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**@server**  
**xSeries Education**

**Deploying IBM @server BladeCenter with  
Remote Deployment Manager**

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## Preface

This publication is primarily intended for use by students enrolled in the Deploying IBM @server BladeCenter with Remote Deployment Manager hands-on lab.

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The information contained within this publication is current as of the date of the latest revision and is subject to change at any time without notice.

Please forward all comments and suggestions regarding the course material format and content to your local IBM @server xSeries Education country coordinator or contact.

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# Table of Contents

<b>Preface.....</b>	<b>4</b>
<b>Table of Contents .....</b>	<b>5</b>
<b>Safety Precautions and Housekeeping .....</b>	<b>6</b>
General Safety Guidelines .....	6
System Safety.....	7
<b>Introduction to the Student Lab Guide .....</b>	<b>8</b>
Introduction.....	8
Limitations .....	8
<b>IP Address Chart .....</b>	<b>9</b>
<b>Lab 1. Installing IBM Director Server.....</b>	<b>10</b>
Time Required: 30 minutes.....	10
Scenario.....	10
Lab Activity Preparation.....	10
Installing IBM Director Server .....	10
<b>Lab 2. IBM Director &amp; BladeCenter™ .....</b>	<b>14</b>
Time Required: 60 minutes.....	14
Discover IBM BladeCenter™ .....	14
Request Access to the BladeCenter™ Chassis .....	15
Installing the IBM Director Agent on an HS20 server running Microsoft Windows Server 2003 system.....	16
<b>Lab 3. Remote Deployment Manager .....</b>	<b>18</b>
Time Required: 40 minutes.....	18
Scenario.....	18
RDM 4.11 Installation .....	18
Running the PXEDHCP.bat program .....	23
Creating a Red Hat Linux AS 2.1 Native Install Image via RDM 4.1 .....	26
Installing Red Hat Linux AS 2.1 via Remote Deployment Manger .....	31
Create a Donor image of the ID412W2K3 Managed System.....	32
Appendix.....	35
Manually Create the IBM BladeCenter™ icon in Director (OPTIONAL) ....	35

# Safety Precautions and Housekeeping

## General Safety Guidelines

1. Maintain good housekeeping in the area of the machines during and after completing maintenance/configuration.
2. Do not use solvents, cleaners, or oils that have not been approved by IBM.
3. Lift by standing or pushing up with stronger leg muscles to take the strain off back muscles. Do not attempt to lift any parts or equipment with which you feel uncomfortable. Service personnel are responsible for making certain that no action on his or her part renders a product unsafe or exposes the customer to hazards.
4. Place removed machine covers in a safe out-of-the-way location while servicing the machine. These covers must be back in place on the machine before the machine is returned to the customer.
5. Always place tool kits away from walk areas where no one can trip over them (for example, under a desk or table).
6. Avoid wearing loose clothing that may be caught in machinery. Shirt sleeves must be left buttoned or rolled up above the elbow. Long hair and scarves must be secured.
7. Remove all watches and rings before removing the cover of any system.
8. When servicing a machine, ties must be tucked into shirt or a tie clasp (preferably non-conductive) must be worn approximately three inches from the end.
9. Before starting equipment, make sure that other service or customer personnel are not in a hazardous position.
10. Do not place books, tools, or test equipment on top of the machine.

## System Safety

Before beginning any of the lab projects, please review the following safety guidelines:

1. Turn off your display, remove all diskettes from the diskette drive, and unplug the power cord to the system unit before attempting to remove the covers from the system.
2. Use the electrostatic device kit (one should have been provided for your lab group) to minimize the risk of damage to electronic components inside the system. Please ask your instructor for assistance if you do not know how to use an ESD kit.

**Note:** Avoid touching the internal electronic components unless you are specifically requested to do so within a lab exercise.

# Introduction to the Student Lab Guide

## Introduction

These lab projects are designed to teach you the skills that have been introduced in the previous topics. In the lab activities, you will practice installing and operating server systems by using the documentation and maintenance philosophy for the systems.

## Limitations

3. No computer game playing or copying of games is allowed in this class.
4. Do not copy diskettes on any of the systems in the lab.
5. Do not write on or exchange diskettes with another system.
6. No beverages are allowed at your workstation when the covers are off.
7. You will be expected to practice the proper ESD procedures while performing maintenance on IBM systems.



## IP Address Chart

The IP Address of this resource is ...	IP Address
IBM Director Server	
BladeCenter Management Module 1	
BladeCenter Management Module 2	
BladeCenter Ethernet Switch Module 1	
BladeCenter Ethernet Switch Module 2	

# Lab 1. Installing IBM Director Server

**Time Required: 30 minutes**

## Scenario

In the next section of the lab you will install IBM Director Server. The server installation will automatically install the management server, the management console, and management agent.

## Lab Activity Preparation

- Ensure that the server is loaded with Microsoft Windows Server 2003.
- Ensure that you have access to the IBM Director 4.12 software code.

## Installing IBM Director Server

When you install IBM Director Server, the InstallShield wizard also automatically installs IBM Director Console and IBM Director Agent. During the installation process, you can install the Server Plus Pack extensions and several IBM Director Agent features. Log onto ID412SRVR as the Administrator (Hint: **Administrator**, **password**)

\_\_\_1. Insert the IBM Director 4.12 CD into the CDROM

<b>Note:</b>	If the CD does not start automatically, from the Browse dialog box, select the CDROM drive letter and click on setup.exe.
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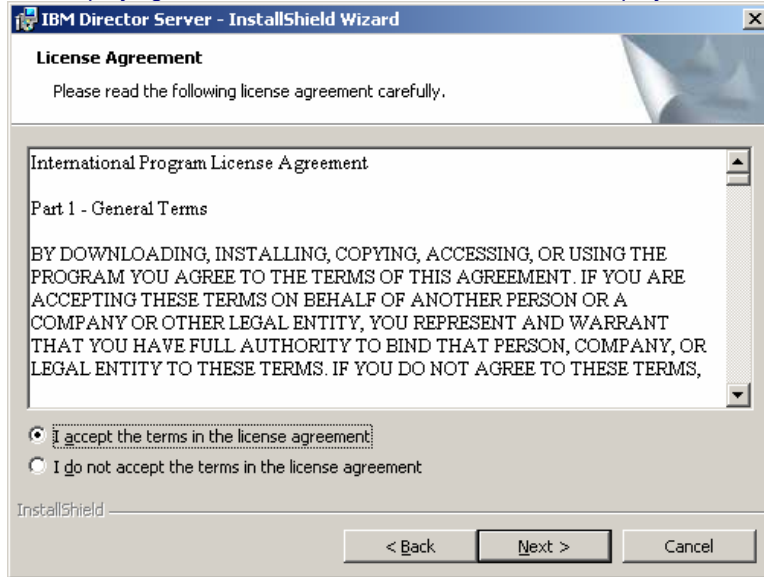
\_\_\_2. Click **Install IBM Director**. 

\_\_\_3. Click **IBM Director Server installation**. 

\_\_\_4. At the Welcome screen, click **Next**.

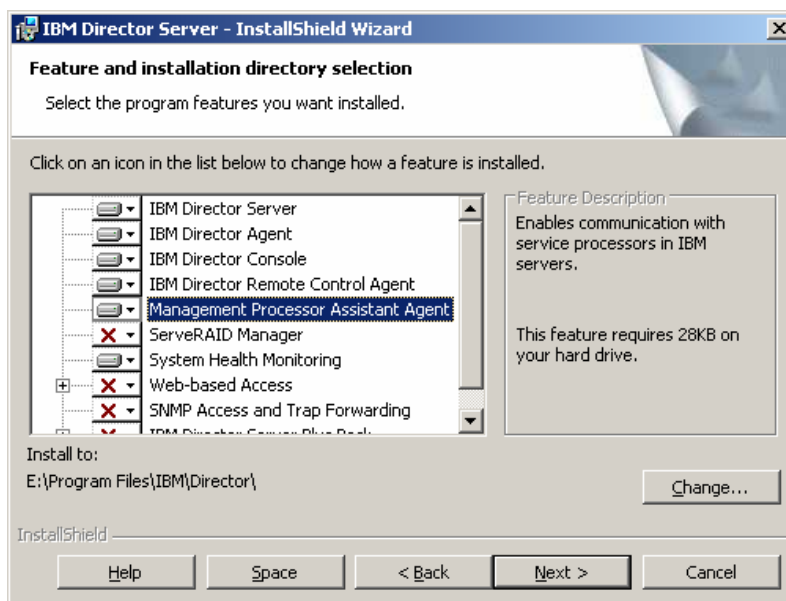
\_\_\_5. Select the **I accept the terms in the license agreement** radio button on the Software License Agreement screen.

