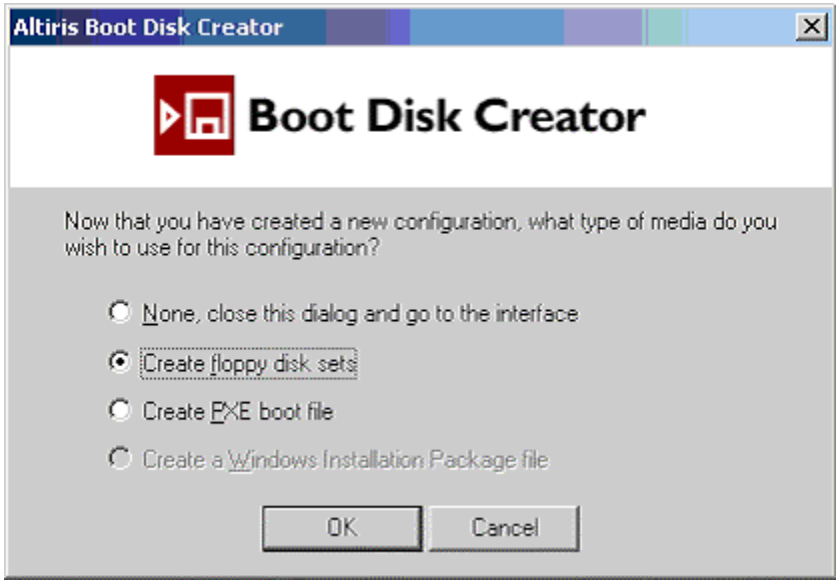
10. Click **Next** to accept the default drive mappings settings.



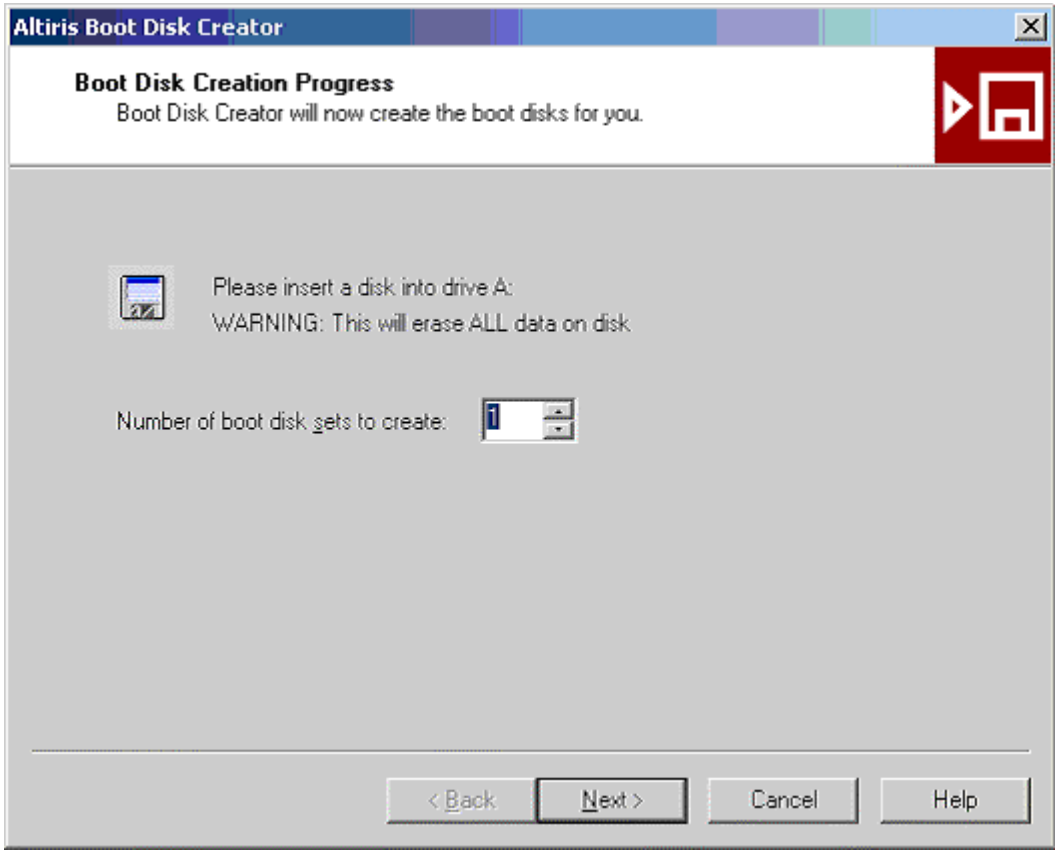
11. Click **Finish** to create the configuration.



