

Hardware Management Console Readme

For use with Version 4 Release 5.0

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Introduction

This Readme contains hints and errata information about the Hardware Management Console. Please consult the HMC's technical support Web site for up to date information.

(<http://techsupport.services.ibm.com/server/hmc/power5>)

All releases of the HMC Version 4.x machine code will manage an iSeries Server. A pSeries Server requires HMC Version 4.2 (or greater) machine code.

PTF MH00364 (migrcfg fix for 7310CR3)

This package include fix for the following issue:

Provides iSeries LPAR migration configuration utility support on HMC Model 7310 CR3

PTF MH00324 (Maintenance Fix that must be installed on HMC Version 4 Release 5.0)

Note: MH00324 replaces MH00318 (that is, MH00324 includes all the fixes previously included in MH00318).

This package includes fixes for the following issues:

- Provides miscellaneous fixes for the Server and Frame management functions.
- Provides miscellaneous fixes for the Repair and Verify function.
- Provides fix for Licensed Internal Code Update on multiple managed systems using the FTP/DVD /IBM service web site option.
- Provides the capability of activating 32GB or more of On/Off CoD memory
- Provides fix for memory leak on the HMC.

PTF MH00268 (HMC V4 R5.0 Update) can be installed using the Install Corrective Service

This package addresses the following issues:

- Provides support to configure Switch Network Interface (SNI) adapters.
- Provides command line function to list and force release the HMC locks on a managed frame.
- Provides support for BPC and IO Drawer Concurrent Maintenance.
- Provides support for 48 servers per HMC.
- Enhance processing of multiple media/files in Install Corrective Service.

Hints and Tips

HMC Desktop

- To launch the browser, right mouse click on the desktop to bring up the menu. Select "Net" and then "Browser".
- To start a restricted shell terminal, right mouse click on the desktop to bring up the menu. Select "Terminals" and then "rshterm".

- Currently, HMC only stores 4 service processor dumps and 4 platform system dumps per managed system.
- Changes of a partition profile do not apply to the partition immediately. The changes will only take effect on the partition when activation is done through the profile.
- If users are interested in keylock positions and SRC values when performing Operator Panel Service Functions through Service Focal Point, they can be viewed from the Server and Partition plugin.
- To view system event logs, you must login as a user with 'hmcpe' role. From Service Applications, select Service Focal Point → Service Utilities → Actions → View Problem Logs.
- HMC Version 4 Release 2 or higher is required to manage pSeries Power5 servers.
- Before using the HMC to upgrade your i5 or p5 Power5 server to the 01SF230_120_120 Firmware code level, your HMC must be installed with the V4 R5.0 HMC code.
- Prior to performing the update to V4 R5.0 HMC code, any open serviceable events should be resolved and closed. Otherwise, existing open events may no longer be viewable in the Service Focal Point GUI and refcode E35F0010 is dialed home.
- If the HMC is used in a Cluster 1600 environment, see the "IBM@server 1600 Facts and Features" http://www-1.ibm.com/servers/eserver/clusters/hardware/1600_facts.pdf for scaling limitations'.

Enhancements and Changes in V4R5

The Ext3 File System has been enabled since HMC Version 4 Release 3. If you wish to take advantage of journaled file system, you must install or upgrade your HMC using the Version 4 Release 3 and higher Recovery CDs.

Server and Partition

Server Management

- Provides support to configure Switch Network Interface (SNI) adapters.
- Provides command line function to list and force release the HMC locks on a managed frame.

HMC Code Update

Improves Backup Critical Console Data performance.

LIC Code Update

CFM Updates

- HMC V4 R5.0 and FW 01SF230_120_120 are the minimum code levels required to support CFM.
- The following message will be displayed when a concurrent Licensed Internal Code update is initiated from the HMC:

Notice: "Do not perform any configuration or management operations on the managed system while Licensed Internal Code is being updated".

Note: Performing a concurrent Licensed Internal Code update will require the Service Processor to be reset as part of the process. This reset will cause any operations that are in progress to be disrupted. Therefore, it is highly recommend that you do not perform any tasks on the managed-system that is being updated until the firmware update is complete. However, if an operation does occur, the code update might still complete correctly and the operation might also complete correctly. If there is a failure, please allow the concurrent firmware update to complete before retrying a new operation. If the concurrent firmware update fails, please remove the corrupted image and retry the concurrent Licensed Internal Code update again.

