



08:35:34 PDT

**Question:** hi from UK

**Answer:** Hi Andrew!

---

08:35:44 PDT

**Question:** Good evening from the UK!

**Answer:** Great to see you today!

---

08:35:56 PDT

**Question:** LOL...Good Afternoon from Brazil !!!

**Answer:** Welcome!

---

08:36:04 PDT

**Question:** hello

**Answer:** Hi Frano!

---

08:36:15 PDT

**Question:** Good Morning Matt

**Answer:** Hi Umar!

---

08:36:47 PDT

**Question:** Good morning from Illinois

**Answer:** I grew up in Illinois! Great state!

---

08:36:53 PDT

**Question:** Afternoon!

**Answer:** Hi Peter!

---

08:37:39 PDT

**Question:** Good morning from Cleveland

**Answer:** Thanks for tuning in Chris!

---

08:37:43 PDT

**Question:** Good evening from the UK

**Answer:** Good turnout from the UK today!

---

08:37:53 PDT

**Question:** Good morning from Nebraska!

**Answer:** Hi Jonathan!

---

08:38:14 PDT

**Question:** Good evening from kampala Uganda east Africa

**Answer:** Welcome Kyois!

---

08:38:16 PDT

**Question:** Good afternoon from England!!!

**Answer:** Hello!

---

08:38:36 PDT

**Question:** Good evening from Budapest!

**Answer:** Great to see you Oscar!

---

08:38:49 PDT

**Question:** Good morning from Mexico!

**Answer:** Bienvenido!

---



08:38:51 PDT

**Question:** Good evening from Tel-Aviv!

**Answer:** Hi Yuri!

---

08:39:04 PDT

**Question:** Good afternoon from Brazil

**Answer:** Great to see you!

---

08:39:29 PDT

**Question:** Good afternoon from Brasil

**Answer:** Great that we always see so many people from Brasil!

---

08:43:03 PDT

**Question:** good morning from canada

**Answer:** Good morning!

---

08:43:21 PDT

**Question:** Hi all !

**Answer:** Hi!

---

08:43:29 PDT

**Question:** From Colombia

**Answer:** Welcome!

---

08:43:34 PDT

**Question:** Good evening from a hotel room in The Netherlands

**Answer:** Thanks for joining us!

---

08:43:51 PDT

**Question:** It was early morning in Malaysia .. feeling excited !!!

**Answer:** Should be a great couple days of training!

---

08:44:15 PDT

**Question:** Goo morning / evening from Spain!

**Answer:** Hi Alexandru!

---

08:45:50 PDT

**Question:** Good Morning Chris and Matt from Colorado

**Answer:** Hi Robert!

---

08:46:48 PDT

**Question:** Good Morning! guys. How are you? This is Arpan from NC, US.

**Answer:** Great to see you Arpan001

---

08:47:22 PDT

**Question:** Howdy from Madison Wisconsin!

**Answer:** I always have a great time when I visit Madison!

---

08:47:46 PDT

**Question:** Hello everybody! Joining from India =)

**Answer:** Thanks for staying up late with us!

---

08:48:45 PDT

**Question:** How can I test connection / sound?

**Answer:** You should hear music. If you don't please try refreshing your browser. If that doesn't fix it, we can best assist from the help tab

---



08:50:00 PDT

**Question:** It's lovely music

**Answer:** Sometimes 😊

---

08:50:23 PDT

**Question:** Hi everyone, greetings from Poland

**Answer:** Great to see you!

---

08:58:49 PDT

**Question:** Hello everyone. I am joining from India

**Answer:** hello!

---

09:04:19 PDT

**Question:** Good morning Symon, Corey, and Matt!

**Answer:** Great to see you!

---

09:04:19 PDT

**Question:** Good morning Symon, Corey, and Matt!

**Answer:** Great to see you!

---

09:09:46 PDT

**Question:** Does this apply to 2008 R2 as well?

**Answer:** This virtualization Jump Start is intended to prepare individuals for the new Virtualization Exam ( 74-409 ) on Windows Server 2012 R2 and System Center 2012 R2. You'll learn the many enhancements available in 2012 R2.

---

09:11:43 PDT

**Question:** Here's to hoping I can get the workday to mostly leave me alone so I can be here for the majority of the conference.

**Answer:** Fingers crossed 🙏

---

09:11:59 PDT

**Question:** Unfortunately I won't be able to attend day 2 live. As it is my first time experience with MVA, will I be able to attend day 2 in a recording and when?

**Answer:** Yes we will have the recordings posted on Nov 27

---

09:13:56 PDT

**Question:** Hi Keith, After the 2 days we will received a voucher to the exam 74-409?

**Answer:** Yes, Check out the FAQ tab

---

09:14:17 PDT

**Question:** Hi Keith, After the 2 days we will received a voucher to the exam 74-409?

**Answer:** You'll receive a follow-up email from the MVA team with exam voucher redemption information.

---

09:15:41 PDT

**Question:** How long are the recordings available and is it an "on-demand" offering?

**Answer:** We'll keep the recordings available on demand for as long as they are relevant. (Until the next version of the technology most likely)

---

09:16:22 PDT

**Question:** Q: If live webcast is 7 hours, 30 minutes, why is rebroadcast 4 hours 30 minutes? Lots of breaks?

**Answer:** Yes, there is a built in break every hour and a break for lunch.

---

09:17:04 PDT

**Question:** I have one doubt, this training sessios has 2 days of training combo, at 19 and 20 November , or will be the same event but repeating 2 days ?



**Answer:** Two days of content - day 2 will be additional content to help prepare for exam 74-409, with a focus on System Center 2012 R2.

---

09:17:09 PDT

**Question:** Q: If live webcast is 7 hours, 30 minutes, why is rebroadcast 4 hours 30 minutes? Lots of breaks?

**Answer:** Yes, there is a built in break every hour and a break for lunch.

---

09:17:58 PDT

**Question:** does anyone else have this speed issue?

**Answer:** Check the FAQ for any viewing/audio issues for some tips that may help

---

09:18:06 PDT

**Question:** Hi Keith, it will work in every corner of earth ? I'm thinking about Poland and Prometric test centers.

**Answer:** Yes - They're global exam vouchers.

---

09:19:43 PDT

**Question:** Is it 7 hours per day? or 4:30 one day and 4:30 the other day?

**Answer:** Two (very) full days of technical content 🙄

---

09:20:16 PDT

**Question:** Hi Keith, After the 2 days we will receive a voucher to the exam 74-409?

**Answer:** Check the FAQ and it will give you the info you are asking

---

09:20:25 PDT

**Question:** Hi Keith, After the 2 days we will receive a voucher to the exam 74-409?

**Answer:** Check the FAQ and it will give you the info you are asking

---

09:20:27 PDT

**Question:** is it planned to publish hyper-v/SC 2012 R2 deployment, operational, architecture guides, fast start Evaluation guide? this existed for 2012 Edition

**Answer:** We are working on Things here Goran. We already have guides that embraces various scenarios like hybrid cloud and more.

---

09:20:32 PDT

**Question:** is it planned to publish hyper-v/SC 2012 R2 deployment, operational, architecture guides, fast start Evaluation guide? this existed for 2012 Edition

**Answer:** We are working on Things here Goran. We already have guides that embraces various scenarios like hybrid cloud and more.

---

09:20:34 PDT

**Question:** is it planned to publish hyper-v/SC 2012 R2 deployment, operational, architecture guides, fast start Evaluation guide? this existed for 2012 Edition

**Answer:** We are working on Things here Goran. We already have guides that embraces various scenarios like hybrid cloud and more.

---

09:20:41 PDT

**Question:** is it planned to publish hyper-v/SC 2012 R2 deployment, operational, architecture guides, fast start Evaluation guide? this existed for 2012 Edition

**Answer:** We are working on Things here Goran. We already have guides that embraces various scenarios like hybrid cloud and more.

