

SDMC Transition Guide

ESCALA Power7



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ESCALA Power7

SDMC Transition Guide

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

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Moving to the SDMC

Transition is a new feature available to move systems from the HMC or IVM environment to the SDMC environment. This feature helps you to bring in one or more systems that are currently being managed by HMC or IVM to being managed by SDMC.

SDMC supports the following two types of transition:

- IVM to SDMC
- HMC to SDMC

You can use either the command line interface or the graphical user interface to perform an interactive transition or an offline transition. Use interactive transition when your HMC is running and offline transition when your HMC is shutdown. During transition, SDMC discovers the managed systems and you have to request access to each managed system by supplying the password. Transition is complete only after successful authentication to the managed system. The state of the managed system changes to Available and you can start managing your system and its virtual servers which gets reconstructed automatically.

The SDMC transition process does not remove the managed systems connection from the HMC. The managed systems stay connected to the HMC even after transition. You have to ensure that the maximum connections to the managed systems are not exhausted and there is a free connection available that SDMC can use during request access.

Upgrading from HMC to SDMC

Use this procedure to upgrade the Hardware Management Console (HMC) to the IBM® Systems Director Management Console (SDMC). You should be able to complete the upgrade in less than two hours.

Prerequisites:

1. One hard disk drive (HDD)
2. Two dual inline memory modules (DIMMs)
3. Three *SDMC code* DVDs (The MES kit includes these DVDs)
4. Optional: DVD-R DVDs for backing up profile data on the existing HMC.

Note:

You can also back up the profile data to a file server that is accessible to the HMC or on a Universal Serial Bus (USB).

1. Back up the profile data on the existing HMC.
 - a. Select the managed system from the **Contents** area.
 - b. From the menu, select **Configuration > Manage Partition Data > Backup**.
 - c. Type the name you want to use for the backup file.
 - d. Click **OK**. Ensure that you save the backup data on an external drive.
2. Install the Dual Inline Memory Module (DIMM).
 - a. Turn off the HMC and peripheral devices.

Note: You can leave all the managed servers on.

- b. Slide the HMC into the service position.
- c. Disconnect the power cables.

Note: You can leave all other cables attached.

- d. Remove the service cover.
- e. Remove the memory air duct.
- f. Install DIMMs into connectors 2 and 9. (For more information, refer to the system service label located inside of the top service cover).

Note: DIMM connectors 3 and 6 already have the DIMMs installed.

- 1) Open the retaining clips on each end of DIMM connectors 2 and 9.

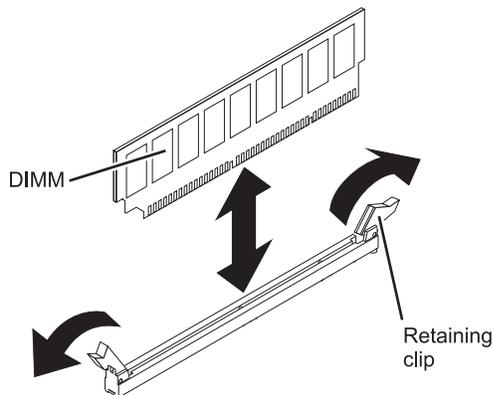


Figure 1. Installing the DIMM

- 2) Touch the static-protective package that contains the DIMM and touch any unpainted metal surface. Remove the DIMM from the package.
- 3) Hold the DIMM and align the DIMM keys correctly with the connector.
- 4) Insert the DIMM into the connector by aligning the edges of the DIMM with the slots at the ends of the DIMM connector.
- 5) Firmly press the DIMM straight down into the connector by applying pressure on both ends of the DIMM simultaneously.

The retaining clips snap into the locked position when the DIMM is firmly seated in the connector. If there is a gap between the DIMM and the retaining clips, the DIMM has not been correctly inserted. Open the retaining clips, remove the DIMM, and then reinsert it.

