

Hardware Management Console Readme

For use with Version 8 Release 8.5.0

Date: 27 May 2016

Contents

These special instructions contain the following information specific to HMC V8 R8.5.0 code level.

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PTF MH01616 HMC V8 R8.5.0 Recovery Media and Mandatory PTF MH01617

This package represents the Recovery image that can be used to upgrade your HMC from HMC V8 R8.3.0 or higher to HMC V8 R8.5.0. This package can also be used to install a clean version of HMC V8 R8.5.0. You can also reference this package by APAR MB04002 and PTF MH01616. The mandatory PTF is APAR MB04003 and PTF MH01617.

Note 1: During the upgrade to V8 R8.5.0, the local session will display a list of environment variables for hmcmanager (last line is "END ENV") for as long as 20 to 40 minutes without a screen change. Do not reboot HMC or power off; wait for the upgrade to complete.

Note 2: Mandatory fix MH01617 must be installed using the classic GUI or the CLI updhmc command.

<i>Package information</i>				
Package name	Size	Checksum (sha1sum)	APAR#	PTF#
HMC_Recovery_V8R850_1.iso	3606800384	fba9f54538bcd097c6b2fc1c0ea51fed7896c91d	MB04002	MH01616
MH01617.iso	21705994	96e388ef0cdfc375acf371e43960bfcafe	MB400	MH016

Mandatory PTF	24	9095cf	03	17
Splash Panel information (or lshmc -V output)				
After installing the Recovery package				
<pre>"version= Version: 8 Release: 8.5.0 Service Pack: 0 HMC Build level 20160422.1 ";"base_version=V8R8.5.0 "</pre>				
After installing the Mandatory PTF				
<pre>"version= Version: 8 Release: 8.5.0 Service Pack: 0 HMC Build level 201600516.1 MH01617: Required fix for HMC V8R8.5.0 (05-16-2016) ";"base_version=V8R8.5.0 "</pre>				

Upgrade notes

- The following Power8 systems are supported by this level of HMC V8 R8.5.0:
 - IBM Power System S812L (8247-21L)
 - IBM Power System S822L (8247-22L)
 - IBM Power System S822 (8284-22A)
 - IBM Power System S814 (8286-41A)
 - IBM Power System S824 (8286-42A)
 - IBM Power System S824L (8247-42L)
 - IBM Power System E870 Server (9119-MME)
 - IBM Power System E850, (8408-E8E)
 - IBM Power System E880 Server (9119-MHE)

- HMC V8 R8.5.0 continues to provide support for Power6 and Power7 based systems.

- POWER5 servers are not supported from 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 R8.5.0 supports the following HMC models:
 - Deskside: C08
 - Rack Mount: CR5, CR6, CR7, CR8, CR9, and OE1

- HMC V8 does not support models CR2, CR3, CR4 and C03, C04, C05, C06, C07.

- In HMC V8, Classic GUI requires 2GB memory and Enhanced GUI requires 4GB memory. If you run **over 300 partitions**, it is recommended to have 8GB memory.
- The HMC must be version V8 R8.3.0 or later to be upgraded to HMC V8 R8.5.0. This requirement is enforced during installation.
- When two HMCs manage the same server, both HMCs must be at the same version.
- If a server is connected to two different versions (i.e., Version 7 and Version 8) of the HMC, the higher version HMC will upgrade the partition configuration (profile data of the system) to the latest version. 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 version of the HMC, you must first initialize the server before you use the lower version of the HMC. Also, initialize the CEC using lower version of 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 lower version of HMC, one of the following outcomes can occur depending on the version of the lower-level HMC:
 - 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 8.5.0.
 - HMC Version 7 Release 7.8.0 and 7.9.0 report a connection error of Version mismatch with reference code Save Area Version Mismatch if the server has been managed by Version 8.
 - HMC Version 7 Release 7.8.0 reports a connection error of Version mismatch with reference code Save Area Version Mismatch if the server has been managed by Release 7.9.0 or Version 8.
 - HMC Version 7 Release 7.7.0 and earlier might report a server state of Incomplete or Recovery if the server has been managed by a later version and / or release. In addition, partition configuration corruption may occur.
- It is recommended to have all connected VIOS servers on the latest level i.e. VIOS level 2.2.4.0. To have optimal performance from the Enhanced+ UI, make sure all VIOS are at 2.2.3.X level or above.
- All running partitions (AIX Linux and VIOS) should be at RSCT 3.2.0.6 or higher. It is recommended to have AIX 6.1 TL9 with SP5 or higher, and AIX 7.1 TL3 with SP5 or higher; these SP levels contain RSCT 3.2.0.6.
- This is the last HMC release that will support the CIM interface on the Open Pegasus port 5989. Future releases will only support REST API (port 12443) as the programmatic interface for PowerVM management via HMC. For more information see the forums on REST API at <https://www.ibm.com/developerworks/community/groups/community/powerhmc>.

