HMC V8 R860

- IBM Power Systems Hardware Management Console
  - Continues to mature
  - Continues to get better

- This session looks at some of the newer features
HMC V8 Reminder and level setting

- Massive Graphical overhaul (code name K2) but optional
  - One touch VIOS deploy
  - Hands off PowerVM
  - Templates to deploy similar LPAR / VM & whole system
  - Integrated Performance & Capacity (think hourly)
- Pre-reqs
  - HMC hardware CR5 or later
  - Memory 4 GB but 8 GB recommended (CR7/8 start at 8GB)

- Upgrade over N-2 levels 7.8→8.1 or 7.9→8.2 etc
- Only connects to POWER6, 7 or 8 (no POWER5!)
- Max servers 48 or 32 for 595/795 (no change)
- Max 1024 VMs (no change)

HMC CR6 CR7 CR8 comparison

<table>
<thead>
<tr>
<th>Feature</th>
<th>CR6</th>
<th>CR7</th>
<th>CR8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Westmere-EP</td>
<td>Intel Xeon E5 (Sandy Bridge)</td>
<td>Intel Xeon E5 v2 (Ivy Bridge)</td>
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<tr>
<td>Memory</td>
<td>4 GB</td>
<td>8 - 16 GB</td>
<td>8 - 16 GB</td>
</tr>
<tr>
<td>DASD</td>
<td>500 GB</td>
<td>500 GB</td>
<td>500 GB</td>
</tr>
<tr>
<td>RAID 1 (2 disk)</td>
<td>Optional in 4Q2012</td>
<td>Default</td>
<td>Default</td>
</tr>
<tr>
<td>Multitech Internal Modem</td>
<td>Defaulted</td>
<td>Optional</td>
<td>None</td>
</tr>
<tr>
<td>Integrated Networks</td>
<td>2 on Main Bus + 2 on expansion slot</td>
<td>4 x 1 GbE</td>
<td>4 x 1 GbE</td>
</tr>
<tr>
<td>I/O Slots</td>
<td>1 PCI Express 2.0 slot</td>
<td>1 PCI Express 3.0 slot</td>
<td>1 PCI Express 3.0 slot</td>
</tr>
<tr>
<td>USB Ports</td>
<td>2 front / 4 back / 1 internal</td>
<td>2 front / 4 back / 1 internal</td>
<td>2 front / 4 back / 1 internal</td>
</tr>
</tbody>
</table>
HMC 7042-CR9

- 7042-CR9 is based on System x3550 M5
  - 6 processor cores with hyperthreading
  - Expandable to 192 GB memory; 16 GB x 12 slots

- I/O
  - Front: 1x USB 3.0, 1x USB 2.0 (8x 2.5" drive bay models) or 2x USB 2.0 (4x 3.5" and 10x 2.5" drive bay models), and 1x DB-15 video.
  - Rear: 2x USB 3.0, 1x USB 2.0, 1x DB-15 video, 1x RJ-45 systems management, 4x RJ-45 GbE network ports.

- GA with HMC V8.840: 4Q 2015

HMC V8R8.2

Welcome to the Hardware Management Console

User name: 

Password: 

Log In ☑

Last Log In
Classic
Enhanced
Enhanced + Tech Preview (Pre-GA)

Learn more about HMC software interface options →
HMC V8R8.4 and later

Poll

- **Do you use the Enhanced + GUI**

1. All the time - we love it
2. We are using it more and more - it keeps getting better
3. We tried it a while back, but returned Classic – it’s faster
4. We use it for routine things but in emergency use Classic
5. Never use it, but we are looking forward to trying it out
Only the GUI is new

- New graphical user interface
- But calling the classic underlying field hardened functions

Use FLRT Lite

See the HMC Lifecycle on FLRT Lite

See the Firmware Lifecycle on FLRT Lite
HMC Resources

- HMC Community
  - [https://www.ibm.com/developerworks/community/groups/community/powerhmc](https://www.ibm.com/developerworks/community/groups/community/powerhmc)

- PowerVM LinkedIn group
  - PowerVM VIOS, HMC, Hypervisor
  - [https://www.linkedin.com/groups/8403988](https://www.linkedin.com/groups/8403988)

An Extremely useful matrix

Be informed

- Sign up for IBM My Notifications

My Notifications

- Select the products of interest
- Receive email updates

Security advisories (2016.10.21)
IBM My Notifications by Gareth M Costes

My Notifications for AIX - 21 Oct 2016

Dear Subscriber (qs2@uk.ibm.com),

Here are your updates from IBM My Notifications.

