

ESCALA

# Roadmap for installing ESCALA PL860T/R



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# ESCALA

## Roadmap for installing ESCALA PL860T/R

### Hardware

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## Safety notices

Safety notices may be printed throughout this guide:

- **DANGER** notices call attention to a situation that is potentially lethal or extremely hazardous to people.
- **CAUTION** notices call attention to a situation that is potentially hazardous to people because of some existing condition.
- **Attention** notices call attention to the possibility of damage to a program, device, system, or data.

### World Trade safety information

Several countries require the safety information contained in product publications to be presented in their national languages. If this requirement applies to your country, a safety information booklet is included in the publications package shipped with the product. The booklet contains the safety information in your national language with references to the U.S. English source. Before using a U.S. English publication to install, operate, or service this product, you must first become familiar with the related safety information in the booklet. You should also refer to the booklet any time you do not clearly understand any safety information in the U.S. English publications.

### German safety information

Das Produkt ist nicht für den Einsatz an Bildschirmarbeitsplätzen im Sinne § 2 der Bildschirmarbeitsverordnung geeignet.

### Laser safety information

IBM® servers can use I/O cards or features that are fiber-optic based and that utilize lasers or LEDs.

#### Laser compliance

All lasers are certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for class 1 laser products. Outside the U.S., they are certified to be in compliance with IEC 60825 as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

#### CAUTION:

**This product might contain one or more of the following devices: CD-ROM drive, DVD-ROM drive, DVD-RAM drive, or laser module, which are Class 1 laser products. Note the following information:**

- **Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.**
- **Use of the controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.**

(C026)

#### CAUTION:

**Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than Class 1 power levels. For this reason, never look into the end of an optical fiber cable or open receptacle. (C027)**

#### CAUTION:

**This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)**

**CAUTION:**

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following information: laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam. (C030)

**Power and cabling information for NEBS (Network Equipment-Building System) GR-1089-CORE**

The following comments apply to the IBM servers that have been designated as conforming to NEBS (Network Equipment-Building System) GR-1089-CORE:

The equipment is suitable for installation in the following:

- Network telecommunications facilities
- Locations where the NEC (National Electrical Code) applies

The intrabuilding ports of this equipment are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intrabuilding ports of this equipment *must not* be metallically connected to the interfaces that connect to the OSP (outside plant) or its wiring. These interfaces are designed for use as intrabuilding interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metallically to OSP wiring.

**Note:** All Ethernet cables must be shielded and grounded at both ends.

The ac-powered system does not require the use of an external surge protection device (SPD).

The dc-powered system employs an isolated DC return (DC-I) design. The DC battery return terminal *shall not* be connected to the chassis or frame ground.

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# Chapter 1. Road map for installing the IBM Power 550 Express

Follow the steps outlined in this road map for installing your IBM Power 550 Express™ (model 8204-E8A or 9409-M50).

**Note:** This document is provided in printed form as a high-level overview of tasks for installing the Power 550. For best results, use the online version of this document at Road map for installing the IBM Power 550 Express (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/areci/areciroadmap.htm>).

Determine whether you are partitioning your server and what console, monitor, or terminal you are connecting to manage your server. This information is important for determining appropriate cabling for your server.

To install the Power 550 (8204-E8A or 9409-M50), you must perform the following high-level tasks:

1. Ensure that you have the box labeled **2**, the rails (if you are installing into a rack), and the cable management arm (if you are installing into a rack).
2. Verify that you have a rack, if you need one.
3. Install the rail assembly into the rack.
4. Install the unit onto the rails.
5. Install the cable management arm.
6. Cable the system.
7. Connect power cables and apply power.