Best Practices

- For partitions enabled with Remote Restart or Simplified Remote Restart, if storage/network changes are made using VIOS CLI, without going through the HMC, the user should run the HMC refdev command to refresh the partition configuration data stored for remote restart. For more information on Simplified Restart go to DeveloperWorks.
Enhancements and New Functions

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Enhancements and new function

New function or enhancement in V8R8.5.0:

- **Enhanced UI enhancements**
 - General performance improvements across Enhanced+ UI. See <http://ibm.biz/Bd48iu> for more info
 - Enhanced+ UI Support for tablet browsers
 - iPad: Safari and Chrome
 - Android: Chrome
 - Recommendations
 - Landscape Orientation
 - Minimum resolution 1024 x 768
- **Simplified Remote Restart (SRR) enhancements**
 - Allow SRR when HMC has no connection to a server
 - Template support to create SRR-enabled partitions
 - Remote HMC support, i.e. source and destination server managed by different HMCs
 - Auto-cleanup on source server
 - LPM support of SRR-enabled partitions between POWER8 and POWER7
 - User specifications (overrides) for Shared Processor Pool and virtual fibre channel mapping
 - Increase in concurrent SRRs to 32
- **SR-IOV and vNIC enhancements**
 - Virtual topology support for SR-IOV and vNIC
- **PHYP enhancements**
 - Added new feature to support shared processor pool name in PHYP

- **Command Line Enhancements**
 - Support to add/list/delete static routes
 - Support to list Firewall services
- **HMC Virtual Appliance – enhancements**
 - Xen Hypervisor is supported
- **Power Enterprise Pools**
 - Support for multiple managing HMCs has been added. Any number of HMCs can now manage the servers in a Power enterprise pool, and all servers in the pool no longer have to be connected to all of the HMCs or to the master HMC for the pool.
- **Performance improvements**
 - General performance improvements across Enhanced+ UI
- **Display Configuration Utility enhancement**
 - A new display configuration menu will be displayed during the HMC startup process. User will be able to configure the display device type and resolution modes. The new menu will be shown prior to the two existing configuration menus used for configuring the locale and keyboard settings. The menu can be enabled/disabled using the CLI command `chhmc`.
- **Per-migration based profile override for inactive partition migration**
 - In addition to the existing sever-wide profile override, HMC also allows you to specify a per-migration based profile override for migrating an inactive partition. This override allows you to specify the current partition configuration or the last activated profile to be used to create the migrating partition on the target managed system. If you do not specify this override, the existing server-wide override value will be used. If you do not specify the server-wide override, the current partition configuration will be used.
- Enhanced **pedbg** command to include additional files such as `sftp.log`.

