

Update*Xpress*



# User's Guide





Update*Xpress*



# User's Guide

**NOTE**

Before using this information and the product it supports, be sure to read the general information in Appendix A, "Notices," on page 13.

**Third Edition (July 2001)**

**© Copyright International Business Machines Corporation 2001. All rights reserved.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

<b>Chapter 1. Introduction</b> . . . . .	1
Change history . . . . .	1
Supported servers . . . . .	1
Using the UpdateXpress CD. . . . .	2
<b>Chapter 2. Device driver and firmware updates</b> . . . . .	5
Device-driver updates . . . . .	5
Windows 2000 . . . . .	5
Windows NT 4.0 . . . . .	5
ServeRAID-4L and -4M and 10/100 Ethernet PCI adapters . . . . .	6
Firmware updates . . . . .	7
System firmware . . . . .	7
ServeRAID and Advanced System Management PCI adapter . . . . .	7
Certified tape drive firmware . . . . .	8
<b>Chapter 3. Special conditions</b> . . . . .	9
Netfinity 7000 M10 POST/ BIOS flash . . . . .	9
Netfinity 6000R/xSeries 350 POST/BIOS flash . . . . .	9
Advanced Systems Management (ASM) Adapter/Controller firmware . . . . .	10
Microsoft cluster server environments . . . . .	10
ServeRAID-4L and -4M (version 4.50) support . . . . .	11
Hard disk drive microcode support . . . . .	11
<b>Appendix A. Notices</b> . . . . .	13
Edition notice . . . . .	13
Processing date data . . . . .	14
Trademarks . . . . .	14



---

## Chapter 1. Introduction

Use the IBM® UpdateXpress CD to plan for maintenance updates of most IBM @server xSeries servers. The UpdateXpress CD is supported in Microsoft® Windows 2000 and Windows NT® environments, it is easy to use, and the program provides device driver and firmware updates directly from this CD. If an automatic update is not available, UpdateXpress might supply a manual update option.

If you have a problem or question about UpdateXpress or about any other server product, you will find a wide variety of sources available to help you.

- On the World Wide Web, the IBM Web site has up-to-date information about IBM products and support. The address for the IBM Personal Computing home page is <http://www.ibm.com/pc/>.
- You can find support information for your IBM products at: <http://www.ibm.com/pc/support/>.
- If you have questions about the UpdateXpress CD or if you have problems applying the updates, you can get help and information through the IBM HelpCenter®. Phone numbers are subject to change without notice. For the most up-to-date phone numbers, go to <http://www.ibm.com/pc/support/> and click **Support Phone List**.

---

## Change history

Versions of UpdateXpress incorporate the following improvements and updates.

Version	Description
1.0	Initial release of UpdateXpress
1.01	Update basic input/output system (BIOS) to latest versions
1.01a	Improve startup on a non-English Windows NT or Windows 2000 operating system environment
1.02	Add support for Netfinity 5000, Netfinity 5500, and Netfinity 7000 M10 servers Add README.txt file Update BIOS for the Netfinity 4500/xSeries 340, and Netfinity 5100 servers

---

## Supported servers

This version of UpdateXpress supports the following IBM xSeries and Netfinity® servers.

Supported servers	Machine type
Netfinity 5000	8659
Netfinity 5500	8660
Netfinity 7000 M10	8680
xSeries 200	8478
xSeries 220	8645
xSeries 230 (Netfinity 5100)	8658

Supported servers	Machine type
xSeries 240 (Netfinity 5600)	8664
xSeries 250 (Netfinity 7600)	8665
xSeries 330	8654
xSeries 340 (Netfinity 4500)	8656
xSeries 350 (Netfinity 6000R)	8682
xSeries 370 (Netfinity 8500R)	8681

---

## Using the UpdateXpress CD

Complete the following steps to use the UpdateXpress CD.