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- \_\_\_6. Click **Next**.
- \_\_\_7. Click **Next** to proceed past the Enhance IBM Director with the new Server Plus Pack screen.
- \_\_\_8. Add the following features, by clicking on the hard drive icon and selecting **This feature, and all its subfeatures, will be installed on local hard drive:**

Add these features:	IBM Director Server (already selected)
	IBM Director Agent (already selected)
	IBM Director Console (already selected)
	Management Processor Assistant Agent
	System Health Monitoring (already selected)



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\_\_\_ 9. Click **Next**.

\_\_\_ 10. Enter the following IBM Director service account information:

In this field ...	
Local server or domain	Your machine's <i>hostname</i>
User Name	The Administrator account
Password	The Administrator account password
Confirm password	The Administrator account password

<b>Note:</b>	The user name and password information must correspond to a Windows account with administrator privileges on the management server. Otherwise, the installation will fail.
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\_\_\_ 11. Click **Next**.

\_\_\_ 12. Click **Next** to accept the default Encryption settings.

\_\_\_ 13. Accept the default Software Distribution file location by clicking **Next**.

<b>Note:</b>	In your real world environment it is recommended that you select an alternate storage drive for the software-distribution packages from IBM Director Server application and Operating System files.
--------------	---

\_\_\_ 14. At the Ready to Install window, click the **Install** button.

**Note:** If an information window popup requesting driver signing information, select **yes** to continue.

\_\_\_ 15. At the Network Driver Configuration dialog box, in the Network Driver Configuration section, make sure that the TCPIP (all adapters) is enabled, by selecting the **Enable Driver** check box.

\_\_\_ 16. Make sure that the Network Options are enabled for your installation.

\_\_\_ 17. Click **OK** to accept the remaining defaults for Network and Remote Control options. IBM Director will now complete the installation process.

\_\_\_ 18. Select **Microsoft Jet 4.0** as your Database selection and click **Next**.

\_\_\_ 19. At the InstallShield Wizard Completed screen, click **Finish**.

\_\_\_ 20. Click **Yes** to restart the server.

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## Lab 2. IBM Director & BladeCenter™

**Time Required: 60 minutes**

### Discover IBM BladeCenter™

Follow the directions below to create an icon for the IBM BladeCenter™ in Director.

- \_\_\_1. When the server is restarted, log on as Administrator.
- \_\_\_2. Close any open windows.

<b>Attention:</b>	<p>IBM Director has a delayed start – it needs the servers networking and database to be started - and will start shortly after the server is up and running. You can follow the status on the IBM Director Management Server in the lower right corner of the windows task bar using the legend below.</p> <ul style="list-style-type: none"><li>➤ Red square = IBM Director server not started</li><li>➤ Green triangle = IBM Director server is starting</li><li>➤ Green circle = IBM Director server running</li></ul>
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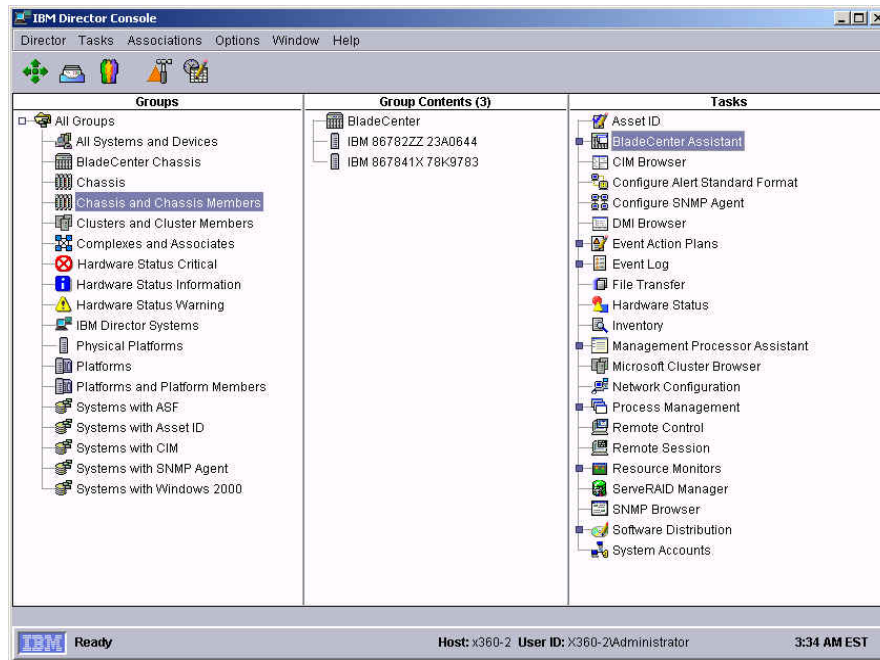
- \_\_\_3. Continue to the next step when the IBM Director Management Server is running (Green Circle).
- \_\_\_4. Click **Start → Programs → IBM Director → IBM Director Console** to bring up the IBM Director Login window.
- \_\_\_5. Type the password and click **OK**.



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\_\_\_6. If the Event Action Plan Wizard pops up on the screen. Close the window by clicking Cancel.

\_\_\_7. Click on the top left icon  (Discover all systems) and wait until the BladeCenter chassis icon is created in the Group Contents pane.



\_\_\_8. Notice in the left pane the new Chassis group.

## Request Access to the BladeCenter™ Chassis

The newly discovered BladeCenter Chassis should appear with a small padlock close to the chassis icon. To remove the padlock, and allow the IBM Director 4.1 server to manage the chassis and its components, access has to be requested

\_\_\_1. Right click on the BladeCenter chassis object in the Group Contents pane and click on Request Access

**Attention:** If your IBM Director Server passes authentication then the lock icon next to the BladeCenter Enterprise Chassis will not be present; skip down to the next section.

\_\_\_2. In the Request Access to Systems window, type the combination of **USERID** and **PASSWORD** (in capital letters and with a zero rather than the letter “O”)

\_\_\_3. As the access is granted, press on OK to close the window that visually communicates to the user the success of the operation.

<b>Attention:</b>	Notice on the screen how the padlock disappears and notice how as many objects as installed HS20 blade servers are created.  Notice how each of these objects has been automatically named with a combination of Model/Type and Serial number.
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## Installing the IBM Director Agent on an HS20 server running Microsoft Windows Server 2003 system.

- \_\_\_ 1. Bring both the KVM and the Media Tray control to the HS20 BladeCenter server you want to install the agent on.
  - \_\_\_ 2. Insert the **IBM Director 4.12 CD** in the BladeCenter CD-ROM and wait for the autorun to bring up the main installation window (**Note:** As an alternative, launch the setup program in the root of the CD-ROM).
  - \_\_\_ 3. Select **Install IBM Director** and then **IBM Director Agent Installation**.
  - \_\_\_ 4. Press **Next** when the InstallShield Wizard windows starts.
  - \_\_\_ 5. Accept the License Agreement and press **Next** to continue.
  - \_\_\_ 6. Add the **Management Processor Assistant** and **IBM Director Remote Control Agent** features to the install base click **Next** to proceed.
  - \_\_\_ 7. Click **Next** to accept the default security settings.
  - \_\_\_ 8. Click **Next** to confirm the default directory for the Software Distribution packages.
  - \_\_\_ 9. Click **Install** to start copying the files.
- Note:** If an information window popup requesting driver signing information, select **Yes** to continue. Then follow the wizard to add the new found hardware.
- \_\_\_ 10. Once the files have been copied, enable the **Enable Driver** check box on the Network Driver Configuration screen.
  - \_\_\_ 11. Place a check mark also for the **Enable Wake on LAN function** and confirm by clicking on **OK**.
  - \_\_\_ 12. Click **Finish** to close the InstallShield Wizard and confirm the request to automatically restart the system.
  - \_\_\_ 13. At the IBM Director Console of the Director server, click on the **Discover All Systems** icon in the top left corner and wait until the icon representing the IBM Director System appears on screen.
  - \_\_\_ 14. Double click on the BladeCenter Chassis object that has been created in the central pane to see which information is available.
  - \_\_\_ 15. Right-click on the same object and notice the tasks which are available.