Check out the IBM Support beta
- [https://ibm.biz/support-pilot](https://ibm.biz/support-pilot)

Your support Notifications display in English by default. Machine translation base language setting is added if you specify this option in My defaults within My Notifications. (Note: Not all languages are available at this time, and the English version always over the machine translated version.)

1. AIX 6.1
   - TITLE: UPDATE Vulnerabilities in MD5 and TLS 1.2 impact AIX
HMC Upgrades

- Download code from FixCentral, burn some media etc etc

- OR

- Download Network install images from
HMC Upgrades

- Always read the instructions, but here is an overview:

- On the HMC, save upgrade:
  - `saveupgdata -r disk`

- Copy the files over to the bootable disk partition on the HMC.
  - `getupgfiles -h <hostname> -u <userid> -d <directory>`

- After the files are copied over, run the following command:
  - `chhmc -c altdiskboot -s enable --mode upgrade`

- Reboot the HMC
  - `hmcshutdown -r -t now`

Poll

- **Do you usually do HMC (Version) upgrades**

1. In the computer room using media
2. In the computer room over a network
3. Over a network but you are not in the computer room
4. When you are in a different building
HMC V8R850 Announcement

- IBM PowerVM NovaLink, V1.0.0.3, IBM PowerVC V1.3.1, and IBM Hardware Management Console V8.8.5 enhanced


HMC V8R850 Announcement

- IBM PowerVM NovaLink provides a scalable, direct OpenStack cloud management connection for OpenStack solutions like IBM PowerVC.

PowerVM NovaLink now supports these configuration options:

- PowerVM Simplified Remote VM Restart
- Power Enterprise Pool Management
- IBM i VM Management
- VM deployment with AME enabled
- PowerVM Multiple Shared-Processor Pools
HMC V8R850 Announcement

- HMC includes support for the following:
  - Management of Power Enterprise Pools with multiple HMCs
  - Improved VM restart capabilities that now allow restarting VMs when a system is completely powered off

HMC V8R850 New features vHMC

- HMC Virtual Appliance (vHMC)
  - Now supports Xen hypervisor
  - Originally available with V8R840
    - VMware vSphere ESXi 5
    - KVM, RHEL 6.4 and above
HMC V8R850 Announcement

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  - Management of Power Enterprise Pools with multiple HMCs
  - Improved VM restart capabilities that now allow restarting VMs when a system is completely powered off

HMC V8R850 New features PEP

- Power Enterprise Pools (PEP)
  - Now support for multiple HMCs
  - Any number of HMCs can manage servers in the PEP
  - Servers do not have to be connected to all HMCs
  - Nor to the Master HMC
PEP Pre HMC V8 R850

- Both the PEP Master HMC and the Backup Master HMC must be connected to all FSPs in all servers in the pool.
- Difficult between two data centres that are widely separated.
PEP Setup using HMC V8 R850

- This architecture allows for redundant HMCs in each data centre or even for each server.

- Any HMC added to the pool as a ‘managing’ HMC can be made the master.

- All HMCs in the pool must be at the same level
  - All at V8.850 or all at the same future level.

- All HMCs must have RMC communication to each other, specifically to the ‘Master’ to coordinate any changes and propagate to all other HMCs.
HMC V8R850 Announcement

- IBM PowerVM NovaLink
  - provides a scalable, direct OpenStack cloud management connection for OpenStack solutions like IBM PowerVC. PowerVM NovaLink now supports these configuration options:

  - PowerVM Simplified Remote VM Restart
  - Power Enterprise Pool Management
    - IBM i VM Management
    - VM deployment with AME enabled
    - PowerVM Multiple Shared-Processor Pools

HMC V8R850 New features SRR

- Simplified Remote Restart (SRR)
  - Allow SRR when HMC has no connection to a server
  - Template support to create SRR-enabled partitions
  - Remote HMC support,
    - Source and destination server managed by different HMCs
  - Auto-clean up 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
Simplified Remote Restart - review

- **What is SRR**
  - Method to restart LPARs elsewhere if entire server fails
  - Available on P8 servers with PowerVM Enterprise Edition

- **Compared to LPM**
  - VIO servers are not available
  - HMC code level & system FW will dictate the level of functionality
  - User must “manually” invoke the remote restart commands
  - A clean up command must be run on the source

---

SRR – July 2016 update

- **Made Available 15/7/2016**
  - Updated White Paper covers the enhancements with the HMC 8.850 release
  - Command usage examples
  - New commands
  - Remote Restart States

