Update*Xpress*

IBM

User's Guide

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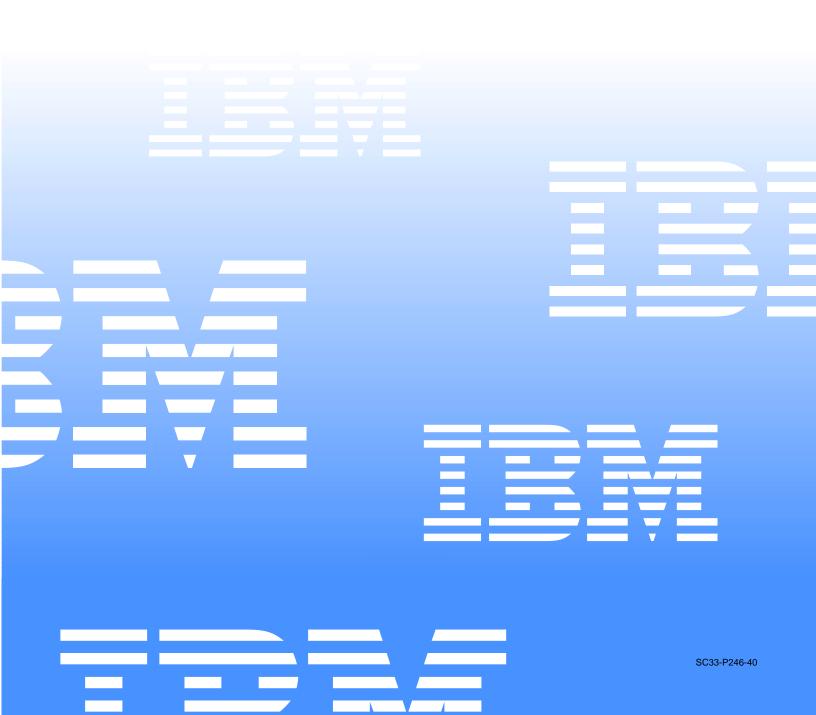
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Note:

Before using this information and the product it supports, be sure to read the general information in Appendix A, "Notices," on page 15.

Contents

Chapter 1. Introduction

Use the IBM® Update*Xpress* CD to plan for maintenance updates of most IBM @server xSeries servers. The Update*Xpress* 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, Update*Xpress* might supply a manual update option.

If you have a problem or question about Update*Xpress* 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 Update*Xpress* 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 Update*Xpress* incorporate the following improvements and updates.

Version	Description
1.0	Initial release of Update*Xpress*
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
1.03	Add support for 3x ServeRAID adapters and integrated ServeRAID controllers on the Netfinity 5500, Netfinity 5500 M10, and Netfinity 5500 M20 servers. Update all firmware and device drivers to the latest levels. Use Build ID to identify service processor firmware updates.

Supported servers

This version of Update*Xpress* supports the following IBM xSeries and Netfinity® servers.

Supported servers	Machine type
xSeries 370 (Netfinity 8500R)	8681
xSeries 350 (Netfinity 6000R)	8682

Supported servers	Machine type
xSeries 342	8669
xSeries 340 (Netfinity 4500)	8656
xSeries 330	8674
xSeries 330	8654
xSeries 300	8672
xSeries 250 (Netfinity 7600)	8665
xSeries 240 (Netfinity 5600)	8664
xSeries 232	8668
xSeries 230 (Netfinity 5100)	8658
xSeries 220	8646
xSeries 220	8645
xSeries 200	8481
xSeries 200	8479
xSeries 200	8478
Netfinity 7000 M10	8680
Netfinity 5500 M20	8662
Netfinity 5500 M10	8661
Netfinity 5500	8660
Netfinity 5000	8659

Using the UpdateXpress CD

Complete the following steps to use the Update*Xpress* CD.

1. Insert the CD into the server CD-ROM drive.

    Note: The CD-ROM drive must be in the drive startup sequence.

2. All installed and active device drivers that are supported by Update*Xpress* are displayed when Update*Xpress* starts. To start the device-driver update procedure, click **Continue**. Update*Xpress* 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 Update*Xpress* CD, the device driver is selected for update.

    - If the device driver is later than the version on the Update*Xpress* CD, the device driver is not selectable.

    - If the device driver is equal to the version on the Update*Xpress* 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. Update*Xpress* prompts you to restart the server with the Update*Xpress* 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 Update*Xpress* 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 Update*Xpress* 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 Update*Xpress* CD.

Update*Xpress* determines the level of the firmware on the server:

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

Update*Xpress* provides the latest available versions of 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 Update*Xpress* CD and download the code from the Web, if it is more recent.

Device-driver updates

Update*Xpress* provides the following device-driver updates.

