Hardware Management Console Readme

For use with Version 4 Release 3

Date: February 28, 2005

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)

> 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 MH00224 (Backup and Restore fix) must be installed on HMC Version 4 Release 4.0

This package addresses the following issues:

? Backup Critical Console Data task does not backup all the data.

PTF MH00205 (HMC V4R3.3 Update) must be installed on the V4R1, V4R2, or V4R3 HMC

This package addresses the following issues:

? Provides miscellaneous fixes for the repair and verify functions.

PTF MH00197 (Multi-System Code Update Fix) must be installed on HMC Version 4 Release 3.2

This package addresses the following issues:

? 11008721/11008720 error log entries generated after/during managed frame code updates.

? Unable to perform MES upgrade with 3 or more systems simultaneously from DVD.

PTF MH00196 (5250 Console Disconnect Fix) must be installed on HMC Version 4 Release 3.2

This package addresses the following issue:

? HMC5250 console will intermittently disconnect in HMC V4R3.2 level. This problem is likely to surface during an i5/OS LPP installation.

PTF MH00154 (HMC V4R3.2 Update) must be installed on the V4R1, V4R2, or V4R3 HMC

Note: HMC Version 4 Release 3 now enables Ext3 File System. If you wish to take advantage of journaled file system, you must install or upgrade your HMC using the Version 4 Release 3.x Recovery CDs.

To determine whether your HMC is already using the Ext3 file system, perform the following command:

1. On HMC desktop, right click and select Terminals -> rshterm

2. In that rshterm window, type cat /etc/fstab

3. If you see any ext3 under the 3rd column, you are using ext3 file system.

This package addresses the following issues:

? Unable to remove physical adapter resources when the partition does not a 'Current profile'.

- ? Unable to move physical adapter resources if the source partition's 'Current profile' does not include any I/O slots.

- ? Not allow to have an virtual SCSI adapter as the load source for an i5/OS partition.

- ? Failures to load dialogs from V4R2 HMCs on V4R3 HMCs.

- ? Failures when issuing **migrcfg** command.

- ? Missing videos in some of the 'Install / Add / Remove Hardware' and 'Exchange Parts' tasks.

- ? Unable to replace the Frame Assembly when the managed system is powered off.

- ? Unable to perform **installios** command while the eth1 is configured as public network.

PTF MH00186 (LIC Update Fix) must be installed on HMC Version 4 Release 3.1

This package addresses the following issues:

- ? Change Internal Code will apply to all managed frames attached, not just the selected p5 590, p5 595, or i5 595.

- ? Attempt to query the managed frame information before the managed frame is ready to accept connections.

- ? After completion of Change Internal Code, only one of the managed frame's p sides gets updated with the new level.

- ? There are instances when a service processor or a managed frame on a p5 590, p5 595, or i5 595 does not get updated due to a locking issue.

PTF MH00153 (HMC V4R3.1 Update) must be installed on the V4R1 or V4R2 HMC

Note: HMC Version 4 Release 3 now enables Ext3 File System. If you wish to take advantage of journaled file system, you must install or upgrade your HMC using the Version 4 Release 3 Recovery CDs.

To determine whether your HMC is already using the Ext3 file system, perform the following command:

1. On HMC desktop, right click and select Terminals -> rshterm

2. In that rshterm window, type cat /etc/fstab

3. If you see any ext3 under the 3rd column, you are using ext3 file system.

This package includes fixes for the following HMC functions:

- ? Failures when calling home problems to RETAIN or getting fixes from RETAIN.

- ? After 2 hours of inactivity, the 5250 console session is dropped and reconnected, displaying the console takeover screen.

- ? Unable to have 2 CR2 HMCs (rackmount) managing the same managed system.

- ? Unable to use HMC 5250 console if 10.10.x.x is being used as HMC IP address.

- ? Arbitrary system files can be overwritten with program trace data via the IBM Reliable Scalable Cluster Technology (RSCT) ctstrtcasd command. It may cause data destruction or a denial of service. **Note**: CVE Number: CAN-2004-0828 IBM AIX ctstrtcasd Local File Corruption Vulnerability

- ? Capacity on Demand messages are not being posted on remote clients if the domain name is not configured on the local HMC. In order to see the messages, make sure the domain name is configured on the local HMC.

