

# Roadmap for installing the Hardware Management Console

ESCALA Power7



REFERENCE  
86 A1 26FF 05



# ESCALA Power7

## Roadmap for installing the Hardware Management Console

The ESCALA Power7 publications concern the following models:

- Bull Escala E5-700 (Power 750 / 8233-E8B)
- Bull Escala M6-700 (Power 770 / 9117-MMB)
- Bull Escala M6-705 (Power 770 / 9117-MMC)
- Bull Escala M7-700 (Power 780 / 9179-MHB)
- Bull Escala M7-705 (Power 780 / 9179-MHC)
- Bull Escala E1-700 (Power 710 / 8231-E2B)
- Bull Escala E1-705 (Power 710 / 8231-E1C)
- Bull Escala E2-700 / E2-700T (Power 720 / 8202-E4B)
- Bull Escala E2-705 / E2-705T (Power 720 / 8202-E4C)
- Bull Escala E3-700 (Power 730 / 8231-E2B)
- Bull Escala E3-705 (Power 730 / 8231-E2C)
- Bull Escala E4-700 / E4-700T (Power 740 / 8205-E6B)
- Bull Escala E4-705 (Power 740 / 8205-E6C)

References to Power 755 / 8236-E8C models are irrelevant.

## Hardware

May 2012

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FRANCE

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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.

### Laser safety information

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

#### Laser compliance

The servers may be installed inside or outside of an IT equipment rack.

## DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous. To avoid a shock hazard:

- Connect power to this unit only with the provided power cord. Do not use the provided power cord for any other product.
- Do not open or service any power supply assembly.
- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.
- Connect all power cords to a properly wired and grounded electrical outlet. Ensure that the outlet supplies proper voltage and phase rotation according to the system rating plate.
- Connect any equipment that will be attached to this product to properly wired outlets.
- 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 procedures when installing, moving, or opening covers on this product or attached devices.

To Disconnect:

1. Turn off everything (unless instructed otherwise).
2. Remove the power cords from the outlets.
3. Remove the signal cables from the connectors.
4. Remove all cables from the devices

To Connect:

1. Turn off everything (unless instructed otherwise).
2. Attach all cables to the devices.
3. Attach the signal cables to the connectors.
4. Attach the power cords to the outlets.
5. Turn on the devices.

(D005a)

## DANGER



Observe the following precautions when working on or around your IT rack system:

- Heavy equipment—personal injury or equipment damage might result if mishandled.
- Always lower the leveling pads on the rack cabinet.
- Always install stabilizer brackets on the rack cabinet.
- To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.
- Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.



- Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.
- Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

#### CAUTION

- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.
- *(For sliding drawers.)* Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack might become unstable if you pull out more than one drawer at a time.
- *(For fixed drawers.)* This drawer is a fixed drawer and must not be moved for servicing unless specified by the manufacturer. Attempting to move the drawer partially or completely out of the rack might cause the rack to become unstable or cause the drawer to fall out of the rack.

(R001)

**CAUTION:**

Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building:

- Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must observe the following precautions:
  - Remove all devices in the 32U position and above.
  - Ensure that the heaviest devices are installed in the bottom of the rack cabinet.
  - Ensure that there are no empty U-levels between devices installed in the rack cabinet below the 32U level.
- If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.
- Inspect the route that you plan to take to eliminate potential hazards.
- Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that comes with your rack cabinet for the weight of a loaded rack cabinet.
- Verify that all door openings are at least 760 x 230 mm (30 x 80 in.).
- Ensure that all devices, shelves, drawers, doors, and cables are secure.
- Ensure that the four leveling pads are raised to their highest position.
- Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.
- Do not use a ramp inclined at more than 10 degrees.
- When the rack cabinet is in the new location, complete the following steps:
  - Lower the four leveling pads.
  - Install stabilizer brackets on the rack cabinet.
  - If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.
- If a long-distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.

(R002)

(L001)



(L002)



(L003)



or



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)

**CAUTION:**

The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

*Do Not:*

- \_\_\_ Throw or immerse into water
- \_\_\_ Heat to more than 100°C (212°F)
- \_\_\_ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

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

The following comments apply to the 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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# Installing the Hardware Management Console

Follow the steps in this topic collection to perform a first-time HMC installation and configuration.