- **Published 1/6/2016**
  - Blog entry providing overview of the Simplified Remote Restart capabilities and enhancements in the HMC 8.85 release
SRR – July 2016 update

- The SRR checkbox could not be altered via the GUI using the 8.8.4 release

SRR – check status on CLI

```
lssyscfg -r lpar -m $RUBY \ 
    --filter lpar_names=vm36-Ubuntu1604 \ 
    | sed -e s/,/\n/g | grep -i restart
```

- remote_restart_capable=0
- simplified_remote_restart_capable=1
- remote_restart_status=Remote Restartable
SRR – At LPAR creation

For a fully virtualized LPAR, the checkbox can be set at partition create time.

It can also be set via CLI for SRR at HMC 8.810.

At HMC 8.850, the HMC Enhanced view has been updated to toggle the flag.

SRR – HMC V8R850 Key updates

- Increase in number of concurrent RR operations
  - to 32 per target system

- Auto cleanup on source system after successful RR

- Remote Restart with no connection to system ("dead host")

- Complete server outage including the service processor
SRR – HMC V8R850 Useful updates

- Remote Restart operations can be done via the CLI or REST API
- New Command to list system level & LPAR level SRR details
- Remote MC Remote Restart
  - Source and target systems managed by different HMCs
- Live Partition Mobility Override
  - Migrating SRR-capable partitions between POWER7 & POWER8

SRR – HMC V8R850 Useful updates

- Manage Partition UI & Template
  - Templates for creating partition with SRR capability
  - Manage Partition (enhanced+ UI) to enable/disable SRR capability
- User Specifications/Overrides
  - Shared Processor Pool
  - Virtual FC Mappings
SRR – HMC V8R850 New Commands

- `lsrrstartlpar -r sys -m`
- `lsrrstartlpar -r lpar -m`

```bash
lsrrstartlpar -r sys -m P8-S822-lime
num_dest_remote_restarts_in_progress=0,
max_dest_remote_restarts_supported=32,
powervm_partition_simplified_remote_restart_capable=1,
powervm_partition_remote_restart_capable=1
```

```bash
lsrrstartlpar -r lpar -m P8-S822-lime
lpar_name=limevios2,lpar_id=4,
lpar_uuid=164CEE80-37A1-45A8-8A98-17F50211FA23,
remote_restart_operation_state=null,
simplified_remote_restart_capable=0,
remote_restart_capable=0
```

```bash
lpar_name=vm190-AIX72,lpar_id=21,
lpar_uuid=0AD682EF-33F5-46A9-82BD-D62968E760B8,
remote_restart_operation_state=Source Side Cleanup Failed,
simplified_remote_restart_capable=1,remote_restart_capable=0
```

```bash
lpar_name=limevios1,lpar_id=1,
lpar_uuid=0908D2D5-F77D-4843-B0AF-0A23863C91F6,
remote_restart_operation_state=null,
simplified_remote_restart_capable=0,remote_restart_capable=0
```

HMC V8R850 New features vHMC

- HMC Virtual Appliance (vHMC)
  - Now supports Xen hypervisor

- Originally available with V8R840
  - VMware vSphere ESXi 5
  - KVM, RHEL 6.4 and above
HMC V8R860 Announcement

- IBM PowerVM and IBM PowerVC enhancements


HMC V8R860 Announcement

- **IBM Power® Hardware Management Console** includes the following new capabilities:
  
  - Ability to export performance data to an external CSV file format
  
  - Dynamic setting of the Simplified Remote Restart property
HMC V8R860 Announcement

- **IBM Power® Hardware Management Console** includes the following new capabilities:
  - Ability to export performance data to an external CSV file format
  - Dynamic setting of the Simplified Remote Restart property

Export performance data to CSV

- Uses REST API
- “Non trivial”
- @mr_nmon has been working on this
- In December, 2016 the following were added:
  - Electrical power supply (Watts)
  - Temperatures (Celsius)
  - Shared Storage Pools
    - size, used, read and write stats for bytes, operations, service times, errors
Export performance data to CSV

**Graph 1:**
- **Title:** Shared Storage Postgresql - SSP Capacity in MB
- **X-axis:** Time (HH:MM)
- **Y-axis:** SSP Capacity (MB)
- **Annotations:**
  - Green line: Data
  - Red line: Data
- **Data Points:**
  - 11 Jan 2017, 18:00:00
  - Size: 12.010.8 MB
  - Free: 9.169.872 MB