- ? No error message is displayed when a second 5250 Console or virtual terminal is opened on the same partition.

- Users are unable to perform the Recover Profile Data task from a remote client. The task can be performed through the command line interface or the local HMC console.

- Partition memory configuration may be out of sync if a Dynamic Logical Partitioning move task fails to remove memory from the source partition. To sync up the memory configuration, use the command line interface.

- Partition processing configuration may be out of sync if a Dynamic Logical Partitioning move task fails to remove processing resources from the source partition. To sync up the processing configuration, use the command line interface.

- The Help button and '?' do not work on the Licensed Internal Code Update panels.

- An HSCS0047 error is received when trying to close multiple serviceable events.

- An incorrect message is displayed when forcing a service processor dump in the Powered Off state. The task should not be enabled.

- Users are unable to properly configure a role with only a single partition assigned through the GUI. The work around is to use the command line interface.

PTF MH00171 (HMC Information Center with de_DE, es_ES, fr_FR, it_IT, pt_BR) must be installed on the V4R2 HMC

This package provides HMC Information Center in following languages:

- German

- Spanish

- French

- Italian

- Brazilian Portuguese

PTF MH00172 (HMC Information Center with cs_CZ, hu_HU, nl_NL, ru_RU, sk_SK) must be installed on the V4R2 HMC

This package provides HMC Information Center in following languages:

- Czech

- Hungarian

- Dutch

- Russian

- Slovak

PTF MH00173 (HMC Information Center with ja_JP, ko_KR, zh_CN, zh_TN) must be installed on the V4R2 HMC

This package provides HMC Information Center in following languages:

- Japanese

- Korean

- Simplified Chinese

- Traditional Chinese

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.The HMC can support 16 concurrent licensed internal code updates on all systems except the p5 595, i5 595 and p5 590. The HMC can only support one p5 595, i5 595 or p5 590 concurrent licensed internal code update at a time.

- ? HMC Version 4 Release 2 or higher is required to manage pSeries Power5 servers.

Enhancements and Changes in V4R3

HMC Version 4 Release 3 now enables Ext3 File System. If you wish to take advantage of journaled file system, you must install or upgrade your HMC using the Version 4 Release 3 Recovery CDs.

Server and Partition:

- ? **Server Management:**
    - ? i5/OS partitions on pSeries systems
    - ? Supports for 254 partitions

- ? **Frame Management:**
    - ? Adding Managed Frames
    - ? Initialize Managed Frames
    - ? Modify Managed Frame Information
    - ? Update Managed Frame Information
    - ? Update Managed Frame Password
    - ? Reset or Remove Managed Frame Connections

HMC Command Line:

- ? The following commands have been added:

    chusrtca – manages the display of a Terms and Conditions agreement to all users who log in locally to the HMC

    lsusrtca – lists the status of the display of a Terms and Conditions agreement to all users who log in locally to the HMC

    lssysconn – lists connection information for systems and frames managed by the HMC

    sendfile – transfers a file from the HMC to a remote system using File Transfer Protocol

- ? An option has been added to the **chsysstate** command to power off all of the unowned I/O units in a managed frame.

- ? An option has been added to the **lsvet** command to display the Virtualization Engine systems technologies activation history log.

- ? The following commands have been enhanced to support managed frames: **chsyscfg**, **lssyscfg**, **chsysstate**, **getdump**, **lsdump**, **startdump**, **mksysconn**, **rmsysconn**, and **chsyspwd**.

- ? The following commands have been added:

  chsvcevent – updates a serviceable event on the HMC

  hmcwin – captures and displays HMC window images

  lshwinfo – lists environmental information for a managed frame

- ? An option has been added to the **chhmc** command to configure whether a network interface will be used for logical partition communication.

- ? The **chsacfg** and **lssacfg** commands have been enhanced to support the Service Agent FTP firewall settings and FTP offload server settings.

- ? An option has been added to the **lslic** command to display the Licensed Internal Code updates that are available to be retrieved from the specified mount point on the HMC.

- ? The **–f** option for the **lsvet** command has been deprecated.

- ? An option has been added to the **updlic** command to accept currently activated Licensed Internal Code updates.