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- \_\_\_ 16. Perform the same operation on the object representing the physical HS20 blade server (the icon that was available even before installing the IBM Director Agent) and notice the difference in the number of available tasks.
- \_\_\_ 17. Shutdown the Blade Server.

## Lab 3. Remote Deployment Manager

**Time Required: 40 minutes**

### Scenario

Remote Deployment Manager (RDM) provides tools to simplify the configuration of your computers and the deployment of your choice of Windows or Linux operating systems and applications. When computers are added to the RDM database, you can remotely install, maintain, and update software on these systems. RDM is able to deploy a Windows or Linux operating system and applications on any recently manufactured computer that supports the target operating system and the proper protocols. Utilize the steps in this section to get an understanding of the RDM 4.1 task.

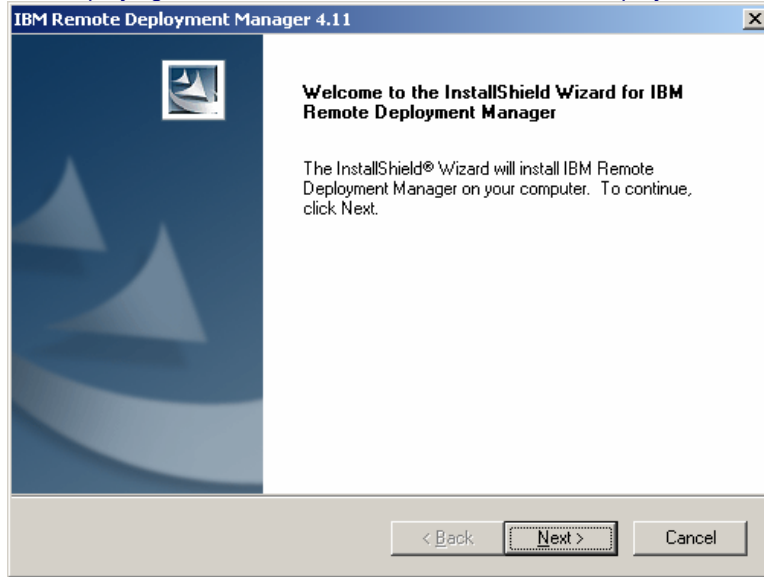
### RDM 4.11 Installation

The installation process encompasses the installation of three RDM components: Server, Console, and Deployment Server. Although

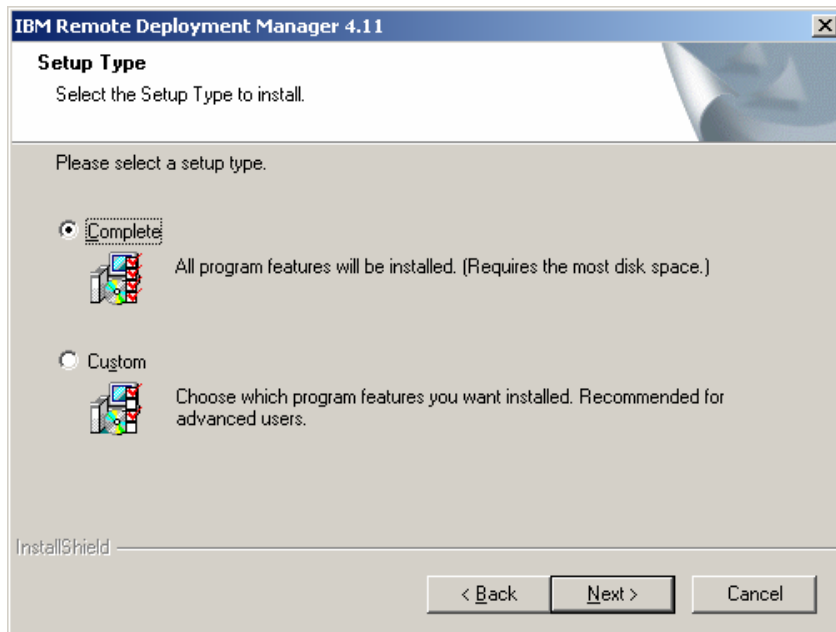
<b>Important:</b>	<b>Installation Path Limitation</b> The default RDM installation path is C:\Program Files\IBM\RDM\ We recommend that you use the default path, changing only the drive letter, if appropriate. Path-length restrictions apply if you decide to install into a different path location. The length of the RDM install path, after conversion to a DOS-style path, must be no longer than 28 characters.
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- \_\_\_ 1. Log on to **ID412SRVR** as **Administrator** and close any open windows.
- \_\_\_ 2. Click **Start** → **Run** and type in **C:\software\RDM\setup.exe** or enter the RDM 4.1 CD to start the installation program.
- \_\_\_ 3. Click **Next** on the welcome screen.

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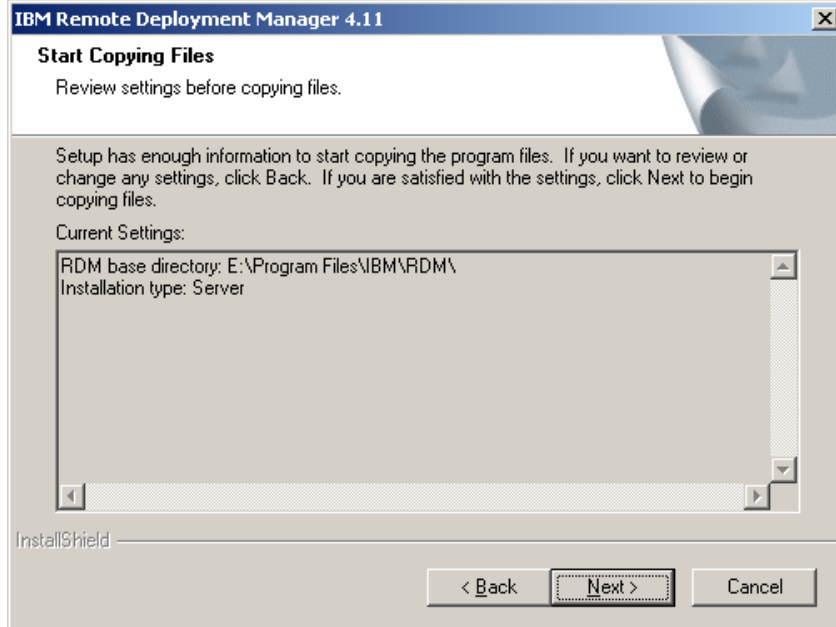


- \_\_\_ 4. On the License Agreement screen click **Yes**.
- \_\_\_ 5. Type the user name **Director**, then company name **IBM xEducation** and click **Next** to continue.
- \_\_\_ 6. Accept the default file location of **C:\Program Files\IBM\RDM\** and click **Next**.
- \_\_\_ 7. Select the **Complete** radio button to install all of the **RDM** components and click **Next** to continue.

