vMH01704-x86

Hardware Management Console Readme

For use with Version 8 Release 8.7.0

Date: 15 August 2017

Contents

These special instructions contain the following information specific to HMC V8 R8.7.0 code level.

Terminology

x86 - This term is used to reference the HMC that runs on x86/Intel/AMD hardware for both the 7042 Machine Type appliances and the Virtual HMC that can run on the Intel hypervisors (KVM, VMWare, Xen).

ppc64 or ppc64le - describes the Linux code that is compiled to run on Power-based servers or LPARS (Logical Partitions)

Installation Notes

Note 1: During the installation, the screen can pause or go blank. Press the space bar / scroll-lock to activate the display again.

Note 2: IBM is investigating a rare issue where the HMC upgrade may indefinitely hang at "Processing SaveHSCSystemUpgradeData.tar ....."
If the HMC stays at "Processing SaveHSCSystemUpgradeData.tar ....." for more than one hour please contact IBM support for further problem determination.
As an additional precaution, you may wish to manually record settings prior to the upgrade so that the HMC could be rebuilt from a scratch install of V8 R8.7.0 if needed.
For a list of recommended settings to record see http://www.ibm.com/support/docview.wss?uid=nas8N1011269

HMC V8 R8.7.0 Recovery Media - for 7042 Machine Type

This package represents the Recovery image that can be used to install HMC V8 R8.7.0 on the 7042 machine type.

This Recovery image can be used to upgrade to HMC V8 R8.7.0 from HMC V8 R8.5.0 or later.

The Mandatory PTF <u>must</u> be installed after you upgrade to HMC V8 R8.7.0 or after a new installation of HMC V8 R8.7.0 in order to be in a supported configuration.
You can reference the Recovery image by APAR MB04091 and PTF MH01704. The Mandatory PTF is APAR MB04092 PTF MH01706.

Package information				
Package name	**Size**	**Checksum (sha1sum)**	**APAR#**	**PTF#**
HMC_Recovery_V8R870_1_x86.iso	3625975808	7dbe4ba034c85b9d5f0f3bbc8dea1273212c99d9	MB04091	MH01704
MH01706_x86.iso Mandatory PTF	2467776512	188d720711943fa2019fbddb4f8d02e527afc59a	MB04092	MH01706
Splash Panel information (or lshmc -V output)				
After installing the Recovery package				
"version= Version: 8 Release: 8.7.0 Service Pack: 0 HMC Build level 1709071101 ","base_version=V8R8.7.0 "				
After installing the Mandatory PTF				
"version= Version: 8 Release: 8.7.0 Service Pack: 0 HMC Build level 1709051347 MH01706 - Required fix for HMC V8R8.7.0 (Base) [x86_64] ","base_version=V8R8.7.0 "				

HMC V8 R8.7.0 Recovery Media - for 7063 Machine Type

This package represents the Recovery image that can be used to install HMC V8 R8.7.0 on the 7063 machine type.

This Recovery image can be used to upgrade to HMC V8 R8.7.0 from HMC V8 R8.5.0 or later.

The Mandatory PTF must be installed after you install HMC V8 R8.7.0 in order to be in a supported configuration.

You can reference the Recovery image by APAR MB04093 and PTF MH01705. The Mandatory PTF is APAR MB04097 PTF MH01707.

Package name	Size	Checksum (sha1sum)	APAR#	PTF#
HMC_Recovery_V8R870_1_ppc.iso	3533225984	1f5c03b70f77762cec29a15f1d37323585b2a57b	MB04093	MH01705
MH01707_ppc.iso Mandatory PTF	2423799808	d87367e9bed4c9ef96e4a8f8bd8baa10fd67fe47	MB04097	MH01707
Splash Panel information (or lshmc -V output)				
After installing the Recovery package				
"version= Version: 8 Release: 8.7.0 Service Pack: 0 HMC Build level 1709071740 ","base_version=V8R8.7.0 "				
After installing the Mandatory PTF				
"version= Version: 8 Release: 8.7.0 Service Pack: 0 HMC Build level 1709051347 MH01707 - Required fix for HMC V8R8.7.0 (Base) [ppc64le] ","base_version=V8R8.7.0 "				
The updated version of this readme is available in Fix Central : https://www-945.ibm.com/support/fixcentral/				

Upgrade notes

- HMC V8 R8.7.0 continues to provide support for POWER6, POWER7, and POWER8 processor-based systems.