1. Insert the CD into the server CD-ROM drive.
2. All installed and active device drivers that are supported by UpdateXpress are displayed when UpdateXpress starts. To start the device-driver update procedure, click **Continue**. UpdateXpress compares the level of the device driver on the server to the level on the CD:
  - If the device driver is an earlier version than the one on the UpdateXpress CD, the device driver is selected for update.
  - If the device driver is later than the version on the UpdateXpress CD, the device driver is not selectable.
  - If the device driver is equal to the version on the UpdateXpress CD, the device driver is selectable for update.

The program displays a progress window, so that you will know that you have completed all the device-driver updates. UpdateXpress prompts you to restart the server with the UpdateXpress CD in the CD-ROM drive to begin the firmware-update procedure.

3. Save all open files, close all programs, and shut down the server.
4. Restart the server with the UpdateXpress CD inserted in the CD-ROM drive to start the firmware update process. You can process the firmware updates as unattended firmware updates or manual firmware updates.

### Unattended firmware updates

When the UpdateXpress CD starts, the firmware version window opens. This window has a 60-second countdown timer. You can view the current system firmware versions and compare these to the firmware versions available on the UpdateXpress CD.

UpdateXpress determines the level of the firmware on the server:

- If the firmware is an earlier version than the one on the UpdateXpress CD, the firmware is selected for update.
- If the firmware is later than the version on the UpdateXpress CD, the firmware is not selectable.
- If the firmware is equal to the version on the UpdateXpress CD, the firmware is selectable for update.

If you do nothing, the firmware update procedure begins after the timer reaches zero.



**Note:** Hard disk drive and tape firmware is always selected for update, regardless of the version, because the version numbers are not available for examination. The UpdateXpress program displays See Help in place of the version number. You can click **Stop Timer** and deselect the hard disk or tape firmware. If you choose to perform the firmware update, the UpdateXpress program displays Equal as the version after the update is complete.

The update utilities for each firmware component perform the firmware updates. When updating is complete, UpdateXpress restarts, and the program shows you the new levels of firmware that are installed on your system.

#### **Manual firmware updates**

To stop the automatic process click **Stop Timer**. Then, select the firmware to update by selecting or deselecting the firmware items. After you have made your selections, click **Continue** to start the update procedure.

5. Click on the Help button for additional information during the device-driver or firmware update procedures.



## Chapter 2. Device driver and firmware updates

UpdateXpress provides the latest available device driver and firmware code for your server and server options.

**Note:** You can compare the version on the Web to the version on the UpdateXpress CD and download the code from the Web, if it is more recent.

---

### Device-driver updates

UpdateXpress provides the following device-driver updates.

#### Windows 2000

System	Onboard SCSI Controller	Onboard Ethernet Controller	Onboard ASM Controller	Onboard Video Controller
x200	N/A	v4.0	N/A	v8.19.11
x220	N/A	v4.0	v1.2	v8.19.06
x230 (Netfinity 5100)	N/A	v4.23	N/A	N/A
x240 (Netfinity 5600)	N/A	v4.23	v1.2	N/A
x250 (Netfinity 7600)	N/A	v4.23	v1.2	N/A
x330	N/A	v4.0	v1.2	N/A
x340	N/A	v4.23	v1.2	N/A
x350 (Netfinity 6000R)	N/A	v4.23	v1.2	N/A
x370 (Netfinity 8500R)	N/A	v4.0	v1.2	N/A
Netfinity 5000	N/A	v4.23	v1.22	N/A
Netfinity 5500	N/A	v4.23	v1.22	N/A
Netfinity 7000 M10	N/A	N/A	v1.22	N/A

**Note:** UpdateXpress may provide a manual update, if an automatic update is not available.

#### Windows NT 4.0

System	Onboard SCSI Controller	Onboard Ethernet Controller	Onboard ASM Controller	Onboard Video Controller
x200	N/A	v4.0	N/A	v8.19.11
x220	v1.11	v4.0	v1.2	v8.19.06
x230 (Netfinity 5100)	v1.11	v2.10	v1.2	v8.10.06
x240 (Netfinity 5600)	v3.02.4	v2.10	v1.2	v3.26.39