---

09:21:31 PDT

**Question:** Now it's sure we get the free exam voucher. Right?

**Answer:** Correct. Please consult the FAQ page for more information

---



09:22:11 PDT

**Question:** does day 1 recording be available too?

**Answer:** Correct. Please consult the FAQ page for more information

---

09:22:33 PDT

**Question:** What was the book Symon said he helped author?

**Answer:** Introduction to System Center 2012 R2 for IT Pros - <http://shop.oreilly.com/product/0790145395825.do>

---

09:22:57 PDT

**Question:** Question: Which one is better to Implement : Type-1 or Type-2 Virtualization ??? ... and Why???

**Answer:** Gen 1 is for systems that require backwards legacy hardware support and only run 2008R2 and below. Gen2 is new hardware spec and ws2012 and above.

---

09:23:49 PDT

**Question:** How long are the recordings available and is it an "on-demand" offering?

**Answer:** Please consult the FAQ page for more information as it should answer your question

---

09:23:50 PDT

**Question:** Sir How We I Receive Xam Voucher

**Answer:** Please consult the FAQ page for more information as it should answer your question

---

09:24:22 PDT

**Question:** Are there going to be any Labs we can do?

**Answer:** You have available TechNet Virtual Labs -> <http://technet.microsoft.com/en-us/virtuallabs/bb467605.aspx>



09:25:21 PDT

**Question:** hello I also like to view the recording since i am in different time zone so might not able to view full session

**Answer:** THE FAQ Tab/Page should have the answer to your question about the recordings being available

---

09:26:02 PDT

**Question:** What the listing on the left? I see MS, VMware but what is the one on the left?

**Answer:** None, they are listing only the products name of both

---

09:26:56 PDT

**Question:** How App controller is similar with vCloud director ? Can I create networks / vpns using app controler ? in vCloud director this is possible as I remember..

**Answer:** You can create networks, VPN gateways and Private Cluds with VMM - App Controller is a self-service web ui interface.

---

09:27:11 PDT

**Question:** How App controller is similar with vCloud director ? Can I create networks / vpns using app controler ? in vCloud director this is possible as I remember..

**Answer:** No you can't create that with App Controller, only use already existing resources. Windows Azure Pack would be your friend in this context, and provide you with a lot more functionality and capabilities. More to come 😊

---

09:27:22 PDT

**Question:** If we have to miss some of the presentation, can we watch a recording later?

**Answer:** Yes, please consult the FAQ tab/page for information about the recordings being available

---

09:30:02 PDT

**Question:** is the rebroadcast on 27 Nov can be download for watching offline ?

**Answer:** Yes, please consult the FAQ tab/page for information about the recordings being available

---



09:30:58 PDT

**Question:** Are CALs needed for System Center?

**Answer:** Hi Mike, for servers, as long as the server's covered with System Center Suite licenses, then you'll be covered. Please see <http://www.microsoftvirtualacademy.com/training-courses/system-center-2012-licensing-overview>

---

09:31:22 PDT

**Question:** Is SystemCenter License included in HyperV DataCenter?

**Answer:** System Center 2012 R2 Datacenter Edition is a separate license. When using System Center 2012 R2 in a virtualized Windows Environment, you'd want to purchase Windows Server 2012 Datacenter Edition and System Center 2012 R2 Datacenter Edition for each 2-processor host. If hosts have >2 physical procs, you can stack the licenses on each host to license the # of total physical procs.

---

09:31:32 PDT

**Question:** I thought P2V was removed in SCVMM R2?

**Answer:** Yes - P2V is removed in SCVMM R2 2012

---

09:31:42 PDT

**Question:** Hi Kristian, can you provide me a link to documentation what change in Azure pack in R2 ? I have Azure PAK already in my environemtn

**Answer:** Sure. Here you go <http://www.microsoft.com/en-us/server-cloud/products/windows-azure-pack/default.aspx#fbid=phnY2Hvsig->

---

09:31:51 PDT

**Question:** Is there a download link for Hyper-V?

**Answer:** Yes! Trough TechNet Evaluation Center -> <http://technet.microsoft.com/en-us/evalcenter/default>

---

09:31:56 PDT

**Question:** I thought P2V was removed in SCVMM R2?

**Answer:** Hi Johnny, you are correct. Please see: <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx>

---

09:32:06 PDT

**Question:** I am told that P2V is no longer available in the SCVMM R2

**Answer:** Yes you are correct - V2V is still included though.

---

09:32:09 PDT

**Question:** I am told that P2V is no longer available in the SCVMM R2

**Answer:** True

---

09:33:28 PDT

**Question:** Should each system center component be installed on bare metal or as it's own VM? What is the "best practice"?

**Answer:** System Center runs on a server OS, not bare metal

---

09:33:38 PDT

**Question:** Should each system center component be installed on bare metal or as it's own VM? What is the "best practice"?

**Answer:** System Center runs on a server OS, not bare metal

---

09:34:10 PDT

**Question:** P2V in 2012R2 is of interest as I believe it has been removed since 2012?

**Answer:** Hi Philip, please see: <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx>

---

09:34:10 PDT



**Question:** Should each system center component be installed on bare metal or as it's own VM? What is the "best practice"?

**Answer:** You can deploy physical or virtual for VMM and cloud management components. Many customers deploy virtualized for flexibility.

---

09:34:27 PDT

**Question:** Should I be downloading the ISO or VHD versions of the recommended software?

**Answer:** Yes

---

09:35:18 PDT

**Question:** So what P2V option is there?

**Answer:** Hi Alex, please see: <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx>

---

09:35:28 PDT

**Question:** Separate "management cluster" to run SC ?

**Answer:** Highly recommended for large deployments, yes.

---

09:36:49 PDT

**Question:** Thank you Mark! Are these notes?

**Answer:** That was the blog post that addresses this

---

09:37:29 PDT

**Question:** See here for more information about P2V in SCVMM R2: <http://go.microsoft.com/fwlink/?LinkId=327684>

**Answer:** Please see this blog: <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx>

---

09:38:25 PDT

**Question:** I didn't think the windows activation of guests was automatic. I thought you had to type in a special product key in the guests first.

**Answer:** It is something new on WS2012 R2 😊

---

09:38:28 PDT

**Question:** Windows server Datacenter is licensed by cpu cores or sockets?

**Answer:** By physical cpu sockets - each DC licenses covers 2 physical cpu sockets on a host server

---

09:39:17 PDT

**Question:** guys my bandwidth is low can i download video later?

**Answer:** Yes, the recording will be available later

---

09:40:06 PDT

**Question:** Does MCSEI course include this Jump Start?

**Answer:** no not yet

---

09:40:30 PDT

**Question:** How is Client Hyper-V in Windows 8 and Windows 8.1 different than Virtual PC in Windows 7?

**Answer:** Client Hyper-V is Type-1 hypervisor, Virtual PC is type-2

---

09:40:41 PDT

**Question:** How is Client Hyper-V in Windows 8 and Windows 8.1 different than Virtual PC in Windows 7?

**Answer:** Hyper-V is a type1 hypervisor, and Virtual PC/Server is a type2 hypervisor where all access to hw and other resources are emulated.

---



09:40:50 PDT

**Question:** How is Client Hyper-V in Windows 8 and Windows 8.1 different than Virtual PC in Windows 7?

**Answer:** Hi Aashish, Hyper-V on Windows 8+ is the true Type1 hypervisor while virtual PC was a Type1 workstation class hypervisor.

---

09:41:56 PDT

**Question:** Is SCVMM 2012 R2 available as a stand alone, or do you have to license System Center as a whole to use it? And do you license per host or per instance of SC/SCVMM?

**Answer:** VMM licensed as part of System Center 2012 R2 - licensed per virtualization host - each datacenter license covers 2 physical procs per host.

---

09:42:06 PDT

**Question:** @Mark: What about chat history.. as we are getting so many useful links by Symon... will those available afterwards?

**Answer:** That should be available as well.

---

09:42:18 PDT

**Question:** So you can take 15 servers and install Hyper V and join each to the domain and have VMM manage all of those from one console? Do they all share their hardware resources?

**Answer:** Potentially, they could, like network and storage. The key is that SCVMM can manage your entire datacenter from a single console, including its life-cycle.

---

09:42:42 PDT

**Question:** Does existing SC 2012 CM environment require an agent upgrade on your workstations/notebooks ?

**Answer:** If you upgrade to SP1-> R2 Yes

---

09:42:48 PDT

**Question:** does the license cover the physical CPUs installed or or the mainboard socket?

**Answer:** Yes, each System Center license covers Two Physical Processors (sockets) on the host

---

09:42:56 PDT

**Question:** Howz it that Hyper-V runs / can run on Server OS and still called Type 1 ?

**Answer:** When Hyper-V is installed, the hypervisor is a microkernelized hypervisor that runs below the OS on bare metal.