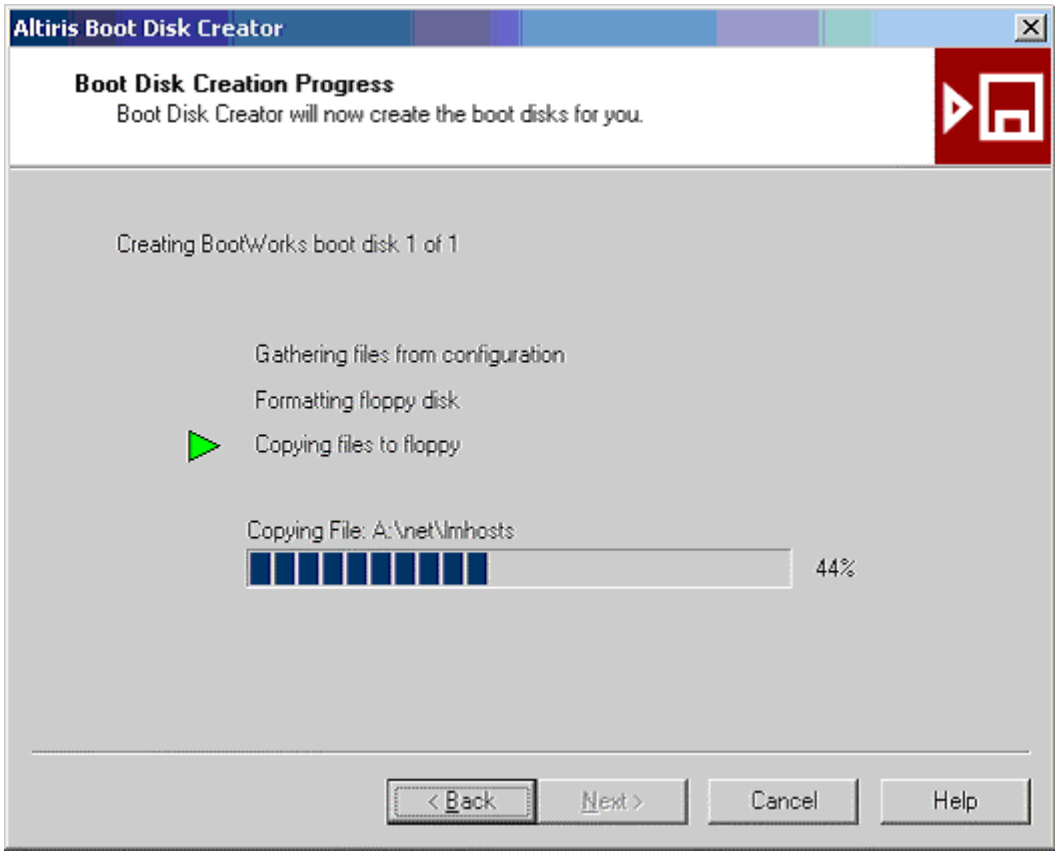
12. When prompted to select a media type, select **Create floppy disk sets,** and click **OK.**



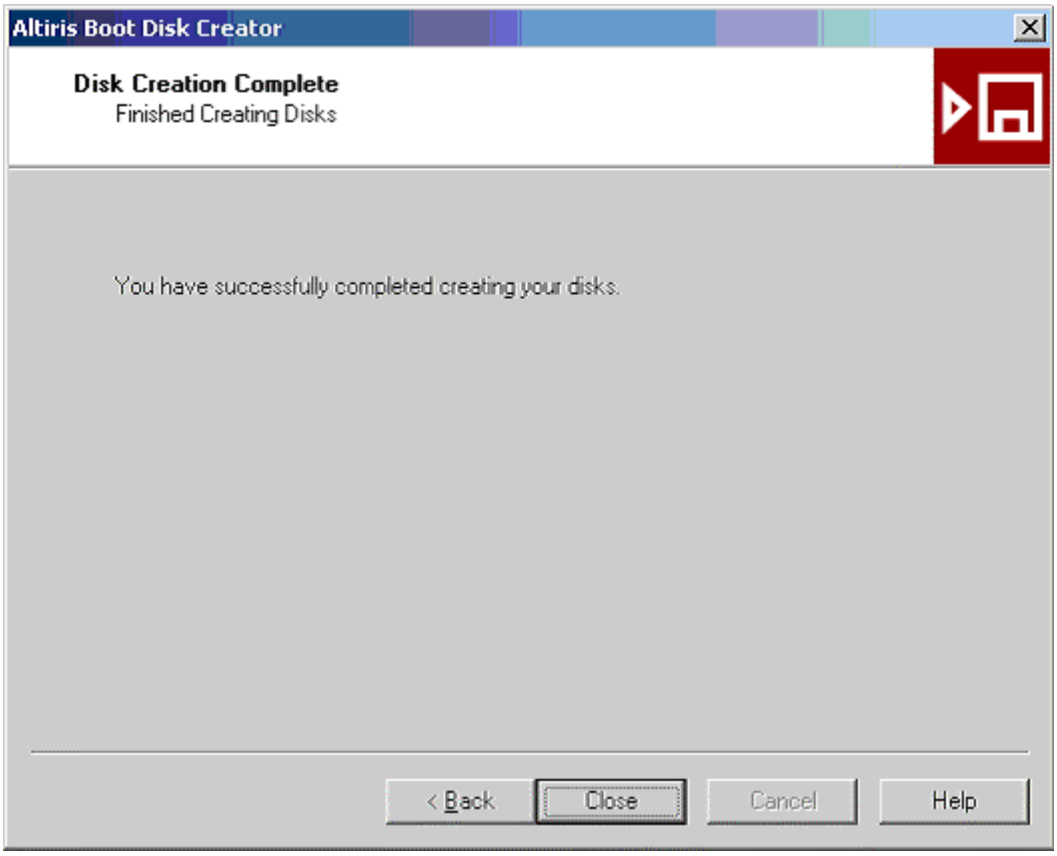
13. Insert a diskette into the diskette drive, select the number of boot disk sets to create, then click **Next.**



The Boot Disk Creator begins creating the disks.



14. When the diskettes are complete, click **Close.**



5

Pre-Deployment Configuration for Windows Scripted Install Jobs

These configuration modifications must be performed before using the Windows scripted install jobs, and are necessary after a first-time installation or upgrade of the Rapid Deployment Pack.

Preconfiguring the ProLiant Support Pack for Windows

The Web-based Management portion of the Foundation Agents requires that a password be configured in the Smart Component before installation. This password is also used by several other components in the ProLiant Support Pack. Without the password, the Web-based Management portion of the Foundation Agents installs but does not function correctly and is not accessible on your deployed servers.

NOTE: The components in the ProLiant Support Pack must only be configured one time. The components do not have to be configured each time they are deployed. After a component in the ProLiant Support Pack is configured, it is ready for deployment.