System	Onboard SCSI Controller	Onboard Ethernet Controller	Onboard ASM Controller	Onboard Video Controller
x250 (Netfinity 7600)	v3.02.4	v2.09	v1.2	v3.26.39
x330	v1.11	v4.0	v1.2	v8.19.06
x340	v1.11	v2.09	v1.2	v8.19.06
x350 (Netfinity 6000R)	v1.11	v2.10	v1.2	v8.19.06
x370 (Netfinity 8500R)	v1.11	N/A	v1.2	v3.26.39
Netfinity 5000	v3.02	v2.09	v1.22	v3.24.16
Netfinity 5500	N/A	v2.09	v1.22	v3.24.16
Netfinity 7000 M10	v3.02	N/A	v1.22	v3.24.16

## ServeRAID-4L and -4M and 10/100 Ethernet PCI adapters

System	ServeRAID-4L and -4M	10/100 Ethernet PCI Adapters
x200	v4.5	N/A
x220	v4.5	N/A
x230 (Netfinity 5100)	v4.5	N/A
x240 (Netfinity 5600)	v4.5	N/A
x250 (Netfinity 7600)	v4.5	N/A
x330	v4.5	N/A
x340	v4.5	N/A
x350 (Netfinity 6000R)	v4.5	N/A
x370 (Netfinity 8500R)	v4.5	N/A
Netfinity 5000	v4.5	v4.0
Netfinity 5500	v4.5	v4.0
Netfinity 7000 M10	N/A	v4.0

**Note:** The device drivers for ServeRAID-4L and -4M and 10/100 Ethernet PCI adapters support Windows NT 4.0 and Windows 2000 operating systems.

---

## Firmware updates

UpdateXpress provides the following firmware updates. The firmware updates can be applied regardless of the operating system installed on your server.

### System firmware

System	BIOS	Diagnostics	Advanced System Management Processor
x200	v63330A31.4M	N/A	N/A
x220	v1.04	v1.01	N/A
x230 (Netfinity 5100)	v9.00	v2.01	v1.13
x240 (Netfinity 5600)	v1.15	v3.02	v2.16
x250 (Netfinity 7600)	v1.06	v2.02	v1.24
x330	v1.03	v1.00	v1.02
x340 (Netfinity 4500)	v9.00	v2.01	v1.13
x350 (Netfinity 6000R)	v1.06	v2.01	v1.13
x370 (Netfinity 8500R)	v1.06	v2.03	v2.16
Netfinity 5000	v1.22	N/A	v2.13
Netfinity 5500	v1.22	N/A	v2.11
Netfinity 7000 M10	v1.05	N/A	v2.22

### ServeRAID and Advanced System Management PCI adapter

System	ServeRAID-4L and -4M	Advanced System Management PCI Adapter
x200	v4.50	N/A
x220	v4.50	v2.14
x230 (Netfinity 5100)	v4.50	v2.14
x240 (Netfinity 5600)	v4.50	v2.14
x250 (Netfinity 7600)	v4.50	v2.14
x330	v4.50	v2.14
x340 (Netfinity 4500)	v4.50	v2.14
x350 (Netfinity 6000R)	v4.50	v2.14
x370 (Netfinity 8500R)	v4.50	v2.16
Netfinity 5000	v4.50	v2.14
Netfinity 5500	N/A	v2.14
Netfinity 7000 M10	v4.50	v2.22

**Note:** UpdateXpress supports only ServerRAID-4L and -4M adapters at this time.

## Certified tape drive firmware

Server	TapeDrives
x200	09N4041 12/24 GB DDS/3 4 mm Internal Tape Drive
x200	20L0549 10/20 GB Internal IDE Tape Drive
x230/x340	01K1320 20/40 GB DLT SCSI Internal Tape Drive
x240/x330	01K1325 20/40 GB 8 mm Internal SCSI Tape Drive
x250	00N8016 100/200 GB LTO Tape Drive
x330/x240	01K1325 20/40 GB 8 mm Internal SCSI Tape Drive
x340/x230	01K1325 20/40 GB DLT SCSI Internal Tape Drive
x350	00N7990 40/80 GB DLT Internal Tape Drive
x370	00N7991 20/40 GB DDS/4 4 mm Internal Tape Drive

**Note:** Tape drive model 09N4042 10/20 GB NS20 Internal SCSI Tape (TR5) is not a certified tape drive. It might work in some situations: specifically, on a system where a ServeRAID update is not being attempted at the same time.