---

09:43:01 PDT

**Question:** Howz it that Hyper-V runs / can run on Server OS and still called Type 1 ?

**Answer:** The hypervisor is slipped beneath the operating system, so that Windows that boots will in turn become a special virtual machine, an interface into the hypervisor.

---

09:43:47 PDT

**Question:** We videos be recorded and available offline?

**Answer:** You will receive an email on Nov 27 announcing the availability of the on-demand recording of this course.

---

09:43:54 PDT

**Question:** Is Windows Server 2012R2 Hyper-V vastly improved from 2012?

**Answer:** Yes, you have new capabilities. Check <http://technet.microsoft.com/en-us/library/dn282278.aspx>

---

09:44:20 PDT

**Question:** Is Windows Server 2012R2 Hyper-V vastly improved from 2012?

**Answer:** Hi Arpan, there are very exciting improvements in Windows Server 2012 R2 Hyper-V. Please see this page: <http://technet.microsoft.com/en-us/library/dn282278.aspx>

---

09:44:38 PDT

**Question:** Are Gen 2 Virtual machines supported across the board, including in Azure?

**Answer:** Gen2 is currently not supported in Azure.

---





09:45:10 PDT

**Question:** @Keith, is that process reversed when HyperV is removed? (Thinking of Win8.1)

**Answer:** Yes.

---

09:45:32 PDT

**Question:** I've read that upgrading a 2012 Cluster to a 2012 R2 cluster requires 2 separate clusters. Is this true?

**Answer:** Yes, you cannot upgrade a Cluster. So you can create a new cluster and migrate everything over. Or, you can evict a current node, install fresh 2012R2 Cluster, Migrate everything over from 2012, rebuild the remaining node to 2012R2 and join it to the Cluster

---

09:46:22 PDT

**Question:** I heard Hyper-V in Windows Server 2012 R2 supports live cloning of the VM. Is it true?

**Answer:** You can do a Live Export of a running VM, yes

---

09:47:13 PDT

**Question:** So does Azure install onto the network and control my machines or is this a rented cloud from Microsoft?

**Answer:** Azure public cloud is run across Global Microsoft Datacenters. Windows Azure Pack also available to run Azure self-service UI on-premises for Private Clouds.

---

09:47:23 PDT

**Question:** Can we also create own images which can be used?

**Answer:** Yes

---

09:48:01 PDT

**Question:** Does VMM have special EDU pricing similar to the EDU pricing I use for 2012 DC w/SA?

**Answer:** Yes - there's special EDU pricing for System Center 2012 R2 - you'll want to check with your licensing person for details.

---

09:48:05 PDT

**Question:** nood question: can i migrate my vm from 2008R2 hyperv to 2012 r2? online.

**Answer:** Unfortunately no. YOU can Live Migrate from 2012 to 2012R2, but not from 2008R2. You can power the VM off, copy the files to the 2012R2 machine and do an Import of the VM

---

09:48:31 PDT

**Question:** How are the licenses provided when using Azure? Is that billed when you create the account?

**Answer:** Windows Server OS licenses included in the per-minute/per-hour cost of Windows Server VMs

---

09:48:38 PDT

**Question:** I was under the impression that Azure is a slightly different version of W2K12 and Hyper-V (according to MSFT last week)

**Answer:** The OS image has some slightly different Intergration components (drivers) but the guest OS is in all other cases the same. you also have the option with App Controller to copy your own vhds up to azure

---

09:48:56 PDT

**Question:** How can we build our own VHDs?

**Answer:** Using Hyper-V Manager on your Windows 8.1 or Windows Server 2012 R2 you can create new virtual machines with .vhd and .vhdx

---

09:49:03 PDT

**Question:** Can I practice on Windows Azure for free?

**Answer:** You can open an eval account for 30 days or if you have MSDN subscription, you'll have \$150.00 monthly usage credit to use. <http://www.windowsazure.com/en-us/pricing/free-trial/>

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09:49:07 PDT

**martinrocks.88 posted:** Can someone please let me know if the session started? I am still seeing the "the session video stream will appear here once the event starts" screen....is this the same for everyone? because i am not

---



hearing any music.

**Answer:** We have started. If refreshing your browser doesn't work, we can best assist from the help tab.

---

09:49:09 PDT

**Question:** Can I practice on Windows Azure for free?

**Answer:** Yes, Azure offers a 30 Free Trial or \$200 which ever you hit first. It's lots of fun! <http://www.azure.com>

---

09:49:14 PDT

**Question:** Is Windows Azure free for Training?

**Answer:** If you are a professor in a public accredited university, you can apply for a grant to provide azure access to the instructor and students.

---

09:49:27 PDT

**Question:** What is the link for the slides? Thank You

**Answer:** You can find it on the FAQ tab

---

09:50:05 PDT

**Question:** hello, I am new to playing with AZURE. What is the typical network topography for including an AZURE into a datacenter? A VPN?

**Answer:** Yes - a Site-2-Site VPN is available through the portal for you to setup and configure.

---

09:50:22 PDT

**Question:** Is System Center the MS equivalent of vCenter?

**Answer:** System Center offers even more functionalities than vCenter.

---

09:50:47 PDT

**Question:** @Damian, wow, I didn't realize you were here too!

**Answer:** Called in the Heavy hitters for this one, we opted out of the big parties in Redmond for the MVP summit 😊

---

09:50:57 PDT

**Question:** hello, I am new to playing with AZURE. What is the typical network topography for including an AZURE into a datacenter? A VPN?

**Answer:** Hi Aaron, you'll have the Site-2-Site VPN or Point-2-Site VPN with Azure. this will extend your datacenter to Windows Azure Tenant. Please see: <http://www.windowsazure.com/en-us/documentation/services/virtual-network/>

---

09:51:02 PDT

**Question:** hello, I am new to playing with AZURE. What is the typical network topography for including an AZURE into a datacenter? A VPN?

**Answer:** Today - site-to-site VPN supported to provide cross-premises connectivity. In Jan, AT&T will begin providing direct secure Telco access from their MPLS network to AT&T WAN customers.

---

09:51:26 PDT

**Question:** Aprit- Yes Live Clonining is supported in HYPER-V 2012 R2

**Answer:** yes => [http://technet.microsoft.com/en-us/library/dn282278.aspx#bkmk\\_export](http://technet.microsoft.com/en-us/library/dn282278.aspx#bkmk_export)

---

09:51:40 PDT

**Question:** Guys, what is your favourite book about hyper-v 2012?

**Answer:** <http://www.amazon.com/Windows-Server-Hyper-V-Installation-Configuration/dp/1118486498>

---

09:51:41 PDT

**Question:** Can the virtual machines be encrypted? Does it support VPN connections?

**Answer:** Azure does not you have VHDX bitlocker so you would need to use other options for this. VPN - yes you can in the portal create VPN tunnels to you networks in azure

---



09:51:45 PDT

**Question:** Is it possible to dynamically scale our Azure environment by adding more servers or storage space automatically to cover our increasing needs?

**Answer:** yes

---

09:51:59 PDT

**Question:** If I have question about Hyper-V replica can I ask now or I should w8 for it later ?

**Answer:** Ask now

---

09:52:05 PDT

**Question:** when extending Azure into my Datacenter, can it do GRE or VTEP tunneling?

**Answer:** Hi Ron, No. you may see Windows Azure IaaS as another tenant to your multi-tenant environment.

---

09:52:36 PDT

**Question:** Can I provide access to my subscription in Windows Azure Pack for other users ? How can I provide access to my VMs in Windows Azure Pack for other people from my dev team (for example) ?

**Answer:** Azure Pack can't connect to \_Windows Azure\_. To give access in Windows Azure Pack,. you can simply add co-administrators.

---

09:52:39 PDT

**Question:** I am not seeing my posts posted in Q&A. Can anyone please confirm if they see my posts

**Answer:** Yes - you can follow this guided lab: <http://aka.ms/VNetCloudLab>

---

09:53:32 PDT

**Question:** In the past, if I wanted to play with any MS technologies such as this, I would set up a lab and use it when I had time. Since Technet will no longer be available, what is the best alternative to continue learning and playing with MS technologies?