To configure the Foundation Agent (and other Smart Components) in the ProLiant Support Pack:

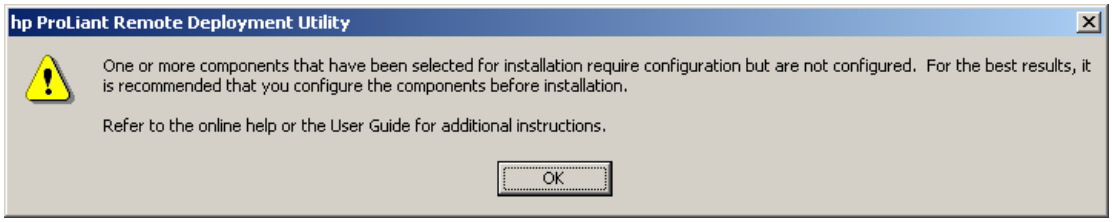
1. Open **Windows Explorer** and browse to the following directory:
   - For Windows 2000 Server or Advanced Server:

     .\program files\altiris\express\deployment server\deploy\cds\compaq\ss.*xxx*\w2k\ntcsp
   - For Windows Server 2003, Standard Edition; Windows Server 2003, Enterprise Edition; or Windows Server 2003, Web Edition:

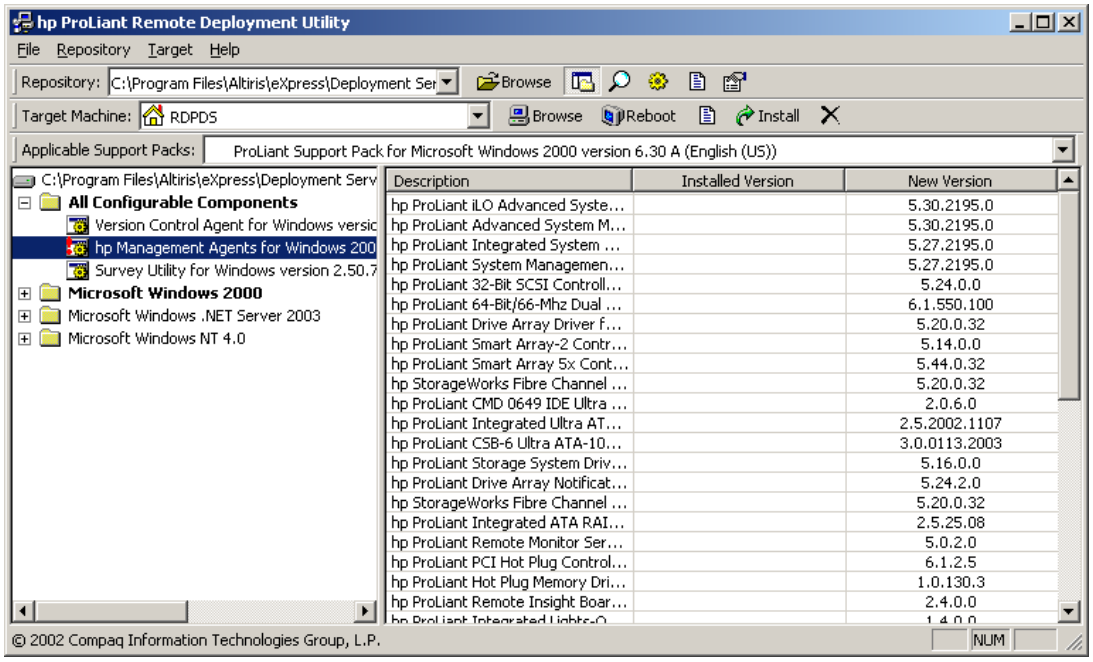
     .\program files\altiris\express\deployment server\deploy\cds\compaq\ss.*xxx*\wnet\csp

     where *xxx* represents the version of the support files just installed.
2. Locate and double-click **setup.exe.**

3. If the Remote Deployment Utility displays the following message, click **OK** to continue.



4. Expand the All Configurable Components directory in the tree in the left pane.
5. Right-click **hp Management Agents for Windows 2000/Server 2003,** then select **Configure.**



6. In the Administrator Password section, enter a password in the Password field, and confirm. The operator and user passwords can also be entered at this time.

   NOTE: This Administrator password does not have to be the same as the Deployment Server Administrator password.

7. At the Insight Manager 7 Trust Relationship window, select the appropriate trust mode for the environment. If security certificates are not currently installed, select **Trust All.**

   For additional information about selecting a trust mode, refer to the *HP Insight Management Agents User Guide,* located at http://h18013.www1.hp.com/products/servers/management/agents.html.

8. Click **Save.**

NOTE: The Version Control Agent for Windows and the Survey utility for Windows can also be configured at this time, if desired, in the same manner as the Foundation Agents.

Preconfiguring the Altiris Deployment Agent for Windows

The Altiris Deployment Agent is a service that enables a server to be managed by the Deployment Server. It provides the capability to redeploy the server, perform pre- and post-imaging configurations, and process various commands, such as software installation.

By preconfiguring the default settings, all agents installed as part of the provided Windows scripted install jobs will have the consistent settings.

The provided Windows scripted install jobs use the aclient.inp file, located in the Deployment Server root directory, for agent settings. This setting is independent of the Remote Client Installer settings, established from **Tools>Options>Agent Settings.**

1. From a text editor, open the aclient.inp file, located in the Deployment Server root directory.

   NOTE: By default, the Deployment Server root directory is .\program files\altiris\express\deployment server.

2. Select the option to force applications to close when the server needs to reboot, ensuring that jobs will not fail if the server must be rebooted, by changing the following line:

   ```
   ; ForceReboot=No
   ```

   to

   ```
   ForceReboot=Yes
   ```

3. Modify the Bootworks disk prompting behavior by changing the following line:

   ```
   ; BootDiskMessageUsage=4
   ```

   to

   ```
   BootDiskMessageUsage=0
   ```

   If boot diskettes are used instead of PXE, and a configuration task is issued to a computer when a diskette is not in the diskette drive, a prompt displays instructing you to insert a diskette. If this occurs when you are not logged in to the server, you must log in and close the prompt before the job can continue. By selecting to never be prompted for a boot diskette, the server reboots to the normal operating system if a boot diskette is not inserted in the server when required.

4. Select the option to synchronize the target server time with the Deployment Server time by changing the following line:

   ```
   ; SynchTimeWithServer=No
   ```

   to

   ```
   SynchTimeWithServer=Yes
   ```

5. Save the file and close the text editor.

Modifying the Microsoft Windows unattend.txt File

The Windows unattend.txt file controls the Windows unattended installation process. Before performing a scripted install, you might need to modify some of the settings to align with your environment. Alternatively, you can use the Modify Configuration capability of the console to change the settings after installing the operating system.