---

## Chapter 3. Special conditions

Consider the following special conditions.

---

### Netfinity 7000 M10 POST/ BIOS flash

When you apply the POST/BIOS firmware update to a Netfinity 7000 M10 server, the update remaps the complementary metal oxide semiconductor (CMOS) memory, causing the server to lose your CMOS settings. This condition is caused by the update and not by Update*Xpress*.

**Note:** Update the system BIOS separately after you have completed all other firmware updates.

Complete the following steps to update the system BIOS and reset the CMOS settings on a Netfinity 7000 M10 server.

1. Start the server and press **F1** during POST. Record all hardware settings and startup options in CMOS so that you can duplicate your current settings.
2. Run Update*Xpress* to update the BIOS code.
3. Restart the server. The following message displays:  
The following error(s) were detected when the system was started: 162  
Configuration change has occurred  
Select one of the following: Continue or Exit Setup
4. Select **Continue**. The following message displays:  
Automatically reconfigure system and continue  
Continue with the corrupted values  
Exit Setup
5. Select **Automatically reconfigure system and continue**. The following message displays.  
Configuration errors were detected. Select one of the following:  
Continue or Exit Setup
6. Select **Continue** and reset the configuration settings.
7. Save the configuration settings and exit the Setup utility.

---

### Netfinity 6000R/xSeries 350 POST/BIOS flash

The IBM Netfinity 6000R/xSeries 350 systems have a POST/BIOS firmware flash problem that causes the system to restart. Update*Xpress* cannot correct this problem because it is a problem with the flash utility. After the POST/BIOS firmware is updated and the system is restarted, the Update*Xpress* firmware window (and consequently, the countdown timer) opens. If any custom selections were made initially, you must reselect the desired options, or you can allow Update*Xpress* to continue, now that the POST/BIOS firmware has been updated.

---

## Advanced Systems Management (ASM) Adapter/Controller firmware

The UpdateXpress CD supplies the latest ASM firmware level available at the time the CD was developed. The ASM firmware has an internal build ID as well as a higher-level version number for the firmware. Currently, the build ID of the ASM firmware in the system is not available for examination by UpdateXpress. When you select to install the same version of UpdateXpress ASM firmware over your current system ASM firmware "version," you will actually get the build ID as the version number.

---

## Microsoft cluster server environments

UpdateXpress does not currently support updates for the Fibre Channel RAID Controller environment. You must manually update the hard disk drives attached to these adapters from diskettes. The latest versions of the hard disk drive firmware is available for download on diskettes from the IBM Support Web site at: <http://www.pc.ibm.com/support>

For a detailed description of ServeRAID Manager, refer to the *IBM ServeRAID Support* CD and access the /Books directory. For a detailed description of the Microsoft Cluster Administration (MSCS) utility, refer to the MSCS documentation.

**Note:** The following procedure shuts down the MSCS cluster in a manner which prevents disk resources from failing. If a disk resource failure should occur, the Cluster Administrator Utility starts background synchronization, which causes the utility to bring down both cluster nodes.

Complete the following steps to update hard disk drive firmware in a MSCS environment with a shared IBM ServeRAID controller.

