

Compatibility Guide



Compatibility Guide

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About this book

This book provides hardware and software compatibility information for IBM[®] Remote Deployment Manager 4.20.

How this book is organized

Chapter 1, "IBM hardware and software support," on page 1 contains information about the IBM Remote Deployment Manager support for IBM @server $^{\text{TM}}$, BladeCenter $^{\text{TM}}$, and xSeries $^{\text{®}}$ servers, and for optional adapters.

Chapter 2, "Non-IBM hardware and software support," on page 33 contains information about non-IBM servers and desktop computers supported by Remote Deployment Manager.

"Notices," on page 39 contains important notice and trademark information.

Notices that are used in this book

This book contains the following notices designed to highlight key information:

- Notes: These notices provide important tips, guidance, or advice.
- Important: These notices provide information or advice that might help you avoid inconvenient or difficult situations.
- Attention: These notices indicate possible damage to programs, devices, or data. An attention notice is placed just before the instruction or situation in which damage could occur.

IBM deployment resources on the World Wide Web

The following Web pages provide resources for understanding, using, and troubleshooting IBM deployment and systems-management software:

· IBM Remote Deployment Manager page

http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/extensions/rdm.html

This Web page provides an overview of IBM Remote Deployment Manager.

IBM ServerGuide[™] page

http://www.ibm.com/servers/eserver/xseries/systems_management/serverguide/html

This Web page provides an overview of IBM ServerGuide.

IBM ServerGuide Scripting Toolkit page

http://www.ibm.com/servers/eserver/xseries/systems_management/sgstk.html
This Web page provides an overview of the IBM ServerGuide Scripting Toolkit.
You can download the latest version of the Scripting Toolkit readme.txt file here.

IBM ServerProven[®] page

http://www.ibm.com/servers/eserver/serverproven/compat/us

This Web page provides compatibility information about hardware, software, and middleware.

IBM Support page

http://www.ibm.com/pc/support/

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This is the IBM Support Web site for IBM hardware and systems-management software.

 IBM Systems Management Software: Download/Electronic Support page http://www.ibm.com/servers/eserver/xseries/systems_management/xseries_sm/dwnl.html

Use this Web page to download IBM systems-management software, including the Scripting Toolkit.

• IBM Update Xpress page

http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/extensions/xpress.html

This Web page provides an overview of IBM Update *Xpress*. It also contains links to pages from which you can download Update *Xpress*, order an Update *Xpress* CD, or purchase a subscription from a vendor other than IBM.

IBM xSeries Systems Management page

http://www.ibm.com/servers/eserver/xseries/systems_management/index.html This Web page provides an overview of IBM systems-management software.

Chapter 1. IBM hardware and software support

This chapter contains information about IBM Remote Deployment Manager 4.20 support for IBM @server, BladeCenter, and xSeries servers, Intellistations, Thinkpads, point of sales systems and desktop computers. It also contains information for optional adapters, and sections describing additional deployment procedures that are not covered in the IBM Remote Deployment Manager documentation.

Note: If you are using RDM 4.20.2 or later, Director 4.21 is required because it contains fixes for issues with recent hardware additions.

Installation support

This section lists the operating systems on which you can install IBM Remote Deployment Manager 4.20.

RDM 4.20 server

You can install the RDM 4.20 Server on the following operating systems:

- Windows[®] 2000 Server (Service Pack 4 or later supported)
- Windows 2000 Advanced Server (Service Pack 4 or later supported)
- · Windows Server 2003, Web Edition
- · Windows Server 2003, Standard Edition
- · Windows Server 2003, Enterprise Edition
- Red Hat Enterprise Linux AS 3.0 (Update 3 or later supported)
- SUSE LINUX Enterprise Server 8 (Service Pack 3 or later supported)

Console

You can install the RDM 4.20 Console on the following operating systems:

- Windows 2000 Professional (Service Pack 4 or later supported)
- Windows 2000 Server (Service Pack 4 or later supported)
- Windows 2000 Advanced Server (Service Pack 4 or later supported)
- Windows Server 2003, Web Edition
- Windows Server 2003, Standard Edition
- · Windows Server 2003, Enterprise Edition
- Windows XP Professional (Service Pack 1 or later supported)
- Red Hat Enterprise Linux AS 3.0 (Update 3 or later supported)
- SUSE LINUX Enterprise Server 8 (Service Pack 3 or later supported)

Deployment server

You can install the RDM 4.20 Deployment server on the following operating systems:

- Windows 2000 Professional (Service Pack 4 or later supported)
- Windows 2000 Server (Service Pack 4 or later supported)
- Windows 2000 Advanced Server (Service Pack 4 or later supported)
- · Windows Server 2003, Web Edition
- · Windows Server 2003, Standard Edition
- · Windows Server 2003, Enterprise Edition
- Windows XP Professional (Service Pack 1 or later supported)
- Red Hat Enterprise Linux AS 3.0 (Update 3 or later supported)
- SUSE LINUX Enterprise Server 8 (Service Pack 3 or later supported)

Supported IBM servers

This section contains information about supported IBM servers. The BIOS code levels shown in the tables indicate the latest levels used during compatibility testing. For optimal performance, update your server to the indicated BIOS code level. To do this, navigate to the IBM Web support site listed below, and search for your server machine type and model, and obtain the latest BIOS code updates.

http://www.ibm.com/pc/support/

The information in this section is organized into the following three tables:

- "Maintenance support table"
- "Native installation support table" on page 4
- · "Clone installation support table" on page 7

Each table indicates the server model, and whether the feature is supported or is not supported for the cross-referenced operating system.

Notes:

- 1. Currently, no support is available for the BladeCenter JS20 Type 8842.
- Deployment for Red Hat Enterprise Linux AS 3.0 and SuSE Linux Enterprise Server (SLES) 8.0 is supported using a custom task. Refer to the procedures outlined in the *Installing Linux with RDM Custom Task* white paper, located for download here:

ftp://ftp.software.ibm.com/pc/pccbbs/pc_servers_pdf/installinglinuxwithrdmcustomtask.pdf

Maintenance support table

Table 1 on page 3 illustrates the maintenance support for ISMP, CMOS and RAID updates.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM servers" on page 8.

Table 1. Maintenance support for IBM servers

| | Server | | | Maintenan | ice |
|-----------------|--------------------|---------------|-----------------|-------------|--------------------|
| Machine Type | Model | BIOS level | ISMP/BMC update | CMOS update | RAID configuration |
| 7967 | BladeCenter | BRET73E | n/a | n/a | n/a |
| 7981 | BladeCenter HS20* | FEE106B | Yes | Yes | Yes |
| 8677 | BladeCenter | BRET73E | n/a | n/a | n/a |
| 8678 | BladeCenter HS20 | BRJT134A | Yes | Yes | Yes |
| 8720 | BladeCenter T - AC | BVET22A | n/a | n/a | n/a |
| 8730 | BladeCenter T - DC | BVET22A | n/a | n/a | n/a |
| 8750 | BladeCenter T - AC | BBET10A | n/a | n/a | n/a |
| 8832 | BladeCenter HS20* | BSE122A | Yes | Yes | Yes |
| 8839 | BladeCenter HS40* | SBE162A | Yes | Yes | Yes |
| 8843 | BladeCenter HS20 | BWE110AUS | Yes* | Yes | Yes |
| 8850 | BladeCenter LS20* | BKE116A | Yes | Yes | No |
| 8852 | BladeCenter H | BEPT14C | n/a | n/a | n/a |
| 8835 | @server 325* | M1E132A | Yes | Yes | Yes |
| 8848 | @server 326 | M2E108A | No | Yes | Yes |
| 8486 | xSeries 100 | IJJT18A | No | Yes | Yes |
| 8479 | xSeries 200* | ZRE122A | n/a | Yes | Yes |
| 8480 | xSeries 205 | JPE148A | n/a | Yes | Yes |
| 8482 | xSeries 206* | KEE130A | n/a | Yes | Yes |
| 8485 | xSeries 206m* | PAJT21A | No | Yes | Yes |
| 8645 | xSeries 220 | TUJT20A | n/a | Yes | Yes |
| 8646 | xSeries 220* | JJE119A | n/a | Yes | Yes |
| 8647 | xSeries 225* | OPE143A | No | No | No |
| 8649 | xSeries 225* | KPE110A | n/a | Yes | Yes |
| 8648 | xSeries 226* | PME149A | Yes | Yes | Yes |
| 8668 | xSeries 232 | QAE133A | Yes | Yes | Yes |
| 8671 | xSeries 235* | GRE150A | Yes | Yes | Yes |
| 8841 | xSeries 236 | NRE118A | No | Yes | Yes |
| 8685 | xSeries 255* | AVE126A | Yes | Yes | Yes |
| 8865 | xSeries 260 | ZUJT40A | Yes | Yes | Yes |
| 8672 | xSeries 300 | ABE120A | n/a | Yes | Yes |
| 8673 | xSeries 305 | PLE166A | n/a | Yes | Yes |
| 8836/8849 | xSeries 306* | KEE131AUS | n/a | Yes | Yes |
| 8849 | xSeries 306m* | PAJT21A | No | Yes | Yes |
| 8654 | xSeries 330* | TTJT32A | n/a | Yes | Yes |
| 8674 | xSeries 330 | EMJT13A | n/a | Yes | Yes |
| 8676 | xSeries 335 | T2E136A | Yes | Yes | Yes |
| 8837 | xSeries 336* | APE125AUS | No | Yes | Yes |
| 8669 | xSeries 342 | QAE132A | Yes | Yes | Yes |

Table 1. Maintenance support for IBM servers (continued)

| | Serve | r | | Maintenance | | | | | |
|-----------------|--------------|---------------|-----------------|-------------|--------------------|--|--|--|--|
| Machine Type | Model | BIOS level | ISMP/BMC update | CMOS update | RAID configuration | | | | |
| 8827 | xSeries 344 | SWE101B | No | No | Yes | | | | |
| 8670 | xSeries 345* | GEE159A | Yes | Yes | Yes | | | | |
| 8840 | xSeries 346 | KPE132A | No | Yes | Yes | | | | |
| 8682 | xSeries 350 | ARE126A | n/a | Yes | Yes | | | | |
| 8686 | xSeries 360 | RUE158D | n/a | Yes | Yes | | | | |
| 8861 | xSeries 365* | RDE132A | n/a | Yes | Yes | | | | |
| 8863 | xSeries 366* | ZUJT30A | Yes | Yes | Yes | | | | |
| 8687 | xSeries 440 | VIE147A | n/a | Yes | Yes | | | | |
| 8870 | xSeries 445* | REE148A | n/a | Yes | Yes | | | | |
| 8872 | xSeries 460* | ZUJT30A | Yes | Yes | Yes | | | | |

Native installation support table

Table 2 illustrates the native installation support available for the listed operating systems.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM servers" on page 8.