**Answer:** Most of our products now can be downloaded and used with extended trial licenses

---

09:53:38 PDT

**Question:** can anyone guide for setting up site2site vpn on server2012R2 on premises to connect to azure on cloud

**Answer:** Hi, you have few options. Please see: <http://www.windowsazure.com/en-us/manage/services/networking/cross-premises-connectivity/>

---

09:53:59 PDT

**Question:** Can I close the session in the break for lunch an reopen session from another location? I'm in the office now and later at home.

**Answer:** Yes. You have to logon again.

---

09:54:01 PDT

**Question:** so the AZURE PACK is only local management and provisioning..... and the web access to AZURE would be the online environment?

**Answer:** You are Correct

---

09:54:33 PDT

**Question:** Ubuntu?))

**Answer:** Yes - Ubuntu Supported 😊

---

09:55:41 PDT

**Question:** I signed up for a Hyper-V and System Center session. How did I end up in an Azure sales presentation?

**Answer:** Windows Azure is part of Modern Hybrid Datacenter. Our presenters will dive into Hyper-V and System Center after the break.

---

09:55:51 PDT

**Question:** In theory this Jump Start will give us everything we need to pass the 74-409 exam, right?

**Answer:** go here: <http://www.microsoft.com/learning/en-us/exam.aspx?ID=74-409> look under tap "Skills Measured"

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09:56:24 PDT

**Question:** Do yo have more information about VM Live Export

**Answer:** Hi, this is known as VM Live Clone and a new feature of Hyper-V 2012 R2. there is some introduction stuff on the technet site to get going, but simply put, it makes a snap of the live vm, and creates a true clone so you can debug, and fix your issues without risk to the running instance

---

09:56:48 PDT

**Question:** How Active Directory and DNS handles Network virtualization?

**Answer:** No problem with AD and DNS inside Network Virtualization.

---

09:57:43 PDT

**Question:** in SCVMM is possible to create the equivalent of the distributed switch (VMware)?

**Answer:** Yes, this is what VMM calls the Logical Switch. Check out the great whitepaper by my good friend Kristin Ness, who is also on the support team here today. i covers the switch in details and helps you build it. I have alsos some good stuff on the Technet Scvmm Blog with Nigel Cain.

---

09:58:23 PDT

**Question:** Is the AZURE PACK free?

[[REPLY:]]The Windows Azure Pack is a collection of Windows Azure technologies available to Microsoft customers at no additional cost. Please see: <http://www.microsoft.com/en-us/server-cloud/products/windows-azure-pack/default.aspx>

---

09:58:31 PDT

**Question:** Sorry, what was the link for Azure Private Cloud for System Centre?

**Answer:** You can find it here <http://www.microsoft.com/en-us/server-cloud/products/windows-azure-pack/default.aspx#fbid=K4Ku7EYaeiT>

---

09:59:00 PDT

**Question:** I know Azure pack is look & feel of Windows Azure, but what's key difference between A Pack and App Controller- why should we prefer one on another

**Answer:** Simple - WAP is a Framework - offers far more than just VMs, - eg webs, databases, etc. and is being extended by 3rd apties, - cloud cruiser for example. while app controller is sliverlight, WAP is HTML5 so works on all platforms

---

09:59:10 PDT

**Question:** you have diff type of switch configuration: eexternal, internal and private

**Answer:** yes

---

10:00:16 PDT

**Question:** I installed Hyper-V but not able to access the hyper-v manager from my windows 7 desktop. How do I access it? appreciate any help.

**Answer:** You must add the Windows Feature in add-remove programs. if you want to manage the Hyper-V on a server from your win 8 desktop you must install the remote server admin tools

---

10:00:37 PDT

**Question:** Live Migration is vMotion in vShere right?

**Answer:** yes, is very similar

---

10:01:07 PDT

**Question:** is there a limitation to the amount of vms I can spin up in azure? say 100 small vm for nightly model calcs, would this be possible?

**Answer:** Its all down to credits and cash, Azure will offer as much as you can afford, and is charged now on a per-minute basis if im not mistaken



10:01:12 PDT

**Question:** what is the voucher for the 74-409 exam?

**Answer:** You will get an email on Nov 27 when we post the recording. Your voucher info will be in that mail.

---

10:01:13 PDT

**Question:** how to configure windows azure pack on premises any guided labs for this?

**Answer:** Deploy Windows Azure Pack for Windows Server <http://technet.microsoft.com/en-us/library/dn296432.aspx>

---

10:01:48 PDT

**Question:** Is there a download link for Hyper-V?

**Answer:** <http://technet.microsoft.com/en-us/evalcenter/dn205299.aspx>

---

10:02:41 PDT

**Question:** I hear that WAP will be replacing App Controller in the future... Is this true?

**Answer:** you can never trust a rumour, app controller is still the only way to manage azure subscriptions in the SC suite at the moment, but its quite possible that WAP will also get this feature in the future. but due to the flexibility of WAP, its got a bright future

---

10:02:41 PDT

**Question:** What type of Questions will be asked in Microsoft Virtualization exam 74-409? Will it be MCQs?

**Answer:** You can find the details here <http://www.microsoft.com/learning/en-us/exam.aspx?ID=74-409>

---

10:03:07 PDT

**Question:** how to configure windows azure pack on premises any guided labs for this?

**Answer:** Hi, please see our TechNet Library. <http://technet.microsoft.com/en-us/library/dn296442.aspx>

---

10:03:38 PDT

**Question:** Should each system center component be installed on bare metal or as it's own VM? What is the "best practice"?

**Answer:** Depends on your environment. All components can be deployed as VMs including the SQL back end

---

10:03:51 PDT

**Question:** Azure is pretty damn cool

**Answer:** We think so too!

---

10:04:12 PDT

**Question:** Can you do stateless installs of Hyper-V, without hard disks?

**Answer:** some OEM installs provide this support as an option. All depends on the hardware - usually accomplished with embedded SSD

---

10:04:17 PDT

**Question:** If you're migrating VMs from Server 2008 R2 to Server 2012 R2, is it best to attach the VHD to a new VM on the 2012 R2 server or intermediately step by importing the VM on a Server 2012 environment to convert the VM for import into Server 2012 R2?

**Answer:** You can make life a lot easier on this - just use SCVMM 2012 R2 and let it do the work. as you are moving form 2008 to 2012 you will need to power down the vm for it to be moved, but the rest is taken care of for you

---

10:04:43 PDT


**Question:** What type of Questions will be asked in Microsoft Virtualization exam 74-409? Will it be MCQs?

**Answer:** Networking, Active Directory, Hyper-V, Storage, Group Policy, etc

---

10:04:52 PDT

**Question:** Can one create a test system on a single box for SCVMM?

**Answer:** Yes - check out my youtube - damianflynnmvp i have 2 videos covering scvmm on a desktop computer 

---



10:04:53 PDT

**Question:** Whats new in 2012 virtualization

**Answer:** A lot news, like Hyper-v Replica, Switch virtualization .. more information on <http://technet.microsoft.com/en-us/library/dn282278.aspx>

---

10:05:39 PDT

**Question:** So what are cons for buying System Center compared to "naked" Srv2012 ?

**Answer:** System Center offers you management of your servers

---

10:05:58 PDT

**Question:** How many more hours does this go for? I'm in the UK, and I believe its pencilled to go to 1:30am my time... is that about right?

**Answer:** Yep I am in ireland - so its going to be a late night mate

---

10:05:59 PDT

**Question:** Hello, what is your definition of 'Datacenter' and has the definition changed from what it was ten years ago?

**Answer:** Datacenter licensing means unlimited guest server OSES. Datacenter as in physical location. MDF, Server racks location. Sorry I missed when this question came in so I m not sure what context you mean it.