## About this task

Use the information in this topic collection to guide you through the high-level tasks that you need to successfully set up the HMC for the first time. To install and configure the HMC, you must do the following:

1. Prepare for the installation and configuration
2. Install the HMC hardware
3. Configure the HMC software

---

## Planning for HMC installation and configuration

This section describes the high-level planning tasks you must perform before you install and configure your HMC.

## About this task

To plan for HMC installation and configuration, do the following:

1. Ensure that your HMC hardware meets the requirements to manage your server and obtain and install the latest HMC code.
2. Determine the physical location of the HMC in relation to the servers it will manage. If the HMC is more than 7 meters (25 feet) from its managed system, you must provide web browser access to the HMC from the managed system's location so that service personnel can access the HMC.
3. Identify the servers that the HMC will manage.
4. Determine whether you will use a private or an open network to manage servers.
5. If you will use an open network to manage a Flexible Service Processor (FSP), you must manually set the FSP's address through the Advanced System Management Interface (ASMI) menus. A private, nonroutable network is recommended.
6. If you have two HMCs, designate a primary and secondary HMC. The primary HMC should be physically closer to the machine, and should be the HMC that is configured to call home.
7. Determine the network settings that you will need to connect the HMC to remote workstations, logical partitions, and network devices.
8. Define how the HMC will connect to use the call-home function. Call home options include over an outbound-only Secure Socket Layer (SSL) Internet connection, a modem, or a Virtual Private Network (VPN) connection.
9. Determine the HMC users that you will create and their passwords, as well as which roles they will be given.
10. Document the following company contact information that will be needed when you configure call home:
  - Company name
  - Administrator contact
  - E-mail address
  - Telephone numbers
  - Fax numbers
  - The street address of the HMC's physical location

11. If you plan to use e-mail to notify operators or systems administrators when information is sent to Service through call-home function, identify the Simple Mail Transfer Protocol (SMTP) server and the e-mail addresses you will use.
12. Define the following passwords:
  - The access password that will be used to authenticate the HMC to the FSP
  - The ASMI password that will be used for the admin user
  - The ASMI password that will be used for the general userCreate the passwords when you connect from the HMC to a new server for the first time. If the HMC is a redundant or second HMC, obtain the HMC user password and be prepared to enter it when you connect the first time to the managed server's FSP.
13. For detailed information about the planning tasks you should complete before performing a first-time installation, see *Preparing for HMC configuration*.

---

## Installing your rack-mounted HMC

A procedure that describes how to install the Hardware Management Console into an existing rack enclosure.

### About this task

To install the HMC into a rack, do the following:

#### Procedure

1. Complete a parts inventory.
2. Locate the rack-mounting hardware kit and the system rail assemblies that were included with your system unit.
3. Determine where to install the HMC and monitor into the rack and mark the location.
4. Install the slide rails for the HMC and monitor into the rack.
5. Install the HMC and Monitor on the slide rails.
6. Install the cable-management arm.
7. Identify the location of the HMC connectors.
8. Attach the monitor cable to the monitor connector, tighten the screws, and connect the keyboard and mouse to Universal Serial Bus (USB) ports on the HMC.
9. Attach the power cord to the monitor.
10. Ensure that the voltage selection switch on the HMC is set to the voltage used in your world region.
11. Plug the power cord into the HMC.
12. Connect the optional modem.
13. Connect the Ethernet cable to the HMC in eth0 port.
14. Connect the Ethernet port on the HMC to the Ethernet port that is labeled **HMC1** on the managed system. If you are connecting a second HMC to your managed server, connect to the Ethernet port that is labeled **HMC2** on the managed system.
15. If you use an external modem, plug the modem power supply cord into the HMC modem.
16. Plug the power cords for the monitor, HMC, and HMC external modem into electrical outlets.

**Note:** If you are connecting this HMC to a new, uninstalled managed system, do not connect the managed system to a power source at this time.

### What to do next

Configure the HMC. For more information, see “Configuring the HMC for the first time” on page 3.

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## Installing your stand-alone HMC

Use high-level tasks to install the stand-alone (or deskside) HMC. This topic collection describes how to physically install a stand-alone HMC.