Table 2. Native installation support for IBM servers

| | Server | | Native Installation | | | | | | | | | |
|-----------------|-----------------------|---------------|---|---|---|---------------------------------------|-----------------------------------|---------------------------------|---------------------------------|--|--|--|
| Machine Type | Model | BIOS level | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003 Std, Windows Server 2003 Web | Windows Server 2003 Enterprise | Red Hat Linux 7.3 and 8.0 | Red Hat Ent Linux AS 2.1 | Vmware ESX Server 2.1x | Vmware ESX Server 2.5x | | | |
| 7967 | BladeCenter | BRET73E | n/a | n/a | n/a | n/a | n/a | n/a | No | | | |
| 7981 | BladeCenter HS20 | FEE106B | Yes* | Yes | Yes | No | No | No | No | | | |
| 8677 | BladeCenter | BRET73E | n/a | n/a | n/a | n/a | n/a | n/a | No | | | |
| 8678 | BladeCenter HS20 | BRE134A | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | | |
| 8720 | BladeCenter T - AC | BVET22A | n/a | n/a | n/a | n/a | n/a | n/a | No | | | |
| 8730 | BladeCenter T - DC | BVET22A | n/a | n/a | n/a | n/a | n/a | n/a | No | | | |
| 8750 | BladeCenter T - AC | BBET10A | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | |
| 8832 | BladeCenter HS20* | BSE122A | Yes | Yes | Yes | No | Yes | Yes | Yes | | | |
| 8843 | BladeCenter HS20 | BWE110AUS | Yes | Yes | Yes | No | No | No | No | | | |

Table 2. Native installation support for IBM servers (continued)

| | Server | | Native Installation | | | | | | | | | | |
|-----------------|----------------------|---------------|---|---|---|--------------------------------|-----------------------------------|---------------------------------|---------------------------------|--|--|--|--|
| Machine Type | Model | BIOS level | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003 Std, Windows Server 2003 Web | Windows Server 2003 Enterprise | Red Hat Linux 7.3 and | Red Hat Ent Linux AS 2.1 | Vmware ESX Server 2.1x | Vmware ESX Server 2.5x | | | | |
| 8839 | BladeCenter HS40* | SBE162A | Yes | Yes | Yes | No | Yes | Yes | Yes | | | | |
| 8850 | BladeCenter LS20* | BKE116A | No | Yes | Yes | No | No | No | Yes | | | | |
| 8852 | BladeCenter H | BEPT14C | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | | | |
| 8848 | @server 326 | M2E108A | No | No | Yes | No | No | No | No | | | | |
| 8486 | xSeries 100 | IJJT18A | Yes | Yes | Yes | No | No | No | No | | | | |
| 8479 | xSeries 200 | ZRE122A | Yes | Yes | Yes | Yes | No | Yes | No | | | | |
| 8480 | xSeries 205 | JPE148A | Yes | Yes | Yes | Yes | Yes | Yes | No | | | | |
| 8482 | xSeries 206* | KEE130A | Yes | Yes | Yes | No | Yes | No | No | | | | |
| 8485 | xSeries 206m* | PAJT21A | Yes | Yes | Yes | No | No | No | No | | | | |
| 8645 | xSeries 220 | TUJT20A | Yes | Yes | Yes | Yes | No | No | No | | | | |
| 8646 | xSeries 220* | JJE119A | Yes | Yes | Yes | Yes | No | No | No | | | | |
| 8647 | xSeries 225* | OPJT43A | No | No | No | No | No | No | No | | | | |
| 8649 | xSeries 225* | KPE110A | Yes | Yes | Yes | No | No | Yes | No | | | | |
| 8648 | xSeries 226* | PME149A | Yes | Yes | Yes | No | No | No | No | | | | |
| 8668 | xSeries 232 | QAE133A | Yes | Yes | Yes | Yes | No | Yes | No | | | | |
| 8671 | xSeries 235* | GRE150A | Yes | Yes | Yes | Yes | Yes | Yes | No | | | | |
| 8841 | xSeries 236 | NRE118A | Yes | Yes | Yes | No | No | No | No | | | | |
| 8685 | xSeries 255* | AVE126A | Yes | Yes | Yes | Yes | Yes | Yes | No | | | | |
| 8865 | xSeries 260* | ZUJT40A | Yes | Yes | Yes | No | No | No | No | | | | |
| 8672 | xSeries 300 | ABE120A | Yes | Yes | Yes | Yes | Yes | Yes | No | | | | |
| 8673 | xSeries 305 | PLE166A | Yes | Yes | Yes | Yes | Yes | Yes | No | | | | |
| 8836/ 8849 | xSeries 306* | KEE131AUS | Yes | Yes | Yes | No | No | No | No | | | | |
| 8849 | xSeries 306m* | PAJT21A | Yes | Yes | Yes | No | No | No | No | | | | |

Table 2. Native installation support for IBM servers (continued)

| | Server | | | | Nativ | e Installation | on | | |
|-----------------|-----------------|---------------|---|---|---|---------------------------------------|-----------------------------------|---------------------------------|---------------------------------|
| Machine Type | Model | BIOS level | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003 Std, Windows Server 2003 Web | Windows Server 2003 Enterprise | Red Hat Linux 7.3 and 8.0 | Red Hat Ent Linux AS 2.1 | Vmware ESX Server 2.1x | Vmware ESX Server 2.5x |
| 8654 | xSeries 330* | TTJT32A | Yes | Yes | Yes | Yes | No | Yes | No |
| 8674 | xSeries 330 | EMJT13A | Yes | Yes | Yes | Yes | No | Yes | No |
| 8676 | xSeries 335 | T2E136A | Yes | Yes | Yes | Yes | Yes | No | Yes |
| 8837 | xSeries 336* | APE125AUS | Yes | Yes | Yes | No | Yes | Yes | Yes |
| 8669 | xSeries 342 | QAE132A | Yes | Yes | Yes | Yes | No | Yes | No |
| 8827 | xSeries 344 | SWE101B | Yes | Yes | Yes | No | No | No | No |
| 8670 | xSeries 345* | GEE159A | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 8840 | xSeries 346 | KPE132A | Yes | Yes | Yes | No | Yes | No | Yes |
| 8682 | xSeries 350 | ARE126A | Yes | Yes | Yes | Yes | Yes | Yes | No |
| 8686 | xSeries 360 | RUE158D | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 8861 | xSeries 365* | RDE132A | Yes | Yes | Yes | No | Yes | Yes | Yes |
| 8863 | xSeries 366* | ZUJT30A | Yes | Yes | Yes | No | No | No | No |
| 8687 | xSeries 440 | VIE147A | Yes | Yes | Yes | No | Yes | Yes | No |
| 8870 | xSeries 445* | REE148A | Yes | Yes | Yes | No | Yes | Yes | Yes |
| 8872 | xSeries 460* | ZUJT30A | Yes | Yes | Yes | No | No | No | No |

Clone installation support table

Table 3 illustrates the clone installation support available for the listed operating systems.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM servers" on page 8.

Table 3. Clone installation support for IBM servers

| | Se | erver | | Clone | Install | |
|-----------------|--------------------|------------|---|---|--------------------------------|---|
| Machine Type | Model | BIOS level | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003, Std Windows Server 2003, Web | Windows Server 2003, Ent | Windows 2003 Server, Std & Ent 64-bit |
| 7967 | BladeCenter | BRET73E | n/a | n/a | n/a | n/a |
| 7981 | BladeCenter HS20* | FEE106B | Yes | Yes | Yes | n/a |
| 8677 | BladeCenter | BRET73E | n/a | n/a | n/a | n/a |
| 8678 | BladeCenter HS20 | BRE134A | Yes | Yes | Yes | n/a |
| 8720 | BladeCenter T - AC | BVET22A | n/a | n/a | n/a | n/a |
| 8730 | BladeCenter T - DC | BVET22A | n/a | n/a | n/a | n/a |
| 8750 | BladeCenter T - AC | BBET10A | n/a | n/a | n/a | n/a |
| 8832 | BladeCenter HS20* | BSE122A | Yes | Yes | Yes | Yes |
| 8843 | BladeCenter HS20 | BWE110AUS | Yes | Yes | Yes | Yes |
| 8839 | BladeCenter HS40* | SBE162A | Yes | Yes | Yes | n/a |
| 8850 | BladeCenter LS20* | BKE116A | No | Yes | Yes | Yes |
| 8852 | BladeCenter H | BEPT14C | n/a | n/a | n/a | n/a |
| 8835 | @server 325* | M1E132A | No | No | Yes | Yes |
| 8848 | @server 326 | M2E108A | No | No | Yes | Yes |
| 8486 | xSeries 100 | IJJT18A | Yes | Yes | Yes | Yes |
| 8479 | xSeries 200* | ZRE122A | Yes | Yes | Yes | n/a |
| 8480 | xSeries 205 | JPE148A | Yes | Yes | Yes | n/a |
| 8482 | xSeries 206* | KEE130A | Yes | Yes | Yes | Yes |
| 8485 | xSeries 206m* | PAJT21A | Yes | Yes | Yes | Yes |
| 8645 | xSeries 220 | TUJT20A | Yes | Yes | No | n/a |
| 8646 | xSeries 220* | JJE119A | Yes | Yes | Yes | n/a |
| 8647 | xSeries 225* | OPJT37A | No | No | No | n/a |
| 8649 | xSeries 225* | KPE110A | Yes | Yes | Yes | n/a |
| 8648 | xSeries 226* | PME149A | Yes | Yes | Yes | Yes |
| 8668 | xSeries 232 | QAE133A | Yes | Yes | Yes | n/a |
| 8671 | xSeries 235* | GRE150A | Yes | Yes | Yes | n/a |
| 8841 | xSeries 236 | NRE118A | Yes | Yes | Yes | Yes |
| 8685 | xSeries 255* | AVE126A | Yes | Yes | Yes | n/a |
| 8865 | xSeries 260* | ZUJT40A | Yes | Yes | Yes | Yes |
| | · | | | - | | |