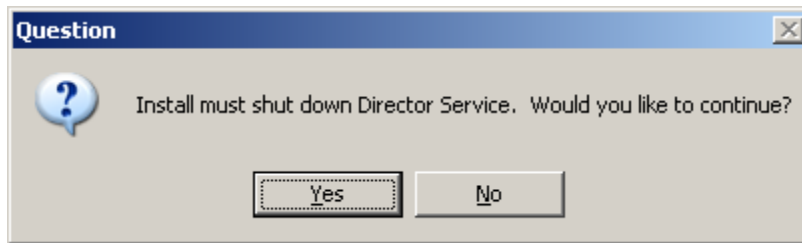


- \_\_\_ 8. Click **Next** to start copying files.

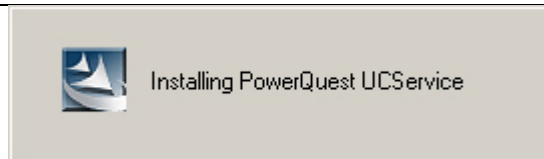
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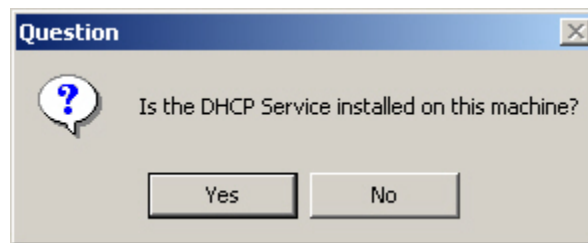
\_\_\_ 9. Click **Yes** to stop the IBM Director Service and start the RDM install.



<b>Note:</b>	Once the IBM Director Services have been stopped the RDM 4.1 installation process begins
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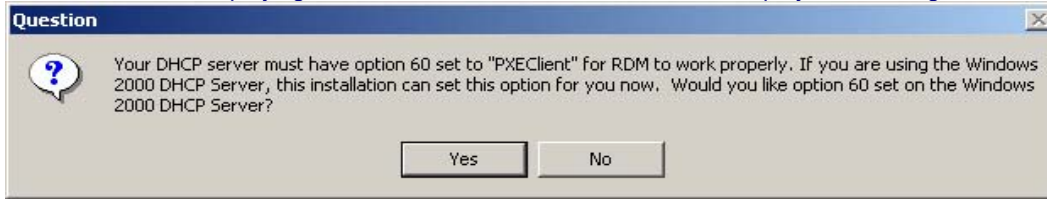


\_\_\_ 10. Click **Yes** when asked is weather the DHCP service is installed locally.

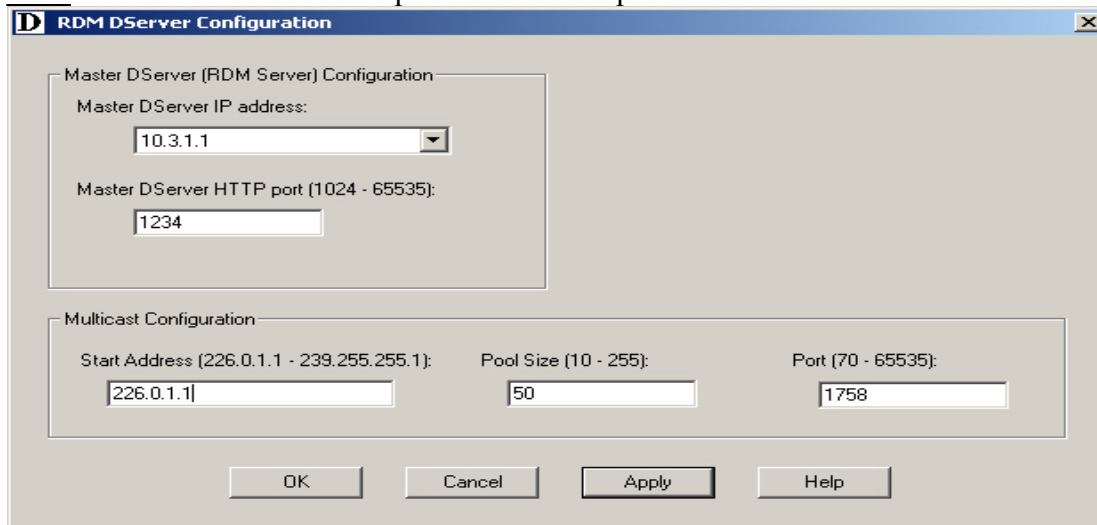


\_\_\_ 11. Read the information and click **OK** to continue.

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12. Click **OK** to accept the D-Server options as listed below:



**Note:** **Master D-Server IP address** – This is the IP address by which the Master D-Server is known to RDM. If the Server contains multiple network adapters (with multiple IP addresses), you must select one of them in this field.

**Master D-Server HTTP port** – This is the port number for communication between the Master D-Server and remote D-Servers; it is the port on which the Master D-Server receives HTTP messages. The default is 1234. The minimum of 1024 is an IBM Director requirement. The port must not already be in use by any application.

**Start Address** – This is the first class-D (multicast) IP address in a range of addresses that is assigned to this D-Server. The default value, 226.0.0.1, is the smallest class-D address that RDM allows. Class-D addresses in the range 224.0.0.0 through 226.0.0.0 are often used for other specific non-RDM purposes.

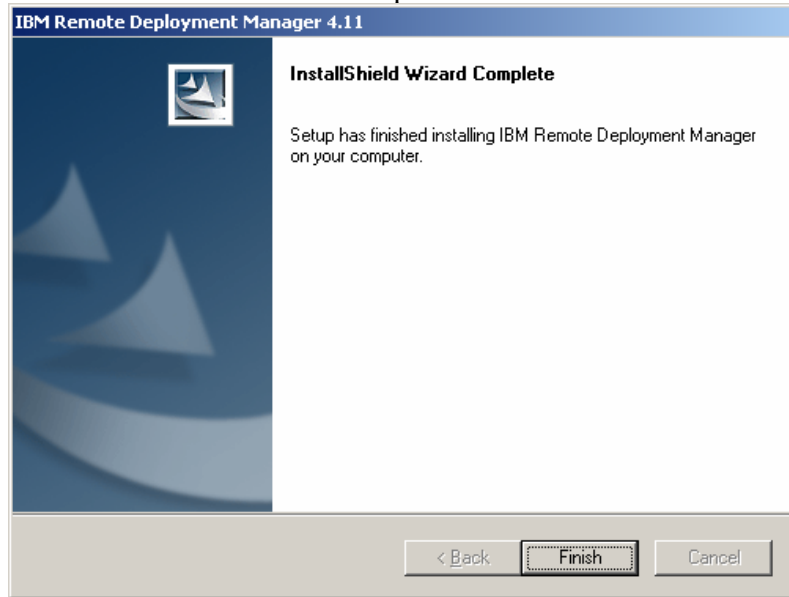
**Pool Size** – This is the number of contiguous class-D addresses reserved by RDM for use by this D-Server.

**Port** – This is the port number used by the IBM RDM MTFTP Service that is installed on this D-Server. The default is 1758.

If you select the default multicast configuration addresses and pool size values as listed, RDM will to use multicast addresses in the range 226.0.0.1 to 226.0.0.50. Make sure that the multicast pool does not overlap with multicast addresses being used by other applications in their networks.

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- 13. Click **OK** and **No** on the information screens to continue.
- 14. Click **Finish** to end RDM setup and restart the IBM Director Services.



<b>Attention:</b>	<p>For RDM to communicate properly with networked systems these network settings must be configured properly:</p> <p><b>The DHCP Server</b></p> <p>Either Microsoft or other DHCP server must be configured properly with these settings:</p> <ul style="list-style-type: none"> <li>• DHCP scopes must be defined for each subnet that contains RDM systems.</li> <li>• DHCP option 3 must be configured in all cases.</li> <li>• DHCP option 60 must be configured only when RDM Server and the DHCP server are on the same</li> </ul> <p><b>Router Configuration</b></p> <p>Configure the router to forward DHCPDISCOVER message (a UDP broadcast message) and specify a gateway address when the IP scope is specified for a system subnet.</p> <ul style="list-style-type: none"> <li>• On a Cisco router, type the IP helper-address configuration command on the router interface to which a system is attached.</li> <li>• On an IBM router, type the enable bootp forwarding configuration command.</li> </ul> <p>To use RDM in a routed environment, the following conditions must be met:</p> <ul style="list-style-type: none"> <li>• Subnet Directed-broadcast forwarding must be enabled.</li> <li>• Spanning tree protocol for ports to which systems are connected must be disabled.</li> </ul>
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- Proxy ARP forwarding must be enabled.
- The scope for the RDM system subnet must have a correct router entry for the subnet.
- BOOTP/DHCP forwarding must be enabled.