---

10:06:31 PDT

**Question:** Password protected snapshots available yet?

**Answer:** No

---

10:06:37 PDT

**Question:** is this exam a part of mcse program and what is the full path

**Answer:** Yes it is the first of 6 exams for the MCSE + Private Cloud or MCSE + VDI, for example

---

10:06:41 PDT

**Question:** Hyper-v server for free ??

**Answer:** yes

---

10:06:41 PDT

**Question:** Can I also use datacenter licensing for VMware environments?

**Answer:** Yes

---

10:06:43 PDT

**Question:** How to install hyper v in host?

**Answer:** the guys will demo this shortly - simply use the server manager - add windows role - select hyper-v and it will do the rest 😊

---

10:07:38 PDT

**Question:** As a hoster, what do we need at our side to support Service provider foundation ?

**Answer:** SPF is the API for VMM so you will need at least VMM. SPF can connect to OM to collect Usage Data.

---

10:07:40 PDT

**Question:** Please !! the presentation cut for me , what is the minimum speed of internet to watch it , or where the prob comes from ???

**Answer:** Please check the FAQ tab for assistance,

---

10:07:46 PDT

**Question:** How the reference book to Windows 2012 R2, Hyper-V and Power Shell? Any recommendation?

**Answer:** Ill plug my book cause its great 😊 - Hyper-V 2012 Hyper-V installation and Configuration - it is a bible of information !

---



10:08:06 PDT

**Question:** Can I Manage Hosts that have Hyper-V Server from SCVMM?

**Answer:** Yes

---

10:08:09 PDT

**Question:** has my screen frozen or is this a long 10 min break?

**Answer:** screen froze i assume, they are back chatting

---

10:08:24 PDT

**Question:** Can I Manage Hosts that have Hyper-V Server from SCVMM?

**Answer:** Yes, you can manager Hyper-V servers from SC VMM

---

10:08:35 PDT

**Question:** I thought there was no longer a windows server enterprise - only standard and datacentre?

**Answer:** Yes - Windows Server 2012 changed licensed to Standard and Datacenter only.

---

10:08:59 PDT

**Question:** so the hyper-v only is best for lab environments, am I hearing this correctly?

**Answer:** Hyper-V is more than a good tool for your lab, and also runs the biggest datacenters around the globe. Highly friendly for the enterprise as well.

---

10:09:13 PDT

**Question:** I have one server and a laptop i would to try our SCVMM and desktop deployment, is it possible to use that hardware to LAB it?

**Answer:** Plug - check my YouTube - damianflynmvp and you will see 2 recording for SCVMM built on desktops - for a home lab build - it should get you going

---

10:09:25 PDT

**Question:** I have studied 20414 course. It has some knowledge about Hyper-V and SC. Does It help for preparing 409 Exam?

**Answer:** some what ... it is more geared to the MCSE certification. 20409 is specifically paired with the exam

---

10:09:31 PDT

**Question:** Hyper V server 2012 replaces the "core" version available for Windows Server 2008 ?

**Answer:** It doesn't replace it, but it is an option where you don't license the hypervisor but only the VMs. Good solution for VDI and Linux VMs.

---

10:10:01 PDT

**Question:** It is not possible to use Free Hyper-V Server within a cluster?

**Answer:** Hyper-V server (free) supports cluster features too. So you can cluster your free Hyper-V servers.

---

10:10:31 PDT

**Question:** Hello i need to virtualize my current environment, is it recommended to shift my current 2012 DC and exchange 2013 (current 2010) to be placed on VM ?

**Answer:** At least it is supported. It depends on your infrastructure and environment if this is a smart move.

---

10:10:34 PDT

**Question:** can somebody tell me ? all of us get a voucher or only a few ?

**Answer:** You will receive an email on Nov 27 announcing the availability of the on-demand recording of this course and a link directing you to obtain your free voucher.

---

10:10:39 PDT

**Question:** hi anyone pls tell me how to save the video streaming in our desktop

**Answer:** See FAQ, the recording will be available

---



10:10:46 PDT

**Question:** Can we use NAT for VMs in hyper-V in win 8?

**Answer:** Win8 Client Hyper-V features are limited, so things like network extension are not supported. basic nat is supported so that your client vms can get to the internet etc.

---

10:11:28 PDT

**Question:** I thought that you only have 'standard' en 'datacenter' edition of Server 2012?

**Answer:** there is the hyper-v sku also - which is what the are speaking to at the moment

---

10:12:02 PDT

**Question:** Where do people find the Infrastructure, planning and deployment guides mentioned in the first module?

**Answer:** those are up on technet, a quck searh should get you going - also try the keywords fastrack

---

10:12:26 PDT

**Question:** Can we use a licensed 2012-R2 Datacenter to host our VM's and have Hyper-V Server as part of the cluster simply for failover (for maintenance periods) so long as the machines do not stay/live on the Hyper-V Server?

**Answer:** Yes, you can live migrate VMs off of hosts and update the Hyper-V servers. Cluster Aware Updating in Windows Server 2012 R2 is your friend. Please see <http://technet.microsoft.com/en-us/library/hh831694.aspx>

---

10:13:06 PDT

**Question:** How much of SCM2012 is scriptable using Powershell?

**Answer:** pretty much all of it. I look at SC as a GUI over PowerShell

---

10:13:23 PDT

**Question:** How much of SCM2012 is scriptable using Powershell?

**Answer:** VMM jobs are very scriptable via PowerShell - was there a particular scenario you were interested in?

---

10:13:39 PDT

**Question:** the storage tiering in r2 ... is this configure on hyperv layer? or require system center?

**Answer:** Hi Raymon, no, you configure this on Windows Server 2012 R2 but VMM can manage it through the SMI-S provider for Storage Spaces. Please see: <http://technet.microsoft.com/en-us/library/hh831739.aspx>

---

10:13:43 PDT

**Question:** Will Hyper-V, in future build, have the equivalent of DRS in vSphere?

**Answer:** It has it today - try the shared nothing live migration and the hyper-v replia options. these are free! and in the product now

---

10:14:34 PDT

**Question:** Thanks Damian - currently using academic version of VMware Workstation but Hyper-V would be nice to standardise on

**Answer:** ok, if your using workstation- then the built in hyper-v is almost identical. i dumped vmware workstation about 3 years ago 😊

---

10:14:59 PDT

**Question:** Hi , Licensing for windows 2012 Hyper v still confusion to me .. can u explain it ..

**Answer:** For each virtualization host with 2 physical processors, you'll want 1 license of Windows Server 2012 R2 Datacenter Edition + 1 license of System Center 2012 R2 Datacenter Edition.

---

10:15:03 PDT

**Question:** Tommy said "this exam is the first of 6 exams for the MCSE + Private Cloud or MCSE + VDI", is it a new MCSE Private Cloud or new path?

**Answer:** See here: <http://www.microsoft.com/learning/en-us/mcse-certification.aspx>

---

10:15:22 PDT

**Question:** is 74-409 part of a certification path ? do you have any link for the certification path ?

**Answer:** <http://www.microsoft.com/learning/en-us/mcse-certification.aspx>

---





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10:15:30 PDT

**Question:** What kind of licensing is used for VM's.

**Answer:** MVP Aidan Finn has written a great blog post about this. See here: <http://www.aidanfinn.com/?p=13090>

---

10:15:40 PDT

**Question:** is 74-409 part of a certification path ? do you have any link for the certification path ?

**Answer:** yes. When you pass Exam 74-409: Server Virtualization with Windows Server Hyper-V and System Center, you complete the requirements for the following certification(s): Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---

10:15:45 PDT

**Question:** Hyper-V & SMB/CIFS = VMware & NFS at high level?

**Answer:** Yes - but faster, and with live migrations you can move the vms over clusters with no down time - so its actually same concepts but far more flexiable - and yes free! ms is passing out vmware on some of this stuff

---

10:16:12 PDT

**Question:** why I cannot use VMware workstation with hyper-V feature in win 8.1

**Answer:** Hyper-V on Windows 8.1 requires SLAT support, in addition to Intel-VT/AMD-V and memory DEP

---

10:16:16 PDT

**Question:** Does access via SMB perform well with a gigabit network?

**Answer:** It depends to what you are comparing it.

---

10:16:31 PDT

**Question:** really no one can tell me this

**Answer:** You will receive an email on Nov 27 announcing the availability of the on-demand recording of this course and a link directing you to obtain your free voucher.

---

10:17:26 PDT

**Question:** @Mark Ghazai: I'm pretty sure BrianLow was asking if he could use a Datacenter license together with a Core Hypervisor to use for failover in a cluster. I believe this is definately not supported by the licensescheme.