IO Drawer Concurrent Maintenance

- Provides support for 19" and 24" MES Upgrade and Repair and Verify procedures.
- HMC V4 R5.0 and FW 01SF230_120_120 are the minimum code levels required to support IO Drawer Concurrent Maintenance.

- Currently not supported on Linux partitions
- Minimum AIX levels needed :
 - AIX 5.2: IY70060 (APAR), U802287 (PTF)
 - AIX 5.3: IY70202 (APAR), U802024 (PTF)

HMC Command Line

- The following commands have been added:
 - **dlslic** – queries the Licensed Internal Code (LIC) level of each Power FRU
 - **lslock** – lists which HMC owns the lock on a managed frame
 - **rmlock** – forces an HMC lock on a managed frame to be released
- An option has been added to the **lslic** command to list Licensed Internal Code (LIC) on High Performance Switches.
- An option has been added to the **lshwinfo** command to display ambient air temperatures for the systems contained in a managed frame.
- An option has been added to the **lssvcevents** command to display events that occurred during a specified number of preceding minutes.
- An option has been added to the **updlc** command to upgrade the Licensed Internal Code (LIC) on a managed system to a new release.
- An option has been added to the **updlc** command to update LIC on High Performance Switches.
- The following commands have been enhanced to support Switch Network Interface (SNI) adapters: **chsyscfg**, **lshwres**, **lssyscfg** and **mksyscfg**.

Known Issues

Server and Partition

- Dynamic partition configuration for memory move can take a while. During that time, no other operation can be performed.
- After configuring your network setting, make sure to reboot your HMC. Otherwise, dynamic logical partitioning for AIX/Linux partitions may not work.
- Users cannot change virtual Opticonnect and HSL Opticonnect settings through the GUI without activating the changes through a partition profile. Users can change the settings dynamically through the command line interface.

Usage: `chhwres -m <managed system name> -r virtualio --rsubtype virtualopti -p <partition name> -o s -a virtual_opti_pool_id=[0|1]`

Usage: `chhwres -m <managed system name> -r virtualio -rsubtype hsl -p <partition name> -o s -a hsl_pool_id=[0|1]`

- Error messages for some Dynamic Logical Partitioning tasks give 'AIX' as the partition type even though it's actually a Linux partition.
- Unable to perform Dynamic Logical Partitioning virtual I/O remove operations if the partition does not have a current profile.
- The HMC will display the wrong device information since the feature code 2849 is used for two different adapters :

	OS/400	p Linux	p AIX
PCI 100/10Mbps Ethernet IOA	2849	n/a	n/a
PCI 2D Graphics Accelerator	n/a	2849	2849

Only a visual inspection of the slot on the machine will be able to determine if the adapter is a Ethernet card or a Graphics card. Once the partition is activated with the adapter in the profile, the description should display proper adapter information.

- After an FSP is replaced in a Power5 server, i5/OS partitions will not IPL properly and get B2xx 3110 SRC and B2xx 3200 SCR's since the IPL Source is changed on the partition to D. On the HMC go to the Partition Properties Panel and select the Setting tab and change the IPL Source value and re-IPL the partition.
- During B&C drawer power cycle 14001302 SRC is posted intermittently and needs to be ignored.
- A B1818600 error is posted from Perc with a user section showing "Process name: netsSlp" which should be ignored.

Frame Management

Frame name change cannot be done independently and hence both the frame name and number needs to be changed at the same time.

Diskette Drive for 7310-CR3 HMC (x336)

The 7310-CR3 does not come with a diskette drive. If you are configuring the HMC as a Certificate of Authority Server, and wish to copy public key signed by the server to diskette, you can order the USB diskette drive from IBM, to be used with the 7310-CR3.

Service Applications

The first and last BPC serviceable event timestamps for Serviceable Event displayed in the Repair Serviceable Event and Managed Serviceable Events GUI may display either blanks or show the year as "2". The Serviceable Event Details screen carries a "Serviceable Event Creation timestamp which can be viewed and which gives the timestamp on the HMC that the first error arrived.