- HMC V8R8.7.0 is the last release to provide support for POWER6 systems.

- Management of POWER5 servers is not supported for HMC V8. Attempts to manage POWER5 servers will result in a connection state of Version Mismatch and connection_error_code "Connection not allowed 0009-0008-00000000".

- HMC V8 R8.7.0 supports the following HMC models:
    - Rack Mount: 7042 CR7, CR8, CR9, OE1 and OE2

- o   Open Power: 7063-CR1

- HMC V8 R8.7.0 does not support 7042 models CR2, CR3, CR4, CR5, CR6, C03, C04, C05, C06, C07 and C08.

- HMC V8 R8.7.0 does not allow "Classic" GUI log in. The functions that were previously available in the HMC Classic interface are now available in the HMC Enhanced+ interface. For further information see:
https://www.youtube.com/playlist?list=PLKQlFnmiWVyeMb4e9iU2zmH67JgHddfl4
and
http://www.ibm.com/support/docview.wss?uid=nas8N1022258

- If two HMCs manage the same server, both HMCs must be at the same version.

- If a server is connected to two different releases (e.g. V8 R8.4.0 and V8 R8.7.0) of the HMC, the higher release HMC will upgrade the partition configuration (profile data of the system) to the latest release. After the partition configuration upgrade, lower levels of the HMC will not be able to interpret the data correctly. After the server is managed by the higher release of the HMC, you must first initialize the server before you use the lower release of the HMC. Also, initialize the server using the lower release of the HMC again. You can restore a backup that is taken at the older level or re-create the partitions. If the server is not initialized with the lower release of the HMC, the following will occur depending on the release of the lower level HMC:
  - o   HMC Version 8 Release 8.1.0, 8.2.0, 8.3.0 and 8.4.0 report a connection error of Version mismatch with reference code Save Area Version Mismatch if the server has been managed by Version 8.6.0.

- If you are upgrading to HMC V8 R8.7.0 from a version of HMC V8 R8.6.0 with a fix level prior to HMC V8 R8.6.0 Service Pack 1 and you require that remote command execution via SSH be enabled immediately after the upgrade, please update to HMC V8 R8.6.0 Service Pack 1 or later prior to upgrading to HMC V8 R8.7.0.

- After applying the mandatory fix for HMC V8 R8.7.0, remote command execution via SSH is always enabled. No firewall settings are affected. The remote SSH firewall setting is disabled by default. To disable remote command execution via SSH after the applying the mandatory fix, use the Users and Security > Systems and Console Security > Enable Remote Command Execution task.

Enhancements and new function

1. GUI

- Performance improvements have been made across the GUI, including functions related to virtual NICs, virtual storage and topology diagrams
- Frame support and System Plan support has been added
- Table column re-ordering feature has been added
- Template deploy has been enhanced to include the detailed information about the detailed progress updates
- Partition Virtual Storage Adapter View updates to show existing storage attached to adapters and to add storage from the adapter view.
- System IP address has been added to the system General Settings page.
- Resource configuration state has been added to the partition General Properties page.
- HMC version is removed from the pre-login page.
- WWPN login and logout functions have been added to the partition Virtual Storage Virtual Fibre Channel page.
- Maximum virtual adapters has been added to the Virtual I/O Server General Properties page.
- The Format Media task has been enhanced to show USB device details such as product and vendor information.
- The Save Upgrade Data task has been enhanced to support FTP and secure FTP (SFTP).
- The GUI and Rest API have been enhanced to create and manage IBM i hosted virtual SCSI adapters for partitions. You can view and manage IBM i hosted virtual SCSI adapters from the Partition Virtual Storage Adapter View.