**Answer:** Please keep in mind even if you use the free Core Hyper-V, when VMs are landing on that host, they'll need to be licensed properly. That means, you're gonna end up licensing those hosts with Datacenter license regardless of what version of Hyper-V is installed on the physical sockets.

---

10:17:37 PDT

**Question:** Can we do nested Virtualization with Hyper-V 2012 R2?

**Answer:** No - Hyper-V is architected to virtualize on modern server hardware with the best performance, as a result it doesn't support legacy binary emulation that VMware still supports for old server hardware and nested virtualization.

---

10:17:42 PDT

**Question:** Are we able to patch vm's with security patches now without creating expensive business downtime?

**Answer:** sure Configuration Manager does this

---

10:17:45 PDT

**Question:** can we do high availability clustering with free hyper-v ?

**Answer:** Yes you can

---

10:17:57 PDT

**Question:** Does Hyper-v now consolidate snapshots while VM's are online when snapshots are deleted? Or does the VM still need to be shut off for that consolidation to occur?

**Answer:** Live metadata operations is supported already in WS 2012, so the Vm does not have to be powered off anymore



10:18:50 PDT

**Question:** are these slide going to be available after these 2 days? great info btw!!

**Answer:** Please see the FAQ tab for details

---

10:18:51 PDT

**Question:** can we install core Hyper-V on USB flash drive and what is the Installtion foot print size of Hyper-V server ?

**Answer:** Hi Rohit, This scenario's only supported with OEM. please see this article: <http://technet.microsoft.com/en-us/library/jj733589.aspx>

---

10:18:57 PDT

**Question:** I would like to test all components of SC. Can I do it on 1 host or I need to do this 2 hosts?

**Answer:** You can do it on one host if you have enough memory on it to create enough number of VMs

---

10:19:19 PDT

**Question:** run VCDs stored on an SMB?

**Answer:** You mean VHDS? Yes you can and the performance is outstanding!

---

10:20:19 PDT

**Question:** I don't see the 74-409 noted in the MCSERivate Cloud, will this exam be added to the track or is it fully standalone

**Answer:** It's a stand alone.

---

10:20:29 PDT

**Question:** Whats the best way to measure the VM Performance in-terms of CPU & Memory & IO. Do we have to measure it from Host or inside VM..any best process article

**Answer:** If you have the possibility to measure performance inside the VM do it. If for example you are hoster outside of the VM measurement is enough.

---

10:20:40 PDT

**Question:** I have Hyper-V on Server 2012 R2 nested inside VMware Workstation 10, it works fine

**Answer:** Hi Ben, nesting hypervisors isn't supported by Microsoft and would impact your performance. It also introduces a security risk. you heard of Blue Pill Attack? 😬

---

10:20:44 PDT

**Question:** How about migrating VMS from Server 2008 R2 Hyper-V to Server 2012 R2 Hyper-V?

**Answer:** Here is a link to a post I wrote on just that topic!

<https://www.virtuallycloud9.com/index.php/2013/02/migrating-hyper-v-virtual-machines-from-server-2008r2-to-server-2012-part-10-of-the-migration-and-deployment-series/>

---

10:21:09 PDT

**Question:** what is the eligibility to appear for the exam: 74-409

**Answer:** a voucher or purchase of the slot for \$150.00 from your testing center. No course is required.

---

10:21:35 PDT

**Question:** BrianLow I believe you would be in violation of licensing if you migrated VMs covered by a 2012 Datacenter license to a Hyper-V Server box.

**Answer:** Correct, you would need to own the guest OS licenses for VMs running on the free version of Hyper-V.

---

10:21:54 PDT

**Question:** I believe you can use Server 2012 as a Storage device using Storage Manager, will this be sufficient for Cluster Support for Hyper-V?

**Answer:** Hi Wesley, yes. You can use Windows Server 2012 (R2) Storage Spaces and place Hyper-V VMs on those volumes.

---

10:22:06 PDT

**Question:** is there a simple tool to migrate or convert running VMs on ESXi to hyper-V?

**Answer:** Take a look at MVMC on the download center at [download.microsoft.com](http://download.microsoft.com)

---

10:22:12 PDT

**Question:** is there any benefit in using SMB shared storage over CSV?

**Answer:** You divide your compute from storage. Easier for management.

---

10:22:46 PDT

**Question:** I like XBOX's marketing style. It is not wise to compare yourself to others.

**Answer:** lol. Well the Kinect is unrivaled in Xbox One imo...

---

10:23:11 PDT

**Question:** What makes running VHD's on an SMB share so much better?

**Answer:** You divide compute from storage. Easier management.

---

10:23:14 PDT

**Question:** what is RDMA?

**Answer:** Remote Direct Memory Access. RDMA is a transport protocol for SMB in Windows Server 2012. It enables direct memory-to-memory data transfers between servers, with minimal CPU utilization and low latency, using standard RDMA-capable network adapters (iWARP, InfiniBand, and RoCE)

---

10:23:24 PDT

**Question:** there is nothing about certification path in your link its the mcse regular paths no new path i could found

**Answer:** there is only one cert for this exam. The path currently does not extent outside of the "Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center". Similar to a VCP

---

10:24:02 PDT

**Question:** can I convert vm's to hyper-v sever

**Answer:** Hi Mohamad, please see Migration Automation Toolkit here:

[http://blogs.technet.com/b/in\\_the\\_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx](http://blogs.technet.com/b/in_the_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx)

---

10:24:33 PDT

**Question:** Clusters used to require Enterprise, does Standard do all this now or is Datacenter required?

**Answer:** Standard and Datacenter editions on Win Srv 2012 /R2 are the same. Only licensing is different.

---

10:24:34 PDT

**Question:** Damian - if HV is the same as VMware Workstation -> can I install HV VM inside HyperV ? or can I install ESXi server as VM on HyperV ? vmware workstation can do it

**Answer:** True, due to the gang scheduler virtualization that VMware utilizes they are allowed to perform nested virtualization. Microsoft and Xen chose not to go that route due to inefficiencies in the gang scheduler methodology.

See my blog post here for more details. <https://www.virtuallycloud9.com/index.php/2013/08/virtual-processor-scheduling-how-vmware-and-microsoft-hypervisors-work-at-the-cpu-level/>

---

10:24:41 PDT

**Question:** plz can you ost a link for the official study guide for exam or any material we can use to prepare for exam

**Answer:** sure: course <http://www.microsoft.com/learning/en-us/course.aspx?ID=20409A&Locale=en-us>

---

10:25:40 PDT

**Question:** what will be the certificate name

**Answer:** the certification is: Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---

10:25:56 PDT

**Question:** Thanks Mark, and you are not limited to certain HDD's are you? SCSI / SAS / SSD / Sata allowed, right?

**Answer:** Hi Wesley, Serial ATA (SATA) or Serial Attached SCSI (SAS) connected disks, optionally in a just-a-bunch-of-disks (JBOD) enclosure. RAID adapters, if used, must have all RAID functionality disabled and must not obscure any attached devices, including enclosure services provided by an attached JBOD.



---

10:26:19 PDT

**Question:** Is RDMA only useful if you are using SMB, or would it be useful if your VMs are hosted on an iSCSI SAN?

**Answer:** Only with SMB. The SMB protocol supports RDMA.

---

10:26:25 PDT

**Question:** is there any performance consideration using hyper-v host with das, san and nas? which one is better in term of performance?

**Answer:** Not really, it all comes down to disk performance, controllers, etc. SMB3 takes a 2% hit of performance versus direct to disk(iSCSI, FCP, DAS) and with the added security that SMB3 gives us, it makes for a great solution. Even EMC just published SMB3 into some of their storage lines.

---

10:26:45 PDT

**Question:** Do I need to install the Management tools on the server to use RSAT on my desktop?

**Answer:** You can install the RSAT tools on your desktop, or you can install the included management tools features on Windows Server 2012 / R2

---

10:26:50 PDT

**Question:** cool... we are planning to move all of our ESXi linux VMs on to free Hyper-V to save on costs.

**Answer:** Perfect use case, great!

---

10:27:01 PDT

**Question:** Is the stream actually going right now?

**Answer:** yes you should see video and hear audio at this time

---

10:27:24 PDT

**Question:** is the 74-409 more of less difficult that the msce private cloud?

**Answer:** well the MCSE private cloud requires the MCSA Windows Server 2012 + the two courses for MCSE.

---

10:27:38 PDT

**Question:** Shared storage? Does it do file locking?

**Answer:** Yes the hosts manage access to the individual files that are in use. Assuming you mean in an SMB3 environment

---

10:27:40 PDT

**Question:** I need to migrate a VM from VMWare to Hyper-V (2012) and it has a 500 GB hard Disk. If i use MVMC it is this possible?