**Graph 2:**
- **Title:** Shared Storage Postgresql - Disk Throughput KB per second
- **X-axis:** Time (HH:MM)
- **Y-axis:** Disk Throughput (KB per second)
- **Annotations:**
  - Blue line: Data
  - Red line: Data
- **Data Points:**
  - 2 Feb 2017, 01:35:00
  - Read: 64.647 KB/s
  - Write: 108.111 KB/s

*Author: Nigel Griffiths @nigel_griffith collected PCM_SSP.py and SSP_graph.py. Now with zoom = Left-click and drag. To reset = Right-click.*

© 2017 IBM
Export performance data to CSV

- SSP Capacity MB
- Disk Throughput E/s
- Disk Operations
- Disk Service Time

Shared Storage Pool: globular - Disk Operations per second

- 2 Feb 2017, 01:28:00
- Read cps: 13,045,816
- Write cps: 50,532,882

Author: Nigel Griffin at seq_mon completed PPM_SSP.py and SSP_graph.py. New with Zoom = Left-click and drag. To Reset = Right-click.

Export performance data to CSV

- SSP Capacity MB
- Disk Throughput E/s
- Disk Operations
- Disk Service Time

Shared Storage Pool: globular - Disk Service Time in mili-seconds

- 2 Feb 2017, 02:55:00
- Read-service-time-mean: 7.1
- Write-service-time-mean: 1.3

Author: Nigel Griffin at seq_mon completed PPM_SSP.py and SSP_graph.py. New with Zoom = Left-click and drag. To Reset = Right-click.
HMC V8R860 Announcement

- **IBM Power® Hardware Management Console** includes the following new capabilities:
  - Ability to export performance data to an external CSV file format
  - Dynamic setting of the Simplified Remote Restart property

Dynamic setting of SRR

- The SRR capable flag for an LPAR can now be toggled on the fly:

  lssyscfg -r lpar -m P8-S824-emerald --filter lpar_names=vm91 -F simplified_remote_restart_capable=1

  chsyscfg -r lpar -m P8-S824-emerald -I 'name=vm91,simplified_remote_restart_capable=0'

  lssyscfg -r lpar -m P8-S824-emerald --filter lpar_names=vm91 -F simplified_remote_restart_capable=0
Dynamic setting of SRR

- The SRR capable flag for an LPAR can now be toggled on the fly.

Virtual HMC Appliance

- TOP TIP

- If you are looking on the web, look for:
  - Virtual HMC Appliance
  - vHMC
vHMC - Requisites

- Runs on generic x86 hardware
  - Not restricted to IBM/Lenovo
  - Needs H/W Virtualisation enabled (VT-x/AMD-V)

- Minimum requirements
  - 4 CPUs
  - 8GB RAM
  - 160GB HDD
  - 1 to 4 NICs
    - You really want 2 or more
  - Hypervisor
    - Xen hypervisor (new with V8.850)
    - KVM, RHEL 6.4 and above
    - VMware vSphere ESXi 5

vHMC

- Managed servers as for Hardware Appliance V8
  - POWER6
  - POWER7
  - POWER8
  - NO POWER5

- Cannot
  - Format Media
  - Call home via modem
  - Call home of HMC Hardware failures

- New functionality
  - Activation Engine
    - Allows configuration after 1st boot
    - Accept licenses etc
vHMC

- Announcements

- SWMA needed for licensing

- Download from IBM requires
  - Customer Number
  - MTMS of a managed server
  - Product Identification Number

---

vHMC

<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5765-HMV</td>
<td>8.8.4</td>
<td>HMC virtual appliance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product identification number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program PID number</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>5765-HMV</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
vHMC - How to get it

- Available from ESS
  - Enter your customer number during registration
  - If brand SWMA, select the system number
  - If you have any other contracts with IBM for system-entitled products, you can use that information for registration
  - When registration is completed, go to Software download
  - Select OS and version

- Updates are on FixCentral
  - Cannot use HMC updates on a vHMC

vHMC - FAQ


Q: Are existing HMC customers entitled to vHMC?

A: No. vHMC is a separate offering and must be purchased separately. There is no conversion and no upgrade offering at this time.

Q: Are there any restrictions related to on-site warranty support for managed servers?

A: Restrictions are similar to the hardware appliance
vHMC - FAQ

Q: Can the vHMC be hosted on IBM POWER servers?

A: No, the current offering is only supported on Intel hardware.

Q: How can I tell if its a vHMC?