LIC Code Update

- If the HMC remote client loses its connection while it is downloading firmware, the download fails. Retrying the operation "Change internal Code" might fail again with the message "Object is busy, and the task cannot handle busy objects". Reboot the HMC and retry the "Change internal Code" operation.
- Recovery procedure when error message "ACT01724 The operation failed due to an internal code failure". Verify that the state of the managed systems and frames are connected using the command line "**Issysconn -r all**", and then retry the operation.
- When LIC Code Update is in progress, the Frame state changes from standby/standby to standby/unavailable. This change may happen if a power dump is in progress, and the code update operation will fail. Wait for the Frame state to change back to standby/standby, and then retry the operation.
- Recovery procedure when error message "HSCF0052W Frame tttt-mmm*sssssss is locked by another process" is shown when performing Licensed Internal Code Update Operation on the p5 595, i5 595, p5 590 and p5 575 managed systems. Verify that no other frame operation that uses the following lock:

Repair and Verify Operation
 Initialize Frame Operation
 Set Frame Number Operation
 Licensed Internal Code Update

is in progress on a remote HMC or a dual HMC. Next, issue the **rmlock** command to force the release of the HMC lock on a managed frame.

Usage: `rmlock -e <frame name>`

- Updating Licensed Internal code on multiple Managed Systems in a p575 within the same power frame can be updated simultaneously by using the following procedure:
 1. Select one Managed System in each frame from the "Target Option Selection" panel. This action updates the Licensed Internal Code on the Power Subsystem and the selected Managed System.
 2. Select the remaining Managed Systems in all frames from the "Target Option Selection" panel. This action updates Licensed Internal Code on the remaining managed systems. The Power Subsystem was already updated in Step 1 and will not be updated again.

Note: After the Licensed Internal Code has been updated in Step 1, the image is saved on the HMC. The "disk" repository can then be used for subsequent updates in Step 2.

HMC Code Update

Beginning with HMC Version 4 Release 5.0, the Install Corrective Service will allow prompting of multiple media or update zip files, and only require a reboot when all the media or update zip files are processed. However, if you are using the Install Corrective Service from a version prior to HMC Version 4 Release 5.0, you must reboot the HMC after installing the first update cd or zip file.

HMC Management

Scheduled Operations on partitions do not persist across HMC boot. User must re-enter the scheduled operation on the partitions, following a reboot of the HMC.

National Language Support

- Mnemonics are not supported in double byte and ru locales
- The HMC uses several external components. These components are not developed by the HMC team and are translated as part of a separate translation plan and schedule. The mix of English and translated text is an unavoidable situation and has the potential to occur anytime the HMC is updated or pulls in a new version of an external application that is updated in between its normally scheduled translation cycles.
- Due to the limitation of groff, some characters in the output of "man" command might be corrupted in traditional Chinese, simplified Chinese and Korean when the window is too narrow. Widen the window and retry the command again.
- Korean input is not supported. Press Shift-Space to switch between English and Korean input mode.
- Traditional and Simplified Chinese input is supported in zh_TW and zh_CN locales. Press CTRL-Space to switch between English and Chinese input mode. Press CTRL-Shift to select an input method. Press space bar to see more Chinese characters.
- Japanese input is supported. Press Shift-Space to switch between English and Japanese input mode.
- User ID, User information, HMC User password, Partition name, managed system name, profile name and system profile name are in English only.
- IBM275 doesn't work well when connecting from IBM Personal Communications or iSeries Access to an HMC. Use another Brazil codepage. The codepage "IBM930 Japan Katakana" doesn't work well either. Use "IBM930 Japan Katakana Extended" instead.
- An ibm5250 session opened on the HMC locally will be in the same locale as the one that is set for the HMC. To open a session in a different locale, change the HMC locale first, logout, login and then invoke ibm5250. The other option is to connect to the HMC using a remote emulator, e.g. IBM Personal Communications or iSeries Access, in the desired locale.
- To access the file remote_client.html on a HMC from a remote web browser, please set the HMC locale to one of the following: cs_CZ (Czech), de_DE (German), en_US (English), es_ES (Spanish), fr_FR (French), hu_HU (Hungarian), it_IT (Italian), ja_JP (Japanese), ko_KR (Korean), nl_NL (Dutch), pt_BR (Brazilian Portuguese), ru_RU (Russian), sk_SK (Slovak), zh_CN (Simplified Chinese) and zh_TW (Traditional Chinese).

Note: For each of the locales that is not supported in the V4 R2 HMC the numeric, date, time, calendar and currency formats that are specific to a given locale may not be displayed as expected.

