Abstract

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- In this session the latest features are covered
- Mostly by a demonstration
- Power Server VUG last did **PowerVC** March 2014
- LOTS of addition features since then
- Some experience of PowerVC is assumed
  - - or - -
  watch my PowerVC YouTube videos for the basics

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YouTube Videos

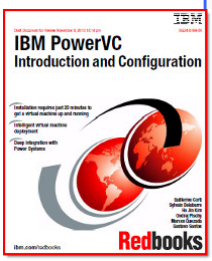
1. Easy management of Power AIX and Linux based on Openstack - IBM PowerVC 5 mins
2. PowerVC Initial Thoughts 12 mins
3. PowerVC Part 2 - Look Around the GUI 9 mins
4. PowerVC Part 3 - Config V7000,SAN,Network & Servers 7 mins
5. PowerVC Part 4 - Virtual Machine Capture 7 mins
6. PowerVC Part 5 - Deploy to a new Virtual Machine 7 mins
7. PowerVC 1.2.1 with Shared Storage Pools 20 mins
8. PowerVC 1.2.1.2 Export Import Image18 mins
9. PowerVM VUG session 35 PowerVC cool 75 mins

- ~600 views so far
- YouTube search: “PowerVC Nigel Griffiths”

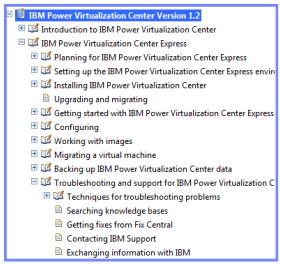
Info:

http://tinyurl.com/IBMPowerVCwebsite

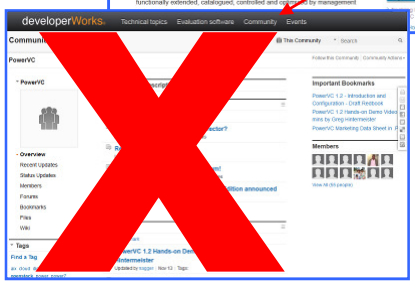
http://tinyurl.com/IBMPowerVC



http://tinyurl.com/IBMPowerVCredbook



http://tinyurl.com/IBMPowerVCmanual12



http://tinyurl.com/IBMPowerVCforum

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LinkedIn Group: "PowerVC Group"

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Jay Kruemcke 1st
Program Executive - Client Collaboration...
Send a message | View Profile

Jay has detailed many features which are high on the priority list for this year … or so.

The place for discussion, hints and tips & requesting new features.
Resent topics include warm standby for HA and backups/ recovery

PowerVC Session Summary

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PowerVC Standard Edition for PowerVM
1. Enormous reduction in SysAdmin man-power
2. Faster & consistent VM creation
3. Full life-cycle of a VM at two or three clicks
4. Manage a resource pool – not individual machines
5. Master Images & Templates – define your standard configs

Added benefits from **Shared Storage Pools** features
1. Enormous reduction in man-power
2. Independence from underlying SAN technology & team!
3. Sub-second virtual disk create & assign & snapshot
4. Autonomic disk mirrors & re-silver with zero VM effort
5. Mobility (LPM) ready by default
6. Now Tiers – disk for different uses

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SSP Image Capture and then Deploy it

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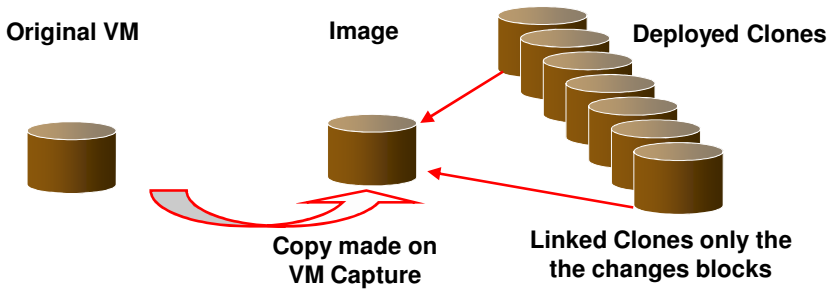
- Capture VM → makes a full copy of the SSP LU (virtual disk)
- Deploy Image → all the VM's are linked Clone LU's