**Answer:** Yes, please feel free to see this post: [http://blogs.technet.com/b/in\\_the\\_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx](http://blogs.technet.com/b/in_the_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx)

---

10:28:13 PDT

**Question:** Can SQL DB files be put on SMB 3 shares? Can RDMA run on guest OS's if the host supports it?

**Answer:** SQL Server 2012 supports SMB. Guest cannot do RDMA as RDMA is enabled on physical nic level.

---

10:28:41 PDT

**Question:** Is there a tool like vm-tools for Hyper-V VMs?

**Answer:** Yes it is called Integration Services. For Server 2012 and above these are included in the OS. For anything else you would need to check the compatibility matrix, many Linux Oses are supported here as well.

---

10:28:59 PDT

**Question:** why does the raid controller need to be disabled?

**Answer:** When using Storage Spaces, the software provides stripe-level resiliency. You should disable RAID when using Storage Spaces because it adds another layer of resiliency overhead that is not needed.

---



10:29:00 PDT

**Question:** I dont think i am going to be able to pass this exam... This is totally all new to me.. I've never been this deep into Hyper V before

**Answer:** No better place to start!

---

10:29:09 PDT

**Question:** You're not a man till you've spliced fibre!

**Answer:** LOL

---

10:29:35 PDT

**Question:** can anyone answer me. in windows server 2012 hyper-v environment I got requirement to assign one disk to multiple VMs.is it possible to assign same VHD/vhdx to multiple VM's.? any reference?

**Answer:** May be this will help you <http://technet.microsoft.com/en-us/library/dn265980.aspx>

---

10:29:42 PDT

**Question:** can I attach VHD which is taken from Hyper-v 2008 r2? Is that any tool to convert?

**Answer:** Yes - you can copy the VM and VHD files to Server 2012/R2 and directly import with Hyper-V Manager

---

10:29:42 PDT

**Question:** does the file share for SMB 3.0 have to be in same domain as the hyper hosts

**Answer:** You do have to allow the specific hosts access via the domain, this is done through Delegation in AD.

---

10:29:54 PDT

**Question:** That looks as simple as apt-get in linux.

**Answer:** It is quite similar yes

---

10:30:42 PDT

**Question:** Are you able to use Hyper-V Server without a domain controller now?

**Answer:** You don't need a domain to use Hyper-V. What's your scenario?

---

10:31:00 PDT

**Question:** if we do live HDD resizing in hyper-v? server face any performance issue?

**Answer:** Hi Riyaz, no there's no impact on HDD resizing with the live VM.

---

10:31:09 PDT

**Question:** guys, do you know any guide to start to create a new private cloud?

**Answer:** This lab guide will get you started, it doesn't get into the System Center pieces however it does get you started with the right methodology <http://aka.ms/tp2012lab>

---

10:31:12 PDT

**Question:** 74-409 easy or difficult

**Answer:** Not an easy exam.

---

10:31:26 PDT

**Question:** Netapp included smb 3.0 in clustered mode aswell

**Answer:** yes and they also have tools to migrate from VMware to Hyper-V that are really slick and quick!

---

10:31:58 PDT

**Question:** What happens people who have completed MCSE Private cloud before it has been changed to expire every 3 years

**Answer:** This does not replace that certification, the Hyper-v certification is separate.

---

10:32:15 PDT

**C.Castellow posted:** I have a question about utilizing VM guest-based NLB deployments - Is it required that all the members of the NLB "cluster" be located on the same Hyper-V host?

**Answer:** Not required, and not recommended. If you have all your NLB VMs on a single host you have a single point of failure.

---



---

10:32:20 PDT

**Question:** can the databases of SC 2012 R2 be installed on sql availability groups?

**Answer:** Yes with exception of DPM database and SCCM database.

---

10:32:40 PDT

**Question:** Tommy, i try to view and listen but it to slow the internet here, do you send the video later on ?

**Answer:** Please see the FAQ for details. Short answer yes it will be posted on MVA.

---

10:32:59 PDT

**Question:** With SMB 3.0, how can we configure clustering? As I understand, using DAS with SoFS and then run hyper-v on top of them make the VMs resilient. How can I achieve this using SMB3.0 and NAS?

**Answer:** Check out Keith's blog post on this topic, its excellent!

<http://blogs.technet.com/b/keithmayer/archive/2013/08/15/vmware-or-microsoft-reducing-vmware-storage-costs-with-windows-server-2012.aspx>

---

10:33:03 PDT

**Question:** Are there significant performance gains to running VMs on a Standalone Hyper-V Server instead of running it on Win2012 with Hyper-V installed?

**Answer:** It all depends on host much horse power you have on the host. Running Hyper-V Server or Windows Server 2012 R2 Hyper-V Core edition will reduce the footprint since you won't have Explorer, IE and Management Consoles. I'd see more of a security best practices.

---

10:33:09 PDT

**Question:** Good Morning. Is there any audio/video now?

**Answer:** You should have audio/video at this time

---

10:33:15 PDT

**Question:** Funny observation, one person using a Microsoft computer brand the other HP

**Answer:** I build VMs on mine so I need a powerhouse that supports HyperV. 32 GB RAM on this one!

---

10:33:24 PDT

**Question:** Good morning from Texas

**Answer:** Morning!

---

10:33:43 PDT

**Question:** he, there is no music

**Answer:** Should be working right now, we are in session

---

10:33:47 PDT

**Question:** Hi all! Spain Join ITPRO!

**Answer:** hello!

---

10:33:49 PDT

**Question:** hi mikołaj, greetings from warsaw

**Answer:** Greetings!

---

10:33:50 PDT

**Question:** In guest OS's, how would SMB 3 perform compared to iSCSI. Again thinking of SQL DB storage and ease of management.

**Answer:** SMB3 outperforms iSCSI due to multi-session support and other protocol enhancements.

---

10:34:02 PDT

**Question:** @philip hiesel, please tell me how i can patch the vm's without downtime for the business with sccm like you stated. Because the private cloud i build for my company (SC 2012 SP1) that have 3000 VM's i still have to reboot the vm's after patching with SCCM. I need to get rid of the maintenance windows. Microsoft is consuming my



free weekends

**Answer:** you can schedule your down time use SC ... if I said not down time, I miss understood your question

---

10:34:03 PDT

**Question:** Can we have NLB VMs in Windows Azure too?

**Answer:** Hi Aprit, yes, you can use Windows Azure Traffic Manager for this. Please see this page:

<http://msdn.microsoft.com/en-us/library/windowsazure/hh744833.aspx>

---

10:34:05 PDT

**Question:** Good evening from Lancashire, UK. Been working all day, so have a got a whole pot of coffee sitting five feet away! :o) Is my screen supposed to have gone black?

**Answer:** Awesome!

---

10:34:10 PDT

**Question:** hi mikołaj, greetings from warsaw

**Answer:** Greetings!

---

10:34:17 PDT

**Question:** Hi all! Spain Join ITPRO!

**Answer:** Greetings!

---

10:34:25 PDT

**Question:** are there new Integration Services for Linux on Server 2012 R2?

**Answer:** Yes. See here for more information: <http://blogs.technet.com/b/virtualization/archive/2013/07/24/enabling-linux-support-on-windows-server-2012-r2-hyper-v.aspx>. You can download the Linux Integration Services here:

<http://www.microsoft.com/en-us/download/details.aspx?id=34603>

---

10:34:25 PDT

**Question:** black screen now...

**Answer:** Hopefully you got this working

---

10:34:36 PDT

**Question:** If using W2K12 R2 Essentials, which comes with 1 virtual instance, is it possible to purchase additional virtual instance licenses and add additional VMs to that host?