Windows 2000

System	Onboard SCSI Controller	Onboard Ethernet Controller	Onboard ASM Controller	Onboard Video Controller
x200 (8478)	4.10	4.0	N/A	8.30.27
x200 (8479 and 8481)	4.10	5.0	N/A	5.23.0
x220 (8646)	4.10	5.0	N/A	8.40.02
x220 (8645)	4.10	4.0	N/A	8.40.02
x230 (Netfinity 5100)	4.10	4.23	1.25	8.30.21
x232	4.10	5.0	1.25	8.40.02
x240 (Netfinity 5600)	N/A	4.23	1.25	N/A
x250 (Netfinity 7600)	N/A	4.29	1.25	N/A
x300	N/A	5.0	N/A	8.40.02
x330 (8654)	4.10	4.0	1.25	8.40.02
x330 (8674)	4.10	5.0	1.25	8.40.02
x340 (Netfinity 4500)	4.10	4.23	1.25	8.30.21
x342	4.10	5.0	1.25	8.40.02
x350 (Netfinity 6000R)	4.10	4.29	1.25	8.30.21
x370 (Netfinity 8500R)	N/A	N/A	1.25	N/A
Netfinity 5000	N/A	4.23	1.25	N/A
Netfinity 5500	N/A	4.23	1.25	N/A
Netfinity 5500 M10	N/A	4.23	1.25	N/A
Netfinity 5500 M20	N/A	4.23	1.25	N/A
Netfinity 7000 M10	N/A	N/A	1.25	N/A

Notes:

1. Update*Xpress* may provide a manual update, if an automatic update is not available.
2. The Onboard SCSI Controller version 4.10 is the version on the IBM Support Web site and also the device driver version number.

Windows NT 4.0

System	Onboard SCSI Controller	Onboard Ethernet Controller	Onboard ASM Controller	Onboard Video Controller
x200 (8478)	3.6	4.0	N/A	8.19.11b
x200 (8479 and 8481)	3.6	5.0	N/A	5.20.1
x220 (8646)	3.6	5.0	N/A	8.19.11b
x220 (8645)	3.6	4.0	N/A	8.19.11b
x230 (Netfinity 5100)	3.6	2.10	1.25	8.19.11b
x232	3.6	5.0	1.25	8.19.11b
x240 (Netfinity 5600)	3.02.4	2.10	1.25	3.26.39
x250 (Netfinity 7600)	3.02.4	2.10	1.25	3.26.39
x300	N/A	5.0	N/A	8.19.11b
x330 (8654)	3.6	4.0	1.25	8.19.11b
x330 (8674)	3.6	5.0	1.25	8.19.11b
x340 (Netfinity 4500)	3.6	2.10	1.25	8.19.11b
x342	3.6	5.0	1.25	8.19.11b
x350 (Netfinity 6000R)	3.6	2.10	1.25	8.19.11b
x370 (Netfinity 8500R)	3.02	N/A	1.25	3.26.39
Netfinity 5000	3.02	2.09	1.25	3.24.16
Netfinity 5500	N/A	2.09	1.25	3.24.16
Netfinity 5500 M10	N/A	2.09	1.25	3.24.16
Netfinity 5500 M20	N/A	2.09	1.25	3.24.16
Netfinity 7000 M10	3.02	N/A	1.25	3.24.16

ServeRAID, service processor, and 10/100 Ethernet PCI adapters

System	ServeRAID Adapter	Advanced System Management Adapter	Remote Supervisor Adapter	10/100 Ethernet PCI Adapter
x200 (8478)	4.7	N/A	N/A	4.0
x200 (8479 and 8481)	4.7	N/A	N/A	5.0
x220 (8646)	4.7	N/A	1.25	5.0
x220 (8645)	4.7	N/A	1.25	4.0
x230 (Netfinity 5100)	4.7	1.25	N/A	4.23
x232	4.7	1.25	1.25	5.0
x240 (Netfinity 5600)	4.7	1.25	N/A	4.23
x250 (Netfinity 7600)	4.7	1.25	N/A	4.29
x300	4.7	N/A	N/A	5.0
x330 (8654)	4.7	1.25	1.25	4.0
x330 (8674)	4.7	N/A	1.25	5.0
x340 (Netfinity 4500)	4.7	1.25	N/A	4.23
xSeries 342	4.7	1.25	1.25	5.0
x350 (Netfinity 6000R)	4.7	1.25	N/A	4.29
x370 (Netfinity 8500R)	4.7	1.25	N/A	N/A
Netfinity 5000	4.7	1.25	N/A	4.23
Netfinity 5500	4.7	1.25	N/A	4.23
Netfinity 5500 M10	4.7	1.25	N/A	4.23
Netfinity 5500 M20	4.7	1.25	N/A	4.23
Netfinity 7000 M10	4.7	1.25	N/A	N/A