- The Migrate Logical Unit operation has been enhanced to run in the background since it can take a long time to complete. This will allow the GUI to be used for other operations. The user can view the status of the operation in the task log.
- The PCM dashboard has a new section for showing SR-IOV physical and logical port counters. Users can:
  - Retrieve and show SR-IOV port counter information from a server on demand
  - Refresh the port counter statistics
  - Reset the statistics

2. The HMC V8 R870 and higher versions' recovery media can now be installed using USB media such as a flash drive. See the install documentation for additional details.

3. When concurrent users are operating on the HMC or when concurrent operations are being performed on the system, there could be a possibility that the resource configuration might change while a user is navigating in the UI and making changes. In such cases, when a change is being saved via the UI and if a related resource is already modified, there would be an error stating *"Another operation has changed the configuration. Refresh the web page then try the operation again"*. In such case, please cancel out of the pop up, refresh the page and retry the operation.

This package provides the following fixes:

General fixes

- Fixed concurrent resource modification issues. The user will receive an error message when the resource under modification is already changed by another user.
- Fixed a problem where setting a new master HMC for a Power enterprise pool when the current master HMC is not running or not reachable on the network incorrectly returns the error "*HSCL251D There was an unknown internal management console error.*" when it actually succeeds.
- Fixed a problem with the View Network Topology GUI task that caused managed systems to be displayed under the wrong HMC Ethernet interface. This problem only occurs when the IP addresses on the subnets associated with the HMC Ethernet adapters only differ in the final 2 bytes (e.g. 192.41.0.1 and 192.41.0.17).
- Fixed a problem causing system plan creation for some server models, including 8247-42L, 9119-MHE, and 9119-MME, with a PCIe expansion drawer cable card to fail with an error "*Exception Occurred in com.ibm.inventory.SysUtil:setSlotValuesDB*"
- Updated the **chhmcldap** man page with a reference to documentation that describes how to specify an HMC user property or role with more than one value in the HMC user properties attribute on an LDAP server.

Command line changes

- The **chhmc** and **lshmc** commands have been enhanced to configure and display BMC settings on Power-based HMCs.
- FTP and secure FTP support has been added to the **rstupgdata** and **saveupgdata** commands.
- The **lshmc** -n command has been enhanced to display the console description.
- A new command, **formatmedia**, has been added to format a USB device.
- The **lsmediadev** command has been enhanced to display the product, vendor, and label information for USB devices.
- A new command, **mksvcevent**, has been added to create and test serviceable events.

Known issues and Limitations

- Cloud Connector, which is required for the "IBM Cloud Management Console for IBM Power Systems"(CMC), may not start. This will be fixed in a later PTF.
- Existing custom task and resource roles may need to be modified to work with the enhanced GUI. Existing custom resource roles may result in the user being restricted to the "Getting Started" page at login. Existing task roles may result in missing tasks or task returning "*The HMC information could not be displayed.*" For further information see http://www.ibm.com/support/docview.wss?uid=nas8N1022128

- Depending on the HMC upgrade history, PCM data may fail to migrate on the upgrade to V8 R8.7.0, causing serviceable event E3558802 to be generated and called home. The PCM data that failed to migrate will remain on the HMC hard drive, and a fix that will migrate that data is planned for a future PTF. NOTE: The data will be lost if the HMC is recovered or scratch installed prior to applying the future PTF with the fix.
- **In NIST mode**:
  - RMC code on partition does not support two HMC connections with mixed configuration i.e. one HMC running in NIST mode and other one in non-NIST mode. Both the HMCs must be in the same mode.
- **In non-NIST mode**:
  - Following ciphers are not supported although the available cipher list shows them.