For more information about editing a Windows scripted install unattend.txt file, refer to the Windows 2000 online resource kit at http://www.microsoft.com./windows2000/techinfo/reskit/en-us/default.asp.

For the location of the unattend.txt files on the Deployment Server, refer to "Understanding the ProLiant Integration Module Deployment Server" in the *HP ProLiant Essentials Rapid Deployment Pack—Windows Edition User Guide.*

To change the default administrator password:

1. Locate the `[GuiUnattend]` section in the unattend.txt file.
2. Change the `AdminPassword=` line.

NOTE: This password is stored and transmitted as cleartext.

To change the default workgroup or domain name:

1. Locate the `[Identification]` section in the unattend.txt file.
2. To set the workgroup name, change the `JoinWorkgroup=` line.
3. To set the domain name, change the `JoinDomain=` line.

   If you are joining a domain and have not already created a computer account, you might need to add `CreateComputerAccountInDomain=Yes` and set `DomainAdmin=` and `DomainAdminPassword=`.

To add the Product ID/Key:

NOTE: Because the unattend.txt file is used by multiple servers, use a Volume License Key that contains multiple or unlimited activations.

- For Windows 2000:
  a. Locate the `[UserData]` section in the unattend.txt file.
  b. Add `ProductID=`*`XXXXX-XXXXX-XXXXX-XXXXX-XXXXX`*, where the *X*s represent the key value.
- For Windows 2003:
  a. Locate the `[UserData]` section in the unattend.txt file.
  b. Add `ProductKey=`*`XXXXX-XXXXX-XXXXX-XXXXX-XXXXX`*, where the *X*s represent the key value.
  c. You can also add `AutoActive=Yes` in the `[Unattend]` section to automatically activate the installation.

6

Pre-Deployment Configuration for Linux Scripted Install Jobs

These configuration modifications must be performed before using Linux scripted install jobs, and are necessary after a first-time installation or upgrade of the Rapid Deployment Pack.

Preconfiguring the ProLiant Support Pack for Linux

The Web-based Management portion of the Foundation Agents requires a password to be configured before installation. This password is also used by several other components in the ProLiant support software. Without the password, the Web-based Management portion of the Foundation Agents installs but does not function correctly and is not accessible on your deployed servers.

Support software directories and scripts associated with each Linux operating system are located on the NFS server at /usr/cpqrdp/ss.*xxx*/*yyyy*/csp, where *xxx* is the ProLiant Support Pack version and *yyyy* is the Linux distribution shortcut name. For example, rhas21 represents Red Hat Enterprise Linux AS 2.1.

A support software script, *yyyy*.sh, is used to install the ProLiant support software. This script uses the input file, linuxpsp.txt, for setting various parameters including the Linux Web Agent passwords and SNMP settings. However, for Red Hat 7.2, the Linux Web Agent passwords and SNMP settings are located within the support software script, rh72.sh. For additional information about the input file and installing the ProLiant Support Pack, refer to the ProLiant Support Pack and Deployment Utilities documentation.

The Linux Web Agent default passwords are listed in Table 6-1

Table 6-1: Linux Web Agent Default Passwords

User Name	Password
administrator	`password`
operator	`password`
user	`password`

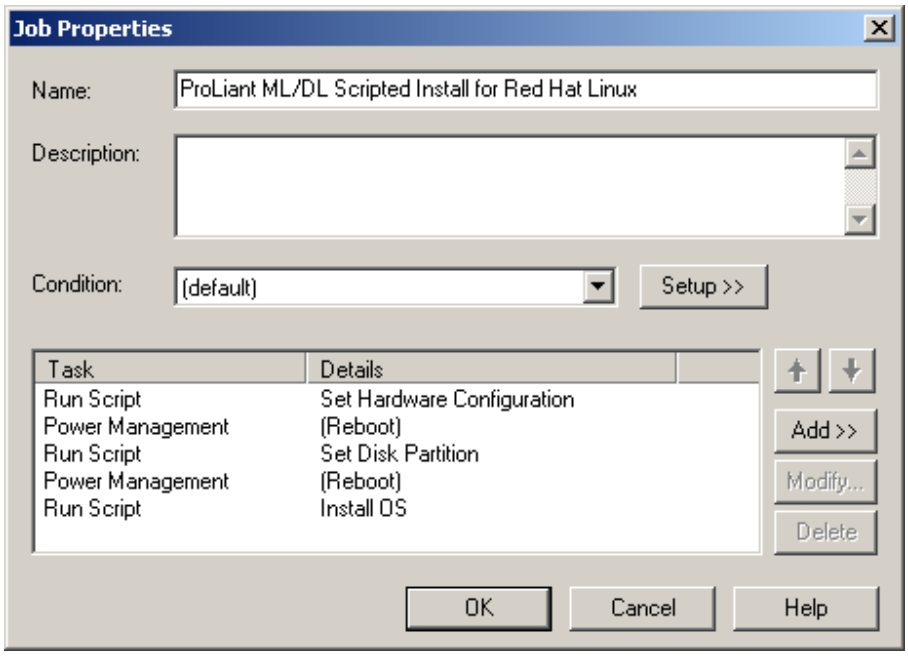
Because the default passwords are documented here, HP recommends changing the passwords either by editing the support software script as previously described or by browsing to the installed server, port 2301 or secured port 2381, and changing the password. Changing the password by editing the support software script before a scripted installation allows these passwords to be mass deployed to target servers. Additionally, after the scripted installation, modified passwords can be replicated by copying the /var/spool/compaq/wbem/cpqhmmd.acl file to other servers.

Preconfiguring the Deployment Settings for Red Hat Linux Scripted Install Jobs

For the Red Hat Linux scripted install jobs to operate properly, they must be modified with the host and domain name or IP address of the NFS server on which the installation files are located.

To update each Red Hat Linux scripted install job to point to the NFS server:

1. Locate the Red Hat Linux scripted install jobs to be modified within the Deployment Server Console. Expand the tree view, if necessary, to view the jobs in the Jobs pane.
2. Double-click the job. The Job Properties screen appears.