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

Firmware updates

UpdateXpress provides the following firmware update versions. 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 (8478)	63330A33.4M Build ID EXE133A	N/A	N/A
x200 (8479 and 8481)	ZRE112A Build ID ZRE112A	N/A	N/A
x220 (8646)	1.00 Build ID JJKT09A	1.01 Build ID JJYT06A	N/A
x220 (8645)	1.04 Build ID 15A	1.01 Build ID TUYT07	N/A
x230 (Netfinity 5100)	9.00 Build ID 41A	2.01 Build ID ILYT21	1.16 Build ID 19A
x232	1.01 Build ID QAKT15A	1.00 Build ID QAYT06A	N/A
x240 (Netfinity 5600)	1.16 Build ID 58A	3.02 Build ID TNYT63	2.17 Build ID TNET24A
x250 (Netfinity 7600)	1.06 Build ID 29A	2.02 Build ID MWYT40	1.25 Build ID MWET24A
x300	N/A	N/A	N/A
x330 (8654)	1.04 Build ID TTE128a	1.02 Build ID TTE121	1.05 Build ID TTET23A
x330 (8674)	1.00 Build ID EME104A	1.0 Build ID EMYT08A	1.05 Build ID TTET23A
x340 (Netfinity 4500)	9.00 Build ID 41A	2.01 Build ID ILYT21	1.16 Build ID 20A
x342	1.01 Build ID QAKT15A	1.00 Build ID QAYT06	N/A
x350 (Netfinity 6000R)	1.06 Build ID ARE121A	2.01 Build ID ARYT20	1.14 Build ID ARET17A
x370 (Netfinity 8500R)	1.06 Build ID 33A	2.03 Build ID MMYT23	2.16 Build ID MMET28A
Netfinity 5000	1.22 Build ID 51A	N/A	2.13 Build ID 61A
Netfinity 5500	1.12 Build ID 78A	N/A	2.11 Build ID 54A
Netfinity 5500 M10	1.12 Build ID 78A	N/A	2.10 Build ID 54A
Netfinity 5500 M20	1.06 Build ID 24A	N/A	2.12 Build ID 57A
Netfinity 7000 M10	1.05 Build ID 34A	N/A	2.22 Build ID 65A

ServeRAID and service processor firmware

System	ServeRAID	Advanced System Management PCI Adapter	Remote Supervisor Adapter	Integrated System Management Adapter
x200 (8478)	4.70	N/A	N/A	N/A
x220 (8479 and 8481)	4.70	N/A	N/A	N/A
x220 (8646)	4.70	N/A	1.0 Build ID JJET01A	N/A
x220 (8645)	4.70	N/A	1.02 Build ID TUET18A	N/A
x230 (Netfinity 5100)	4.70	2.14 Build ID WMX260A	N/A	N/A
x232	4.70	N/A	1.00 Build ID 08A	N/A
x240 (Netfinity 5600)	4.70	2.14 Build ID WMX260A	N/A	N/A
x250 (Netfinity 7600)	4.70	2.14 Build ID WMX260A	N/A	N/A
x300	4.70	N/A	N/A	N/A
x330 (8654)	4.70	2.14 Build ID WMX260A	1.01 Build ID FBET04A	N/A
x330 (8674)	4.70	N/A	1.01 Build ID FBET04A	N/A
x340 (Netfinity 4500)	4.70	2.14 Build ID WMX260A	N/A	N/A
x342	4.70	N/A	1.00 Build ID 08A	N/A
x350 (Netfinity 6000R)	4.70	2.14 Build ID WMX260A	N/A	N/A
x370 (Netfinity 8500R)	4.70	N/A	N/A	N/A
Netfinity 5000	4.70	2.14 Build ID WMX260A	N/A	N/A
Netfinity 5500	4.70	2.14 Build ID WMX260A	N/A	N/A
Netfinity 5500 M10	4.70	2.14 Build ID WMX260A	N/A	N/A
Netfinity 5500 M20	4.70	2.14 Build ID WMX260a	N/A	N/A
Netfinity 7000 M10	4.70	N/A	N/A	N/A

Certified tape drive firmware

Server	Tape Drives
x200	09N4041 12/24 GB DDS/3 4 mm Internal Tape Drive
x200	20L0549 10/20 GB Internal IDE Tape Drive
x220	09N4042 10/20 GB NS20 Internal SCSI Tape Drive (TR5)
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 Firmware Utility version 8.0 is included on this CD.

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 Netfnity 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.

Ethernet device driver update

You might receive an update failure message during the Ethernet device driver update procedure on a Netfinity 5500, Netfinity 5500 M10, or Netfinity 5500 M20 server. You can ignore the error and continue with the update procedure.

Advanced Systems Management (ASM) Adapter/Controller firmware

The Update*Xpress* 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 Update*Xpress* ASM firmware over your current system ASM firmware "version," you will actually get the build ID as the version number.

Microsoft cluster server environments

Update*Xpress* 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 Update*Xpress* CD. The Update*Xpress* CD will automatically update all supported downlevel firmware, including hard disk drives.

9. Shut down the second node after the update is complete.

ServeRAID support

Review the following ServeRAID device-driver and firmware considerations:

- The Update*Xpress* CD provides installation procedures, diskette images, and code from the IBM ServeRAID Support CD version 4.7 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 Update*Xpress* CD.
- After Update*Xpress* 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 4.70
    - IBM ServeRAID Manager version 4.70 (Automatic update available for Windows operating systems.)
    - IBM ServeRAID Cluster Solution version 4.70

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

Update*Xpress* 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 1.12.

Appendix A. Notices

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