Netfinity 5600

Start Here

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Note

Before using this *Netfinity Server Library* and the product it supports, be sure to read the information in the *Safety Information* booklet and the “Legal Information” section of this *Server Library*.

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Start Here

Thank you for purchasing an IBM® Netfinity® 5600 server. This “Start Here” section gives you an overview of the Server Library for the Netfinity 5600. “Start Here” also contains a list of the features and provides illustrations of some of the major components of the Netfinity 5600.

The *Netfinity Server Library* that comes with your server contains software CDs and a book that provides detailed information about set up and installation, hardware, software (ServerGuide® and Netfinity Manager), Advanced System Management, ServeRAID, getting help, and legal information.

Organize your Netfinity Server Library binder with the software CDs in the front, followed by the book.

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Overview of the Netfinity Server Library

The following list describes the sections of the *Netfinity Server Library*.

Express Setup and Installation

This section is written for all users, but it is designed with the experienced user in mind. Here you will find the information you need to set up and cable your server, start and configure your server, and install your network operating system (NOS).

Hardware Information

This section contains detailed information, such as:

- Configuration Procedures
- Option Installation Instructions
- Rack Installation Instructions
- Solving Problems and Troubleshooting
- Server Records and Specifications

ServerGuide and Netfinity Manager Information

This section contains detailed information about:

ServerGuide

Software setup and installation tools specifically designed for IBM Netfinity servers.

Netfinity Manager

A group of distributed applications designed to enhance the hardware systems-management capabilities of a network.

Advanced System Management Information

This section contains detailed information about Advanced System Management, using the Netfinity Manager Advanced System Management services.

Getting Help, Service, and Information

This section contains telephone numbers and Web site addresses where you can get assistance.

Legal Information

This section contains detailed legal information (warranties, electronic emission statements, and so forth).

Reviewing the safety information

Before installing this product, read the Safety Information.

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 Safety Information
(安全信息)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας
(safety information).

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się
z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по
технике безопасности.

Pred inštaláciou tohto zariadenia si pečítaje Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安裝本產品之前，請先閱讀「安全資訊」。

1

DANGER

Electrical current from power, telephone, and communication cables is hazardous.

To avoid a shock hazard:

- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect to properly wired outlets any equipment that will be attached to this product.**
- **When possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.**

To Connect:	**To Disconnect:**
1. Turn everything OFF.	1. Turn everything OFF.
2. First, attach all cables to devices.	2. First, remove power cords from outlet.
3. Attach signal cables to connectors.	3. Remove signal cables from connectors.
4. Attach power cords to outlet.	4. Remove all cables from devices.
5. Turn device ON.	

Definitions of Attention, Caution, and Danger notices

Attention: Indicates situations that can potentially damage programs, devices, or data.

Caution: Indicates situations that are potentially hazardous to you.

Danger: Indicates situations that are potentially lethal or extremely hazardous to you.

Help information

If you want help at any time during the set up, installation, or operation of your server, refer to the “Getting Help, Service, and Information” section of this *Server Library*. There you will find telephone numbers and Web site addresses where you can get assistance.

Inventory list

The following is a list of the items shipped with your Netfinity 5600 server.

Hardware:

- **Tower Models**
  - Keyboard
  - Mouse
  - System power cord
  - Two server keys and a power-on switch cover

    The serial number and telephone number are on the keys.

    Note: Record the server key number in your “Hardware Information” section of this *Server Library* under “Server records and specifications.” If you lose the keys, you can order replacement keys from the key manufacturer, providing you have the key number.

    - Phone number:

      (800) 299-5880 (in the U.S.)

      (847) 537-1800 (in other countries)

    - Web Site: http://www.illinoislock.com

- **Rack Models**
  - Rack installation hardware kit
  - System power cord
  - A power-on switch cover

Software:

- *IBM ServerGuide* CDs
- Other software packages

Publications:

- *Netfinity Server Library*
- *Safety Information* booklet
- IBM Netfinity Rack Installation Template (rack models only)

If an item is missing or damaged, contact your place of purchase.

Note: Record the machine type, model number, and serial number of your server. You will need this information when you register your server with IBM.

Registering your server gives you access to information about updates, performance tips, and compatibility. Register your server at: http://www.ibm.com/pc/register

System features

Refer to the information and illustrations on the following pages to familiarize yourself with the features of the Netfinity 5600 server.