- 6) Repeat steps 1) through 5) to install the second DIMM.

- g. Replace the memory air duct.
 - h. Replace the service cover.
 - i. Reconnect the power cables.
 - j. Slide the HMC back into the rack.
3. Install the hard disk drive (HDD) as follows:

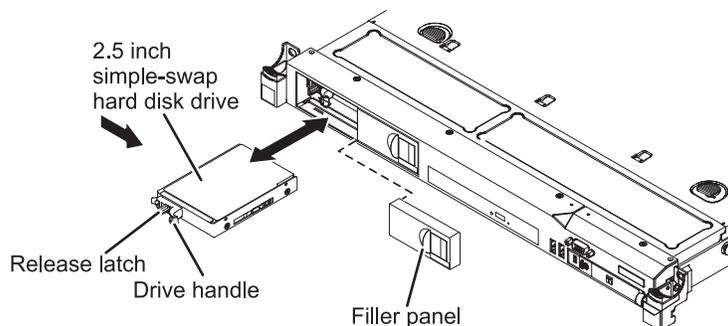


Figure 2. Installing the HDD

- a. Remove the bay filler from bay 1.
Note: An HDD is already installed in bay 0.
 - b. Touch the static-protective package that contains the HDD and touch any unpainted metal surface. Hold the HDD by the side edges and remove the HDD from the package.
 - c. Hold the HDD by its side and press the terracotta release button to release the drive handle.
 - d. Align the HDD with bay 1 and gently push the drive assembly into the bay until the drive stops.
 - e. Close the handle on the HDD assembly to seat the drive until the handle is retained back into the release button.
4. Perform the following steps to configure RAID 0 for the Systems Director Management Console (SDMC):
 - a. Power on the SDMC appliance.
 - b. After the selection window is shown during the restart operation, press F1 to go to **Setup**.
 - c. Select **System Settings**.
 - d. Select **Adapters and UEFI Drivers**.
Note: If the **Compile the List of Drivers** menu is shown, press **Enter**.
 - e. Select **LSI Logic Fusion Adapter** in the **LSI Logic MPT Setup Utility** menu.
 - f. Select **Create IS Volume**.
Note: This step lists the two HDDs that are installed in the SDMC appliance. Check for the HDD listings and ensure that the two HDDs are correctly installed.
 - g. Use the arrow keys to move to the **RAID DISK** column and press the space bar to toggle the value to **Yes**, for each HDD listed. Set the RAID DISK column value to **Yes**.
 - h. Press **C** to create the RAID array.
 - i. From the **Create and Save New Array** menu, Select **Save Changes**.
 - j. Exit the menu and press **Enter**.
 - k. Press **Esc** to exit **LSI MPT setup utility**.
 - l. Press **Esc** to exit the previous menu.
 - m. Select **Exit the Configuration Utility and Restart**.
 - n. Enter **Yes**, when a prompt displays the message The action required is stop controller.
 - o. Press **Esc** three times to exit setup.
 - p. Press **Y** to exit setup completely.
 5. Install the SDMC from the DVD media:
 - a. Power on the SDMC appliance, and insert the first DVD disk into the DVD device.
 - b. At the prompt, Select **Install SDMC**.
 - c. After the system shutdown, power on the system and remove the first DVD.
 - d. Insert the second and remaining DVDs, and press **Enter** when prompted.
 - e. The system restarted and a wizard displays and prompts for locale information.
 - f. When system displays the **License panels and Configuration** wizard, follow the wizard to configure SDMC.
 - g. The SDMC appliance restarts, once the configuration is complete. You can access SDMC either locally by using the window manager or remotely by using a browser.
 6. Download and install the updates for SDMC. For more information, see Updating the SDMC.

Moving from IVM to SDMC

The following information describes how you can transition a managed system from an IVM to an SDMC.