The following steps link to a series of chronological tasks for installing your Power 550:

## Roadmap

1. Optional: Go to Chapter 2, “Preparing to install the Power 550,” on page 3 and perform all applicable prerequisites for installing your server.
2. If you are installing a rack-mounted server, install the rack. Next, if it is not already installed, install the server into the rack. If you are installing a stand-alone server, proceed to step 3.
  - a. Go to “Setting up the rack” on page 5, then proceed to step 3.
  - b. After the rack is installed, see “Installing the server into the rack” on page 5.
3. Cable your server and set up an appropriate console, monitor, or terminal. Do at least one of the following actions:
  - If you are cabling your server and setting up an ASCII terminal or graphics console, see “Cabling the server with a graphics console or ASCII terminal” on page 7.

**Note:** Alternatively, you can use a PC to control server firmware.

- If you are installing a Hardware Management Console (HMC), see “Cabling the server to the HMC” on page 7.
  - If you are cabling your server and setting up Operations Console, see “Cabling the server and accessing Operations Console” on page 8.
  - If you are setting up a Virtual I/O Server without an HMC, see “Cabling the server and accessing the Integrated Virtualization Manager” on page 8.
4. See Completing server setup for instructions to install an operating system and to set up your service and support environment.



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## Chapter 2. Preparing to install the Power 550

Prior to setting up and installing your new system, complete these tasks to ensure that you are prepared for the installation.

To prepare to install the Power 550, do the following:

- To plan your server installation, see *Planning for the system* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphad/iphadplankickoff.htm>).
- If you are using a previously existing Hardware Management Console (HMC), you need to ensure that your HMC is at the correct release (7.3.2 or later).

To update your HMC release, see *Updating, upgrading, and migrating your HMC machine code* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphai/area3fixeshmc.htm>).

- If you are creating logical partitions, see *System Planning Tool* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphat/iphc6spt.htm>). After you have made changes to the system, save your work as a system plan. You can import this plan into your HMC or the management partition for the Integrated Virtualization Manager (for systems that have multiple logical partitions) and deploy the system plan to a managed system. When you deploy the system plan, the HMC or the Integrated Virtualization Manager creates the logical partitions from the system plan on the managed system.
- Locate the kitting report (inventory list) for your server, and verify that you received all of the parts that you ordered. Your order information should be located in the ship group next to your system box. You can also obtain order information from your marketing representative or IBM Business Partner.

If you have incorrect, missing, or damaged parts, consult any of the following resources:

- Your IBM reseller.
- IBM Rochester manufacturing automated information line at 1-800-300-8751 (United States only).
- Directory of worldwide contacts at <http://www.ibm.com/planetwide>. (Select your location to view the service and support contact information.)

Next, you must install your server:

- If you are installing the server into a rack, see Chapter 3, “Installing the rack-mounted server,” on page 5.
- If you are installing a stand-alone Power 550, position the server in the desired location, and then see Chapter 4, “Cabling the server and setting up the console, interface, or terminal,” on page 7.



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## Chapter 3. Installing the rack-mounted server

If you are installing a rack-mounted server, you first need to install the rack and then install the server into the rack.

These topics provide references to instructions for installing a rack and for installing the server into a rack.

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### Setting up the rack

If you are mounting your server into a rack and are not using an existing rack, you must position, install, and secure the rack.

For instructions to install the rack, see *Installing the 7014-T00, 7014-T42, 0551, or 0553 racks* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42rack.htm>).

To set up the rack, do the following:

1. Completing a parts inventory (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42inventory.htm>)
2. Positioning the rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42position.htm>)
3. Leveling the rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42levelrack.htm>)
4. Attaching the stabilizer brackets (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42stabilizers.htm>)
5. Attaching the rack to a concrete floor (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42attachtofloor.htm>)
6. Attaching the rack to the concrete floor beneath a raised floor (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42raisedfloor.htm>)
7. Connecting the power distribution system (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/pdupluskickoff.htm>)
8. Checking the ac outlets (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/ac.htm>)
9. Attaching the front or back ac electrical outlet (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/t42frontrearoutlet.htm>)

Next, you must install the server into the rack. For instructions, see “Installing the server into the rack.”

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### Installing the server into the rack

With the rack installed, you must install your server into the rack and set up the cable-management arm.