3. Double-click the **Run Script—Install OS** task.
4. Locate the following line in the script:

```
set nfsserver=0.0.0.0
```

5. Change 0.0.0.0 to the host and domain name of the NFS server as follows:

   `set nfsserver=`*`yournfssvr.yourdomain`*

   where *`yournfssvr`* is the host name of the NFS server, and *`yourdomain`* is the domain name for the NFS server.

   Instead of a host name and domain name, an IP address can be specified as follows:

   `set nfsserver=`*`xxx.xxx.xxx.xxx`*

   where *`xxx.xxx.xxx.xxx`* is the fixed IP address of the NFS server.

   NOTE: Using the IP address to connect to the NFS server is more effective than using a DNS name, because using a DNS name requires the existence of a DNS server properly configured with an entry for the NFS server.

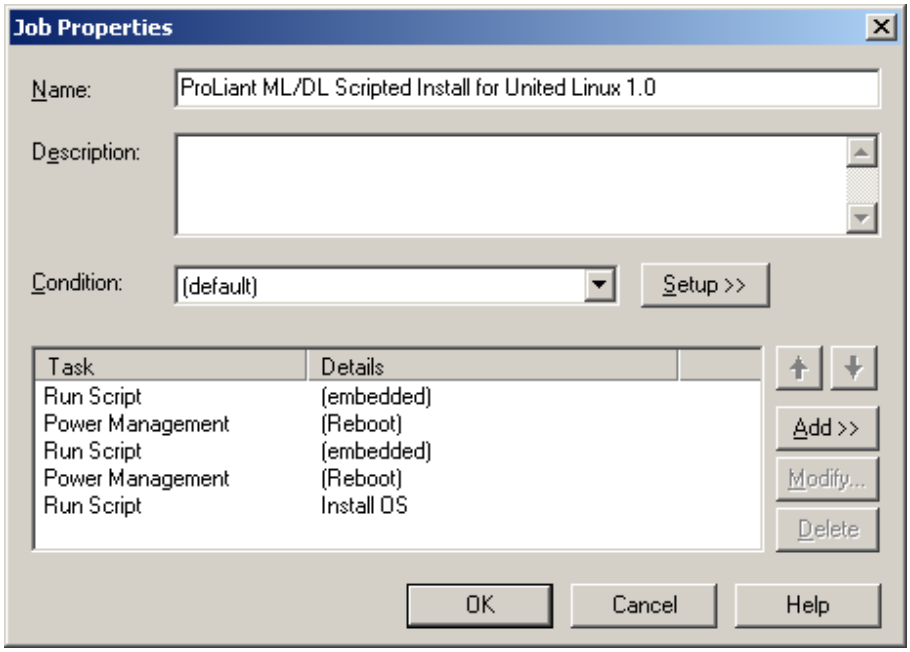
6. Click **Finish** to save changes.
7. Repeat steps 2 through 6 for any remaining Red Hat Linux scripted install jobs.

Preconfiguring the Deployment Settings for UnitedLinux Scripted Install Jobs

For the UnitedLinux scripted install jobs to operate properly, they must be modified with the host and domain name or IP address of the NFS server where the installation files are located.

To update each UnitedLinux scripted install job to point to the NFS server:

1. Locate the UnitedLinux scripted install jobs to be modified within the Deployment Server Console. Expand the tree view, if necessary, to view the jobs in the Jobs pane.
2. Double-click the job. The Job Properties screen appears.



3. Double-click the **Run Script—Install OS** task.
4. Locate the following line in the script:

   ```
   set nfsserver=0.0.0.0
   ```

5. Change `0.0.0.0` to the host and domain name of the NFS server as follows:

   ```
   set nfsserver=yournfssvr.yourdomain
   ```

   where *yournfssvr* is the host name of the NFS server, and *yourdomain* is the domain name of the NFS server.

   Instead of a host name and domain name, an IP address can be specified as follows:

   ```
   set nfsserver=xxx.xxx.xxx.xxx
   ```

   where *xxx.xxx.xxx.xxx* is the fixed IP address of the NFS server.

   NOTE: Using the IP address to connect to the NFS server is more effective than using a DNS name, because using a DNS name requires the existence of a DNS server properly configured with an entry for the NFS server.

6. Click **Finish** to save changes.
7. Repeat steps 2 through 6 for any remaining UnitedLinux scripted install jobs.

7

Pre-Deployment Configuration for Packaged Cluster Deployment Jobs

These configuration modifications must be performed before using the provided packaged cluster deployment jobs for Windows, and are necessary after a first-time installation or upgrade of the Rapid Deployment Pack.

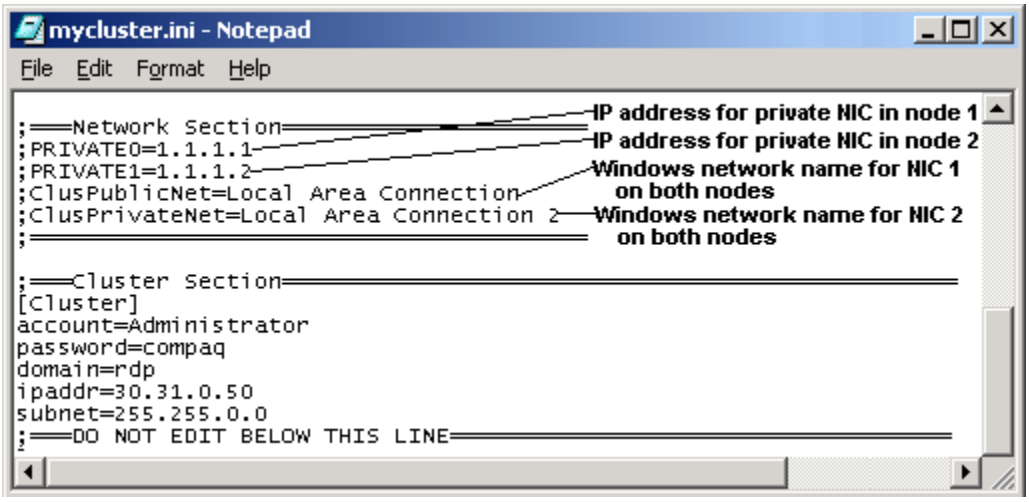
Step 1: Creating and Customizing a Configuration File

1. On the Deployment Server, copy and rename the clustername.ini file in the .\deploy\configs\clusters directory.

   IMPORTANT: A unique cluster configuration file must be created for each packaged cluster to be deployed. This file must have the same name as the packaged cluster being deployed.