Features at a glance

The following table summarizes the features of the Netfinity 5600. For detailed information about the features listed in the table, refer to the “Hardware Information” section of this *Server Library*.

Microprocessor

- Intel® Pentium® III Xeon™ microprocessor with MMX™ technology and SIMD extensions
- 32 KB of level-1 cache
- 256 KB of level-2 cache (min.)
- Expandable to two microprocessors

Memory

- Standard: 128 MB, expandable to 4 GB
- 133 MHz, registered, error correcting code (ECC), synchronous dynamic random access memory (SDRAM) complying with PC 133 SDRAM Registered DIMM Specification, Revision 1.0 or later). (When installed in systems using 100 MHz front-side bus microprocessors, the memory operates at 100 MHz.
- Four dual inline memory-module (DIMM) sockets

Diskette Drive

- Standard: One 3.5-inch, 1.44 MB

Hard Disk Drives

- Up to six hot-swappable hard disk drives supported

CD-ROM Drive

- Standard: 40X IDE

Keyboard and Auxiliary Device
(standard only on tower models)

- Keyboard
- Mouse

Expansion Bays

- Six slim (1-inch) or three half-high (1.6-inch) hot-swap drive bays
- Three 5.25-inch non-hot-swap bays (one used by CD-ROM drive)

Expansion Slots

Up to five adapters can be installed.

- Three 64-bit hot-plug PCI slots
- Two standard (non-hot-plug) 32-bit PCI slot

Upgradable Microcode

- BIOS, diagnostics, and Netfinity Advanced System Management processor upgrades (when available) can update EEPROMs on the system board

Security Features

- Door and side cover lock (tower model only)
- Power-on and administrator passwords
- Selectable drive-startup
- Keyboard password
- Systems management security
  - User log-in password
  - Read-only or read/write access
  - Dial back

Predictive Failure Analysis (PFA) Alerts

- Power supplies
- Fans
- Memory
- Hard disk drives
- Microprocessors
- Voltage regulator modules (VRMs)

Integrated Functions

- Two serial ports
- Two universal serial bus (USB) ports
- One parallel port
- Mouse port
- Keyboard port
- Video port
- Advanced System Management Information port
- Two SCSI ports (one internal, one external)
- 10BASE-T/100BASE-TX Ethernet port (controller on system board)
- Redundant Ethernet capability, through the use of an optional network interface card (NIC)
- Netfinity Advanced System Management processor on system board
- Dedicated Advanced System Management I/O port
- Video controller (with 4 MB video memory) compatible with:
  - Super video graphics array (SVGA)
  - Video graphics adapter (VGA)

Power Supply

- Two 250 W (115–230 V ac)
  - Standard - 500 W non-redundant, 250 W redundant
  - Optional - Additional 250 W power supply is available for 500 W redundancy
- Automatic voltage range selection
- Built-in overload and surge protection
- Automatic restart after a loss of power