Table 3. Clone installation support for IBM servers (continued)

| | 5 | Server | | Clone | Install | |
|-----------------|---------------|------------|---|---|--------------------------------|---|
| Machine Type | Model | BIOS level | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003, Std Windows Server 2003, Web | Windows Server 2003, Ent | Windows 2003 Server, Std & Ent 64-bit |
| 8672 | xSeries 300 | ABE120A | Yes | Yes | Yes | n/a |
| 8673 | xSeries 305 | PLE166A | Yes | Yes | Yes | n/a |
| 8836/8849 | xSeries 306* | KEE131AUS | No | No | No | Yes |
| 8849 | xSeries 306m* | PAJT21A | Yes | Yes | Yes | Yes |
| 8654 | xSeries 330* | TTJT32A | Yes | Yes | Yes | n/a |
| 8674 | xSeries 330 | EMJT13A | Yes | Yes | Yes | n/a |
| 8676 | xSeries 335 | T2E136A | Yes | Yes | Yes | n/a |
| 8837 | xSeries 336* | APE125AUS | Yes | Yes | Yes | Yes |
| 8669 | xSeries 342 | QAE132A | Yes | Yes | Yes | n/a |
| 8827 | xSeries 344 | SWE101B | Yes | Yes | Yes | n/a |
| 8670 | xSeries 345* | GEE159A | Yes | Yes | Yes | n/a |
| 8840 | xSeries 346 | KPE132A | Yes | Yes | Yes | Yes |
| 8682 | xSeries 350 | ARE126A | Yes | Yes | Yes | n/a |
| 8686 | xSeries 360 | RUE158D | Yes | Yes | Yes | n/a |
| 8861 | xSeries 365* | RDE132A | Yes | Yes | Yes | n/a |
| 8863 | xSeries 366* | ZUJT30A | Yes | Yes | Yes | Yes |
| 8687 | xSeries 440 | VIE147A | Yes | Yes | Yes | n/a |
| 8870 | xSeries 445* | REE148A | Yes | Yes | Yes | n/a |
| 8872 | xSeries 460* | ZUJT30A | Yes | Yes | Yes | Yes |

Special considerations for IBM servers

The following sections list special considerations for IBM servers.

Special considerations for all servers

The following sections list general special considerations that refer to all servers listed in Table 1 on page 3, Table 2 on page 4, and Table 3 on page 7.

Changing the RDM Server Get and Put blocksizes from the defaults can cause network communication issues on Broadcom adapters.

BladeCenter unit Ethernet switch module: Limited information about blades is collected by the management module. You must run RDM scan on the blade objects that IBM Director creates when you discover systems. Drag the blade objects to the built-in scan task. RDM will then collect all the required information and add it to those objects.

Regardless of which switch module is connected to the chassis, the blades are collected using the first Ethernet device seen in the BIOS, which is the Ethernet switch module in bay 2. If you have only one Ethernet switch module and it is

installed in bay 1, the RDM cannot scan or manage the blade server, because you have an incorrect MAC address. Move the Ethernet switch module to bay 2 for proper operation.

CMOS: A user-modified lccmos.bat file is required to update CMOS code. This file must be modified if it contains either of the following lines:

```
cmosutil.exe - s %1
cmosutil.exe /s %1
```

If either line is located, replace it with the following line:

```
cmosutil.exe /R %1
```

General information: Any system where the cmosutil program uses - s to save and - r to restore, instead of /s and /r, requires a lccmos.bat file. Make note of what syntax the system uses when you create the .cms file initially. You must include one of the following commands in the batch file:

```
cmosutil.exe - r filename.cms
cmosutil.exe - r %1
```

Create the batch file on the BIOS update diskette; then, create a BIOS image as you normally would and a CMOS image with the BIOS code. The batch file appears as the executable in the CMOS image.

PowerQuest: RAID level 1 is not supported by PowerQuest with any DOS based ImageCenter versions. Although RAID 1 might work in this scenario, no support is available.

RDM task processing: Occasionally, RDM tasks running on systems using Fibre might have processing to do before they are ready for the systems to be turned on. If you want to manually turn on or wake a system, you must wait until the RDM task issues the WAKE command. You can view this process through the Execution History of the task.

VMware ESX Server: In certain cases, you might experience issues when deploying VMware ESX Server 2.1, 2.5 and 2.5.1 using Microsoft IIS version 6.0 under Windows Server 2003 Standard Edition. You might experience download failures when VMware attempts to download the /VMware/base/netstg1.img file from the server.

VMware ESX Server 2.1: VMware ESX Server 2.1 cannot support SANboot, with the exception of SANboot being used as a data drive to hold the VMFS partitions.

IBM iSCSI Server Adapter: Before performing a Windows installation on a server that has an IBM iSCSI Server Adapter installed, you must add both the text mode and plug and play drivers for the adapter to the Windows Native Install driver repository.

Special considerations for specific servers

The following sections list special considerations that refer to specific servers listed in Table 1 on page 3, Table 2 on page 4, and Table 3 on page 7.

BladeCenter HS20 Type 7981: Before performing a Windows Native Install on the 7981, you must delete the LSI Logic PCI SCSI/FC MPI Miniport Driver dated 5/23/2003, 1.09.06 from the Windows Native Install template.

BladeCenter HS20 Type 8832: VMware ESX Server does not support the LSI MegaRAID IDEal RAID controller present in the BladeCenter HS20 8832.

Use the LSI utility to configure the RAID controller on this system.

You cannot flash a new onboard Service Processor (BMC, ISMP) image to both Type 8839 and Type 8832 machines using the same task. To update the BMC for these machine types, create a separate task for each type.

BladeCenter HS20 Type 8843: The 8843 BMC version BWBT16A and above are contained on two diskettes. In order to flash the BMC through RDM create a directory named BWBTxxA where xx is the version of the BMC in a location with enough space to hold the contents of both diskettes. Copy the contents of both diskettes to the directory you created and browse to this directory when importing the 8843 BMC into RDM.

BladeCenter HS40 Type 8839: To configure X Windows task support for native installs, you must run the XConfigurator after the install.

VMware ESX Server does not support the LSI MegaRAID IDEal RAID controller present in the BladeCenter HS40 8839.

Using iSCSI in the SANBoot configuration under VMware ESX Server or Red Hat via Linux Native Installation deployments is not supported.

VMware ESX Server 2.1 does not support SCSI RAID on the BladeCenter HS40 8839.

To update BIOS and CMOS code, use the procedures provided in the *Using RDM* 4.11 to Deploy BladeCenter HS40 8839 white paper, which is available for download from the white paper web site: http://www-306.ibm.com/pc/support/ site.wss/document.do?Indocid=MIGR-53487

You cannot flash a new onboard Service Processor (BMC, ISMP) image to both Type 8839 and Type 8832 machines using the same task. To update the BMC for these machine types, create a separate task for each type.

BladeCenter LS20 Type 8850: Support for the 8850 requires that you first download and install the RDM Support Module for LS-20, Machine Type 8850. The support module can be downloaded from http://www.ibm.com/pc/support/.

xSeries 255 Type 8685: To ensure the correct boot order, you must verify that the network is listed before the hard disk drive in the start options in the BIOS Setup/Configuration Utility.

@server 325Type 8835: Before you can update the server BIOS code, the server must have BIOS level M1E118A installed. To avoid user intervention when updating the BIOS code, you must edit the Icreflsh.bat file and change the phlash16.ext /EXIT flashfil.fls command to the phlash16 /P /EXIT FLASHFIL.FLS command.

@server 326 Type 8848: With VMWare 2.5, you cannot use RDM to deploy an image to this server if the server is using a Silicon Image SATA controller for its primary storage device.

xSeries 200 Type 8479: Using Service Pack 3 with the Windows 2000 installation on the xSeries 200 Type 8479 will cause the ASR driver to fail.

xSeries 206 Type 8482: On the xSeries 206 Type 8482, use Ethernet Port 1 to PXE boot and deploy Linux from RDM. This helps avoid any issues when using the second port with Intel driver 5.2.30.1 in RDM 4.20.

You might encounter errors when deploying Red Hat Linux AS 2.1 to an IDE (including SATA) hard drive that is larger than 137 GB.

After you deploy a Windows Native Install task to the 8482, you must manually restart the computer before another task can be deployed to it.

xSeries 206m Type 8485: Drivers must be added to the Windows installation if you are using SAS, SATA HostRAID, or SAS HostRAID.

The System Firmware Flash task cannot flash the BMC firmware for this system. You must create a custom task flash the BMC firmware.

To perform a Windows installation on ServeRAID 8i SAS storage, you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

xSeries 220 Type 8646: After you deploy a Windows Native Install task to the 8646, you must manually restart the computer before another task can be deployed to it.

xSeries 225 Type 8647: If an IBM ServeRAID adapter is installed and the integrated LSI controller is enabled on the server, the full version of DeployCenter will not work for cloning this server.

The xSeries 225 Type 8647 does not support Wake on LAN.

xSeries 225 Type 8649: To ensure the boot order, verify that the network is listed before the hard disk drive in the start options in the Setup/Configuration Utility.

xSeries 226 Type 8648: RDM does not currently support Windows Native Install on this system when the onboard ServeRAID 7e is configured for SATA HostRAID.

xSeries 235 Type 8671: BIOS code must be at least at level GRJT31A for Scan to detect the ISMP firmware level.

You might have to set the ServeRAID write-cache mode to the write-through setting to run the Secure Data Disposal task.

If an IBM ServeRAID adapter is installed and the integrated LSI controller is enabled on the server, the full version of DeployCenter will not work for cloning this server.

xSeries 260 Type 8865: Drivers must be added to the Windows installation if you are using SAS or ServeRAID 8i.

xSeries 306 Type 8836: On an xSeries 306 server, or any server that supports both SCSI HostRAID and SATA HostRAID, when switching from SCSI HostRAID to SATA HostRAID you must first disable SCSI HostRAID in the SCSISelect Utility:

1. When the server boots, press Ctrl-A to start the SCSISelect Utility.

- 2. Select the option to Configure/View SCSI Controller Settings.
- 3. The HostRAID setting is located near the bottom of the screen. Ensure that the HostRAID setting is disabled.