Languages	Supported or Not Supported	Locales
English	Supported	en_US, en_GB, en_GB@euro, en_AU, en_BE, en_BE@preeuro, en_CA, en_HK, en_Ne, en_IE, en_IE@preeuro, en_NZ, en_PH, en_PK, en_ZA, en_SG
German	Supported	de_DE, de_DE@preeuro, de_CH, de_AT, de_AT@preeuro, de_LU, de_LU@euro
French	Supported	fr_FR, fr_FR@preeuro, fr_CH, fr_CA, fr_BE, fr_BE@euro, fr_LU, fr_LU@euro
Italian	Supported	it_IT, it_IT@preeuro, it_CH
Spanish	Supported	es_ES, es_ES@preeuro, es_AR, es_BO, es_CL, es_CO, es_CR, es_DO, es_EC, es_SV, es_GT, es_HN, es_MX, es_NI, es_PA, es_PY, es_PE, es_PR, es_US, es_UY, es_VE
Brazilian Portuguese	Supported	pt_BR
Japanese	Supported	ja_JP
Simplified Chinese	Supported	zh_CN, zh_SG
Traditional Chinese	Supported	zh_TW, zh_HK
Korean	Supported	ko_KR
Hungarian	Supported	hu_HU
Dutch	Supported	nl_NL, nl_NL@preeuro, nl_BE, nl_BE@preeuro
Russian	Supported	ru_RU
Czech	Supported	cs_CZ
Slovakian	Supported	sk_SK

Miscellaneous Functions

- Help Search is not supported. However, Find is supported for Help.
- Printing is not supported.
- The numerical keypad on some keyboards doesn't work. Use the normal numerical keys instead.
- When your power5 system is shipped to you it is in a non-HMC managed mode by default. Once you attach and set up an HMC to manage your power5 system, the default non-HMC managed mode is exited. The procedure to return to the default non-HMC managed mode is documented on the InfoCenter website under "Resetting the server to a non partitioned configuration".

The following link will redirect you to the document.

http://publib.boulder.ibm.com/infocenter/eserver/v1r2s/en_US/info/iphbl/iphblresetserver.htm

eServer i5 and p5 Education Available on Resource Link

The following customer courses will be available from Resource Link for the Product Announce on May 4, 2004.

- **How to Use the eServer i5 and p5 Hardware Management Console**
This course explains how to install and configure the Hardware Management Console (HMC) for the Model 520/570. It also covers the HMC's basic operations by exploring the general user interface. Partitioning is discussed in detail, with explanations showing both command line and GUI support.
- **eServer i5 and p5 - Physical Planning for Installation**
This course discusses considerations for the physical planning for installation of eServer Models 520 and 570. It then provides the user with links to obtaining the step-by-step installation procedures.

- **Resource Link Highlights**

This course provides an overall look at the major Resource Link (RL) areas and how to use them; Planning, Education, Library, Forums, Fixes, Problem Solving, Services, Customer Initiated Upgrade, and Tools. It also provides step-by-step procedures in using the Subscription function.

- **Performing Licensed Internal Code Maintenance**

This course discusses about maintaining the software that enables hardware such as the service processor on your eServer POWER5 system.

Access to these courses requires an IBM Registration ID and Resource Link Access.

To obtain an IBM Registration ID

1. Go to <http://www.ibm.com/servers/resourcelink>
2. Select "Register" under New users
3. On the My IBM Registration, fill in an e-mail address for IBM ID and password, and the Security question and answer and the Country of residence and then click Continue and fill in the rest of the User information and click Submit.

Resource Link Access for New Users

1. Go to <http://www.ibm.com/servers/resourcelink>
2. Select "Sign in" enter the IBM ID and password you used to register above
3. Select "Customer"
4. click "Submit" Once submitted it will take an hour before the access takes effect

To view a course

1. Sign in to Resource Link
2. Select Education in the navigation bar on the left
3. From the Education page, select "eServer i5 and p5 courses"
4. Select "How to Use the eServer i5 and p5 Hardware Management Console"
5. Select "Performing Licensed Internal Code Maintenance"
6. Double-click the link to open the course.

Notes:

1. The courses are browser based. For optimal viewing, we recommend Microsoft Internet Explorer 6.0 or higher with your display set at 1024 x 768. To set your display, go to My Computer -> Display -> Settings
2. Course pages can be book marked for easy retrieval.
3. Course simulations open in a separate window. Use the X in the upper right corner of the window to close the simulation.
4. If there are QuickTime videos in the course, you need to have the QuickTime viewer installed. A link to the free viewer is on each Resource Link course page and on the related page within each course.