    TLS_RSA_FIPS_WITH_3DES_EDE_CBC_SHA

    Note this function is fully supported for all other Power systems assuming that the appropriate HMC, firmware and PowerVM levels installed.
- To ensure that the keyboard mapping is working properly for non-English keyboards, the codeset for the locale must be set to UTF-8. You can change the codeset by using the chhmc command. Example:
  Set the locale to French with UTF-8 codeset for use with French keyboard:
  chhmc -c locale -s modify -l fr_FR.UTF-8
  Set the codeset to English with UTF-8 codeset for use with French keyboard:
  chhmc -c locale -s modify -l en_US.UTF-8
- The GUI does not support disconnected sessions like the previous Classic GUI did. In the GUI a session logoff is a logoff and a session disconnect is also a logoff. This means that the user cannot reconnect to a GUI session to resume a task(s) from where it left off. Every login via the GUI creates a new session. For more details on long running tasks, please refer to the link below:
  http://www.ibm.com/support/knowledgecenter/POWER8/p8eh6/p8eh6_loginmode.htm
- In some rare situations, especially with a Firefox browser, the user may be redirected to a second login page after login credentials have been validated. Providing the login credentials again will fail. If this issue occurs, close and relaunch the browser.

  If the login page locally shows "*Console internal error*" and "*The requested resource is not available*", the framework is still initializing. Wait a minute and restart the desktop on the local console using <ctrl><alt><backspace>
- Enabling or disabling service processor redundancy is only permitted when both primary and secondary service processors are at standby with service processor in position A as primary. The workaround is to set up service processor failover with the following command:
  chsyscfg -m <server name> **-r sys -i "sp_failover_enabled=1"**
- Opening multiple PCM Dashboard windows for the same server on the same browser or different browsers may lead to a communication error on the window that was opened first. This is a known issue and the support for multiple PCM Dashboard windows is planned for a future release.
- If a system template deploy fails due to the installed VIOS going to Open Firmware state, the user can open a virtual terminal window for the VIOS and execute "boot" on the Open Firmware prompt to boot the VIOS.
- If after install no GUI launches and you only see the CLI localhost login under the heading "Base release 7.4. Dev (hmc7_4p) on an x86_64", it is an indication that the HMC code is not installed, and that only the Operating System has been put on disk. Causes could be that the date in UEFI is not the current date/year or there are DVD media issues. Set the date using the UEFI Setup Utility to the current date and year, then attempt to reinstall. Try different install media if the date/year is correct.
- The V8 R8.7.0 mandatory PTF <u>must</u> be installed before restoring critical console data after an 870 Recovery DVD install.
- Some new 7063-CR1s may ship from manufacturing with pre-defined DNS settings, DNS server 172.21.0.1 and domain supermicro.com. Clear the settings or enter custom values specific to the install environment.
- Serviceable event E2FF4304 may be reported during PTF installation and can be ignored.
- Serviceable event E35F0010 may still be reported on an upgrade from certain levels if the fixes at the prior version were not installed before upgrade. This event indicates that an error occurred migrating the HMC user profile properties. Customized user profile settings will be lost and reset to their default. To recover, edit the user profiles and reset the settings.
- Serviceable Event E2FF1801 may be generated during transmissions for Scheduled Software Information tasks and can be ignored.
- Serviceable Event E2FF4500 may be generated the first time than an HMC boots and can be ignored and closed.
- Serviceable Event E4000000 may be generated after the first time power is applied to a new 7063-CR1 and can be ignored and closed.
- After a partition template is captured and used to deploy another partition on the same system, if you specify "Configure Virtual Fibre Channel storage with captured information" for Virtual Fibre Channel, template deploy can pick up the adapters from a different VIOS than intended. To circumvent this problem, avoid specifying "Configure Virtual Fibre Channel storage with captured information" and choose the Virtual FC configuration as part of the deploy wizard.
- Launching the ASMI menu is not supported in the Safari browser.
- Due to a rare timing issue, a live kernel update operation may fail when performed concurrently with one or more other live kernel update operations due to a failure to clone the partition being updated.

- VIOS install from USB media is not supported.
- Inbound (VPN) Remote Support will fail to enable. A fix is planned for a future service pack.

Web browser requirements

Learn about the requirements your web browser must meet to monitor and control the HMC.

HMC web browser support requires HTML 2.0, JavaScript 1.0, Java™ Virtual Machine (JVM), Java Runtime Environment (JRE) Version 8 U144, and cookie support in browsers that will connect to the HMC. Contact your support personnel to assist you in determining if your browser is configured with a Java Virtual Machine. The web browser must use HTTP 1.1. If you are using a proxy server, HTTP 1.1 must be enabled for the proxy connections. Additionally, pop-ups must be enabled for all HMCs addressed in the browser if running with pop-ups disabled.