On the xSeries 306 Type 8836, use Ethernet Port 1 to PXE boot and deploy Linux from RDM. This helps avoid any issues when using the second port with Intel driver 5.2.30.1 in RDM 4.20

You might encounter errors when deploying Red Hat Linux AS 2.1 to an IDE (including SATA) hard drive that is larger than 137 GB.

Deployment of Red Hat Linux AS 2.1 might hang intermittently if you select the Message and Web Tools package group (the group containing the Mozilla package) while creating a Linux Native Install task. If this occurs, redeploy the task or restart the target server before the timeout is reported by RDM.

Remote Storage tasks do not support the management of Brocade switches with the Red Hat AS 2.1 and SuSE SLES 8 operating systems because the Brocade Fabric Access API has dependencies on tools and libraries that do not exist on these older operating systems.

xSeries 306m Type 8849: Drivers must be added to the Windows installation if you are using SAS, SATA HostRAID, or SAS HostRAID.

To perform a Windows installation on ServeRAID 8i SAS storage you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

The System Firmware Flash task cannot flash the BMC firmware for this system. You must create a custom task flash the BMC firmware.

xSeries 330 Type 8654: The xSeries 330 does not support Wake on LAN.

xSeries 336 Type 8837: VMware ESX Server 2.1 does not support the Broadcom Ethernet controller in the xSeries 336 8837-2AZ.

xSeries 345 Type 8670: You might have to set the ServeRAID write-cache mode to the write-through setting to run the Secure Data Disposal task.

If an IBM ServeRAID adapter is installed and the integrated LSI controller is enabled on the server, the full version of DeployCenter will not work for cloning this server.

xSeries 365 Type 8861: If an IBM ServeRAID adapter is installed and the integrated LSI controller is enabled on the server, the full version of DeployCenter will not work for cloning this server.

To configure X Windows task support for a native install, you must run the XConfigurator after the installation completes.

xSeries 366 Type 8863: BMC levels prior to 1.04 will appear in inventory as ZUBTFFA. You can use this inventory item to update the BMC level directly using a BMC flash type in the System Firmware Flash task.

To flash the ISMP/BMC on the 8863 create the ISMP/BMC flash diskette as a System BIOS in RDM Version 4.20.2 or earlier.

To perform a Windows installation you must add the SAS text mode and plug and play drivers for the device to the Windows Native Install driver repository.

Only non-RAID SAS is supported for the 8863 in RDM Version 4.20.2 or earlier.

To perform a Windows installation on ServeRAID-8i SAS storage, you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

xSeries 440 Type 8687: If an IBM ServeRAID 6M Adapter and an IBM PRO/1000T Desktop Adapter by Intel are both installed on the server, the Windows Native Install of the server will fail.

xSeries 445 Type 8870: The xSeries 445 Type 8870 server requires BIOS level REJT35A, version 1.10 when using the optional RSA II EXA adapter.

If an IBM ServeRAID adapter is installed and the integrated LSI controller is enabled on the server, the full version of DeployCenter will not work for cloning this server.

xSeries 460 Type 8872: To perform a Windows installation on ServeRAID 8i SAS storage you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

To perform a Windows installation on SAS HostRAID storage you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

IBM workstations

Table 4 lists the supported firmware and the operating systems that you can deploy on specific IBM workstations.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM workstations" on page 14.

Table 4. Support for IBM workstations

| System | | Maintena | nce | Native Installs Clone Ins | | lone Instal | ls | |
|-----------------|-----------------------|-------------------|----------------|---------------------------|-------------------|---------------------|-------------------|-----------------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro | Windows XP Pro 64-bit |
| 6216 6226 | IntelliStation® E Pro | JPE149A | Yes | Yes | Yes | Yes | Yes | n/a |
| 6218 | IntelliStation M Pro* | B1JT26A | Yes | No | Yes | No | Yes | Yes |
| 6219 | IntelliStation M Pro | M6E130A | Yes | Yes | Yes | Yes | Yes | n/a |
| 6220 6230 | IntelliStation M Pro* | T6E121A | Yes | Yes | Yes | Yes | Yes | n/a |
| 6225 | IntelliStation M Pro* | FIE128A | Yes | Yes | Yes | Yes | Yes | Yes |
| 6221 | IntelliStation Z Pro* | OPE143A | Yes | Yes | Yes | Yes | Yes | n/a |
| 6223 | IntelliStation Z Pro* | PMJT50A | Yes | Yes | Yes | Yes | Yes | Yes |
| 9237 | IntelliStation M Pro | B6E128A | Yes | No | Yes | No | Yes | n/a |

Special considerations for IBM workstations

The following sections list special considerations for the IBM workstations.

All IBM workstations

Changing the RDM Server Get and Put blocksizes from the defaults can cause network communication issues on Broadcom adapters.

IntelliStation M Pro Type 6218

Drivers must be added to the Windows installation if you are using SAS, SATA HostRAID, or SAS HostRAID.

To perform a Windows installation on ServeRAID 8i SAS storage you must add the text mode and plug and play drivers for the device to the Windows Native Install driver repository.

When deploying a Windows Native Install task with a Windows XP image, you must increase the WNI timeout to 720 minutes to enable the task to complete.

IntelliStation M Pro Type 6220

The IntelliStation M Pro Type 6220 does not support Wake on LAN after running the Microsoft SYSPREP utility to prepare the system for a Get Donor task.

To use the RAID Clone Configuration task to configure RAID 5 on the IntelliStation M Pro Type 6220 you must set the following values in your acu configuration file:

- · method=clear
- wait=yes

IntelliStation M Pro Type 6225

The network must precede the hard disk in the primary boot sequence so that RDM tasks work correctly.

IntelliStation M Pro Type 6230

The IntelliStation M Pro Type 6230 does not support Wake on LAN after running the Microsoft SYSPREP utility to prepare the system for a Get Donor task.

IntelliStation Z Pro Type 6221

The network must precede the hard disk in the primary boot sequence so that RDM tasks work correctly.

IntelliStation Z Pro Type 6223

The network must precede the hard disk in the primary boot sequence so that the Windows Native Install task works correctly.

To ensure the correct boot order, you must verify that the network is listed before the hard disk drive in the start options in the BIOS Setup/Configuration Utility.

RDM does not currently support Windows Native Install on this system when the onboard ServeRAID 7e is configured for SATA HostRAID.

IBM desktop computers

Table 5 on page 15 lists the supported firmware and the operating systems that you can deploy on specific IBM desktop computers.

Table 5. Support for IBM desktop computers

| System | | Maintenance | | | Native Installs | | Clone Installs | |
|--|-------------------------------|----------------------|----------------|-------------------------------------|---------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update | Asset ID [™] support | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 6837 6847 | NetVista [™] A40p | WOKT14A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8319 | NetVista S42 | 28KT26A | Yes | Yes | Yes | Yes | Yes | Yes |
| 6792 | NetVista M41 | 20KT44A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8191 8198 | ThinkCentre [™] A30 | 24KT54A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8174 8175 8176 8177 8178 8179 8084 8085 8147 8148 | ThinkCentre A50 | 2CKT15A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8105 8107 8109 8117 8119 8121 | ThinkCentre A51 | 2GKT14AUS | Yes | No | Yes | Yes | Yes | Yes |
| 8122 - 8124 8129 8131 - 8138 9212 | ThinkCentre A51 | 2FKT10AUS | Yes | No | Yes | Yes | Yes | Yes |
| 8420 8421 8422 8423 8426 8427 | ThinkCentre A51p | 2BKT30A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8153 - 8170 | ThinkCentre A52 | 2EKT15AUS | Yes | No | Yes | Yes | Yes | Yes |
| 8185 | ThinkCentre M50 | 2AKT45A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8104 8106 8108 8118 8120 | ThinkCentre M51 | 2GKT14AUS | Yes | No | Yes | Yes | Yes | Yes |
| 8141 8142 8143 8144 8145 8146 | ThinkCentre M51 | 2BKT30A | Yes | Yes | Yes | Yes | Yes | Yes |

Table 5. Support for IBM desktop computers (continued)

| System | | Ma | intenance |) | Native | Installs | Clone Installs | |
|---|--------------------|----------------------|----------------|-------------------------------------|---------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update | Asset ID [™] support | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 8110 - 8116 8211 - 8216 9210 - 9211 | ThinkCentre M52 | 2EKT15AUS | Yes | No | Yes | Yes | Yes | Yes |
| 8086 | ThinkCentre S50 | 2DKT05A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8171 8172 8173 | ThinkCentre S51 | 2BKT40A | Yes | Yes | Yes | Yes | Yes | Yes |
| 8183 | ThinkCentre S50 | 2AKT49A | Yes | Yes | Yes | Yes | Yes | Yes |

Special considerations for IBM desktop computers

This section lists special considerations for IBM desktop computers.

All IBM desktop computers

Changing the RDM Server Get and Put blocksizes from the defaults can cause network communication issues on Broadcom adapters.

ThinkCentreS50 Type 8183

Type 8183 machines have experienced intermittent configuration errors when connected to a KVM switch. This situation can be corrected by connecting the mouse directly to the machine, eliminating the switch.

After updating the BIOS level on these machines, they may reboot to their local hard drives rather than to the network.

During a Windows Native Install task, Type 8183 machines with DVD players installed may be unable to copy files to the C: drive due to an accessibility error.

IBM ThinkPad computers

Table 6 lists the supported firmware and the operating systems that you can deploy on specific IBM ThinkPad[®] computers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM ThinkPad computers" on page 18.