You have to perform the transition process manually for IVM to SDMC transition. You cannot use the transition wizard to transition managed systems from IVM to SDMC. The managed system has to be in an IVM Managed state. Once the transition is complete, you will not be able to use the IVM user interface as the Virtual Management Channel (VMC) is deactivated. The VMC is the device which exists on the VIOS to enable a direct Hypervisor configuration. This device is activated only when the VIOS detects that the environment has to be managed by IVM.

Note: When you transition managed systems from IVM to SDMC, only the following information are transitioned:

- Managed system information.
- Virtual server information is reconstructed from the managed system post successful request access to the managed system.

This transition will perform the following operations internally:

- Fetch the virtual server configuration information from the hypervisor.
- Update the SDMC with the managed system information restored from the hypervisor.
- The virtual slots range from 2 to 10 is reserved in SDMC. The IVM does not have such restrictions and it is possible that you were using some virtual slots in the reserved range in the IVM environment. The transition process looks for such virtual slots and dynamically adjusts the virtual slots range to a new available range within the maximum slots value specified.

Note: If the automatic re-adjustment of reserved virtual slot range is unsuccessful, then you have to shutdown and activate the VIOS again to use the advanced PowerVM features. The shutdown and reboot will be needed only when you want to use the advanced PowerVM features. But the virtual servers will continue to run normally even without the shutdown and reboot.

- Create default profiles based on virtual server current configuration read from PHYP as IVM does not support profiles.
1. Discover the managed system in SDMC using the **System Discovery** page.
 2. Request access to the managed system. The Request access task fails and the **Operating State** of your managed system changes to Waiting for Input and the **Detailed State** is Pending Authentication - Password updates required .
 3. Update the ASM general and ASM admin passwords for the managed system using the **Update Password** task. The **Access** state of the system changes to OK and additional tasks are now available on the context menu of managing the system. The virtual servers hosted by the system get reconstructed and are listed on the **Welcome** page.

By default all success and failure messages are listed in the **Event Log** page. The **Event Log** page is available under **System Status and Health** category in the navigation area. Check the **Event Log** page for the success or failure of the transition process. When the transition completes successfully, the following message is posted on the **Event Log**.

When the IVM to SDMC transition completes successfully, you will see the appropriate Alert and the Resolution messages displayed in the Status Manager. The **Health and Summary** link under the **System Status and Health** category shows the messages in the Status Manager. An Alert message (error) is displayed first, followed by a Resolution event. The Alert event is removed when the Resolution event is logged in the Status Manager. The following table shows the **Alert** and **Resolution** events related to IVM to SDMC transition.

Table 1. Status Manager Alert (error) and Resolution messages

Alert	Resolution
VIOS Slot Range Adjustment Failed (Error)	The VIOS Slot adjustment did not complete successfully. You have to reactivate the VIOS virtual server before attempting LPM or AMS operations.
VIOS Reactivated & Slot Adjustment Completed Successfully. (Resolution)	The VIOS Slot Adjustment completed successfully.

Moving from HMC to SDMC

The following information describes several procedures on how to transition a managed system from an HMC to an SDMC from the GUI and command line using interactive or offline mode.

- Ensure that the HMC you are transitioning is version 7.1 or later.
- For interactive environment transition, ensure that you know the correct username, password, and the IP address/host name of the HMC.
- For interactive environment transition, ensure that you have the SSH access to the HMC.
- For offline environment transition, ensure that you export the HMC data before running the wizard.

The following data will be transitioned:

- List of managed systems along with their information such as MTMS name, IP address.
- Virtual server and profile information are not lost during transition and are reconstructed from the managed system after transition.

The following data will not be transitioned:

- Dump data, system and error logs stored on the HMC.
- Custom users and roles created on the HMC.

Note: The information in the following procedures only applies when the managed systems are in a public network and SDMC is not the Dynamic Host Configuration Protocol (DHCP) server. If your managed systems are in a private network, refer to the following information Transition in a private network .