The following browsers have been tested:

Google Chrome

HMC Version 8.7.0 supports Google Chrome Version 60.

Safari

HMC Version 8.7.0 supports Safari 10.1

Microsoft Internet Explorer

HMC V8 R8.7.0 supports Internet Explorer 11.0.

- If your browser is configured to use an Internet proxy, then local Internet addresses are included in the exception list. Consult your network administrator for more information. If you still need to use the proxy to get to the Hardware Management Console, enable Use HTTP 1.1 through proxy connections under the advanced tab in your Internet Options window.

- It is recommended to have:

  o Browser security setting in internet zone. If you are running security mode in "Local intranet" mode, make sure you do not have any setting to detect intranet network; disable Compatibility view.
  o Browser zoom setting to 100%.

Mozilla Firefox

HMC Version 8.7.0 supports Mozilla Firefox Version 45 Extended Support Release (ESR) and Mozilla Firefox Version 52 Extended Support Release (ESR). Ensure that the JavaScript options to raise or lower windows and to move or resize existing windows are enabled. To enable these options, click the Content tab in the browser's Options dialog, click Advanced next to the Enable JavaScript option, and then select the Raise or lower windows option and the Move or resize existing windows options. Use these options to easily switch between HMC tasks. For more information about the latest Mozilla Firefox ESR levels, see Security Advisories for Firefox ESR.

Browser Cache Clearing

In Microsoft Internet Explorer

1. Open the Browser
2. Select **Tools**
3. Select **Internet Options**
4. Under Browser History, select **Delete**
5. Check "**Temporary Internet files and websites files**" and "**Cookies and website data**"
6. Click on **Delete**

In Mozilla Firefox

1. In the top-right corner of the browser window click the **menu** button
   Choose **History**, and then **Clear Recent History.**
   In time range to clear, select "**Everything**"
   In the Details section, select "**Cookies**" and "**Cache**"
   Click on "**Clear now**"
2. In the top-right corner of the browser window click the menu button
   Choose **Options > Advanced > Network >**
   In "**Offline Web Content and User Data**" section click on "**Clear Now**"

In Google Chrome

1. In the top-right corner of the browser window, click the **Chrome menu**
   Choose **History**.
   Click the button **Clear browsing data**. A dialog will appear.
   From the drop-down menu, select "t**he beginning of time**."
   Check the boxes "**Cookies, site, and plug-in data**" and "**Cache**"
   Click the button **Clear browsing data**.
2. Open the following URL with the Chrome browser: **chrome://appcache-internals/**
   If there is an entry related to the target hmc, click the corresponding "**Remove**" link

Other web browser considerations

Session cookies need to be enabled in order for ASMI to work when connected to HMC remotely. The ASM proxy code saves session information and uses it.

Internet Explorer

1. Click **Tools > Internet Options.**
2. Click the Privacy tab and select **Advanced**.
3. Determine whether **Always allow session cookies** is checked.
4. If not checked, select **Override automatic cookie handling** and **Always allow session cookies**.
5. For the First-party Cookies and Third-party Cookies, choose block, prompt, or accept. Prompt is preferred, in which case you are prompted every time a site tries to write cookies. Some sites need to be allowed to write cookies.

Mozilla Firefox

1. Click **Tools > Options**.
2. Click the **Cookies** Tab.
3. Select **Allow sites to set cookies.**
    If you want to allow only specific sites, select Exceptions, and add the HMC to allow access.