Table 6. Support for IBM ThinkPad computers

| System | | Maintenance | | | Native Installs | | Clone Installs | |
|-----------------|-------|----------------------|-----------------|------------------------|---------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update* | Asset ID support | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 1843 | R51e | 78ET57WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1849 | R52 | 76ET62WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2511 | Z60t | 77ET42WW | Yes | Yes | Yes | Yes | Yes | Yes |

Table 6. Support for IBM ThinkPad computers (continued)

| System | | N | Native Installs | | Clone Installs | | | |
|--|-------|----------------------|-----------------|------------------------|---------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update* | Asset ID support | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 2529 | Z60m | 77ET42WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2652 | A30 | 1EET71WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2653 | A31p | 1GET36WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2384 | G40 | 1XET43WW | Yes | Yes | No | No | Yes | Yes |
| 2387 2388 2389 | G40 | 1TET97WW | Yes | Yes | No | No | Yes | Yes |
| 2656 | R31 | 1FETF0WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2658 | R32 | 1MET96WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2684 2681 2682 2722 2723 2896 2897 | R40 | 1SET46WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1829 1830 1831 1836 | R50 | 1RET84WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1834 | R50e | 1WET63WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1830 | R51 | 1RETDGWW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1829 1830 1831 | R51 | 1RETCDWW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2883 2887 2888 2889 | R51 | 1VET45WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2887 | R51 | 1VET58WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1834 | R51e | 1WET63WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 1859 | R52 | 70ET57WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 8148 | R52 | 76ET24WW | No | Yes | Yes | Yes | Yes | Yes |
| 2647 | T21 | KZET33WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2366 | T30 | 1IET67WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2373 | T40* | 1RET84WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2373 | T41 | 1RET84WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2373 2374 | T41p | 1RETCDWW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2384 | T42 | 1YET22WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2373 2374 | T42* | 1RETB7WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2373 | T42 | 1RETDGWW | Yes | Yes | Yes | Yes | Yes | Yes |

Table 6. Support for IBM ThinkPad computers (continued)

| System | | M | laintenance | | Native Installs Clone Installs | | | nstalls |
|--|---------------|----------------------|-----------------|------------------------|--------------------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update* | Asset ID support | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 2373 2374 2375 2376 2378 2379 | T42, T42p* | 1RETB7WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2668 | T43 | 1YET47WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2662 | X21 | 1ZET9DWW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2662 | X23 | 1DET70WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2672 2673 2884 2885 | X31 | 1QET72WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2369 2370 2371 2372 2382 2386 | X40 | 1UET63WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2371 | X40 | 1UET73WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 814A-024 | X41 | 75ET21WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2525 | X41 | 74ET30WW | Yes | Yes | Yes | Yes | Yes | Yes |
| 2371 | X42 | 1UET93WW | No | Yes | Yes | Yes | Yes | Yes |

Special considerations for IBM ThinkPad computers

The following sections list special considerations for IBM ThinkPad computers.

CMOS task error

If you create a CMOS task, you might see the following error message: "No system firmware flash exist. Please cancel and create a system firmware image first."

If you have already created a firmware image, then the error might be caused because the firmware diskette did not contain the srcmos.exe utility. If this occurs, complete the following steps to solve the problem:

- 1. Download the srcmos.exe utility from http://www.ibm.com/support/ docview.wss?uid=psg1MIGR-41472
- 2. Copy the srcmos.exe utility onto the BIOS diskette.
- 3. Delete the original system firmware image, and then re-create the system firmware image with the BIOS diskette onto which you copied the srcmos.exe utility.

ThinkPad T40 Type 2373

On IBM ThinkPad T40, the Get Donor task fails with various hubs due to response problems. To avoid these problems, change the CommandList file timeout value from 240 minutes to a higher value.

ThinkPad T42/T42p and R51 computers

Complete the following steps to deploy system firmware on IBM ThinkPad T42/T42p and R51 computers with BIOS level 1RETB7WW:

- 1. Download the new BIOS 1RETB7WW.
- 2. Expand the image onto a diskette.
- 3. Modify the diskette label to read 1QETB7WW instead of 1RETB7WW.

Note: To modify the diskette label, right click on the diskette in Windows Explorer. Select **Properties > General** and change the diskette label.

4. Build a system firmware image in RDM; then, make a System Firmware task to deploy to your system.

IBM Point of Sale computers

Table 7 lists the supported firmware and the operating systems that you can deploy on specific IBM Point of Sale (POS) computers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for IBM Point of Sale computers."

Table 7. Support for IBM Point of Sale computers

| System | | Maintena | ince | Native | Installs | Clone | Installs |
|-----------------|-----------------|-------------------|----------------|---------------------|-------------------|---------------------|-------------------|
| Machine Type | Model | Tested BIOS level | CMOS Update | Windows 2000 Pro | Windows XP Pro | Windows 2000 Pro | Windows XP Pro |
| 4810-33H | SurePOS 300 | 8BKT002A | Yes | Yes | Yes | Yes | Yes |
| 4810-310 | SurePOS 300 | K.14 | Yes | Yes | Yes | Yes | Yes |
| 4810-331 | SurePOS 300 | 8BKT120A | Yes | Yes | Yes | Yes | Yes |
| 4840-553 | SurePOS 500* | X5KT160 | Yes | Yes | Yes | Yes | Yes |
| 4840-573 | SurePOS 500* | X5KT220 | Yes | Yes | Yes | Yes | Yes |
| 4800-722 | SurePOS 700 | 82KT008A | Yes | Yes | Yes | Yes | Yes |
| 4800-7x1 | SurePOS 700 P3* | 80KT130 | Yes | Yes | Yes | Yes | Yes |
| 4800-782 | SurePOS 700 | 82KT008A | Yes | Yes | Yes | Yes | Yes |
| 4800-7x1 | SurePOS 700 P4* | 81KT130 | Yes | Yes | Yes | Yes | Yes |
| 4836-x35 | Anyplace Kiosk | 8AKT030 | Yes | Yes | Yes | Yes | Yes |
| 4836-x42 | Anyplace Kiosk | 8AKT030 | Yes | Yes | Yes | Yes | Yes |
| 4836-132 | Anyplace Kiosk | 8AKT060A | Yes | Yes | Yes | Yes | Yes |

Special considerations for IBM Point of Sale computers

The following sections list special considerations for the IBM Point of Sale computers.

SurePOS 300 Type 4810, Model 310

The SurePOS 300 Type 4810, Model 310 must be manually turned on after running the Sysprep task.

The SurePOS 300 Type 4810, Model 310 must be manually shut down using the power button after running the Sysprep task.

SurePOS 500 Type 4840, Model 553

For Windows Native Installation, you must add the non-Direct X video driver to the WNI template.

You must be at BIOS level 150 to avoid problems when using Remote Deployment Manager.

The SurePOS 500 Type 4840, Model 553 reboots instead of shutting down after receiving a shutdown command.

The SurePOS 500 Type 4800 Model 500 must be manually shut down using the power button after running the Sysprep task.

SurePOS 500 Type 4840, Model 573

For Windows Native Installations, you must add the primary video driver for this model to the WNI template before deploying the task to this machine.

For BIOS level X5KT220 no label is included when creating a BIOS diskette. To flash a BIOS update, you must add the BIOS level and product type manually.

SurePOS 700

SurePOS 700 system firmware levels 8xTK100 and 8xTK102 will not work in RDM. When updating firmware levels above 100, set the system firmware update condition to "Always flash" in RDM.

Note: To identify the firmware level, put the diskette into drive A, then list the directory in a command window. The label of the diskette is the firmware level.

When creating the Firmware Flash image, the system completes the task by turning off and reports an incomplete status. To repair this problem, remove the pwroff.com command from the end of the lcreflsh.bat file.

The SurePOS 701 Type 4800 model 781 must be manually shut down using the power button after running the Sysprep task.

IBM Anyplace Kiosk Model 4836

The IBM Anyplace Kiosk must be manually shut down after performing a Get Donor task.

IBM Point of Sale system procedures

The following section contains instructions for updating and cloning BIOS code and configuration data specific to SurePOS systems.

Creating a BIOS update diskette for multiple SurePOS 700 systems

Complete the following steps to create a BIOS update diskette with support for the SurePOS 700 Type 4800:

- 1. Download the applicable BIOS code from the IBM SurePOS site at http://www2.clearlake.ibm.com/store/support/index.html
- 2. Unpack the downloaded BIOS executable file onto a diskette in diskette drive A.
- 3. From the BIOS diskette, obtain the new BIOS level number. If your diskette has a readme file or a TXT file, open the file and find the version information.
- 4. Double-click the **My Computer** icon on your desktop. Right-click the diskette drive, and then click **Properties**. The Properties window opens.
- 5. If the value for the label is not the same as the BIOS files you want to update, change the label in the Properties window. For BIOS diskettes with multiple update files, you can change to the BIOS files you want to use.
 - The disk should now be ready to create a system firmware image in RDM.
- 6. (Optional) Confirm that the newly created BIOS diskette has a file called lcreflsh.bat. If the file lcreflsh.bat is not available, create a new lcreflsh.bat file.

Creating a CMOS update diskette for SurePOS 700 Type 4800-7x1systems

Complete the following steps to create a CMOS update diskette with support for the SurePOS 700 Type 4800:

- Download the SurePOS 700 CMOS utility from the IBM SurePOS site at the following address: http://www2.clearlake.ibm.com/store/support/html/ surepos700.html
- 2. Start the SurePOS 700 from the CMOS utility diskette.
- 3. To save the CMOS data, run the cmos /b command.
- 4. Copy the cmos.exe and the CMOS data file to the SurePOS 700 BIOS diskette.
- 5. Create a file named lccmos.bat on the diskette (or modify the existing lccmos.bat file). The file must contain only the following command:

CMOS /R

- 6. Create a file called lctest.cms on the diskette. The content of the file can be anything, including a few blank lines.
- 7. Create a SurePOS 700 CMOS image from this diskette.

Creating a SurePOS 300 Type 4810 BIOS image in RDM

Complete the following steps to create a SurePOS 300 Type 4810 BIOS image:

- 1. Download the BIOS code for the applicable model from the IBM SurePOS site at http://www2.clearlake.ibm.com/store/support/index.html
- 2. Downloaded the BIOS executable file onto a diskette.
- 3. Create a Icreflsh.bat file, or use the one that has been created. The Icreflsh.bat file must have the BIOS command to update the BIOS along with the unattended option, usually /r, for example, 4810prog /r
- 4. Save the Icreflsh.bat onto the diskette. The disk should now be ready to create a system firmware image in RDM.
- 5. Insert the BIOS diskette into diskette drive A of the RDM server. Make sure that the diskette does not contain any volume labels.
- 6. Create a BIOS image by clicking Tasks>Remote Deployment Manager>Image Management>Create>System Firmware Flash.
- 7. Type the image name and image description.
- 8. Click Setup.
- 9. Click Read Diskette.
- 10. Click **OK** to build the BIOS image.