#### Network switches and hubs

After the routers are configured, you configure the switches and hubs. Specifically, you must disable spanning tree protocol (STP) on all ports connected to systems. It is not necessary to disable STP on ports connected to switches or routers.

Multicast/IGMP/ICMP should be enabled on both switches and routers. If multicast is not enabled, the tasks will be performed as unicast but this will severely impact performance.

## Running the PXEDHCP.bat program

1. Open a command prompt.
2. Type `CD c:\program files\ibm\rdm\bin` and press **enter**.
3. Type `pxedhcp.bat L`.
4. Once the command completes the two string assignments, close the command prompt.
5. Verify the 060 PxeOption is set within the DHCP MMC.

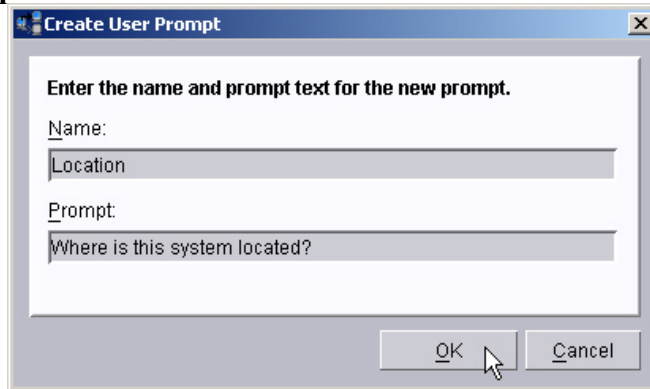
## Initial System Scan

The Remote Deployment Manager scan task collects information about the system hardware; creates an IBM Director object for the system (if none exists) and stores the hardware information in the IBM Director database.

1. Log on to the **ID412SRVR** and start IBM Director Console and log on as **Administrator**.
2. Close the Event action plan wizard.
3. Select the **Chassis and Chassis Members group** from the Groups Pane.
4. Expand the **Remote Deployment Manager** task.
5. Expand the **Scan** task under RDM.
6. Right-click on the **Basic Scan** task and select **Edit Task**.
7. Select the **Setup** tab.
8. Click the **Select** button to create prompts for the user during the basic scan.
9. Click the **Create** button.

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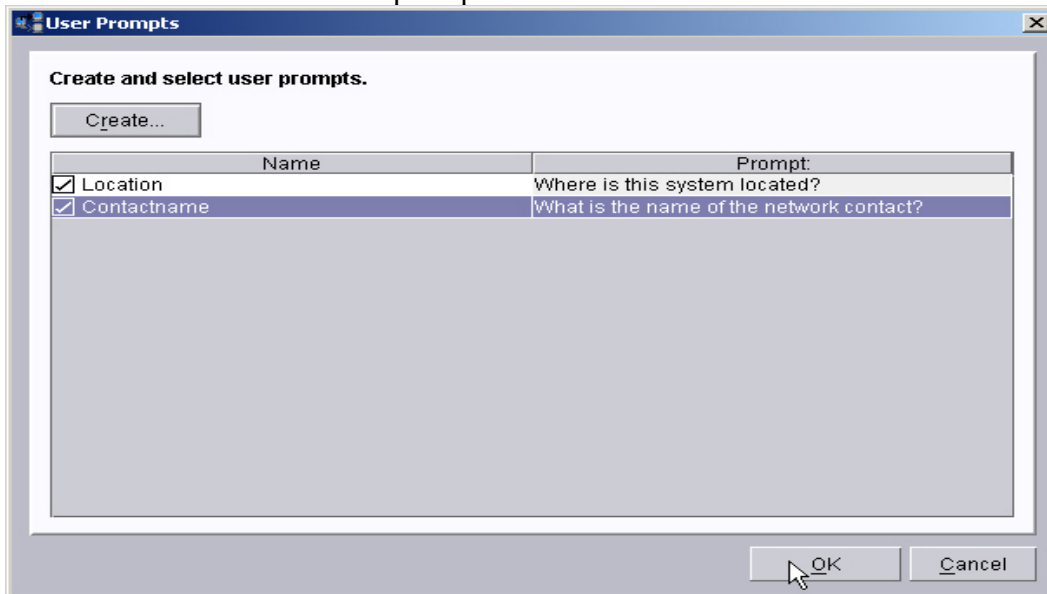
10. Enter the same information as seen in the following image for the **Name** and **Prompt** fields and click **OK**.



11. Click the **Create** button again.
12. Enter the same information as seen in the following image for the **Name** and **Prompt** fields and click **OK**.




13. Enable the check boxes next to the two prompts you have just created and click **OK** to save the prompts created.





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- \_\_\_ 14. Click **OK** again to close the **Scan edit** screen.
- \_\_\_ 15. Select, drag and drop the **Basic Scan** onto the Blade Server assigned to you by your instructor.  867841X-78K9783
- \_\_\_ 16. Select **Run Systems ...** from the pop up menu.
- \_\_\_ 17. Select **Execute Now** to start the basic scan of the Blade Server.
- \_\_\_ 18. Click **OK** if the **Prompts** window opens up.

<b>Note:</b>	If the Blade Server does not power up. Right-click on the assigned server icon and select Remote Deployment Manager then Wakeup Tool.... Click Start Waking to perform the Wake on LAN feature.
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- \_\_\_ 19. View the monitor of the assigned **BladeCenter** Blade Server.
- \_\_\_ 20. Press the **Tab** key, type **xEducation classroom** in the location prompt and press **Enter**.
- \_\_\_ 21. Type **Your name** in the Contactname field and press **F4**.

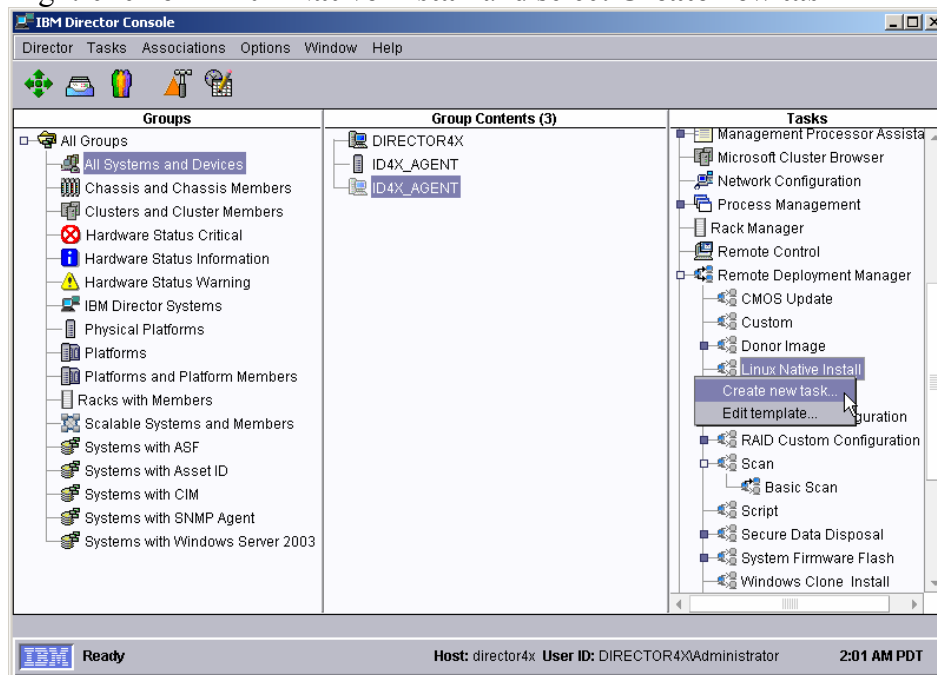
<b>Note:</b>	The Blade Server will shutdown once RDM adds the information to the IBM Director Database.
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- \_\_\_ 22. Return to the IBM Director Console on **ID412SRVR**.