For instructions to install the server in the rack, see *Installing the model 8204-E8A or 9409-M50 into the rack* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/iphbf550.htm>).

To install the server into the rack, do the following:

1. Determining the location (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/locateinrack550.htm>)
2. Marking the location (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/notemplate550.htm>)

3. Attaching the model 8204-E8A or 9409-M50 mounting hardware to the rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/hwip4step8.htm>)
4. Installing the cable-management arm (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/installcablemanagement550.htm>)

Next, you must cable your server with an appropriate console, terminal, or interface. For instructions, see Chapter 4, “Cabling the server and setting up the console, interface, or terminal,” on page 7.

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## Chapter 4. Cabling the server and setting up the console, interface, or terminal

How you cable your server depends on the type of console, interface, or terminal you are using with your server.

Your console, monitor, or interface choices are guided by whether you create logical partitions, which operating system you install in your primary partition, and whether you install a Virtual I/O Server in one of your logical partitions.

Rack-mounted systems that are preinstalled in a rack come with a shipping bracket. You must remove this bracket before you cable your server. To remove the bracket, do the following steps:

1. Remove the blue thumbscrew on the shipping bracket. The thumbscrew is in the orange shipping bracket on the left rear of the system.
2. Remove the shipping bracket.

**Note:** If you have a 5802 expansion unit, you must also remove the orange shipping bracket from the back of the drawer before you connect the managed system's power cables. To remove the shipping bracket, do the following steps:

1. On each side of the bracket, remove the screw.
2. At the center of the bracket, remove the screw in the clamp.
3. Slide the bracket away from the drawer.
4. Store the bracket so it can be reinstalled if the system needs to be moved.

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### Cabling the server with a graphics console or ASCII terminal

If you are not creating logical partitions, you can use a graphics console or an ASCII terminal to manage your server.

Before you begin, make sure your server is already installed as a stand-alone server or installed in a rack.

To cable a graphics console or ASCII terminal to the server, complete the following steps:

1. Connect to and access the ASMI. For more information, see [Accessing the ASMI without an HMC \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/connect\\_asmi.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/connect_asmi.htm).
2. Access the server's current firmware using the ASMI. When the white power button is pressed, the system boots to the level at which the firmware is set.
3. If you are setting up a graphics terminal and intend to use system management services to manage your server, go to [Starting the system management services \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphb6/startsms.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphb6/startsms.htm).

Next, you need to install an operating system and enable service and support functions for your server. For instructions, see Chapter 5, "Completing server setup," on page 9.

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### Cabling the server to the HMC

The Hardware Management Console (HMC) controls managed systems, including the management of logical partitions and the use of capacity on demand. Using service applications, the HMC communicates with managed systems to detect, consolidate, and forward information to IBM service for analysis.

Before you begin, make sure your server is already installed as a stand-alone server or installed in a rack.

To manage POWER6 servers, the HMC must be at Version 7 or later. To view the HMC version and release, do the following:

1. In the Navigation area, click **Updates**.
2. In the Work area, view and record the information that appears under the HMC Code Level heading, including the HMC version, release, maintenance level, build level, and base versions.

To cable the HMC to the server, see *Cabling the 8204-E8A and 9409-M50* ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphah/cabling\\_e550\\_models.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphah/cabling_e550_models.htm)).

Next, you need to complete your server setup. For instructions, see *Completing server setup*.

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## Cabling the server and accessing Operations Console

If you are not creating partitions on your server, you can use Operations Console to manage your server. If you are creating partitions, you can use Operations Console to manage one or more logical partitions, but you must first use an alternative tool to create the logical partitions.

Before you begin, make sure your server is already installed as a stand-alone server or installed in a rack.

To cable Operations Console to the server, complete the following steps:

1. If you do not have the Operations Console set up, see *Setting up Operations Console* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphb6/startsms.htm>).
2. Cable the Operations Console to the server. For instructions to cable the server to access Operations Console, see Step 1. *Cabling the Operations Console to your server* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbx/installcable.htm>).