Cloning CMOS settings for SurePOS 500 systems

Complete the following steps to load a configuration on SurePOS 500 systems:

- 1. Obtain a BIOS diskette that contains the same BIOS level for the POS system to be cloned.
- Download the CMOS utility (SurePOS 500-xx3 and SurePOS 700-7x1, CMOS/BIOS Configuration Utility) under IBM SurePOS 700 Series from the IBM SurePOS site at http://www2.clearlake.ibm.com/store/support
- 3. Start the system from this CMOS utility diskette and run the command cmos /b to save the data.
- 4. Copy cmos.exe and the CMOS data file to the BIOS diskette.
- 5. Create the lccmos.bat file with CMOS /R on the BIOS diskette.
- 6. Create an empty lctest.cms file on the BIOS diskette.
- In Remote Deployment Manager, select Tasks>Remote Deployment
 Manager>Image Management>Create and Modify Images>Create>System
 Firmware Flash to create the BIOS image from the diskette.

In Remote Deployment Manager, select Tasks>Remote Deployment
 Manager>Image Management>Create and Modify Images>Create>CMOS
 Update to create the CMOS Update image from the diskette.

The CMOS task is ready to deploy.

Cloning CMOS settings for SurePOS 300 Type 4810 Model 31x

The CS4810.EXE and CMOSSET.COM program pair must be used when configuring the SurePOS 300 Type 4810 Model 31x model or SurePOS 300 models with microprocessor upgrades.

You can run CS4810.EXE on the SurePOS 300. It is used to create a file, CS4810.DAT, which contains the new settings. Then, you must run the CMOSSET.COM file on the SurePOS 300 to update its CMOS settings.

Complete the following steps to clone CMOS settings for SurePOS 300 systems:

- Obtain a BIOS diskette that contains the same BIOS level for the POS system to be cloned.
- 2. Download the CS4810.EXE CMOS utility from the IBM SurePOS site at http://www2.clearlake.ibm.com/store/support/index.html
- 3. Copy the CMOS utility to the BIOS diskette.
- 4. To save the CMOS settings from that system, start the BIOS diskette in that system and issue the following command:

CS4810 /b

The CS4810.EXE command creates a file called CS4810.DAT that contains the CMOS settings for the system.

5. Create a file named lccmos.bat on the diskette (or modify the existing lccmos.bat file). The file must contain only the following command:

CMOSSET.COM

Note: Make sure the CS4810.DAT file is in the same directory as CMOSSET.COM.

- 6. Create a file called lctest.cms on the diskette. The content of the file can be anything, including a few blank lines.
- 7. Create a CMOS image using the RDM Image Management tool, selecting the BIOS image you just created. The name of the image must have the format ModelxxxLevel!, for example, Kxxx05!.

Note: Delete the information in the **Executable parameter** field before clicking **OK** to build the CMOS image.

The CMOS task is ready to deploy.

IBM storage servers

Table 8 lists the supported IBM storage servers.

Table 8. Support for IBM storage servers

| Name | Model number |
|---|--------------|
| IBM TotalStorage DS300 - Single Controller LC | 1701-1RL |
| IBM TotalStorage DS300 - Single Controller | 1701-1RS |

Table 8. Support for IBM storage servers (continued)

| Name | Model number |
|---|--------------|
| IBM TotalStorage DS300 - Dual Controller | 1701-2RD |
| IBM TotalStorage DS4100 (formerly FAStT100) | 1724-100 |
| IBM TotalStorage FAStT200 Storage Server | 3542-1RU |
| IBM TotalStorage FAStT500 Storage Server | 3552-1RU |
| IBM TotalStorage DS4300 (formerly FAStT600) | 1722-1RU |
| IBM TotalStorage DS4400 (formerly FAStT700) | 1742-1RU |
| IBM TotalStorage DS4500 (formerly FAStT900) | 1742-90U |
| FAStT EXP500 Storage Expansion Unit | 3560-1RU |

Supported adapters

RDM automatically recognizes most network adapters. Use the following links for updates and other networking information:

- For IBM PCI Wake on LAN Token Ring Adapter updates, required to support a DHCP boot environment, go to http://www.ibm.com/networking/support/ products.nsf/support/ home?OpenDocument
- For IBM adapters, go to http://www.ibm.com/networking/support/
- · For Intel adapters, go to http://www.intel.com

Ethernet adapters

Table 9 lists the supported Ethernet adapters and their support of the Preboot eXecution Environment (PXE) and the Wake on LAN (WoL) features.

Notes and considerations are listed below the table. If the name is marked with an asterisk (*), refer to Special considerations for Ethernet adapters.

Table 9. Support for Ethernet adapters

| Part number | FRU number | Name | Remote boot p | rotocol | WoL |
|---------------------|-------------|--|----------------|---------|-----|
| Part number | i no number | Name | PXE 2.0 or 2.1 | PXE 1.0 | WOL |
| 06P3601 | 06P3609 | IBM 10/100 Ethernet Server Adapter | Yes | Yes | Yes |
| 06P3801 | 06P3809 | Intel PRO/100 SP Mobile Combo adapter | Yes | No | Yes |
| 08K3124 | 08K3125 | IBM 10/100 EtherJet [™] miniPCI adapter with 56K modem (Intel current card) | Yes | No | Yes |
| 08L2565, 08L2567 | 08L2566 | IBM 10/100 EtherJet PCI Adapter with Wake on LAN1 | Yes | No | Yes |
| 09N3609 | 09N3609 | 10/100 EtherLink PCI Management Adapter by 3Com | Yes | No | Yes |
| 09N9774 | 00N8117 | IBM 10/100 EtherJet miniPCI adapter with 56K modem by 3Com | Yes | No | Yes |
| 09N9901 | 09N9901 | 10/100 EtherLink Server Adapter by 3Com | Yes | No | Yes |

Table 9. Support for Ethernet adapters (continued)

| Don't according | EDII number | Nama | Remote boot p | rotocol | WoL |
|------------------------------------|---------------|---|----------------|---------|-----|
| Part number | FRU number | Name | PXE 2.0 or 2.1 | PXE 1.0 | WOL |
| 22P4501 | 22P4509 | Intel PRO/100S Desktop Adapter | Yes | No | Yes |
| 22P4701 | 22P4709 | Intel PRO/100S Low Profile Desktop Adapter | Yes | No | Yes |
| 26P8039 | 26P8069 | Ethernet Daughter Card | Yes | No | Yes |
| 31P6301 | 31P6309 | IBM NetXtreme 1000 T Ethernet Adapter | Yes | No | Yes |
| 31P6401 | 31P6409 | IBM NetXtreme 1000 T Dual Port Ethernet Adapter* | Yes | No | No |
| 34L0201 | 30L5929 | IBM 10/100 EtherJet PCI Adapter with Wake on LAN1 | Yes | No | Yes |
| 34L1101, 34L1110 | 34L1109 | IBM 10/100 EtherJet PCI Adapter with Alert on LAN™ 2 | Yes | No | Yes |
| 34L1201, 34L1210 | 34L1209 | IBM 10/100 EtherJet PCI Management Adapter | Yes | No | Yes |
| 34L4401 (3DES US) 34L4410 | 34L4409 | IBM 10/100 EtherJet Secure Management Adapter | Yes | No | Yes |
| 34L4501 (DES non-US) 34L4510 | not available | IBM 10/100 EtherJet Secure Management Adapter | Yes | No | Yes |
| 85H9921, 85H9930 | 85H9928 | IBM 10/100 EtherJet PCI Adapter with Wake on LAN1 | Yes | Yes | Yes |
| 85H9921, 85H9930 | 85H9928 | IBM 10/100 EtherJet PCI Adapter with Wake on LAN1 | Yes | Yes | Yes |
| Ships with system | not available | Intel Gigabit Copper (82543) PRO 1000 XT | Yes | No | Yes |
| Ships with system | not available | Intel Gigabit Copper (82544) PRO 1000 XT | Yes | No | Yes |
| Ships with system | 26P8100 | IEEE 1394/LAN Combo Card | Yes | No | Yes |
| Ships with system | not available | On board Ethernet Adapter for ThinkPad R30 | Yes | No | Yes |

Special considerations for Ethernet adapters

The following sections list special considerations for Ethernet adapters.

IBM NetXtreme 1000 T Dual Port Ethernet adapter

The IBM NetXtreme 1000 T Dual Port Ethernet adapter does not support Wake on LAN.

Token Ring adapters

Table 10 lists the supported Token Ring adapters and their support of the Preboot eXecution Environment (PXE) and Wake on LAN features.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for Token Ring adapters."

Table 10. Support for Token Ring adapters

| Part number | FRU number | Name | Remote boot pr | rotocol | WoL |
|---|---------------|--|----------------|---------|-----|
| Part number | rho ilullibei | Name | PXE 2.0 or 2.1 | PXE 1.0 | WOL |
| 34L050 34L0510 | 30L5980 | IBM High-Speed 100/16/4 Token Ring PCI Adapter | Yes | Yes | Yes |
| 34L0701 34L0710 | 30L6817 | IBM 16/4 Token Ring PCI Adapter 2 with the Wake on LAN feature | Yes | Yes | Yes |
| 34L5001 34L5010 | 34L5009 | IBM 16/4 Token Ring PCI Management Adapter | Yes | Yes | Yes |
| 34L5201 34L5210 | 34L5209 | IBM High-Speed 100/16/4 Token Ring PCI Management Adapter | Yes | Yes | Yes |
| 86H1880 86H1886 86H1887 08L3340 08L3294 | 08L3335 | IBM PCI Wake on LAN Token Ring Adapter | Yes | Yes | Yes |

Special considerations for Token Ring adapters

The following sections list special considerations for the Token Ring adapters.

Firmware level

The minimum firmware level for any Token Ring adapter used with RDM is 118r.

VMware ESX Server 2.1

Token Ring adapters are not supported by VMware ESX Server 2.1.

ServeRAID controllers

Table 11 lists the supported ServeRAID controllers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for ServeRAID controllers" on page 27.