## Creating a Red Hat Linux AS 2.1 Native Install Image via RDM 4.1

The Linux Native Install task provides you several different methods of gathering operating system and application installation information in advance. After these system systems have been assigned their individualized information, the operating system and applications installation and configuration to these systems will take place without any further user attendance.

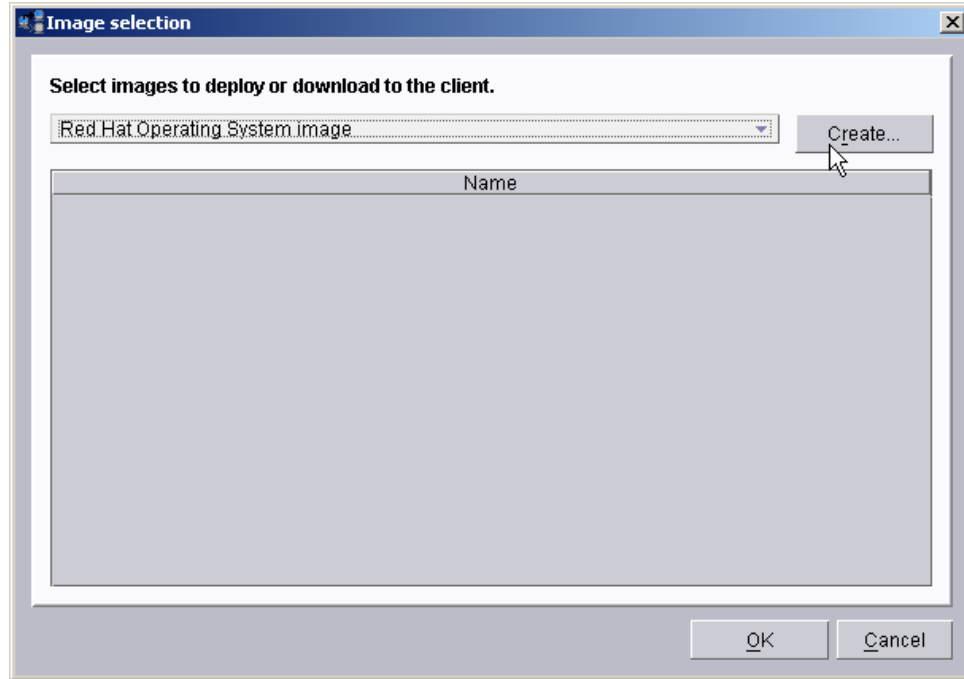
- \_\_\_ 1. Expand the **Remote Deployment Manager** tasks
- \_\_\_ 2. Right-click on **Linux Native Install** and select **Create new task**



- \_\_\_ 3. Enter the following in the fields provided:  
 Task name: **Red Hat 2.1**  
 Task description: **Red Hat 2.1 Installation**
- \_\_\_ 4. Click **Next**
- \_\_\_ 5. Click the **Select** button to the image.

**Note:** Without an image available RDM will take you through creating an image.

6. Click the **Create** button.

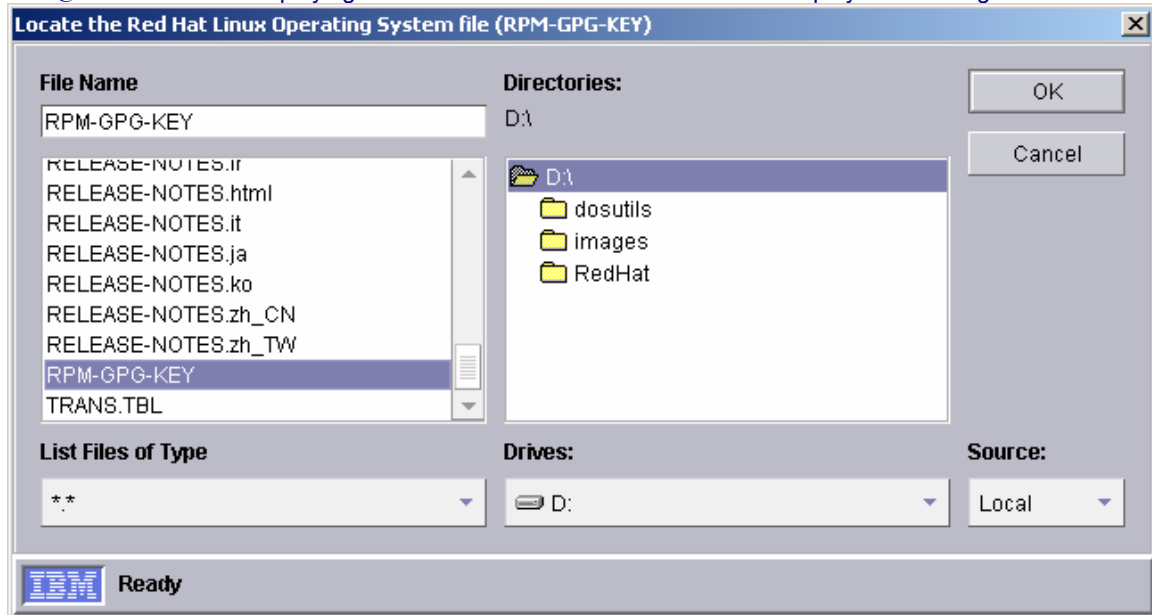


7. Enter the following in the fields provided:  
 Image name: **RH21**  
 Image description: **Red Hat 2.1 Installation image**
8. Click the **Setup** tab.

<b>Note:</b>	Read the <b>IMPORTANT</b> note provided in the window.
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9. From the Select Operating System drop box choose the **Red Hat Enterprise Linux AS 2.1** option.
10. Click the **Browse** button to search for the Red Hat source files.
11. Select **x:\RPM-GPG-KEY** and click **OK** (where **x** is the letter of your CD-ROM drive).

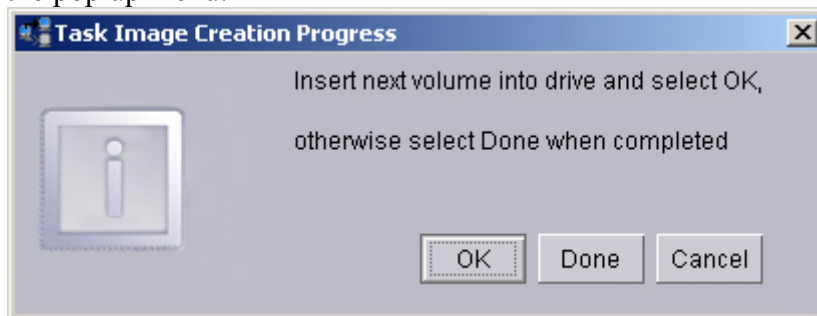
**Note:** The Provided Source box may return **x:\**, click the **OK** button to continue.



\_\_\_ 12. Click **OK** on the Provide Source screen to start the file copy.

**Note:** This operation will take a few minutes to create the complete image file.

\_\_\_ 13. When the first CD copy process is complete insert CD 2 and click **OK** on the pop up menu.



\_\_\_ 14. When the CD2 copy process is complete insert CD 3 and click **OK** on the pop up menu.