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This package provides the following fixes:

General fixes

- Fixed an issue where the Console Window > Open Terminal Window task fails to open a vterm window when launched from the local HMC and the HMC does not have internet access.
- Fixed a problem where Wake On Lan (WOL) failed on model 7042-CR9 even though it showed as enabled.
- Fixed a problem where `chhwres -r virtualio` command incorrectly fail with error HSCL350B when run by a user with a customized task role that was authorized to the command.
- Fixed a problem where Transmit Service Data task for a specific PMH will fail unless the target PMH was entitled for the HMC sending the data.
- Fixed a rare problem that can result in the server having a persistent incomplete state due to damage in the server's hardware discovery cache.
- Fixed an issue where a USB flash device may not be properly detected when added/removed during HMC reboots or shutdowns.
- Fixed an issue where users with a custom resource role may take over a minute longer to log in and render GUI.
- Fixed an error message to correctly display accurate information when a VIOS returns `VRM_DATA_BASE_FAIL` to contact software support. New messages text "*HSCLA49C The Virtual I/O Server (VIOS) partition returned error VRM_DATA_BASE_FAIL. Contact your service representative.*"
- Fixed an issue when exporting a SVG diagram (network, storage, vNIC, etc.) as a PDF file the complete configuration was not captured. New options are provided to select portrait/landscape or Image scaled: Horizontal or Vertical.
- Fixed an issue where a managed system may go into an Incomplete state after removing I/O hardware due to stale data in the hardware discovery cache causing an unhandled `NullPointerException`.
- Remote Restart Auto Clean up functionality is disabled if PowerVC is Orchestator.
- Fixed a report of serviceable event E3551081 for a temporary error accessing the Remote HMC menu locally on the HMC to be an informational SRC and not call home.
- Fixed a problem that may result in serviceable events E3690102, E3550996, E3550103, and E3550101 being generated during PTF installation.

Command line changes

- The following commands have been enhanced to support multiple HMCs for Power enterprise pools: **chcodpool**, **lscodpool**, and **mkcodpool**.
- The **diagrmc** command has been enhanced to check for RMC connection issues between HMCs managing a Power enterprise pool.
- The **migrpar** command has been enhanced to provide a profile policy override for inactive partition migration operations. The profile policy specifies whether the last activated profile for the partition or the current configuration of the partition is to be used for the operation.
- The **--requireerr** option has been added to the **migrpar** command to specify how the simplified remote restart capability for migrating partitions is to be handled.

- New options have been added to the `rrstartlpar` command to support:
 - simplified partition remote restart operations when the source managed system is in No Connection state
 - simplified partition remote restart operations when the destination managed system is managed by a different HMC than the source managed system
 - specification of virtual fibre channel adapter mappings and the destination shared processor pool for simplified partition remote restart operations
 - configuration of automatic clean up on source managed systems after successful remote restart operations
- A new command, **`lsrrstartlpar`**, has been added to display partition remote restart information.
- The **`--nodetails`** option has been added to the **`chlparstate`** and **`rrstartlpar`** commands to suppress the display of detail messages.
- The **`--admin`** option has been added to the **`viosvrcmd`** command to allow the specified command to run as root on the Virtual I/O Server.
- The **`--nopreaccept`** option has been added to the **`updlic`** command to prevent the previously activated LIC updates from automatically being accepted prior to starting the current update.
- The **`chhmc`** and **`lshmc`** commands have been enhanced to configure and display network static routing information for the HMC.
- The **`lshmc`** command has been enhanced to display the firewall settings for the HMC.
- The **`chhmc`** command has been enhanced to enable/disable the new display configuration menu getting shown during the HMC startup process.
 - **`chhmc -c dispcfg -s enable`**
 - **`chhmc -c dispcfg -s disable`**

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Known issues and Limitations