Table 11. Support for ServeRAID controllers

| Name | Part number | FRU number |
|--|-------------|------------|
| ServeRAID-4Mx Ultra160 SCSI controller | 06P5736 | 06P5737 |
| ServeRAID-4Lx Ultra160 SCSI controller | 06P5740 | 06P5741 |
| ServeRAID-5i Ultra320 SCSI controller | 25P3492 | 32P0016 |
| ServeRAID-6M Ultra320 SCSI controller | 32P0033 | 02R0985 |
| ServeRAID-4M Ultra160 SCSI controller | 37L6080 | 37L7258 |
| ServeRAID-4L Ultra160 SCSI controller | 37L6091 | 09N9540 |

Table 11. Support for ServeRAID controllers (continued)

| Name | Part number | FRU number |
|--|-------------|------------|
| ServeRAID-4H Ultra160 SCSI controller | 37L6889 | 37L6892 |
| ServeRAID-6i Ultra320 SCSI controller | 71P8595 | 71P8627 |
| ServeRAID-7k Ultra320 SCSI controller* | 71P8642 | 71P8644 |
| ServeRAID-7t SATA controller* | 71P8648 | 71P8650 |
| ServeRAID-7e (Adaptec HostRAID)* | n/a | n/a |
| ServeRAID-8e* | n/a | n/a |

Special considerations for ServeRAID controllers

The following sections list special considerations for the ServeRAID controllers.

ServeRAID Support CD 7.10

When using the ServeRAID Support CD 7.10, a maximum of two logical drives are supported for Windows Native Install tasks.

ServeRAID 7e (Adaptec HostRAID)

RAID custom task will only support specifying the entire controller. You cannot specify anything less than 100% of the controller.

ServeRAID-7t

RAID custom task will only support specifying the entire controller. You cannot specify anything less than 100% of the controller.

To create multiple logical drives in the same array, or a logical drive smaller than the full size of the array, use RAID Clone task.

To use the RAID Clone Configuration task to configure RAID 5 you must set the following values in your acu configuration file:

- · method=clear
- · wait=yes

ServeRAID-8e

The ServeRAID-8e SAS adapter may require that the timeout value for the Windows Native Install and Power Restore tasks be increased to 720 minutes. This can be done by adding the TIMEOUT 720 value to the task command list.

LSI RAID controllers

Table 12 lists the supported onboard LSI RAID controllers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for LSI RAID controllers."

Table 12. Support for LSI RAID controllers

| Name | Part number |
|---|-------------------------|
| Single Channel LSI Ultra320 SCSI controller | LSI53C1020 |
| Dual Channel LSI Ultra320 SCSI controller | LSI53C1030 |
| LSI MegaRAID IDEal RAID controller* | LSI MegaRAID IDEal RAID |

Special considerations for LSI RAID controllers

The following sections list special considerations for the LSI RAID controllers.

LSI MegaRAID IDEal RAID controller

RAID custom task will only support specifying the entire controller. You cannot specify anything less than 100% of the controller.

Silicon Image controllers

Table 13 lists the supported onboard/integrated Silicon Image controllers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for Silicon Image controllers."

Table 13. Support for Silicon Image controllers

| Name | Part number |
|-------------------------------|--------------|
| Silicon Image SATA Link 3512* | Sil3512CT128 |

Special considerations for Silicon Image controllers

The following sections list special considerations for the Silicon Image controllers.

Silicon Image SATA Link 3512

The Silicon Image SATA Link 3512 is currently not supported for Linux native installs.

BladeCenter products

Table 14 lists the supported BladeCenter products.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for BladeCenter products."

Table 14. Support for BladeCenter products

| Name | Part number | FRU number |
|---|-------------|----------------------------|
| IBM BladeCenter Optical Pass-thru Module | 02R9080 | 02R9082 |
| Cisco Gigabit Ethernet Switch module | 13N2281 | 13N2285 |
| Cisco Fiber Switch Module | 13N2285 | 13N2286 |
| IBM BladeCenter Advanced Management Module (AMM) | 25R5778 | 25R5777 |
| IBM BladeCenter PCI Expansion Unit (PEU) | 25K8373 | 32R0753 |
| IBM BladeCenter HS20 Fibre Channel Expansion Card - Short Form Factor | 26K4841 | 26K4859 |
| Brocade Entry SAN Switch Module for IBM BladeCenter | 26K5601 | 90P0164 |
| IBM BladeCenter 6-pt Fibre Channel Switch Module | 26K6477 | 26K6481 |
| Qlogic iSCSI Expansion Card for IBM BladeCenter | 26K6487 | 26K6490 |
| Nortel Copper L2/L3 Switch Module | 26K6530 | 26K6526 |
| Nortel Fibre L2/L3 Switch Module | 26K6531 | 26K6529 |
| QLogic 4 Gb Fibre Channel Switch Module | 26R0883 | 26R0888 |
| Brocade 20 Port FC switch module | 32R1812 | 32R1820 |
| IBM BladeCenter HS20 Fibre Channel Expansion Card | 48P7061 | 59P6624 |
| IBM BladeCenter 2-Port Fibre Channel Switch Module* | 48P7062 | 59P6621 |
| Myrinet Cluster Expansion Card for IBM BladeCenter* | 73P6000 | 73P6001 |
| IBM BladeCenter Copper Pass-Thru Module | 73P6100 | 73P6098 |
| IBM BladeCenter Gigabit Ethernet Expansion Card | 73P9030 | 13N2306 (replaces 73P9031) |
| Nortel Network Layer 2-7 GbE Switch Module for IBM BladeCenter | 73P9057 | 73P9004 |
| Brocade Enterprise SAN Switch Module | 90P0165 | 90P0164 |
| Intel Copper Switch Module | 90P3686 | 90P3776 |
| IBM BladeCenter PCI Expansion unit (PEU) | 90P3721 | n/a |

Special considerations for BladeCenter products

The following sections list special considerations for BladeCenter products.

BladeCenter SAN switches

By default, security is disabled on BladeCenter SAN switches from Qlogic, that is, SecurityEnabled=False. With security disabled, the userid/password combination set for the telnet sessions do not apply to the BladeCenter SAN utility or RDM Remote Storage tool, allowing access to the Fibre Channel switches.

Enable your security, that is, SecurityEnabled=True, if your network is not private or not set up for Virtual Private Networking. Security must be consistent for all switches in the Fibre Channel fabric. For additional information, refer to the Qlogic switch documentation.

IBM BladeCenter 2-Port Fibre Channel Switch Module

The minimum firmware required by RDM is level 1.4.

Myrinet Cluster Expansion Card

To successfully install the Myrinet Cluster Expansion Card for IBM BladeCenter while the machine is unattended, add the drivers to the RDM Windows driver repository.

The Myrinet Cluster Expansion Card for BladeCenter is not supported for Linux Native Installs.

Fibre Channel adapters

Table 15 lists the supported Fibre Channel adapters.

Table 15. Support for Fibre Channel adapters

| Name | Qlogic product name | Part number | FRU number |
|---|---------------------|-------------|------------|
| Netfinity FAStT Host Adapter | QLA2200 | 00N6881 | 09N7292 |
| IBM Total Storage FAStT FC-2 Host Bus Adapter | QLA2310 | 19K1246 | 19K1273 |
| QLA2340 64-Bit PCI-X to 2-Gigabit Fibre Channel Adapter | QLA2340 | 24P0960 | 24P8174 |

Special considerations for Fibre Channel adapters

Swapping fibre HBAs in active servers is not supported. Swapping HBAs can lead to loss of both HBA configuration and SAN configuration for one or both of the participating servers.

SCSI adapters

Typically, RDM automatically supports SCSI adapters. On Windows 2000, RDM supports the adapters that are compatible with the operating system.

Advanced Systems Management adapters

RDM cannot configure X Windows support for systems with the Remote Supervisor Adapter II. If you want X Windows support, you must configure it after the installation is complete. See the IBM Remote Deployment Manager 4.20 User's Reference for more information.

Table 16 lists the supported Advanced Systems Management adapters.

Table 16. Support for Advanced Systems Management adapters

| Part number | FRU number | Name |
|-------------|------------|--|
| 01K7209 | 24P6538 | Netfinity Advanced System Management PCI Adapter |
| 09N7585 | 36L9912 | Remote Supervisor Adapter |
| 59P2984 | 59P2998 | Remote Supervisor Adapter II |
| 73P9341 | 73P9324 | Remote Supervisor Adapter II Slimline |

Enabling the Wake on LAN feature

When this option is enabled, the adapter can react to special wake-up packets and turn on the computer without user intervention. The following sections provide information for enabling the Wake on LAN feature on xSeries servers.

Intel PRO/1000 XT and Intel PRO/1000 XF

The Intel PRO/1000 XT and Intel PRO/1000 XF and newer server adapters support the Intel Boot Agent, but come with Wake on LAN and PXE disabled. To enable these features, use the IBAUTIL.EXE utility in the BootAgnt directory on your device driver CD or in the root directory of your Web-downloaded image.

Complete the following steps to enable the Intel PRO/1000 XT adapter for the Wake on LAN features and PXE:

- 1. Navigate your browser to http://www.intel.com and search on Boot Agent.
- 2. Select the entry that contains the adapter that you want, in this case, Intel PRO/1000 Family of Gigabit desktop and server adapters.

Note: The Intel PRO/1000 XT Server and Intel PRO/1000 XF Server Adapters come with boot ROM onboard. Enable using IBAUTIL.EXE (at a DOS prompt, type IBAUTIL -NIC=X -FE).

- 3. Download PROBOOT.EXE, which is the boot agent image.
- 4. Run this program in a Windows 2000 environment to find the IBAUTIL.EXE file. Copy IBAUTIL.EXE to a diskette.
- 5. Insert the diskette into the client that has the PRO/1000 adapter.
- 6. Enter the following commands:

ibautil -FE

ibautil -PXE

ibautil -WOLE

Note: IBAUTIL is a utility program that changes the default settings of your Intel WfM-compatible adapter. Use IBAUTIL to enable or disable the Wake on LAN and Boot Agent capabilities, and to enable or disable some settings used by the Boot Agent.

xSeries 220, Type 8645

To enable the Wake on LAN feature, the following conditions must be met:

- If you are using the onboard Ethernet controller, set the Advanced/Peripheral Configuration/LAN device to Enabled. If you are using an Ethernet adapter with Wake on LAN capability, set the Advanced/Peripheral Configuration/LAN device to Disabled.
- The Wake on LAN feature must be enabled in the Configuration/Setup Utility program. By default, it is not.
- The boot agent of the network adapter must have the Legacy OS wake-up support enabled, if supported.
- The onboard Ethernet controller must be disabled.
- PXE is the default for the network boot protocol and should not be changed.
- To ensure the boot order, verify that the network is listed before the hard disk drive on alternate boot.
- The Legacy OS wake-up support enables a non-Windows operating system to use adapter remote wake-up capability. The default is disabled. Enable it for
- · The server is either turned off or shut down from an Advanced Configuration and Power Interface (ACPI) operating system. If you turn off the server by pressing the power button, the Wake on LAN feature will not work.

xSeries 300, Type 8672

To enable the Wake on LAN feature, you must change the settings in the Configuration/Setup Utility program. Complete the following steps to change the

- 1. Select Power Management Setup > Automatic Power On.
- 2. Enable Wake on PCIPME.
- 3. Enable Wake Up on LAN/Ring.