Moving from HMC to SDMC using the graphical user interface

You can transition a managed system from HMC to SDMC interactively or non-interactively using the graphical user interface.

Moving from HMC to SDMC interactively using the graphical user interface.

SDMC provides you a wizard for interactive transition.

- Ensure that the HMC you are transitioning is version 7.1 or later.
- For interactive environment transition, ensure that you know the correct username, password, and the IP address/host name of the HMC.
- For interactive environment transition, ensure that you have the SSH access to the HMC.
- For offline environment transition, ensure that you export the HMC data before running the wizard.

The following data will be transitioned:

- List of managed systems along with their information such as MTMS name, IP address.
- Virtual server and profile information are not lost during transition and are reconstructed from the managed system after transition.

The following data will not be transitioned:

- Dump data, system and error logs stored on the HMC.
- Custom users and roles created on the HMC.

Note: The information in the following procedures only applies when the managed systems are in a public network and SDMC is not the Dynamic Host Configuration Protocol (DHCP) server. If your managed systems are in a private network, refer to the following information Transition in a private network .

Using the wizard, you can connect to a live HMC and stream in the configuration data directly from it.

1. Launch the Transition wizard from the Common Tasks pull-down in the SDMC welcome page as shown: (insert image here)
2. Click **Next** on the **Welcome** page of the transition wizard.
3. Select the option **Connect to the HMC to interactively transition to SDMC**. Enter the user name, password and the IP Address or host name of the HMC and click Next.
4. You should now see a list of managed systems that are available in the HMC that can be transitioned to your SDMC. Select the managed systems that you want to transition and click **Next**. If the SDMC is already managing some managed systems that are being managed by the HMC currently, those managed systems will not be listed for transition.
5. You should now see the summary page of the transition wizard. It shows you the IP Address or the host name of the HMC and the managed systems that you have selected for transition. Click **Finish** to complete the transition.
6. You can see the transitioned managed systems in the **Welcome** page in the No Access state. Request access to the managed system. The user ID field in the **Request Access** page will be pre-populated and disabled. You only need to enter the password.

After successful authentication, the **Access** state of the managed system changes to OK. The tasks for managing the system are now available on the context menu of the system. And the virtual servers hosted by the managed system gets retrieved automatically and can be seen in the **Welcome** page or the **Navigate Resources** page.

Moving from HMC to SDMC non-interactively using the graphical user interface.

The following information describes how you can transition a managed system from an HMC to an SDMC in offline mode using the GUI.

- Ensure that the HMC you are transitioning is version 7.1 or later.
- For interactive environment transition, ensure that you know the correct username, password, and the IP address/host name of the HMC.
- For interactive environment transition, ensure that you have the SSH access to the HMC.
- For offline environment transition, ensure that you export the HMC data before running the wizard.

The following data will be transitioned:

- List of managed systems along with their information such as MTMS name, IP address.
- Virtual server and profile information are not lost during transition and are reconstructed from the managed system after transition.

The following data will not be transitioned:

- Dump data, system and error logs stored on the HMC.
- Custom users and roles created on the HMC.

Note: The information in the following procedures only applies when the managed systems are in a public network and SDMC is not the Dynamic Host Configuration Protocol (DHCP) server. If your managed systems are in a private network, refer to the following information Transition in a private network .

Perform the following procedure to transition a managed system from HMC to SDMC.

1. Execute the `expdata` command with the option given below on the HMC: `expdata -f <file>`

file The name of the file where the HMC configuration data is to be written on the HMC. If file is not fully qualified, file will be written to the `/dump/expdata` directory on the HMC.

If the file already exists, this command will fail unless the `--force` option is specified. To export the data to removable media, the media must be present in the removable media device and the device must be mounted with the `mount` command before you issue this command.

All serviceable events must be closed before you can execute this command. If there are any open serviceable events at the time of issuing this command, you will get a warning message and you have to close all of them before executing the command again.