- 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.
 - HMC uses RSA 2048 type keys to communicate with LPARs. When user removes HMC V8 R8.5.0 and connects an older level HMC (i.e HMC V8 R8.2.0 or before), it will drive NIST mode on the LPARs to be disabled. However the LPARs would continue to use RSA 2048 type keys so there would be connection establishment issue. To resolve this problem, the LPAR admin should run `'/usr/sbin/rsct/bin/chsecmode -c none -m rsa512'` command on all the corresponding LPARs (This command can't be run if LPAR is running any HA software like TSA, PowerHA).
- 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 locale to English with UTF-8 codeset for use with French keyboard.
chhmc -c locale -s modify -l en_US.UTF-8
- HMC V8 R8.3.0 to V8 R8.5.0 upgrade script replaces the default templates during the upgrade process. Any changes performed on the V8 R8.3.0 default template will be overwritten. HMC V8 R8.3.0 to V8 R8.5.0 upgrade script will add the Quick Start Templates to the existing Template Library and the user can delete the older Starter Templates manually.
- VIOS installation is supported only through Add VIOS
- In Enhanced+ UI, Manage VIOS -> Add Logical Host Ethernet Adapter page once user has performed add and remove of same HEA port, the HMC does not display the port again for addition. As a workaround launch the Add Logical Host Ethernet Adapter page again.
- When a Virtual Ethernet Adapter is created using Enhanced GUI and the next adapter is created using Classic GUI, the Slot that is used in Enhanced GUI will be shown as Available and set as the default in Classic GUI. If the user tries to create on that slot an error is thrown to the user stating the slot is not available. Circumvention is for the user to modify the slot to the next available slot.
- The Enhanced+ UI login mode does not support disconnected sessions like the Classic UI mode. In the Enhanced+ UI mode a session logoff is a logoff and a session disconnect is also a logoff. This means that the user cannot reconnect to the Enhanced+ UI session to resume the task(s) from where it had left off. Every login via the Enhanced+ mode creates a new session. For more details on long running tasks, please refer to the link below :
https://www-01.ibm.com/support/knowledgecenter/POWER8/p8eh6/p8eh6_loginmode.htm
- With Power Enterprise Pools, configuration changes made via CLI while the GUI is already opened may not be correctly reflected in the GUI even if the refresh button is used. Circumvention is to use the browser's refresh (F5) to get the latest value.
- When creating a system plan for a 8282_22A server, the image shown for the 8284_22A system incorrectly shows the Expanded View. The issue has no functional impact.
- When selecting a different Shared Processor Pool on the Shared Processor Pool panel using the enhanced login, the GUI is not refreshing the current values to reflect the newly selected pool. The circumvention is to click "Save" after changing the Shared Processor Pool then close and re-launch the enhanced UI.
- When there is a communication error between the browser and HMC, the user will see a default message that states "Click Here" to reload" however the "Click Here" option will

cause the UI to hang. The circumvention is to take note of any unsaved data and reload the panel by using the F5 button (refresh the browser) or by logging off and back on.

- If you perform a Power enterprise pool change operation on a server that is also the destination of a running partition migration operation, that Power enterprise pool operation will not complete until the partition migration operation completes. In addition, other Power enterprise pool operations, including loading the Power enterprise pool GUI, on any of the managing HMCs for the pool may also hang until the partition migration completes. The circumvention is to wait until any active migrations complete before making changes to an enterprise pool.
- The "All Shared Storage Pool Clusters" will not launch successfully if any of the Virtual I/O Server managed by the HMC is not configured properly. This includes the Virtual I/O Servers that are not Nodes in the Shared Storage Pool Clusters in the HMC. Use ALL Systems relational view from which you can view all the partition grouped by System. In this view we can easily see the partition been migrated from one system to the other. In some rare situations, especially with a Firefox browser, the user may be redirected to a second login page after having provided and validated credentials. Then, providing the credentials again will fail. If this issue occurs the user should close and re-launch the browser to make it work.
- When concurrently managing the Power enterprise pool, a Power enterprise pool administrator may encounter unexpected pool resource assignment data changes due to the other concurrent operations done by a Power enterprise pool administrator using the GUI. This is due to the Power enterprise pool GUI caching pool resource assignment data that may get stale after other pool operations are done thus overwriting the newer pool data with stale data. Note that if pool resource changes are done via the GUI all of the resource data will be submitted as the change.
So for example, a GUI user in the concurrent management scenario who only changes the memory resource assignment could overwrite a new processor resource assignment with the stale cached processor resource assignment. And this could happen in the reverse case where the user updates only the processor assignment and the stale cached memory assignment overwrites the newer memory assignment.
- From the Enhanced+ HMC, click on HMC management icon in the toolbar, then open the Console Management page. Click the Schedule Operation link. The panel which is launched is not correct. In order to schedule an operation against the HMC, please use the Classic GUI.
- 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 FSP failover with the following command:
chsyscfg -m <server name> -r sys -i "sp_failover_enabled=1"
- When customers upgrade from V8 R8.1.0 to V8 R8.5.0 (V8 R8.1.0 to V8 R8.3.0 and then subsequent upgrade to V8 R8.5.0 without login to UI), any users which existed in V8 R8.1.0 will remain but with default user settings.
- Opening multiple PCM Dashboard windows for the same managed server on the same browser or different browser 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 future release.