Chapter 2. Non-IBM hardware and software support

This section provides tables of non-IBM servers and desktop computers supported by RDM version 4.20.

OEM servers

Table 17 and Table 18 on page 34 list supported firmware and operating systems that you can deploy on specific OEM servers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for OEM servers" on page 34.

Table 17. Maintenance support for OEM servers

| | System | | Maintenance | | | | |
|--------|-----------------|-------------------|--------------|-------------|--|--|--|
| Туре | Model | Tested BIOS level | CMOS Updates | RAID Config | | | |
| Dell | PowerEdge 1650* | A10 | No | No | | | |
| Dell | PowerEdge 1750* | A07 | No | No | | | |
| Dell | PowerEdge 2450 | A03 | No | No | | | |
| Dell | PowerEdge 2600 | A04 | No | No | | | |
| Dell | PowerEdge 2650 | A10 | No | No | | | |
| Dell | PowerEdge 6650* | v0.9 | No | No | | | |
| Compaq | Proliant DL380* | P24 | No | No | | | |
| HP | Proliant DL560* | P30 | No | No | | | |
| HP | Proliant ML310* | D12 | No | No | | | |
| Compaq | Proliant ML330* | D10 | No | No | | | |
| Sun | Sun Fire v65 | 1191 | No | No | | | |

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Table 18. Native and clone installation support for OEM servers

| System | | Native Install | | | | Clone Install | |
|--------|-----------------|--|---|-------------------------|--------------------------------|--|---|
| Туре | Model | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003 Std, Windows Server 2003 Ent, Windows Server 2003 Web | Red Hat Linux 7.3 | Red Hat Linux Ent AS 2.1 | Windows 2000 Server, Windows 2000 ADV Servers | Windows Server 2003 Std, Windows Server 2003 Ent, Windows Server 2003 Web |
| Dell | PowerEdge 1650* | No | Yes | No | No | No | Yes |
| Dell | PowerEdge 1750* | Yes | Yes | No | No | Yes | Yes |
| Dell | PowerEdge 2450 | Yes | No | No | No | Yes | No |
| Dell | PowerEdge 2600 | Yes | Yes | No | No | Yes | Yes |
| Dell | PowerEdge 2650 | Yes | Yes | No | No | Yes | No |
| Dell | PowerEdge 6650* | Yes | No | No | No | No | No |
| Compaq | Proliant DL380* | Yes | Yes | No | No | Yes | Yes |
| HP | Proliant DL560* | Yes | Yes | No | No | Yes | Yes |
| HP | Proliant ML310* | Yes | No | No | No | Yes | No |
| Compaq | Proliant ML330* | Yes | Yes | Yes | No | Yes | Yes |
| Sun | Sun Fire v65 | No | No | No | No | No | No |

Special considerations for OEM servers

The following sections list special considerations for the OEM servers.

Dell PowerEdge 1650

The Dell PowerEdge 1650 does not support Wake on LAN.

The Dell PowerEdge 1650 reboots instead of shutting down after receiving a shut down command.

Dell PowerEdge 1750

The Dell PowerEdge 1750 reboots instead of shutting down after receiving a shutdown command from any RDM task.

The Dell PowerEdge 1750 must be manually turned on when running any RDM task.

The Dell PowerEdge 1750 does not support Linux.

The Dell PowerEdge 1750 does not support Wake on LAN.

To ensure the boot order, verify that the network is listed before the hard disk drive in the start options in the Setup/Configuration Utility.

Windows 2000 WNI users must load the SCSI RAID drivers from Dell into the WNI template.

Dell PowerEdge 6650

The Dell PowerEdge 6650 reboots instead of shutting down after receiving a shut down command.

Compag Proliant DL380

The Compaq Proliant DL380 server does not shut down after tasks.

The Compaq Proliant DL380 does not support Wake on LAN.

HP Proliant DL560

The HP Proliant DL560 reboots instead of shutting down after receiving a shut down command.

The HP Proliant DL560 does not support Power Restore.

HP Proliant ML310

The HP Proliant ML310 reboots instead of shutting down after receiving a shut down command.

The HP Proliant ML310 do not support Power Restore.

For HP Proliant ML310, Windows Native Install of Windows 2003 SE, Windows 2003 EE, and Windows 2003 WE fails due to incompatibility of drivers. Complete the following steps to modify the INF file and solve this issue:

- 1. From the Director Console, access Remote Deployment Manager in the Tasks panel.
- 2. Double click on Remote Deployment Manager task to expand the task list.
- 3. Highlight Windows Native Install task and right-click to get into the sub-menu.
- 4. Select Edit template.
- 5. A Remote Deployment Manager Windows Native Install Template dialog window will appear. Select the Setup tab to get into the Management of drivers
- 6. Select **Text Mode** to go into the text mode driver management panel.
- 7. A list of available drivers currently stored in the RDM repository is shown in the **Description** box.
- 8. Highlight the Integrated Ultra ATA-100 IDE RAID Controller (Server 2003) entry.
- 9. Click the **Delete** button to remove the driver.
- 10. Click Yes to confirm the Delete Driver.
- 11. Exit the edit template and proceed with deploying your HP Proliant ML310 system.

Compaq Proliant ML330

The Compaq Proliant ML330 reboots instead of shutting down after receiving a shut down command.

Sun Sun Fire v65

Wake On LAN will not work after any RDM task.

OEM switches

Table 19 lists supported OEM switches.

Table 19. Maintenance support for OEM switches

| Name | Part number | FRU number |
|---|-------------|------------|
| McData 6-port Fibre Channel Switch Module | 32R1790 | 32R1792 |

Special considerations for OEM switches

The following sections list special considerations for the OEM switches.

McDATA 6-port Fibre Channel Switch Module for IBM BladeCenter

You must ensure that the McDATA InterOp mode and Default Zone settings are appropriate for your Storage Area Network configuration.

OEM desktop computers

Table 20 on page 37 lists the supported firmware and the operating systems that you can deploy on specific OEM desktop computers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for OEM desktop computers" on page 37.

Table 20. Support for OEM desktop computers

| Sy | stem | Maintenance | | Native Install | Clone Install | |
|---------|--------------------|-------------------|----------------|---|---|--|
| Туре | Model | Tested BIOS level | CMOS update | Windows 2000 Pro and Windows XP Pro 32-bit | Windows 2000 Pro and Windows XP Pro 32-bit | |
| Compaq | iPAQ* | 686J5 v 1.09 | No | No | No | |
| Compaq | EVO D510* | 2.14 | No | Yes | Yes | |
| Compaq | Presario 6000* | 3.14 | No | No | No | |
| Dell | Dimension 8400* | A05 | No | No | No | |
| Dell | GX260* | A07 | No | Yes | Yes | |
| Dell | Precision 340* | F82010A | No | No | No | |
| Dell | Precision 360* | A04 | No | No | No | |
| Gateway | E-4400* | A05 | No | Yes | Yes | |

Special considerations for OEM desktop computers

The following sections list special considerations for the OEM desktop computers.

Compaq iPAQ

The Compaq iPAQ does not support Wake on LAN.

Compaq EVO D510

For RDM tasks to work correctly, the network must precede the hard disk in the primary boot sequence.

Compag Presario 6000

The Compaq Presario 6000 does not support Wake on LAN.

Dell Dimension 8400

The Dell Dimension 8400 does not support Wake on LAN.

Dell GX260

For RDM tasks to work correctly, the network must precede the hard disk in the primary boot sequence.

Dell Precision 340

The Dell Precision 340 does not support Wake on LAN.

Dell Precision 360

The Dell Precision 360 does not support Wake on LAN.

Gateway E-4400

For RDM tasks to work correctly, the network must precede the hard disk in the primary boot sequence.

OEM notebook computers

Table 21 lists the supported firmware and the operating systems that you can deploy on specific OEM notebook computers.

Notes and considerations are listed below the table. If the model is marked with an asterisk (*), refer to "Special considerations for OEM notebook computers."

Table 21. Support for OEM notebook computers

| 5 | System | Maintenance | | stem Maintenance Native Install | | Clone Install |
|--------|----------------|-------------------|----------------|---|---|---------------|
| Туре | Model | Tested BIOS level | CMOS update | Windows 2000 Pro and Windows XP Pro 32-bit | Windows 2000 Pro and Windows XP Pro 32-bit | |
| Compaq | Presario 2525* | KF.F.05 | No | No | No | |
| Dell | Precision M60* | A02 | No | No | No | |

Special considerations for OEM notebook computers

The following sections list special considerations for the OEM notebook computers.

Compaq Presario 252

The Compaq Presario 252 does not support Wake on LAN.

Dell Precision M60

The Dell Precision M60 reboots instead of shutting down after receiving a shut down command.

The Dell Precision M60 does not support Wake on LAN.

Appendix. Notices

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Important notes

Processor speeds indicate the internal clock speed of the microprocessor; other factors also affect application performance.

CD-ROM drive speeds list the variable read rate. Actual speeds vary and are often less than the maximum possible.

When referring to processor storage, real and virtual storage, or channel volume, KB stands for approximately 1000 bytes, MB stands for approximately 1 000 000 bytes, and GB stands for approximately 1 000 000 bytes.

When referring to hard disk drive capacity or communications volume, MB stands for 1 000 000 bytes, and GB stands for 1 000 000 bytes. Total user-accessible capacity may vary depending on operating environments.

Maximum internal hard disk drive capacities assume the replacement of any standard hard disk drives and population of all hard disk drive bays with the largest currently supported drives available from IBM.

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Part Number: 31R1034

Printed in USA

(1P) P/N: 31R1034