BMC Browser requirements

To access local console in OpenPower environment required the following browser requirements with JRE Plugin Version 8 U144

- Google Chrome Version 60
- Firefox Version 52.1.2
- Internet Explorer Version 11
- Safari Version 10.1.2

Installation for the 7042 Machine Type

Installation instructions for HMC Version 8 upgrades and corrective service can be found at these locations:

Upgrading or restoring HMC Version 8

Instructions and images for upgrading via a remote network install can be found here:

HMC V8 network installation images and installation instructions

Installation methods for vHMC
http://www-01.ibm.com/support/knowledgecenter/HW4M4/p8hai/p8hai_installvhmc.htm

After the upgrade, install the mandatory fix using the instructions at:
Installation methods for HMC Version 8 fixes

Installing HMC in the OpenPower Environment, 7063 Machine type

 Setup and cabling of the 7063-CR1:
 http://www.ibm.com/support/knowledgecenter/POWER8/p8hai/p8hai_cabling7063.htm

The 7063-CR1 uses a BMC based service processor that provides remote management capability:
http://www.ibm.com/support/knowledgecenter/POWER8/p8eih/p8eih_managing_with_ipmi_ami.htm

The most current version of the install procedure for the HMC is here:
http://www.ibm.com/support/knowledgecenter/POWER8/p8hai/p8hai_configure7063.htm

Note: Use of an external USB 3.0 DVD device on the 7063-CR1 will require use of a y-cable connected to 2 USB ports in order to power the device properly.

Virtual HMC Installation for x86 hypervisors

Installation Images

Appliance (vHMC) install images are available at the Entitled Systems Support site (ESS): http://www-304.ibm.com/servers/eserver/ess/OpenServlet.wss . You must be entitled to Product ID 5765-HMV in order to download from the ESS site.

Fixes, mandatory fixes and service packs for the vHMC are common to the Power Hardware management console (HMC) and will be available at IBM Fix Central.

The splash panel information (lshmc -V output) for the vHMC will be the same as for the HMC recovery DVD that is documented in the above description section.

Installation guidance for installing the vHMC into your hypervisor is found in the IBM Knowledge Center. Installation procedures may vary depending on the operating system you use and the hypervisor you use.

A feature of the vHMC is the activation engine which allows you to preconfigure the HMC Console by passing configuration information to the HMC at the first boot of the HMC, when using these images. Please look at the on-line Knowledge Center documentation on using the Activation Engine feature.

Notes for the Virtual Appliance for x86 hypervisors

- The supported hypervisors for x86 are
  - VMWARE ESXi 6.0 or higher
  - KVM on Red Hat RHEL7 or higher
  - Xen 4.2 or higher on SLES 12
- There are now two images for the VMWare ESXi Server, one is for ESXi 6.0 and the other for ESXi 6.5. This is due to differences in the encoding of the OVA images. SHA1 for ESXi 6.0 , SHA256 for ESXi 6.5
- The processor on the systems hosting vHMC for x86 must have either Intel VT-x or AMD-V Hardware Virtualization enabled.

Installation methods for vHMC on x86 hypervisors
http://www.ibm.com/support/knowledgecenter/POWER8/p8hai/p8hai_installvhmc.htm

After the upgrade, install the mandatory fix using the instructions at:
Installation methods for HMC Version 8 fixes

Virtual HMC for PowerVM LPARS

Installation Images

Download of the Power Hardware Management Virtual Appliance (vHMC) install images are available at the Entitled Systems Support site (ESS): http://www-304.ibm.com/servers/eserver/ess/OpenServlet.wss . You must be entitled to Product ID 5765-HMA in order to download from the ESS site.

Fixes, mandatory fixes and service packs for the vHMC are common to the Power Hardware management console (HMC) and are available at IBM Fix Central.

The splash panel information (lshmc -V output) for the vHMC will be the same as for the HMC recovery DVD that is documented in the above description section for the 7063 Machine type.

Installation guidance for installing the vHMC into your hypervisor are found in the Online Knowledge Center. Installation procedures may vary depending on the operating system you use and the hypervisor you use.

Notes for the Virtual Appliance for PowerVM :

- The HMC Virtual Appliance for PowerVM   does not provide graphics adapter support for adapters assign to the partition. Use a supported web browser to point to the HMC for UI support.
- DLPAR operations such as memory and processor moves for HMCs running in an LPAR are not supported.
- Inactive partition migration and Simplified Remote Restart operations are supported.
- The virtual appliance for PowerVM requires a P8 server that is enabled for little endian support. System Firmware 860 recommended.
- vHMC for PowerVM cannot manage the server it is hosted on.