Next, you need to install an operating system and enable service and support functions for your server. For instructions, see Chapter 5, “Completing server setup,” on page 9.

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## Cabling the server and accessing the Integrated Virtualization Manager

Even without installing a Hardware Management Console (HMC), you can install the Virtual I/O Server (VIOS) and create and manage logical partitions with the Integrated Virtualization Manager (IVM).

Before you begin, make sure the following prerequisite tasks have been met:

- You have connected a PC to the server to use as a console.
- Your server is already installed as a stand-alone server or installed in a rack.

Perform the following steps in order. At the completion of each step, return to this task and do the next step.

1. For instructions to cable the server to enable accessing the IVM, see *Cabling the 8204-E8A and 9409-M50* ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphah/cabling\\_e550\\_models.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphah/cabling_e550_models.htm)).
2. For instructions to set up the VIOS and the IVM, go to *Installing the Virtual I/O Server and enabling the Integrated Virtualization Manager on IBM Power Systems® servers* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphch/iphchinstallvios.htm>).

Next, you need to install an operating system and enable service and support functions for your server. For instructions, see Chapter 5, “Completing server setup,” on page 9.

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## Chapter 5. Completing server setup

The tasks for completing the server setup depend on whether or not you have a Hardware Management Console (HMC). Learn more about the tasks you must perform to complete your managed system installation.

**If you have an HMC, use it to perform the following tasks:**

1. Update the time of day on the managed system using the Advanced System Management Interface (ASMI).
2. Check the firmware level on the managed system.
3. If required, update the managed system firmware levels.
4. Power on the managed system.
5. Create partitions or deploy an imported system plan.
6. Install an operating system, if it is not already installed.

**If you do not have an HMC, perform the following tasks:**

1. Check the firmware level on the managed system and update the time of day using ASMI.
2. Power on the managed system.
3. Install and update an operating system (if it is not already installed).
4. Update system firmware, if required.

To learn more about how to perform these tasks, read the following topics:

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### Completing server setup if you have an HMC

You must perform these tasks to complete server setup with a Hardware Management Console (HMC).

To manage POWER6 servers, the HMC must be at Version 7 or later.

To complete server setup with an HMC, do the following steps:

1. Plug in the power cords. Wait for the system to enter standby mode.
2. Change the managed system passwords.
3. Update the time of day on the managed system using the Advanced System Management Interface (ASMI).

For instructions to set up and access the ASMI, see *Setting up and accessing the ASMI* (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/genconcepts.htm>).

To change the time of day using the ASMI, do the following steps:

- a. On the ASMI Welcome pane, specify your admin user ID and password, and click **Log In**.
  - b. In the navigation area, expand **System Configuration**.
  - c. Select **Time of Day**. The right pane displays a form that shows the current date (month, day, and year) and time (hours, minutes, seconds).
  - d. Change the date value, the time value, or both, and click **Save settings**.
4. Check the firmware level on the managed system.  
To check the firmware level on the managed system, in the navigation area, select **Updates**. Firmware information is displayed in the contents area.
  5. Compare your installed firmware level with available firmware levels. If required, update your firmware levels.

- a. Compare your installed firmware level with available firmware levels. For more information, see Fix Central (<http://www.ibm.com/eserver/support/fixes>).
  - b. If required, update your managed system firmware levels. In the navigation area, select **Updates**.
  - c. In the contents area, select your managed system.
  - d. Select **Change Licensed Internal Code for the current release**.
6. Connect your expansion unit, disk drives, and PCI adapters, if applicable. For more information, see Enclosures and Expansion Units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/expansionunit.htm>), Disk Drives (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/arebykickoff.htm>), and PCI Adapters ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/iphak\\_pciadapters\\_front.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/iphak_pciadapters_front.htm)).
  7. To power on your managed system using the HMC, do the following steps:
    - a. In the navigation area, expand **Systems Management > Servers**.
    - b. In the contents area, select the managed system.
    - c. Select **Operations > Power On**.
    - d. Select **Standby** and click **OK**.
  8. Create partitions or deploy an imported system plan.  
For instructions about creating partitions, see Partitioning with the HMC (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphat/iphbllparwithhmcp6.htm>).
  9. Install an operating system, if it is not already installed.  
For instructions to install the AIX<sup>®</sup> operating system, see Installing AIX (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphayinstallaix.htm>).  
For instructions to install IBM i, see Installing IBM i (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphaxinstallos400.htm>).  
For instructions to install the Linux<sup>®</sup> operating system, see Installing Linux (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphaxinstalllinux.htm>).