Redundant Cooling

- Three hot-swap fans

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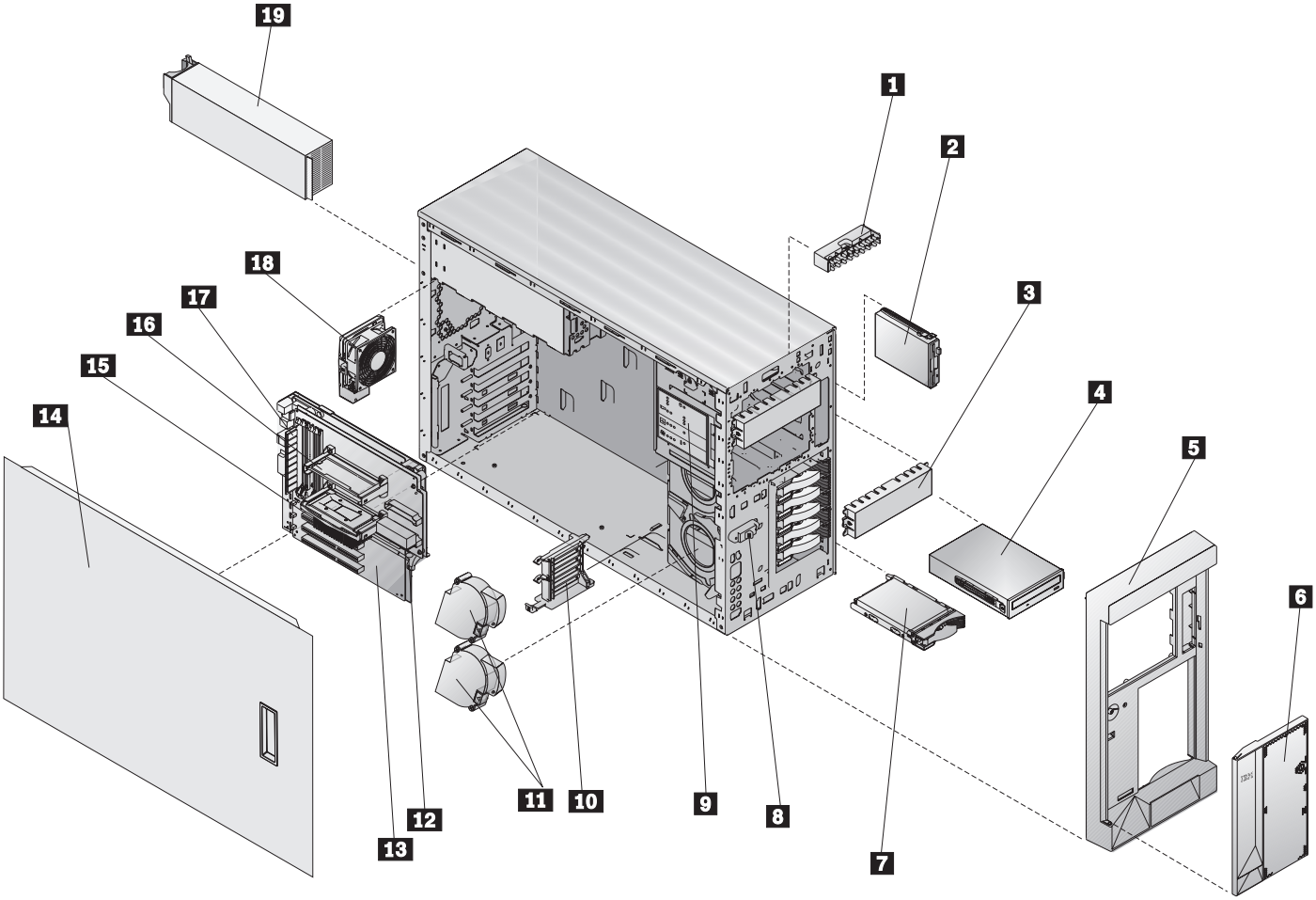
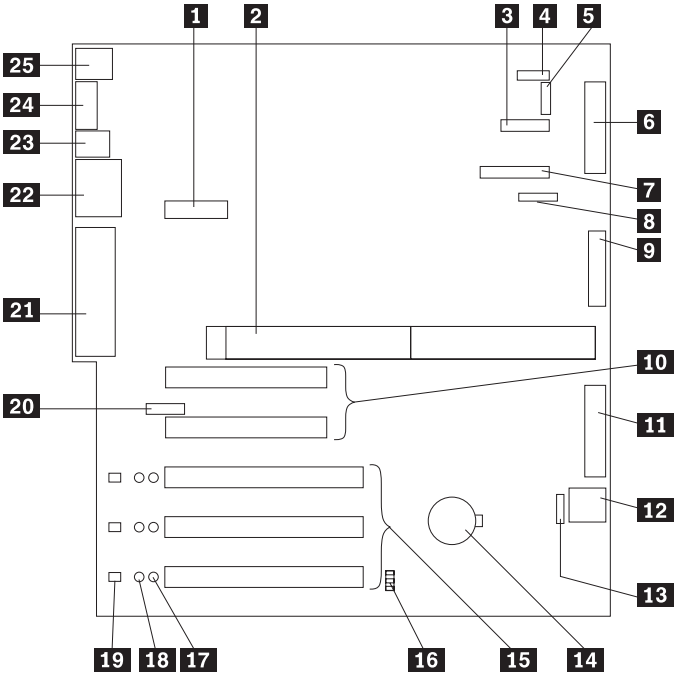
Exploded view of the Netfinity 5600 server