1. Shutdown all applications and disconnect all users from both cluster nodes.
2. Select IBM ServeRAID (SA) Manager to view a list of arrays, logical drives, hot-spare drives, and physical drives. Click **logical drives** and check the segmented bar located at the bottom-right of the screen to determine if drive synchronization is occurring.
3. Click **Start Menu -> Programs -> Administrative Tools** to access the Cluster Administrator Utility and determine which node does not own the quorum disk.
4. From the node that does not own the quorum disk, use the Cluster Administrator Utility to bring offline all disk resources that are currently owned by this node. For example, if nodeA does not own the quorum drive, bring offline all disk resources owned by nodeA.
5. Stop the cluster service on the node that does not own the quorum disk.
6. Stop the cluster service on the node that owns the quorum disk.
7. Shut down the operating system on both systems.
8. Start one node, restart the server, and start the UpdateXpress CD. The UpdateXpress CD will automatically update all supported downlevel firmware, including hard disk drives.
9. Shut down the second node after the update is complete.



---

## ServeRAID-4L and -4M (version 4.50) support

Review the following ServeRAID device-driver and firmware considerations:

- Servers with only ServeRAID-4L, -4M, or both installed are supported automatically by UpdateXpress. The device driver and firmware/BIOS will be updated to ServeRAID version 4.50.
- On systems that have one or more other ServeRAID models, no updates will be performed to the ServeRAID subsystem.
- The UpdateXpress CD provides installation procedures, diskette images, and code from the IBM ServeRAID Support CD version 4.5 for all the operating systems supported by ServeRAID. These operating systems are:
  - Windows NT and 2000
  - Novell NetWare
  - UnixWare
  - Linux
  - SCO OpenServer
  - IBM OS/2®
- To manually update all ServeRAID software (device driver, firmware and BIOS, ASM, and clustering) refer to the readme.txt file in the SRV45 directory on the UpdateXpress CD.
- After UpdateXpress updates the device drivers, firmware, and BIOS code, you must manually update other ServeRAID software. These software offerings include:
  - IBM ServeRaid Command Line Program diskette version 4.50
  - IBM ServeRAID Manager version 4.50
  - IBM ServeRAID Cluster Solution version 4.50

**Note:** The IBM ServeRAID-4M Ultra160 SCSI controller and the IBM ServeRAID-4L Ultra160 SCSI controller do not support IBM OS/2 on the xSeries 240 server.

---

## Hard disk drive microcode support

UpdateXpress will install hard disk drive firmware updates on supported drives to levels equivalent to that provided by the IBM Hard Disk Drive Update Program Version 1.11 (released to the Web on 14 February 2001).



---

## Appendix A. Notices

This publication was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.*

**The following paragraph does not apply to the United Kingdom or any country where such provisions are inconsistent with local law:** INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this publication to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product, and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

---

### Edition notice

© COPYRIGHT INTERNATIONAL BUSINESS MACHINES CORPORATION, 2001.  
All rights reserved.

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

---

## Processing date data

This IBM hardware product and IBM software products that might be packaged with it have been designed, when used in accordance with their associated documentation, to process date data correctly within and between the 20th and 21st centuries, provided all other products (for example, software, hardware, and firmware) used with these products properly exchange accurate date data with them.

IBM cannot take responsibility for the date data processing capabilities of non-IBM products, even if those products are preinstalled or otherwise distributed by IBM. You should contact the vendors responsible for those products directly to determine the capabilities of their products and update them if needed. This IBM hardware product cannot prevent errors that might occur if software, upgrades, or peripheral devices you use or exchange data with do not process date data correctly.

The foregoing is a Year 2000 Readiness Disclosure.

---

## Trademarks

The following terms are trademarks of the IBM Corporation in the United States, other countries, or both:

the e-business logo	OS/2
IBM	ServeRAID
Netfinity	NetView
Tivoli	xSeries

Lotus and Domino are trademarks of Lotus Development Corporation in the United States, other countries, or both.

Intel, MMX, LANDesk, Pentium, Pentium II Xeon, and Pentium III Xeon are trademarks or registered trademarks of Intel Corporation in the United States, other countries, or both.

Microsoft, Windows, and Windows NT are trademarks or registered trademarks of Microsoft Corporation.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.





32P0259

File Number:



Printed in the United States of America  
on recycled paper containing 10%  
recovered post-consumer fiber.

32P0259