- Linked Clones written changed chunks (1MB) via copy on write

PowerVC Architecture – Standard → HMC

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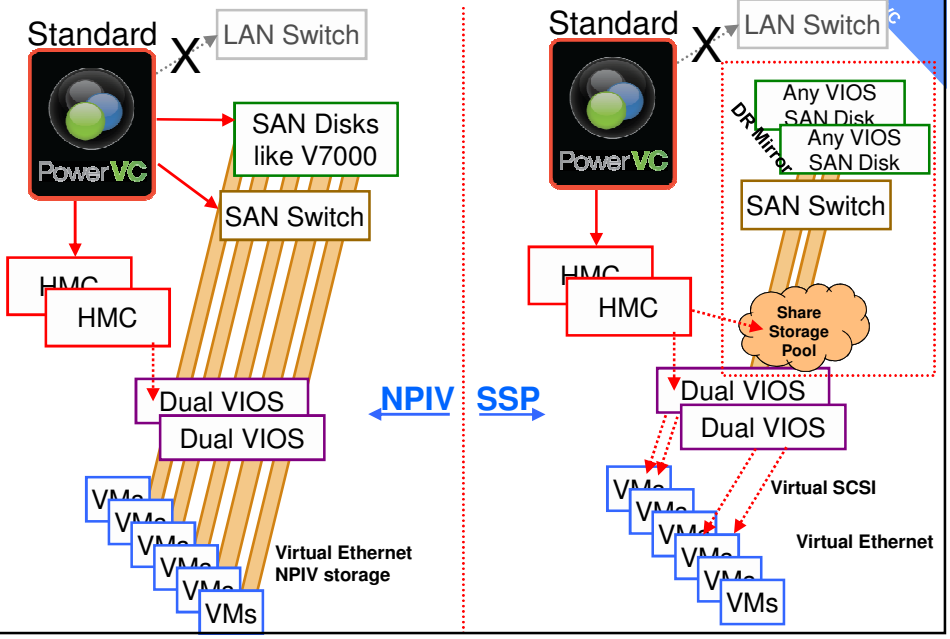

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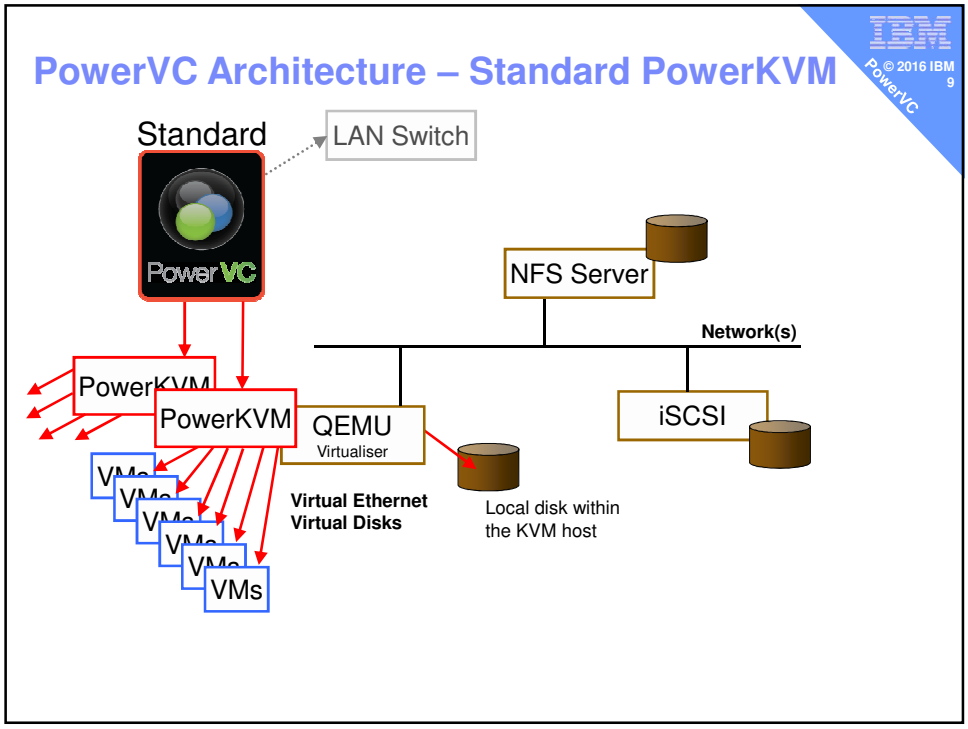