2. In the new file, specify a domain administrator-level account name and password for the cluster. This account will be used to run the cluster service.
3. Specify an IP address and subnet mask for the cluster.
4. Specify the domain for the cluster.
5. Specify the available private IP addresses for the private NIC in each node in the cluster.
6. Specify the Windows network name for the private NIC in each node participating in the cluster.
7. Specify the Windows network name for the public NIC in each node participating in the cluster.

For example, refer to the following sample cluster configuration file text.



NOTE: If standard packaged cluster hardware is used, the default network names provided in the cluster configuration file will work, as long as they are not changed from the default Windows install during the scripted installation or in the server image.

IMPORTANT: Microsoft Cluster Services requires a domain administrator account to run the cluster service. This password is stored in plain text in the cluster configuration file on the Deployment Server. HP recommends protecting server administrator passwords by ensuring that:

- Only authorized users have access to the eXpress share where the configuration files are located.
- A user account exists for accessing the eXpress share separately from the rest of the Deployment Server.

Step 2: Providing the Domain Administrator Account for Packaged Cluster Deployment

Each packaged cluster deployment job for Windows contains a task to create or join the cluster from each node. Windows security requires that this task be run by an account with domain administrator credentials. Provide these credentials for each packaged cluster deployment job to be run in a particular domain:

1. Open the Job Properties window for the packaged cluster deployment job.
2. Scroll to the **Create/Join Cluster** task and click **Modify>Advanced.**
3. In the Security Context area, select **Enter user name and password,** and supply the domain/user name and password valid in the domain for the cluster.
4. Click **OK** to close the window, and then click **Finish** to close the Script Properties window.
5. Click **OK** to close the Job Properties window.
6. Repeat steps 1 through 5 for each packaged cluster job before deployment.

Step 3: Making the Cluster Nodes Available in the Deployment Server Console

The cluster nodes must be available in the Deployment Server Console and organized in a group named for the packaged cluster they will form before running the packaged cluster deployment jobs.

Importing the Cluster Node

Import the cluster nodes into the Deployment Server Console using one of the following methods.

Method One—New Computer GUI

Using the New Computer GUI provided by the Deployment Server Console:

1. Open the New Computer Properties dialog box.
2. Click **File>New>Computer.**
3. Click **Add.**
4. Enter the Name, Serial Number, and Computer Name.
5. Click **Microsoft Network.**
6. Select **Domain,** and enter the domain the node will join.
7. Click **TCP/IP.**
8. Click **Add** next to the Network Adapter dropdown menu. **Network Adapter 2** appears in the list.
9. Select **Assign a static IP address.**
10. Enter an IP address and subnet mask for the private network card in this node.
11. Click **OK** to close New Computers Properties.
12. Repeat steps 3 through 11 to provide the information for the second node.
13. Click **OK** to close New Computers.

Method Two—Import Computers From a File

Use the Import Computers from a File method in the Deployment Server Console to create an import file based on the sample import file, clusimport.csv in .\deploy\configs\clusters.

In the following sample file, the cluster node is named "clusnode1," the serial number is "D207KGY1K056," a "1" indicates domain membership joining the RDP domain, a "1" indicates DHCP for NIC 1, the cluster name is "mycluster," the IP address and subnet mask is "15.15.15.1," and "255.0.0.0" indicates its private NIC.

```
clusnode1,,D207KGY1K056,,clusnode1,1,RDP,,1,,,,,,,,,,,,,,,
HASE,HP,,,,,,,,,,,,,mycluster,,,,0,15.15.15.1,255.0.0.0
clusnode2,,D207KGY1K057,,clusnode2,1,RDP,,1,,,,,,,,,,,,,,,
HASE,HP,,,,,,,,,,,,,mycluster,,,,0,15.15.15.2,255.0.0.0
```

Method Three—Modify After Initial Deployment

Modify the computer name in the console after initial deployment (the first PXE boot) of the cluster nodes, add the nodes to a computer group in the console, and name this group after the cluster to be formed.

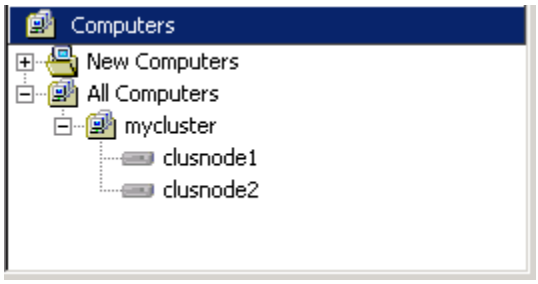
IMPORTANT: Method three is only available if using the scripted packaged cluster deployment jobs.

Creating the Computer Group

After the computers are in the console, create a new computer group with the same name as the cluster to be formed.

1. Right-click in the Computers pane, and select **New Group.**
2. Rename this group to the name of the cluster.
3. Drag the nodes to form this cluster into the new group.

The cluster nodes should now be listed in a group with the same name as the cluster they will form. The following figure displays a cluster group called "mycluster" and the nodes "clusnode1" and "clusnode2."