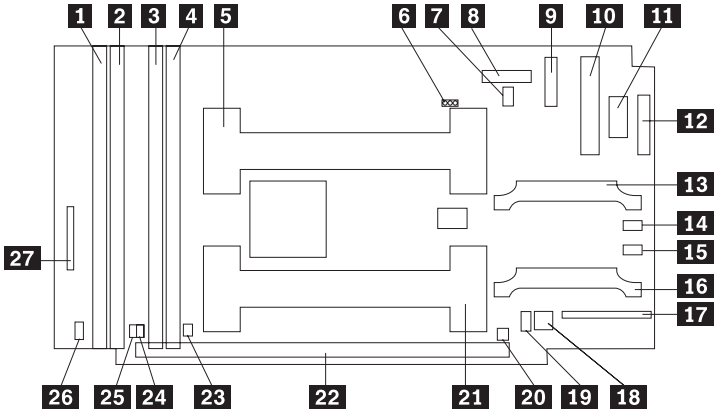
1 Operator information panel
2 Diskette drive
3 Removable media bay filler panel
4 CD-ROM drive
5 Bezel
6 Front door
7 Hot-swap hard disk drive
8 Side cover release lever
9 Diagnostic panel
10 Adapter card support bracket
11 Fan assembly
12 Processor board
13 System board
14 Side cover
15 Primary microprocessor
16 Microprocessor terminator (or secondary microprocessor)
17 DIMM sockets
18 Fan
19 Power supply

System board component locations



1 Dual serial and PCI hot-plug control switch connector (J1)
2 Microprocessor board connector (J4, J8)
3 Operator information panel connector (J29)
4 Reserved (J32)
5 Reserved (J10)
6 Diskette drive connector (J23)
7 Diagnostic LED panel connector (J6)
8 Reserved (J17)
9 Internal LVD (low voltage differential) SCSI connector (J25) (with extender cable on bracket)
10 PCI slots 1 and 2 (on primary PCI bus A)
11 IDE connector (J27)
12 Power control and reset panel cable connector (J18)
13 Advanced System Management Information connector (J35)
14 Battery
15 PCI (hot-plug) slots 3–5 (on primary PCI bus B)
16 Jumper block (J20)
17 PCI slot Power Good LEDs
18 Internal PCI slot Attention LEDs
19 External PCI slot Attention LEDs
20 Advanced System Management adapter connector (J21)
21 External LVD SCSI/Parallel port connector (J19)
22 Serial/video port connector (J11)
23 USB 1 and USB 2 port connectors (J9) (USB 2 is below USB 1.)
24 Ethernet port connector (J7)
25 Mouse and keyboard connectors (J5) (The mouse connector is above the keyboard connector)

Processor board component locations



1 DIMM connector 4 (J1)
2 DIMM connector 3 (J2)
3 DIMM connector 2 (J3)
4 DIMM connector 1 (J4)
5 Microprocessor 2 connector (U6)
6 Reserved (J15)
7 Microprocessor 2 Error LED (CR13)
8 Reserved (J19)
9 Power supply connector (J6)
10 Power supply connector (J11)
11 Power supply connector (J12)
12 Power supply connector (J14)
13 VRM 2 connector (J13)
14 VRM 2 Error LED (CR19)
15 VRM 1 Error LED (CR17)
16 VRM 1 connector (J5)
17 Fans 1 and 2 connector (J8)
18 Switch block 2 (SW2)
19 Switch block 1 (SW1) (might not be present on your server)
20 Microprocessor 1 Error LED (CR12)
21 Microprocessor 1 connector (U5)
22 System board connectors (J9 and J25) (on reverse side of processor board)
23 DIMM 1 Error LED (CR8)
24 DIMM 2 Error LED (CR9)
25 DIMM 3 Error LED (CR10)
26 DIMM 4 Error LED (CR11)
27 Fan 3 connector (J10)

Part Number: 37L6995

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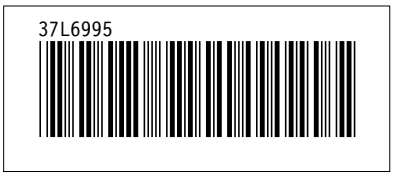
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