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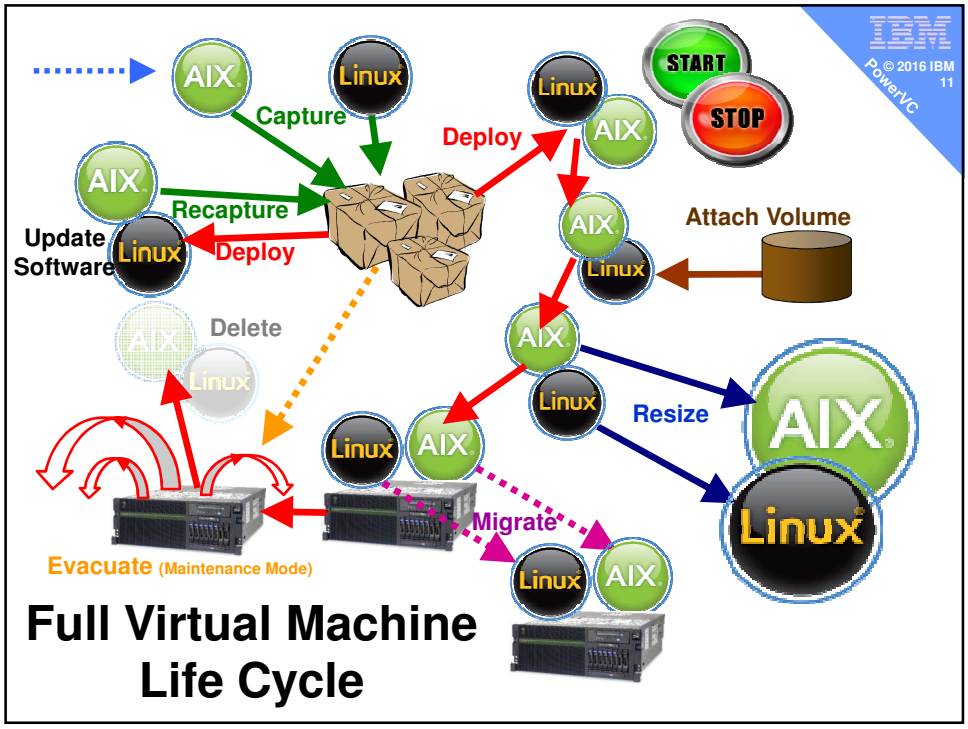