Step 4: Customizing the Microsoft Answer Files for Packaged Cluster Scripted Install Jobs

1. Specify a domain-level administrator account and password in the unattended Windows install answer files. For Windows 2000, this file is w2kclus.txt, and for Windows Server 2003, this file is wnetclus.txt. These files are located in the Deployment Server in the .\deploy\configs\clusters directory.
2. Update the file with the following information:
   - A domain administrator account name
   - The password for that account
   - The domain for that account (which the cluster nodes will join)

   For example:

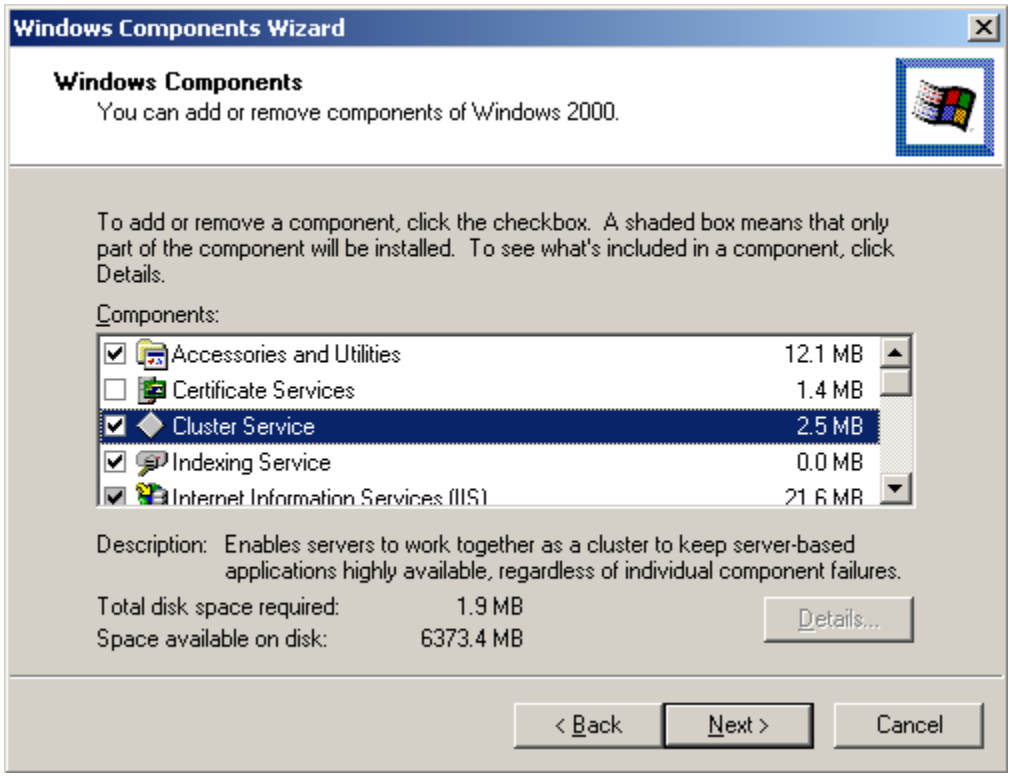
```
[Identification]

DomainAdmin=*
DomainAdminPassword=*
JoinDomain=*
```

NOTE: This account does not need to be the domain administrator account for the cluster, but the account must have permission to add computers to the domain.

Step 5: Creating a Reference Configuration for a Packaged Cluster Imaged Install

If using the Packaged Cluster Imaged Install for Windows job, a reference ProLiant DL380 server configuration is needed. This reference server must be configured with the Microsoft Windows 2000 Advanced Server or Microsoft Windows Server 2003, Enterprise Edition. Additionally, any minimum required service packs and support packs must be installed. An image of this server is then taken for use in the Packaged Cluster Imaged Install for Windows job. Perform the following steps to correctly configure the reference server:

1. Install the desired operating system on the reference server.
   a. For Windows 2000, select the **Cluster Service** component during setup to copy the clustering binaries to the server before imaging.
   b. For Windows Server 2003, the necessary clustering software is automatically installed, so this additional setup task is not required.

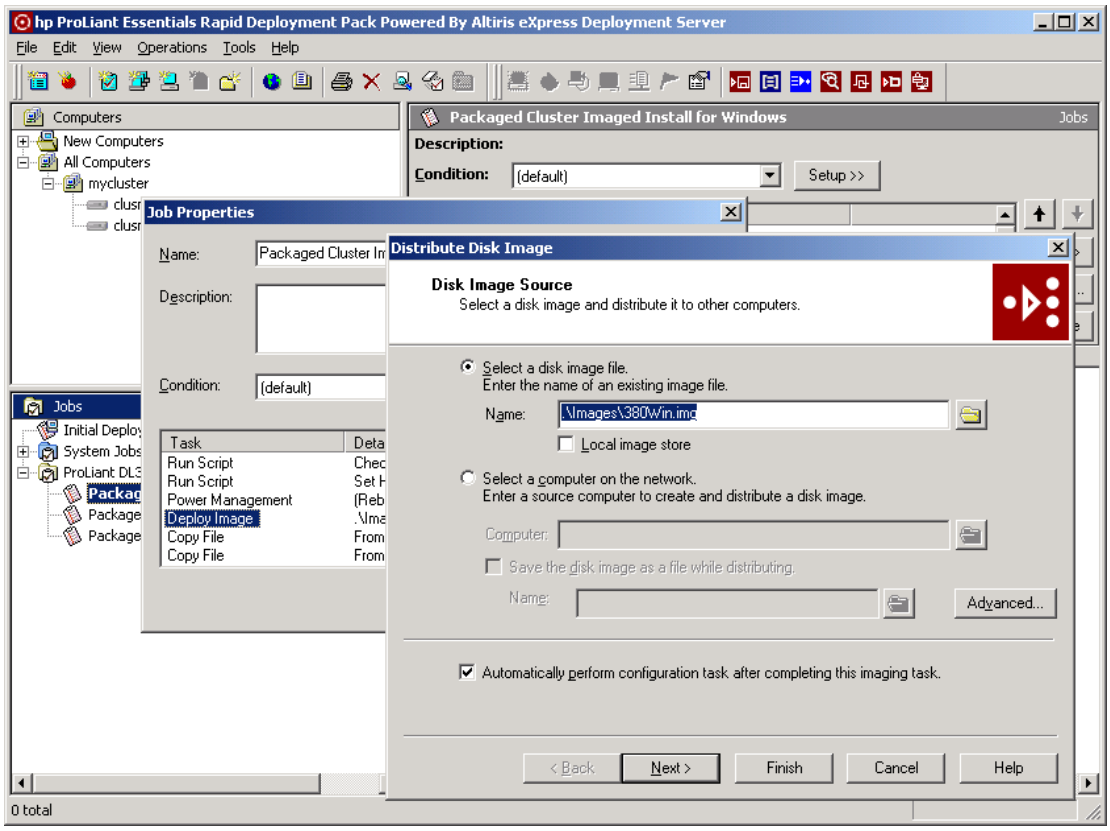


2. Install any service packs and support packs to the reference server.
3. Capture an image of the reference server with the Capture Hardware Configuration and Windows Image job located in the SmartStart Toolkit and OS Imaging Events folder.