A: If the machine type and model is in the format of "Vxxx-mmm" then it is a virtual HMC.

vHMC – Activation Engine

- Using the Activation Engine for the HMC virtual appliance

  - Learn how to use the Activation Engine for the Hardware Management Console (HMC) virtual appliance.

vHMC – Installing (KVM)

- Installing the HMC virtual appliance by using the KVM hypervisor
  - Learn how to install the Hardware Management Console (HMC) virtual appliance by using the kernel-based virtual machine (KVM) hypervisor.

vHMC – Installing (KVM)

- Download the `<KVM vHMC installation filename>.tar.gz`
- `mkdir -p /var/lib/libvirt/images/vHMC`
- `cd /var/lib/libvirt/images/vHMC`
- `tar -zxvf <KVM vHMC installation filename>.tgz`
- `vi domain.xml`
  - Verify that the path to your disks is correct
    - DISK_PATH
  - Make sure virtio is used in the bus value for your disk device
  - Change the name of the VM (default is vHMC)
  - Verify that your bridges match your Ethernet devices.
vHMC – Installing (KVM)

- Define the VM
  - `virsh define <domain>.xml`

- Start the VM
  - `virsh start vHMC`

- Determine the (VNC) display number of your console
  - `virsh vncdisplay vHMC`

- Connect to your console with a VNC viewer
  - `vncviewer HOSTNAME:ID`

vHMC – Installing (Xen)

- New with HMC V8.850

- Installing the HMC virtual appliance by using the Xen hypervisor
  - Learn how to install the Hardware Management Console (HMC) virtual appliance by using the Xen Hypervisor.

vHMC – Installing (Xen)

- **Download** `<XEN vHMC installation filename>.tar.gz`
- `mkdir -p /var/lib/libvirt/images/vHMC`
- `cd /var/lib/libvirt/images/vHMC`
- `tar -zxvf <XEN vHMC installation filename>.tgz`

- `vi vhmc.cfg` file
  - **Change the name of the virtual HMC**
  - **Replace DISK_PATH with the path for disk1.img:**
    - `disk = [ 'file:DISK_PATH,hda,w' ]`
  - **Replace ethernet adapter:**
    - `vif = [ 'type=virtio, model=e1000, bridge=eth0' ]`

vHMC – Installing (Xen)

- **Create and start the VM**
  - `xl create vhmc.cfg`
- **Check that the VM was added to the list of defined virtual machines**
  - `xl list`
- **Access the VM local console**
  - `vncviewer localhost 0`
vHMC – Installing (VMware)

- Installing the HMC virtual appliance by using VMware ESXi
  - Learn how to install the Hardware Management Console (HMC) virtual appliance by using VMware ESXi.


vHMC – Installing (VMware)

1. Obtain the Tar archive file: `<VMware vHMC installation file name>.tgz`
2. Use the tar command to extract the OVA file from the Tar archive file.
3. Start the vSphere client and log in to the ESXi host.
4. From the File menu, select Deploy OVF template.
5. Click Browse and select the OVA file.
6. Click Next.
7. After the deployment is completed, click Close and select the HMC virtual appliance icon to power the HMC virtual appliance on.
vHMC – Deployment (VMware)

Deploy OVF Template

Source
Select the source location.

Source
OVF Template Details
Name and Location
Disk Format
Ready to Complete

Deploy from a file or URL
C:\vHMC\vHMC.ovf

Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

vHMC – Deployment (VMware)

vSphere Client

What is a Host?
A host is a computer that uses virtualization software, such as ESX or ESXi, to run virtual machines. Hosts provide the physical hardware use and network connectivity needed to virtual machines. The host will be used to deploy a virtual appliance. A virtual appliance is a pre-built virtual machine with an operating system and software already installed. A new virtual machine will need an operating system installed on it, such as Windows or Linux.
vHMC - Notes

- `lshmc -v`
  "vpd=*FC ????????
  *VC 20.0
  *N2 Thu Jul 12 11:35:20 UTC 2016
  *FC ????????
  *DS Hardware Management Console
  *TM V007-f23
  *SE 491baa3
  *MN IBM
  *PN N/A
  *SZ 1044922368
  *OS Embedded Operating Systems
  *NA 127.0.0.1
  *FC ????????
  *DS Platform Firmware
  *RM V8R8.5.0.0
  *UVMID 007f:2349:1615:6343"

To obtain a pesh password you need to specify a UVMID instead of a serial number

vHMC - Backup

- Consider using snapshots
  - PRO
    - Easy
    - Reliable
    - Restorable
  - CON
    - Takes disk space