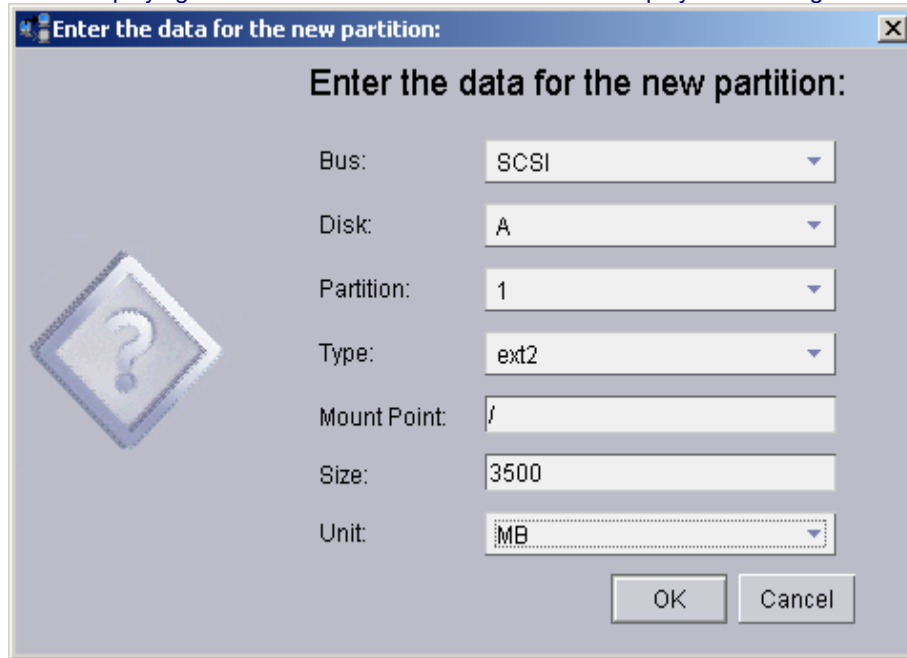
\_\_\_ 15. Once CD3 is complete click **Done**.

\_\_\_ 16. Click **OK** on the file information screen.

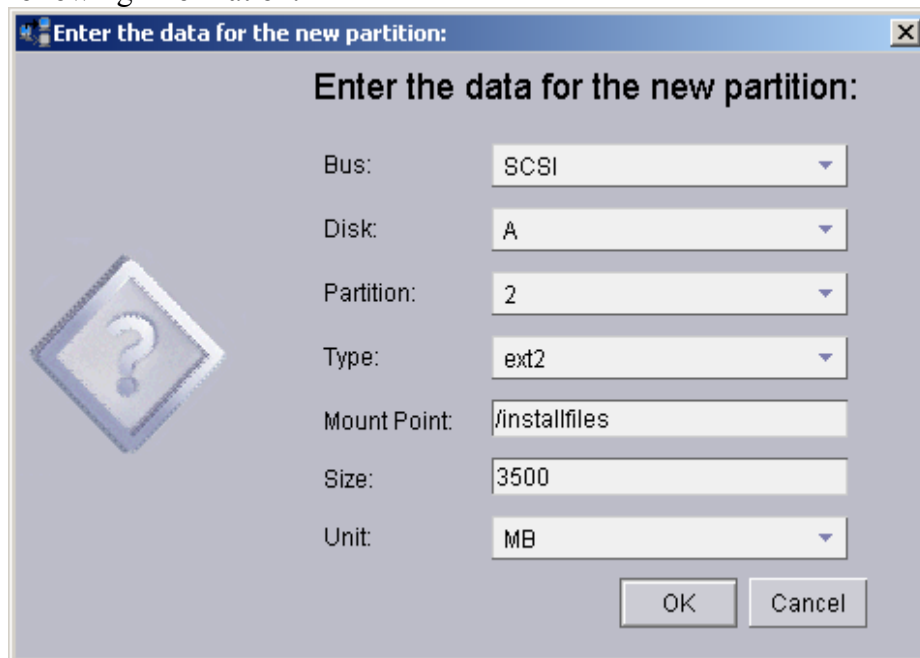
\_\_\_ 17. Select the **RH21** radio button and click **OK**.

\_\_\_ 18. Click **Next** on the image selection screen

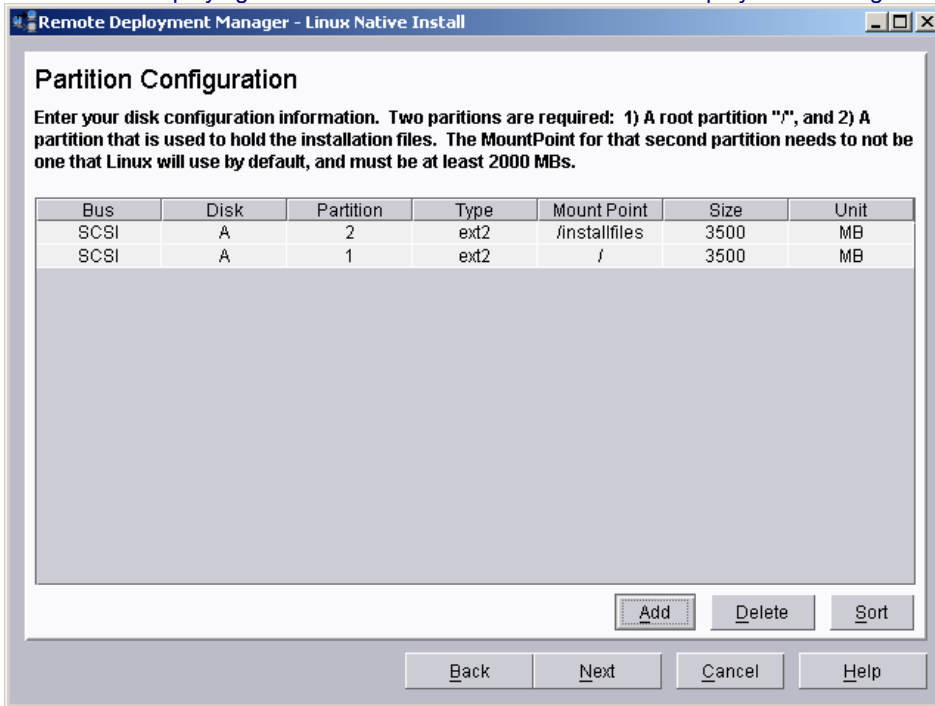
\_\_\_ 19. Click the **Add** button on the Partition Creation screen and enter the following information:



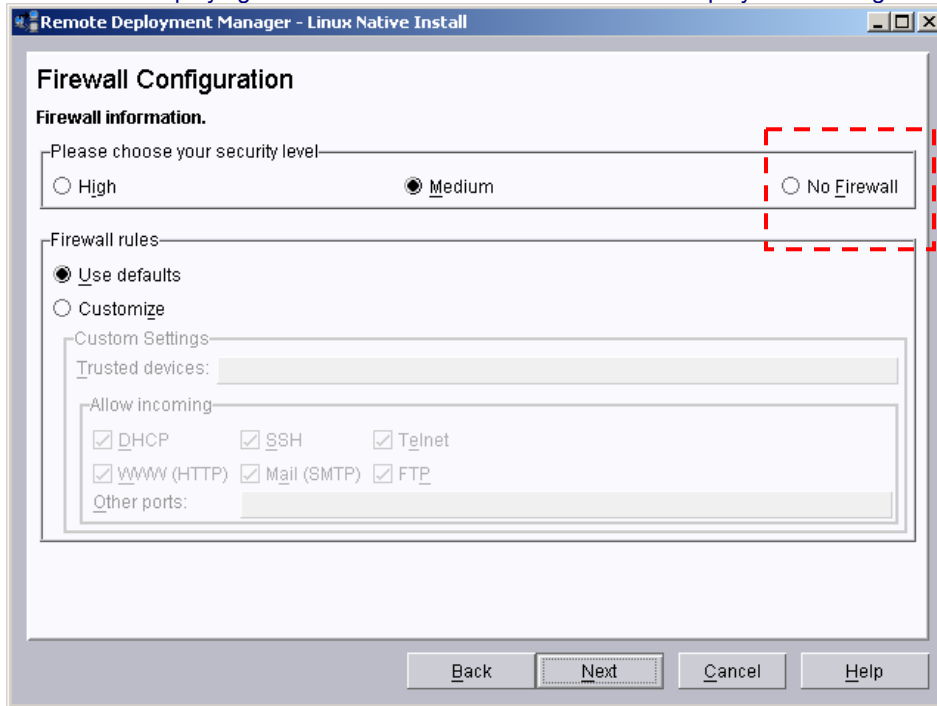
- \_\_\_ 20. Click **OK** to continue.
- \_\_\_ 21. Click the **Add** button on the Partition Creation screen and enter the following information:



- \_\_\_ 22. Click **OK** to continue.
- \_\_\_ 23. The partition should be configured as in the image below:



- \_\_\_ 24. Click **Next** to accept the partitions.
- \_\_\_ 25. Click **Next** to accept the default boot loader options.
- \_\_\_ 26. Enter your correct **Time Zone** from the drop down box. Click **Next** to accept the default setting and continue on.
- \_\_\_ 27. Click **Next** to accept the default TCP/IP setting of DHCP.
- \_\_\_ 28. Make sure that the Root Password is **password** and click **Next**.
- \_\_\_ 29. Accept the default install packages by clicking **Next**.
- \_\_\_ 30. Select the **No Firewall** radio button on the security screen and click **Next**.