4. After the Capture Hardware Configuration and Windows Image job has completed on the reference server, browse to the image file on the Deployment Server. This file is located in the .\images folder. Rename the file wincap.img to a filename describing the operating system and the server type captured.

   NOTE: HP recommends making a copy of the Capture Hardware Configuration and Windows Image job. Rename the job and edit it to create an image with the desired file name.

5. From the Deployment Server Console, make a copy of the Packaged Cluster Imaged Install for Windows job and rename it based on the type of server and operating system captured. In this new job, open the Deploy Image task and edit the image file name to point to the reference server image file.



IMPORTANT: The image specified for a Packaged Cluster Imaged Install for Windows job that will deploy a Windows 2000 image must contain the clustering binaries. If deploying a Windows 2003 server image, this is not a requirement because the cluster binaries are a default component of this version of Windows.

A

Manually Installing Windows Operating System CDs

If you did not copy the Windows operating system CDs during the installation, manually copy the files for each omitted operating system to ensure that the provided Windows jobs operate properly.

To manually copy the Windows operating system files to the Deployment Server directory:

1. Locate the .\deploy\cds\windows directory on the Deployment Server. If this directory does not exist, create it.
2. Select the appropriate directory for the operating system files to be copied. If this directory does not exist, create it.

Table A-1: Windows Operating System Shortcut Names

Operating System	Shortcut Name
Windows 2000	w2k
Windows Server 2003	wnet

3. Copy the i386 directory from the operating system CD to the operating system directory.

NOTE: The provided Windows scripted install jobs rely on the existence of operating system files at .\deploy\cds\windows*xxx*\i386, where *xxx* is the operating system shortcut name.

B

Manually Installing Red Hat Enterprise Linux Boot Files

If you did not copy the Red Hat Enterprise Linux boot files during the installation, manually copy the files for each omitted distribution to ensure that the provided Red Hat Enterprise Linux jobs operate properly.

NOTE: Linux boot files for all other Linux distributions are provided on the Rapid Deployment Pack—Windows Edition CD and installed during the ProLiant Integration Module for Deployment Server installation.

To manually copy the Red Hat Enterprise Linux boot files to the Deployment Server directory:

1. Locate the .\deploy\cds\compaq\ss.*xxx**yyyy* directory on the Deployment Server, where *xxx* is the ProLiant Support Pack version and *yyyy* is the Linux distribution shortcut name for the distribution files to be copied.

Table B-1: Linux Distribution Shortcut Names

Linux Distribution	Distribution Shortcut Name
Red Hat Enterprise Linux AS 2.1	rhas21
Red Hat Enterprise Linux ES 2.1	rhes21
Red Hat Enterprise Linux AS 3	rhas3
Red Hat Enterprise Linux ES 3	rhes3

IMPORTANT: The copied boot files must match the distribution version copied during the ProLiant Integration Module for NFS Server installation or the manual installation of Linux distribution CDs.

2. Insert the first distribution CD into the Deployment Server CD-ROM drive.

3. Copy the following files into the Deployment Server directory from Red Hat Linux CD #1 as shown in Table B-2.

Table B-2: File Sources and Destinations

Source	Destination
/dosutils/loadlin.exe	.\deploy\cds\compaq\ss.*xxx**yyyy*\dosutils\loadlin.exe
/images/pxeboot/vmlinuz	.\deploy\cds\compaq\ss.*xxx**yyyy*\dosutils\autoboot\vmlinuz
For rhas21 and rhes21: /images/pxeboot/ initrd-everything.img* For rhas3 and rhes3: /images/pxeboot/initrd.img	.\deploy\cds\compaq\ss.*xxx**yyyy*\dosutils\autoboot\initrd.img

* Rename the copied initrd-everything.img file to initrd.img.

C

Manually Installing Linux Distribution CDs

If you did not copy the Linux distribution CDs during the installation, manually copy the files for each omitted distribution to ensure that the provided Linux jobs operate properly.

To manually copy a set of Linux distribution CDs to the NFS server directory:

1. Locate the /usr/cpqrdp/*yyyy* directory on the NFS server, where *yyyy* is the Linux distribution shortcut name for the omitted distribution.

Table C-1: Linux Distribution Shortcut Names

Linux Distribution	Distribution Shortcut Name
Red Hat Enterprise Linux AS 2.1	rhas21
Red Hat Enterprise Linux ES 2.1	rhes21
Red Hat Enterprise Linux AS 3	rhas3
Red Hat Enterprise Linux ES 3	rhes3
Red Hat 7.2	rh72
Red Hat 7.3	rh73
Red Hat 8.0 Professional	rh80

IMPORTANT: The copied Red Hat Enterprise Linux distribution files must match the boot files version copied during the ProLiant Integration Module for Deployment Server installation or during the manual installation of the Red Hat Enterprise Linux boot files.

2. Insert the first distribution CD into the NFS server CD-ROM drive.
3. Mount the CD-ROM drive:

   `mount /mnt/cdrom` (Red Hat)

   or

   `mount /media/cdrom` (UnitedLinux)

4. Copy the contents of the distribution CD, including subdirectories, to the distribution directory. For example:

   ```
   cp -r  /mnt/cdrom/* /usr/cpqrdp/rhas21
   ```

5. Unmount the CD-ROM drive:

   `umount /mnt/cdrom` (Red Hat)

   or

   `umount /media/cdrom` (UnitedLinux)

6. Repeat steps 3 through 5 to copy the remaining CDs in the distribution set to the distribution directory. The distribution CDs containing the RedHat/RPMS directory are required. However, all distribution CDs in the set might not be needed.

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