- HMC CCD (Critical Console Data)
  - Caveat: Watch out for the MAC address when restoring
vHMC – under Ubuntu on a ThinkPad

- Install Ubuntu
- Confirm that the platform supports virtualisation
  - `egrep -c '(svm|vmx)' /proc/cpuinfo`
  - You need it to be >0 ie: 0 is no good (I got 4)

vHMC – under Ubuntu on a ThinkPad

- Update and install a few things
  
  ```
  sudo apt-get install nmon
  sudo apt-get install tightvncserver
  sudo apt-get install openssh-client
  sudo apt-get install openssh-server
  sudo apt-get update
  sudo apt-get upgrade
  sudo apt-get install qemu-kvm libvirt-bin
  sudo adduser name libvirtd bridge-utils virt-manager
  ```

- log out / login
**vHMC – under Ubuntu on a ThinkPad**

- virsh -c qemu:///system list

- see this:
  - gaz@HMC-T420:~$ virsh -c qemu:///system list
  - 
<table>
<thead>
<tr>
<th>Id</th>
<th>Name</th>
<th>State</th>
</tr>
</thead>
</table>

- That is, the command worked but there are no guests

- Define a VM and install/restore the image into it

**vHMC – under Ubuntu on a ThinkPad**

- Defining a VM is easy using the Virtualisation Manager
- Take care with the network devices

- Install from the KVM .TGZ file
If you want to use VNC, you need to do this:

- Otherwise the mouse works but the keyboard doesn't!
The Classic GUI will disappear from an HMC near you SOON.

HMC Enhanced UI - Performance

"The new GUI doesn’t have an easy life. Even local IBMers told me ‘do not use it’."

"But while at the beginning the functionality was miserable, the latest releases got it way better."

V8.5.0 Comparison
- 1300 LPARs (950 emulated)
- 42 systems (36 emulated)

http://theibmi.org/2016/01/19/my-few-words-about-hmc-enhanced-interface/
### HMC Enhanced UI – More Performance!

#### Graphs:
- **Launch LPAR General Properties**:
  - 56
  - 33
  - 16
  - 8
  - 4

- **Virtual Network delete**:
  - 56

- **System Virtual Storage - View Connected Partitions**:
  - 850
  - 860

#### Template Response Time:
- **Deploy Partition From Template**: 25, 43, 47, 24
- **Deploy Partition From Template with Virtual Network**: 25, 43, 47, 24
- **Deploy Partition from Template with Virtual Network & Virtual Storage**: 25, 43, 47, 24

#### Performance All Day Everyday

### myHMC mobile app

- The myHMC mobile app is here!
- Read about it:
- Download it:
  - The app is available for iPhone and Android
  - From the appropriate site
- Give us some feedback:
  - [http://ibmurl.hursley.ibm.com/NN00](http://ibmurl.hursley.ibm.com/NN00)
- Video on YouTube:
  - [https://www.youtube.com/watch?v=vg3IkeuvH6E&feature=youtu.be](https://www.youtube.com/watch?v=vg3IkeuvH6E&feature=youtu.be)
myHMC mobile app

- Monitoring
  - HMC(s)
  - Managed System/ LPAR / VIOS / Group
  - Serviceable Events
  - Dashboard, Performance Monitoring

- Search, Sorting & Filtering capabilities

- Feedback

- Security

- Demo mode
myHMC mobile app

- Want to see more screens?
- Install the app, and have a play with the demo HMC
- Then you can connect up to your own HMCs
- Clearly your mobile device will need to get a network connections to them
HMC - Summary

- Continues to mature and improve
- Improvements for Power Enterprise Pools
- Simplified Remote Restart getting much better
- New Virtual Appliances
- Performance data in CSV format
- Develop your skills with the Enhanced+ GUI
- Have fun with the mobile app 😊

March 2017 Presentation

Session 63: IBM i Predictive Performance Management

15th Mar 2017, 14:00-15:30 UK time.

Speaker: Dawn May,
Senior Technical Staff Member,
Lab Services & Training & Program Manager for IBM Client Advisory Councils

Can the past predict the future? What about the present - right here and now? And if you know the past, and can predict the future, how can you determine the impact to your applications?

Performance management on IBM i has proactive monitoring features and historical data capabilities, as well as application performance modelling.

Attend this session to learn how you can use monitoring to identify and resolve potential issues before they become actual problems, learn about historical performance data and how you can use the past trends to plan for the future, and application modelling to understand what hardware changes will mean to your applications.