- \_\_\_ 31. De-select the **Configure X Windows after Operating System installation** check box accept the setting and click **Finish**.

## Installing Red Hat Linux AS 2.1 via Remote Deployment Manger

- \_\_\_ 1. From the IBM Director Console drag and drop the **RH21** task, listed under the Linux Native Install node, on to the HS20 Blade Server.
- \_\_\_ 2. Select **Run systems...** option from the pop up menu.
- \_\_\_ 3. Click the **Execute Now** button.
- \_\_\_ 4. View the **RH21 log** (Hint: File, View Log from the status window)
- \_\_\_ 5. Move to the next section once the log review is complete.

**Note:** The native install process will take some time; move on to the next series of instructions.

## Create a Donor image of the ID412W2K3 Managed System

The Donor Image task runs PowerQuest® code (PQIDplyZ.exe) on a donor system that has been prepared with the sysprep utility, creates a clone image from the donor system, and stores it in the RDM Master Repository. Use the Get Donor task to create an image of the ID41W2K3 Managed System.

**Note:** The image can then be deployed to target systems through the Windows Clone Install task. The target systems do not have to exactly match the donor in terms of hardware configuration; however the same HAL (Hardware Extraction Layer) must be present on both.

- \_\_\_ 1. On the **ID412SRVR**, open the IBM Director Console.
- \_\_\_ 2. Expand the **Remote Deployment Manager** tasks.
- \_\_\_ 3. Select, drag and drop the **Get Donor** task onto the **ID412W2K3** system.
- \_\_\_ 4. Select **Configure systems...** from the pop up menu.
- \_\_\_ 5. From the Operating System drop box select **Windows Server 2003 Enterprise** and type:
  - ImageName: **ID412W2K3**
  - ImageDescription: **Windows Server 2003 OS image of ID412W2K3**
  - Sysprep Type: Reseal
- \_\_\_ 6. Enable the **Execute this task after pressing the OK button** check box.
- \_\_\_ 7. Click **OK**.
- \_\_\_ 8. Click the **Execute Now** button.
- \_\_\_ 9. In the **Get Donor** window select **File** and click **View log...**

<b>Note:</b>	If the ID412W2K3 system does not power up immediately, right-click the server, select Remote Deployment Manager and click Wakeup Tool.... Once the Wakeup tool opens click the Start Waking button.  RDM will use the PowerQuest® code (PQIDplyZ.exe) to create the clone image of the ID412W2K3 managed system.
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- \_\_\_ 10. Once the donor image has been captured Reboot the ID412W2K3 system.
- \_\_\_ 11. Log onto the ID412W2K3 system as **Administrator**.

## Creating a Windows Clone Install task

- \_\_\_ 1. Under the Remote Deployment Manager Task right click on the **Windows Clone Install** task and select **Create New Task**.



IBM @server xSeries – Deploying IBM eServer BladeCenter with Remote Deployment Manager

- \_\_\_ 2. Enter the following into the correct fields and click **Next**:
  - Task Name: **W2K3Clone**
  - Task Description: **ID412W2K3 image of the HS20 Blade Server.**
- \_\_\_ 3. Click the **Select** button.
- \_\_\_ 4. Enable the radio button next to the ID412W2K3 option and click **OK**.
- \_\_\_ 5. Click **Next** once the ID412W2K3 image is added to the deploy/download screen.
- \_\_\_ 6. Enter the following information in the correct fields and click **Next**:
  - Name: **Enter your name**
  - Organization: **xSeries Education Team.**
- \_\_\_ 7. Enable the **Per seat** radio button and click **Next**.
- \_\_\_ 8. Choose your correct time zone and click **Next**.
- \_\_\_ 9. Enter **xSeries.EDU** into the workgroup field and click **Next**.
- \_\_\_ 10. Click **Next** on the network protocol screen to accept the defaults.
- \_\_\_ 11. Click the **Finish** button to complete the image deployment creation.

## Deploying a Windows Clone Image onto an IBM Blade Server

- \_\_\_ 1. Expand the **Windows Clone Install** task listed under Remote Deployment Manager.
- \_\_\_ 2. Select, Drag-and-Drop the W2K3Clone task onto the IBM Blade Server target system.

**Note:** The target system is located in slot 4 of the BladeCenter Enterprise Chassis, unless told other wise by your instructor.

- \_\_\_ 3. Select **Configure system** from the pop up menu.
- \_\_\_ 4. Enable the **Execute this task after pressing the OK button** check box and click **OK**.
- \_\_\_ 5. Select the **Execute Now** button.
- \_\_\_ 6. In the **W2K3Clone** window select **File** and click **View log...**
- \_\_\_ 7. Select **View** and **Dynamic Update** from the menu bar.
- \_\_\_ 8. Monitor the changes.

**Note:** This process will take some time to complete.

- \_\_\_ 9. Once the deployment is complete reboot the system and log on.
- \_\_\_ 10. If necessary change the name of the new server to **W2K3Clone**.

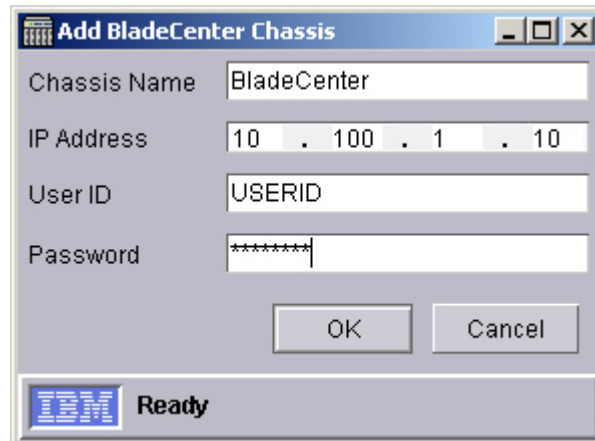
<b>Attention:</b>	At this point you should have used the Remote Deployment Manager to: <ul style="list-style-type: none"><li>✓ Install the RDM 4.11 code onto the IBM Director 4.12 Server.</li><li>✓ Scan the Blade Server into its database.</li><li>✓ Create and Deploy a Windows Native Install image onto the IBM Blade Server.</li><li>✓ Create a Windows Donor Image of ID412W2K3.</li><li>✓ Create a Windows Clone Image Task.</li><li>✓ Deploy the Windows Donor image onto a Blade Sever.</li></ul> If you have any questions contact your instructor or lab coordinator.
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## Appendix

### Manually Create the IBM BladeCenter™ icon in Director (OPTIONAL)

If the BladeCenter chassis is connected to a subnet other than the one of the IBM Director server (but still reachable through a router) then the automatic discovery might fail. In those cases the BladeCenter chassis object has to be added manually.

1. Right-Click in the **Group Contents** pane select **New** and **BladeCenter Chassis**.
2. When the Add BladeCenter Chassis window appears enter the name, the network address of the management module (the default address), USERID and PASSWORD (note the “0” is a zero).
3. Click **OK**.



4. The BladeCenter™ Chassis icon is created in the Group Contents pane.