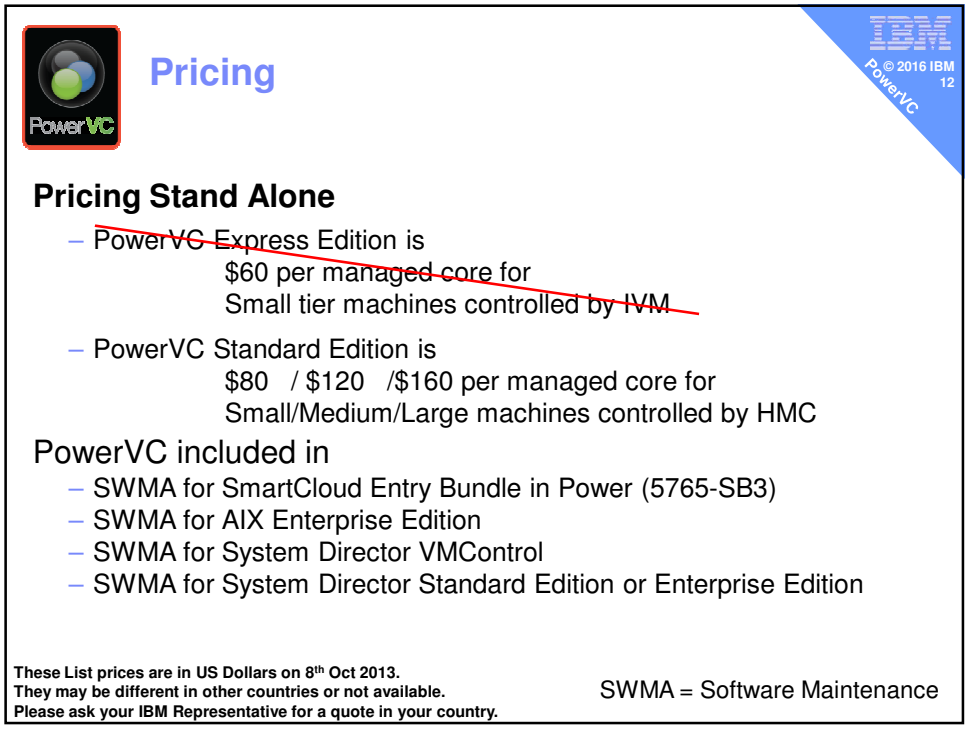

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13
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Features added in the last 2 years

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Power VC 1.2.2 → Q4 2014

- Additional storage
  - Classic vSCSI whole disk/LUN not LV (in addition to NPIV & SSP)
  - IBM XIV
  - EMC VMAX/VNX
  - Originally only SVC family like my V7000
  - Cisco SAN switches in addition to Brocade
- IBM i
- PowerVM Deploy Image Export (CLI) & Import (GUI)
- Add/Remove virtual network after deploy

- Maintenance Mode → Machine Evacuation
- IP v6 support
- Network IP Address Pools
- Linux LE on PowerKVM (like Ubuntu 14 + 15)
- Further scaling 20 hosts + 2000 VMs

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PowerVC 1.2.3 → Q2 2015

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- Latest OpenStack in PowerVC based RHEL7.1 LE or BE
- Enhanced Storage
  - Multi disk capture and deploy
  - Shared disk for PowerHA
  - SVC mirroring
  - IBM SDDPMC & EMC Powerpath in VIOS
- New client VM support
  - RHEL 7.1 LE, SLES 12 LE and Ubuntu 15.10 (14.04.03)
- New Features
  - New deploy placement policies: CPU Util or CPU/RAM capacity
  - Affinity and Anti-affinity
  - Host Groups for similar HW or use placement
  - Dual HMC aware
  - Manual Simple Remote Restart (POWER8 only)
  - AIX 6 & 7 Cloud Init
- Scale to 30 machines and 3000 VM's

New features → later in 2015

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1.2.3.2 (September)

- Support for PowerVM Multiple Shared Processor Pools
- Data volume resize (larger)

1.3.0 (December) base on OpenStack "Liberty" release

1. DRO: New policy-based to automated the dynamic optimisation of systems = load balance (via LPM or move CPU Activation)
2. New storage capabilities, including IBM DS8000 both NPIV & vSCSI
3. PowerKVM – iSCSI boot
4. Enhanced monitoring & security
5. Exploit PowerVM NovaLink, which improves scaling & performance

1.3.0 is SSP5 Tiers unaware but co-operates

- Deploy SSP clone to same tier as OS master image
- Deploy new virtual disks to Default Tier
- If that is not right, SSP admin can use lu -move … to change Tier

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Future features for 2016

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Major new functions are in the plan – lots of WOW factor

If you want to know more:
attend Technical Universities in Q2 in EMEA = Rome

The message for PowerVC users is
"Expect to upgrade your PowerVC every six months
as you will NOT want to miss out on new features"

This includes the regular fixes

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DEMO

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Best Practice is a work in progress

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1. Think: Cattle not Pets!
2. All machines = same config (cluster)
3. Get PowerVC to do the work (not yourself)
   - PowerVC can do the grunt work
   - PowerVC can decide where to place a new VM
   - PowerVC can decide where migrate a VM
   - PowerVC can decide when to load level machines
4. Get a clean set of Deploy Images
5. Set up VM templates S / M / L
6. Automate & Go home early
7. Don't try to force PowerVC to your old bad practices
   - Do it the PowerVC way

- Stop using the HMC

Are you keeping up to date?

mr_nmon on twitter
- Only used to POWER / AIX technical content, hints, tips and links

YouTube™ 131 techie hands-on videos on **YouTube** at http://www.youtube.com/nigelargriffiths

AIXpert Blog
- Lots of mini articles & thoughts
- http://tinyurl.com/AIXpert

Also:
- http://tinyurl.com/ibmAIXVUG
- http://tinyurl.com/PowerSystemsTechnicalWebinars

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