Installation of vHMC for LPARs:
http://www.ibm.com/support/knowledgecenter/POWER8/p8hai/p8hai_vhmc_pvm.htm

The mandatory PTF must be installed immediately after installing the virtual machine image. The Mandatory PTF is available on Fix Central.
Installation methods for HMC Version 8 fixes

General Virtual HMC notes

- Virtual HMC Appliance can be deployed in your existing POWER virtualized infrastructure. Virtual HMC Appliance supports install into PowerVM LPARs.
- Call home of serviceable events with a failing MTMS of the HMC itself is disabled. Those serviceable events should be manually reported to IBM software support.
- To see if you are running on a virtual HMC use the lshmc -v command. If it displays a UVMID field, then you are running in a virtual machine.

   Example:

   lshmc -v

                         "vpd=*FC ????????
                         *VC 20.0
                         *N2 Thu Sep 14 15:02:44 UTC 2017
                         *FC ????????
                         *DS Hardware Management Console
                         *TM Vc87-f0a
                         *SE 7f61457
                         *MN IBM
                         *PN N/A
                         *SZ 8371892224
                         *OS Embedded Operating Systems
                         *NA 127.0.0.1
                         *FC ????????
                         *DS Platform Firmware
                         *RM V8R8.7.0.0
                         UVMID c87f:0a7f:603a:1457
                         "

- When deploying a virtual HMC, if the mac address is not specified, it will be generated by the hypervisor. Network configuration on the HMC relies on the value of MAC addresses. If you re-deploy a new virtual HMC and want to restore critical console data previously taken on a virtual HMC, ensure sure you are using the same MAC addresses.
- When using Activation Engine to setup NTP configuration, you must specify the NTP version value.
- We recommend upgrading to the new image that uses 500GB by following the steps below:
   - From the current HMC version (e.g. HMC V8.860.0), upgrade to HMC V8.870.0
   - When the upgrade is complete the HMC is now at a new version but still has a 160GB disk.
   - Perform a Critical Console Data backup, excluding network information and store the backup to a remote location.
   - Deploy the new HMC V8.870.0 image which uses a 500GB disk.
   - After the HMC boots up with the 500GB disk, restore the Critical Console data.

National Language Support (Supported languages)

Languages	Locales
English	en_US,en_AU,en_BE,en_BE@preeuro,en_CA,en_GB,en_GB@euro,en_HK,en_IE,en_IE@preeuro,en_IN,en_NZ,en_PH,en_PK,en_SG,en_ZA
Catalan	ca_ES, ca_ES@preeuro
German	de_DE, de_DE@preeuro, de_CH, de_AT, de_AT@preeuro, de_LU, de_LU@preeuro
French	fr_FR, fr_FR.UTF-8, fr_CH, fr_CA, fr_BE, fr_BE@preeuro, fr_LU, fr_LU@preeuro
Italian	it_IT, it_IT@preeuro, it_CH
Spanish	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	pt_BR
Portugal Portuguese	pt_PT, pt_PT@preeuro
Polish	pl_PL, pl_PL.UTF-8, pl_PL@euro,pl_PL@preeuro
Japanese	Ja_JP
Simplified Chinese	zh_CN, zh_SG
Traditional Chinese	zh_TW, zh_HK
Korean	ko_KR
Hungarian	hu_HU, hu_HU.UTF-8,hu_HU@euro,hu_HU@preeuro
Dutch	nl_NL, nl_NL@preeuro, nl_BE, nl_BE@preeuro
Russian	ru_RU
Czech	cs_CZ, cs_CZ.UTF-8,cs_CZ@euro,cs_CZ@preeuro
Slovakian	sk_SK, sk_SK.UTF-8,sk_SK@euro,sk_SK@preeuro

Copyright and Trademark Information

http://www.ibm.com/legal/copytrade.shtml

Notices

This information was developed for products and services offered in the US.

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

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
US

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law