Note: The `expdata` command only exports HMC configuration information that is required for transition. The exported data cannot be used as HMC backup data.

2. Launch the transition wizard. Note that the export is run on the HMC, and the wizard is launched on the SDMC. The SDMC imports the data from the HMC export.
3. Click on Next to go to the Transition Method page in the wizard.
4. Select the option **Use an exported data file** in the **Transition Method** page.
5. Browse to select the exported configuration data file from step 1 as shown. You can also select a file that is available on a connected system in the network. Click **Next**.
6. You should now see the summary page of the transition wizard. It shows you the IP Address or the host name of the HMC and the managed systems that you have selected for transition. Click **Finish** to complete the transition.
7. You can see the transitioned managed systems in the welcome page in the No Access state. Request access to the managed system. The user ID field in the Request Access page will be pre-populated and disabled. You only need to enter the password.

After successful authentication, you can start managing the system. The virtual servers hosted by the managed system get retrieved automatically.

Moving from HMC to SDMC using the command line interface.

You can transition a managed system from HMC to SDMC either interactively or on-interactively using the command line interface.

Moving from HMC to SDMC interactively using the command line interface.

The following information describes how you can transition a managed system from an HMC to an SDMC using interactive mode from the command line interface.

- Ensure that the HMC you are transitioning is version 7.1 or later.
- For interactive environment transition, ensure that you know the correct username, password, and the IP address/host name of the HMC.
- For interactive environment transition, ensure that you have the SSH access to the HMC.
- For offline environment transition, ensure that you export the HMC data before running the wizard.

The following data will be transitioned:

- List of managed systems along with their information such as MTMS name, IP address.
- Virtual server and profile information are not lost during transition and are reconstructed from the managed system after transition.

The following data will not be transitioned:

- Dump data, system and error logs stored on the HMC.
- Custom users and roles created on the HMC.

Note: The information in the following procedures only applies when the managed systems are in a public network and SDMC is not the Dynamic Host Configuration Protocol (DHCP) server. If your managed systems are in a private network, refer to the following information Transition in a private network .

Perform the following steps to transition a managed system from HMC to SDMC.

1. Execute the `impdata` command with the options given below on the SDMC: `smcli impdata -h <system_name> -u <user>`
system_name
host name or IP address of the remote HMC to import configuration data
user name of the remote HMC
2. Enter the name of the remote HMC user
3. Enter the password for the name of the remote HMC user when prompted. SDMC identifies the managed systems to transition and discovers them.
4. The transitioned systems are in the No Access state. Request access to the managed systems using the `accesssys` command.

After successful authentication, you can start managing the system with the tasks available on the context menu of the system and the virtual servers hosted by the managed system get retrieved automatically.

Moving from HMC to SDMC non-interactively using the command line interface.

The following information describes how you can transition a managed system from an HMC to an SDMC in offline mode using the command line interface.

- Ensure that the HMC you are transitioning is version 7.1 or later.
- For interactive environment transition, ensure that you know the correct username, password, and the IP address/host name of the HMC.
- For interactive environment transition, ensure that you have the SSH access to the HMC.
- For offline environment transition, ensure that you export the HMC data before running the wizard.

The following data will be transitioned:

- List of managed systems along with their information such as MTMS name, IP address.
- Virtual server and profile information are not lost during transition and are reconstructed from the managed system after transition.

The following data will not be transitioned:

- Dump data, system and error logs stored on the HMC.
- Custom users and roles created on the HMC.

Note: The information in the following procedures only applies when the managed systems are in a public network and SDMC is not the Dynamic Host Configuration Protocol (DHCP) server. If your managed systems are in a private network, refer to the following information Transition in a private network .

Perform the following procedure to transition a managed system from HMC to SDMC.

1. Execute the `expdata` command with the option given below on the HMC: `expdata -f <file>`
2. Execute the `impdata` command with the options given below in the SDMC: `smcli impdata -f file`
file The name of the file containing the HMC configuration data imported from your HMC in step 1.