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## Completing server setup if you do not have an HMC

You must perform these tasks to complete server setup without a Hardware Management Console (HMC).

1. Plug in the power cords.
2. To check the firmware level on the managed system and to update the time of day, do the following steps:
  - a. Access the Advanced System Management Interface (ASMI). For more information, see Accessing the ASMI without an HMC ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/connect\\_asmi.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/connect_asmi.htm)).
  - b. On the ASMI Welcome pane, note the existing level of server firmware in the upper-right corner below the copyright statement.
  - c. Update the time of day. In the navigation area, expand **System Configuration**.
  - d. Select **Time of Day**. The right pane displays a form that shows the current date (month, day, and year) and time (hours, minutes, seconds).
  - e. Change the date value, the time value, or both, and click **Save settings**.
3. Connect your expansion unit, disk drives, and PCI adapters, if applicable. For more information, see Enclosures and Expansion Units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/expansionunit.htm>), Disk Drives (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/arebykickoff.htm>), and PCI Adapters ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/iphak\\_pciadapters\\_front.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphak/iphak_pciadapters_front.htm)).
4. See Power on (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphby/poweronoff.htm>).
5. To start a system that is not managed by an HMC or ASMI, do the following steps:

- a. Open the front door of the managed system.
  - b. Press the power button on the control panel.
6. Install an operating system and update the operating system, if required.
- For instructions to install the AIX operating system, see [Installing AIX \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphayinstallaix.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphayinstallaix.htm).
- For instructions to install IBM i, go to [Installing IBM i \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphaxinstallos400.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphaxinstallos400.htm).
- For instructions to install the Linux operating system, see [Installing Linux \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphainstalllinux.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha8/iphainstalllinux.htm).
7. Update the system firmware, if required.
- For instructions to get firmware fixes through AIX or Linux, go to [Getting server firmware fixes through AIX or Linux without an HMC \(http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha5/fix\\_firm\\_no\\_hmc\\_aix.htm\)](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipha5/fix_firm_no_hmc_aix.htm).
  - If you are using IBM i, use the IBM i PTF installation functions to install the server firmware fixes.



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## Appendix. Notices

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

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

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### Class A Notices

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### Federal Communications Commission (FCC) statement

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **Industry Canada Compliance Statement**

This Class A digital apparatus complies with Canadian ICES-003.

### **Avis de conformité à la réglementation d'Industrie Canada**

Cet appareil numérique de la classe A respecte est conforme à la norme NMB-003 du Canada.

### **European Community Compliance Statement**

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

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European Community contact:  
IBM Technical Regulations  
Pascalstr. 100, Stuttgart, Germany 70569  
Tele: 0049 (0)711 785 1176  
Fax: 0049 (0)711 785 1283  
E-mail: tjahn@de.ibm.com

**Warning:** This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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## Electromagnetic Interference (EMI) Statement - Taiwan

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### IBM Taiwan Contact Information:

台灣IBM 產品服務聯絡方式：  
台灣國際商業機器股份有限公司  
台北市松仁路7號3樓  
電話：0800-016-888

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Verantwortlich für die Konformitätserklärung nach des EMVG ist die IBM Deutschland GmbH, 70548 Stuttgart.

Generelle Informationen:

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