- ? An option has been added to the **updlic** command to allow Licensed Internal Code updates to be retrieved from the specified mount point on the HMC.

Licensed Internal Code Maintenance:

- ? Install Licensed Internal Code on Managed Frame

Service Applications:

- ? Create/ Manage/ Repair Serviceable Events on Managed Frames

- ? Manage Dumps on Managed Frames

- ? Identify LED Processing on Managed Frames

- ? Replace FRU on Frame Assembly

- ? Replace Enclosure on Frame Assembly

Known Issues:

Server and Partition:

- ? If a checkstop occurs on the managed system and the system recovers, but access to that managed system's virtual terminal is lost, do the following to restore the virtual terminal:

  1. On the HMC, right click on the managed system name that lost the virtual terminal.

  2. From the pop-up menu, select "Reset or Remove Connection".

  3. Then select "Reset Connection" and click OK.

- ? Dynamic partition configuration for memory move can take a while. During that time, no other operation can be performed.

- ? When selecting multiple I/O slots for dynamic partition configuration, it will stop on the first failure.

- ? 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 I/O remove/move operations if the partition does not have a current profile.

- ? Unable to perform Dynamic Logical Partitioning I/O move operations if the current profile does not contain physical I/O adapter configuration.

- ? When activating a partition which requires 5250 CPW resources, the 5250 CPW resources of any partition whose "Resource configuration" value is "Not configured" will be set to 0.

- ? Unable to copy the manufacturing default profile. Work around: use the Create profile task instead.

Licensed Internal Code Maintenance:

- ? Code update will not be allowed to multiple systems when the HMC is connected to managed frames.

- ? The Advanced Feature "Do not automatically accept" is not available.

- ? No error is given when there is N code update failure on only one of the service processors in redundant service processors systems.

Setup Wizard:

- ? DNS server address entries can be blank even if the option is checked for Enable DNS.

  Work around: Make sure to enter DNS information when enabling HMC for DNS.

Service Applications:

- ? If users perform the Add/Remove Hardware task to add/remove an I/O adapter that is not currently in use, users will need to perform the Rebuild Managed System task to get I/O information up-to-date.

- ? Unable to launch ASM menu from remote WebSM.

- ? Unable to initiate power subsystem dumps.

  Work around: using commandline to initiate the dump

  ```
  startdump –e <managed frame> –s <the side of managed frame> –t pss
  ```

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.

- ? Korean input is not supported.

- ? Traditional and Simplified Chinese input is supported. 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.

- ✎ Power On/Off Unit function under Service Focal Point -> Service Utilities is in English only.

- ✎ The table below indicates which locales are supported and are not supported for each of the 15 languages in which the V4 R1 HMC is currently available.

  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
	Not Supported:	en_GB@euro, en_AU, en_BE, en_BE@preeuro, en_CA, en_HK, en_INe, en_IE, en_IE@preeuro, en_NZ, en_PH, en_PK, en_ZA, en_SG
German	Supported:	de_DE, de_DE@euro, de_CH
	Not Supported:	de_AT, de_AT@euro, de_LU, de_LU@euro
French	Supported:	fr_FR, fr_FR@euro, fr_CH, fr_CA, fr_BE, fr_BE@euro
	Not Supported:	fr_LU, fr_LU@euro
Italian	Supported:	it_IT, it_IT@euro
	Not Supported:	it_CH
Spanish	Supported:	es_ES, es_ES@euro
	Not Supported:	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
	Not Supported:	
Japanese	Supported:	ja_JP
	Not Supported:	
Simplified Chinese	Supported:	zh_CN
	Not Supported:	zh_SG
Traditional Chinese	Supported:	zh_TW
	Not Supported:	zh_HK
Korean	Supported:	ko_KR
	Not Supported:	
Hungarian	Supported:	hu_HU
	Not Supported:	
Dutch	Supported:	nl_NL, nl_NL@euro, nl_BE, nl_BE@euro
	Not Supported:	

Russian	**Supported:**	ru_RU
	Not Supported:	
Czech	**Supported:**	cs_CZ
	Not Supported:	
Slovakian	**Supported:**	sk_SK
	Not Supported:	

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

Security Fixes:

Cert	bug summary
CAN-2004-0183	SECURITY: Second tcpdump ISAKMP remote DOS
CAN-2004-0109 CAN-2004-0181	SECURITY: kernel ISO9660/JFS local privilege escalation
CAN-2004-0174 CAN-2003-0987 CAN-2003-0020 CAN-2003-0993 CAN-2003-0542	SECURITY: apache multiple vulnerabilities
MIT krb5 Security Advisory 2004-001	SECURITY: kerberos aname_to_localname remote root compromise
CAN-2004-0828	SECURITY: ctstrtcasd Local File Corruption Vulnerability
VU#317350 VU#654390	SECURITY: dhcp-server remote system compromise
CAN-2004-0600 CAN-2004-0686	SECURITY: mod_ssl remote exploit
CAN-2004-0649	SECURITY: L2tpd: remote execution of arbitrary files w/ privs of l2tpd user
CAN-2004-0419	SECURITY: XFree86: XDM: remote access on "closed" port
CAN-2004-0495 CAN-2004-0496 CAN-2004-0497 CAN-2004-0535	SECURITY: Linux kernel multiple local privilege escalation bugs

CAN-2004-0626	
VU#388984	SECURITY: libpng: multiple vulnerabilities
VU#236656	
VU#160448	
VU#477512	
VU#817368	
VU#286464	
CAN-2004-0597	
CAN-2004-0598	
CAN-2004-0599	

Upgrading from a V3 HMC to the V4 HMC

Note: If you have a 6578 V3 HMC, it can not be upgraded to V4 HMC. All other 7315 V3 HMCs are supported.

7315 C03 HMC BIOS update (If your HMC model is not a 7315-C03, skip this section):

? If you are updating the HMC on HMC model 7315-C03 hardware, then you must first update the BIOS of that HMC model. The BIOS and install instructions can be obtained from "http://techsupport.services.ibm.com/server/hmc/corrsrv.html".

? This BIOS will also ship as part of Feature Code 0960

? We recommend that you upgrade to version V3 R1.0 or higher.

? Run the "Backup Critical Console Data" task before upgrading. Save the data to the DVD. This operation allows you to restore your HMC to the state that was before the update occurred. You can then recover the HMC to the last known state, if the update encounters a problem.

? If you have to recover, reinstall the HMC with the HMC recovery CD that you last used to install the HMC. When used in conjunction with the backup that you saved to the DVD, the HMC will be restored to its last known state.

Upgrade Instructions:

Note: The HMC Recovery software is now a set of 3 CDs .

The "Save Upgrade Data" task does not need to be run prior to upgrading your HMC because the V3 HMC configuration files cannot be migrated to V4 R2.0 HMC configuration files. After you have upgraded from the V3 HMC to the V4 R2.0 HMC you must recreate you HMC configuration.

1. Contact your IBM sales representative to obtain the V4 HMC installation CDs.

2. Reboot your HMC with the first CD inserted in the DVD Ram drive.

3. When asked to perform an Install/Recovery or Upgrade, select Install/Recovery F8.

4. Select F1 on the next screen to confirm.

5. When prompted put in the 2nd CD and hit enter.

6. When prompted put in the 3rd CD and hit enter.

7. The system will process the 3rd CD then reboot again.

8. You should see a graphical login prompt.

9. Next you will need to follow the setup instructions located on the IBM InfoCenter website.

Now you can recreate your HMC configuration. After creating the HMC configuration, you should run the "Backup Critical Console Data" task in order to protect the current V4.2.0 HMC image's customized data from a possible disk failure. Once the "Backup Critical Console Data" task is completed on this new HMC version, you will use the HMC V4 R2.0 Recovery CD's to recover your HMC.

Known issues with the upgrade:

1. V4 HMC function is not supported on the 6578 V3 HMC.

2. HMC configuration data cannot be migrated from the V3 HMC to the V4 HMC.

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.

Access to these courses requires a Resource Link user ID and password.

To register for a Resource Link user ID and password:

1. Go to http://www.ibm.com/servers/resourcelink

2. Select "Register for a user ID and password"

3. Accept the Security Alerts

4. Select "Customers: you may request a user ID"

5. On the Request a user ID page, fill in an e-mail address and a preferred user ID, then click Submit. A user ID and password will be sent to the e-mail address.

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. 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.