This will carry out a discovery process of the managed systems that are eligible for transition from your HMC. The managed systems gets discovered by the SDMC and will be in No Access state.

3. Request access to the managed systems using the `accesssys` command: `smcli accesssys <managed system name>`
4. Enter the user ID and password for the managed system when prompted.

After successful authentication, you can start managing the system. The virtual servers hosted by the managed system get retrieved automatically.

Moving from HMC to SDMC in a private network

Describes how to perform transition of managed systems which are in the private network. In this scenario, either the SDMC or the HMC can be the DHCP server. The steps for transitioning when the SDMC is the DHCP server is different from the steps when the HMC is the DHCP server.

SDMC as the DHCP server

Follow the steps given below to perform a transition of managed systems in the private network with the SDMC as the DHCP server:

1. Disconnect the HMC from the private network.
2. Connect the SDMC to the private network.
3. Configure the network interface of the SDMC with the correct DHCP range. The IP addresses of the managed systems may change after renewal of the DHCP leases from the SDMC. SDMC then auto-discovers the managed systems.
4. Request access to the managed systems.

After successful authentication, you can start managing the systems using the tasks available on the context menu of the system. The virtual servers hosted by the managed system get retrieved automatically.

HMC as the DHCP server - method 1

When the existing HMCs are currently the DHCP servers and SDMC will replace one HMC as the DHCP server on the same DHCP range used by the HMC, you have two methods of transitioning systems.

he following steps perform a transition of managed systems using the first method:

1. Connect the SDMC to the HMC2 port of the managed system. Leave the other HMC connected to the HMC1 port of the managed system. Now, the HMC is the DHCP server for the managed systems on the network to which the HMC1 port is connected. The SDMC will be the DHCP server for those systems on the network to which the HMC2 port is connected, replacing the other HMC that used to perform this function.
2. Configure the network interface with the same DHCP range as the HMC that used to be attached to the HMC2 of the managed system. The IP addresses of the managed systems may change after renewal of the DHCP leases from the SDMC. SDMC then auto-discovers the managed systems.
3. Request access to the managed systems.

After successful authentication, you can start managing the systems using the tasks available on the context menu of the system. The virtual servers hosted by the managed system get retrieved automatically.

HMC as the DHCP server - method 2

The following are the steps to perform a transition of managed systems using the second method:

1. Connect the SDMC to the private network.
2. Configure the SDMC to be a DHCP client of the HMC.
3. Discover the HMC managed system using the IP address or the host name of the managed system.

4. Request access to the managed system.

After successful authentication, you can start managing the systems using the tasks available on the context menu of the system. The virtual servers hosted by the managed system get retrieved automatically. Since the resulting environment will remain dependent on the HMC to be the DHCP server and hinder complete transition to an SDMC-only setup, this should only be used as a temporary solution.

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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 IBM servers that contain the POWER7[®] processor and its features unless designated as electromagnetic compatibility (EMC) Class B in the feature information.

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.

European Community contact:
IBM Deutschland GmbH
Technical Regulations, Department M456
IBM-Allee 1, 71139 Ehningen, Germany
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

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

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：
這是甲類的資訊產品，在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.

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

Electromagnetic Interference (EMI) Statement - Korea

이 기기는 업무용(A급)으로 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

Germany Compliance Statement

Deutschsprachiger EU Hinweis: Hinweis für Geräte der Klasse A EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der EN 55022 Klasse A ein.

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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:
International Business Machines Corp.
New Orchard Road
Armonk, New York 10504
Tel: 914-499-1900

Der verantwortliche Ansprechpartner des Herstellers in der EU ist:
IBM Deutschland GmbH
Technical Regulations, Abteilung M456
IBM-Allee 1, 71139 Ehningen, Germany
Tel: +49 7032 15-2937
email: tjahn@de.ibm.com

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.
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радиопомехи, для снижения которых необходимы
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