- After Templates copy to Templates Library/OS image page, the dashboard navigation is disabled. This is a known issue and work around is to open another window from the context menu and click on cancel will clear the navigation issue.
- If the System Templates deploy fails due to the installed VIOS going to Open Firmware state, then user can open Virtual Terminal 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's an indication that the HMC code is not installed, and only the Operating System has been put on disk. Causes could be that the date in UEFI is not the current date/year or DVD media issues. Set the date using the UEFI Setup Utility to be the current date and year, then attempt reinstall. Try different media if the date/year is correct.
- Virtual terminal (vterm) applet will not launch in the supported version of chrome (42 or higher).
- When installing VIOS using Enhanced+UI mode, the profile name should be the default profile.
- For the Virtual HMC offering, call home for serviceable events with a failing MTMS of the HMC itself is disabled. Those serviceable events should be manually reported to IBM software support.
- Before restoring critical console data, after the 850 Recovery DVD install mandatory PTF must be installed, prior to attempting a restore operation.
- 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.

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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 U71, 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 8.5.0 supports Google Chrome Version 48.

Microsoft Internet Explorer

HMC V8 R8.5.0 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:
 - 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.
 - Browser zoom setting to 100%.

Internet Explorer restriction

When trying to close an Enhanced+ modal popup window in Internet Explorer, a prompt window will appear with the question "The webpage you are viewing is trying to close the tab. Do you want to close this tab?" You must answer "No" to this question to close only the popup. Otherwise, the whole application will be closed.

Mozilla Firefox

HMC Version 8.5.0 supports Mozilla Firefox Version 38 Extended Support Release (ESR) and Mozilla Firefox Version 45 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 "**the 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.

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.

Installation

Special Install Instructions for mandatory fix MH01617: This fix must be installed using either the classic GUI or the HMC updhmc command; not the enhanced GUI. See the updhmc “man” page (e.g. man updhmc) for further information and examples on using the command.

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

Virtual HMC (vHMC)

The vHMC provides images in 3 additional formats to allow for quick deployment of the vHMC on either ESXi, KVM or Xen hypervisors. These images are snapshots of the virtual machine and allow for quick deployment of the HMC.

Support for the Xen hypervisor is new for the V8R850 HMC.

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.

- 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 Wed Aug 26 13:36:06 UTC 2015  
*FC ????????  
*DS Hardware Management Console  
*TM Vb07-f21  
*SE 6b4b9a5  
*MN IBM  
*PN N/A  
*SZ 1044881408  
*OS Embedded Operating Systems  
*NA 127.0.0.1  
*FC ????????  
*DS Platform Firmware  
*RM V8R8.5.0.0  
*UVMID b07f:216b:4ce7:b9a5  
"
```

- 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.
- The Activation Engine currently does not provide configuration of DHCP Server on virtual HMC.

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-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 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.

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.

The mandatory PTF must be installed immediately after installing the virtual machine image. The Mandatory PTF is available on Fix Central.

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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...
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_H...
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
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