### About this task

To cable your stand-alone HMC, do the following:

#### Procedure

1. Position the HMC in the correct location.
2. Identify the location of the HMC connectors.
3. Attach the monitor cable to the monitor connector, tighten the screws, and connect the keyboard and mouse to Universal Serial Bus (USB) ports on the HMC.
4. Attach the power cord to the monitor.
5. Ensure that the voltage selection switch on the HMC is set to the voltage used in your world region.
6. Plug the power cord into the HMC.
7. Connect the optional modem.
8. Connect the Ethernet cable to the HMC on the eth0 port.
9. Connect the Ethernet port on the HMC to the Ethernet port that is labeled **HMC1** on the managed system. If you are connecting a second HMC to your managed server, connect to the Ethernet port that is labeled **HMC2** on the managed system.
10. If you use an external modem, plug the modem power supply cord into the HMC modem.
11. Plug the power cords for the monitor, HMC, and HMC external modem into electrical outlets.

**Note:** If you are connecting this HMC to a new, uninstalled managed system, do not connect the managed system to a power source at this time.

12. For detailed stand-alone HMC cabling procedures, see (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p7hai/desksideinstall.htm>).

### What to do next

Configure the HMC. For more information, see “Configuring the HMC for the first time.”

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## Configuring the HMC for the first time

Learn more about how to configure the HMC for the first time.

### About this task

You can configure the HMC by using several different methods. The following procedure describes the most common way to configure the HMC.

To configure the HMC, do the following steps:

#### Procedure

1. Turn on the HMC by pressing the power button.
2. Wait for the HMC to automatically select the default language and locale preference.
3. Accept the HMC license agreements. If you decline the HMC license agreements, you cannot complete the HMC configuration.
4. Click **Log on and launch the Hardware Management Console web application**.
5. Log in to the HMC:

- ID: hscroot
- Password: abc123

The Guided Setup wizard opens.

6. Click **OK** on the Guided Setup entry window.
7. Complete the steps in the Guided Setup wizard. Click **Yes** to continue and complete the steps in the Connectivity and Call-Home Servers wizard.
8. On the Summary window, click **Finish**.
9. If you have not connected the Ethernet crossover cable to your managed system, do so now and power on the managed server.
10. In the HMC navigation area, click **Service Management**.
11. In the contents area, click **Authorize User**. The Authorize User window opens.
12. Enter your ID in the field and click **OK**.



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## **Ethernet connection usage restriction**

This product is not intended to be connected directly or indirectly by any means whatsoever to interfaces of public telecommunications networks.

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## **Electronic emission notices**

When attaching a monitor to the equipment, you must use the designated monitor cable and any interference suppression devices supplied with the monitor.

## **Class A Notices**

The following Class A statements apply to the servers.

## **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 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.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

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Tele: +49 7032 15-2937  
email: 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.

### **VCCI Statement - Japan**

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VCCI-A

The following is a summary of the VCCI Japanese statement in the box above:

This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.

**Japanese Electronics and Information Technology Industries Association (JEITA)  
Confirmed Harmonics Guideline (products less than or equal to 20 A per phase)**

高調波ガイドライン適合品

**Japanese Electronics and Information Technology Industries Association (JEITA)  
Confirmed Harmonics Guideline with Modifications (products greater than 20 A per phase)**

高調波ガイドライン準用品

**Electromagnetic Interference (EMI) Statement - People's Republic of China**

**声 明**

此为 A 级产品,在生活环境中,  
该产品可能会造成无线电干扰。  
在这种情况下,可能需要用户对其  
干扰采取切实可行的措施。

Declaration: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may need to perform practical action.

**Electromagnetic Interference (EMI) Statement - Taiwan**

**警告使用者：**

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居住的環境中使用時，可  
能會造成射頻干擾，在這  
種情況下，使用者會被要  
求採取某些適當的對策。

The following is a summary of the EMI Taiwan statement above.

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

## Electromagnetic Interference (EMI) Statement - Korea

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"Warnung: Dieses ist eine Einrichtung der Klasse A. Diese Einrichtung kann im Wohnbereich Funk-Störungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen zu ergreifen und dafür aufzukommen."

### Deutschland: Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Geräten

Dieses Produkt entspricht dem "Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG)". Dies ist die Umsetzung der EU-Richtlinie 2004/108/EG in der Bundesrepublik Deutschland.

### Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) (bzw. der EMC EG Richtlinie 2004/108/EG) für Geräte der Klasse A

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen.

Verantwortlich für die Einhaltung der EMV Vorschriften ist der Hersteller:

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Generelle Informationen:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse A.

## Electromagnetic Interference (EMI) Statement - Russia

**ВНИМАНИЕ!** Настоящее изделие относится к классу А.  
В жилых помещениях оно может создавать радиопомехи, для снижения которых необходимы дополнительные меры

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