**Answer:** check <http://www.microsoft.com/licensing/about-licensing/briefs/virtual-licensing.aspx>

---

10:34:39 PDT

**Question:** Is the presentation area suppose to be black right now?

**Answer:** Should be working right now, we are in session

---

10:34:41 PDT

**Question:** i m not gettin any sound

**Answer:** Check the FAQ, hopefully you got this working

---

10:34:59 PDT

**Question:** hello, greeting from Toronto / Canada

**Answer:** greetings!

---

10:35:03 PDT

**Question:** Not good, I am afraid I got horrible slow connection with you service

**Answer:** Oh no, maybe check back for the recording on MVA

---

10:35:10 PDT

**Question:** Good Morning. Is there any audio/video now?

**Answer:** Should be working right now, we are in session

---



10:35:16 PDT

**Question:** where do we get stuff relatibg to this exam ?

**Answer:** exam information here: <http://www.microsoft.com/learning/en-us/exam.aspx?ID=74-409>

---

10:35:17 PDT

**Question:** hi mikolaj, greetings from warsaw

**Answer:** Greetings!

---

10:35:17 PDT

**Question:** What version of RDCMan is Corey using?

**Answer:** he must be using version 2.2: <http://www.microsoft.com/en-us/download/details.aspx?id=21101>

---

10:35:33 PDT

**Question:** so if i have 80 virtual servers, where should i look at them if not the VMM ?

**Answer:** You can use Hyper-V Manager. But if you have that many servers you want to use VMM.

---

10:35:43 PDT

**Question:** Not good, I am afraid I got horrible slow connection with you service

**Answer:** Hopefully you got this working!

---

10:35:48 PDT

**Question:** black screen now...

**Answer:** Should be working right now, we are in session

---

10:35:53 PDT

**Question:** not getting any sound

**Answer:** Should be working right now, we are in session

---

10:35:59 PDT

**Question:** Is the presentation area suppose to be black right now?

**Answer:** Should be working right now, we are in session

---

10:36:03 PDT

**Question:** Screen went all black? Anyone else?

**Answer:** Should be working right now, we are in session

---

10:36:07 PDT

**Question:** currently i pass MCITP: VM Administrator please describe my next step ?

**Answer:** Upgrade to MCSA and then to MCSE 2012 Server/Desktop Infrastructure.

---

10:36:09 PDT

**Question:** Good evening from Russia

**Answer:** Welcome!

---

10:36:12 PDT

**Question:** Can SCVMM manage the clusters in VMware Environment?

**Answer:** Yes if you have vCenter also

---

10:36:13 PDT

**Question:** Good evening from Croatia

**Answer:** Welcome!

---

10:36:19 PDT

**Toni I. posted:** Is System Center 2012 R2 only sold as a bundle or can I buy only SCVMM 2012 R2?

**Answer:** Hi Toni, System Center 2012 (R2) Suite is now one product and it includes all System Center components.

---





10:36:21 PDT

**Question:** Is the Cert taken through Prometric?

**Answer:** no ... our learning (training) partners

---

10:36:40 PDT

**Question:** i m not gettin any sound

**Answer:** Should be working right now, we are in session. Check the FAQ

---

10:36:57 PDT

**Question:** the music is off?? or houston we a a problem

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---

10:37:00 PDT

**Question:** can anyone answer me. in windows server 2012 hyper-v environment Is it possible to assign same VHD/vhdx to multiple VM's.? any reference?

**Answer:** this is supported with Shared VHDX in WS2012 R2...

---

10:37:06 PDT

**Question:** Good evening from Germany

**Answer:** Hello!

---

10:37:14 PDT

**Question:** Screen went all black? Anyone else?

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---

10:37:20 PDT

**Question:** Hi everyone, representing London here

**Answer:** Welcome!

---

10:37:22 PDT

**Question:** Is the HyperV management tool available on windows 7 or older?

**Answer:** Yes, RSAT has been available for several releases. Search "Windows 7 RSAT"

---

10:37:25 PDT

**Question:** Good morning folks, Andrew Mueller joining from Chicago

**Answer:** welcome!

---

10:37:31 PDT

**Question:** Good evening from Germany

**Answer:** welcome!

---

10:37:36 PDT

**Question:** no more music?

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---

10:37:41 PDT

**Question:** Hello

**Answer:** Hello!

---

10:37:44 PDT

**Question:** Can SCVMM be used for managing VM's across domains? DO we need trust between the domains?

**Answer:** Yes - can be used across domains - you can define separate RunAs accounts for each domain if domains are untrusted

---

10:37:45 PDT

**Question:** anyone else lost video and sound?

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---



---

10:37:49 PDT

**Question:** Screen is blank atm. Is everything okay?

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---

10:37:53 PDT

**Question:** Reporting in from Dallas, Texas!

**Answer:** hello!

---

10:37:54 PDT

**Question:** you can also activate hyper-V under windows 8

**Answer:** Virtualization in Win8 is part of Pro and enterprise install.

---

10:37:59 PDT

**Question:** Hello all, greetings from Florida!

**Answer:** greetings!

---

10:38:33 PDT

**Question:** why do we keep all the files at diff location for VMs like config files, VHDs snapshots etc

**Answer:** For performance reasons. For instance, I would prefer a very fast disk for my VHD's files, a separate set of physical disks for any base disks I have, and a not so fast disk for configuration files and the like.

---

10:38:48 PDT

**Question:** SCVMM comes with server 2012 or it has separate license ?

**Answer:** Hi Riyaz, System Center is a separate product and licensed differently. Please see the datasheet here:

[http://download.microsoft.com/download/B/4/A/B4A98A4E-2F43-489D-8761-5362C8C2C328/System\\_Center\\_2012\\_R2\\_Licensing\\_Datasheet.pdf](http://download.microsoft.com/download/B/4/A/B4A98A4E-2F43-489D-8761-5362C8C2C328/System_Center_2012_R2_Licensing_Datasheet.pdf)

---

10:38:51 PDT

**Question:** Hi, when the jump to start is beginning?

**Answer:** Should be working right now, we are in session, check the FAQ if you are still experiencing issues

---

10:39:16 PDT

**Question:** Is there a guide to upgrade a cluster from 2012 to 2012R2?

**Answer:** Yes - there are some good sessions from TechEd recorded on Channel 9 - migrating your PrivateCloud.

---

10:39:25 PDT

**Question:** Greetings from San Jose State University!

**Answer:** Greetings!

---

10:39:51 PDT

**Question:** Stanislav, What type of Questions will be asked in Microsoft Virtualization exam 74-409? Will it be MCQs?

**Answer:** Actually I do not know. I can guess Hyper-V and VMM mostly. Not excluding questions for other SC components for integration. Look here: <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409> Skills measured.

---

10:39:58 PDT

**Question:** do we need to have a lab for this course?

**Answer:** it definitely helps! You can build a dual boot lab here: <http://aka.ms/tp2012lab>

---

10:40:09 PDT

**Question:** Does it Support Hot Add feature like Adding memory and CPU on a running Virtual machine??

**Answer:** Hi Owasis, Hyper-V support HotAdd memory when using Dynamic Memory but not for CPU. Please keep in mind, none of Microsoft Operating System and Applications currently support HotAdd CPU.

---



10:41:06 PDT

**Question:** What is the best practice around upgrading Hyper-V Server 2012 to R2?

**Answer:** I would create a new cluster with Hyper-V 2012 R2 and live migrated the virtual machines from the 2012 cluster to the R2 cluster.

---

10:41:14 PDT

**Question:** Is that any backup system for VM in server 2012?

**Answer:** Yes, you can use System Center Data Protection Manager

---

10:42:11 PDT

**Question:** how do we implement security between different layers of the vm ?

**Answer:** I am not sure I understand what you mean, can you expand?

---

10:42:21 PDT

**Question:** is there any tool provided by Microsoft to check if physical server is good to virtualize or not ? if tools is available so what is the tool name ?

**Answer:** MAP

---

10:42:33 PDT

**Question:** Thanks Rickster, I'll look it up. Might you have a link?

**Answer:** you can get the 2012 to 2012R2 migration proovate cloud talk from teched from here.

<http://channel9.msdn.com/Events/TechEd/NorthAmerica/2013/MDC-B331#fbid=>

---

10:42:59 PDT

**Question:** Here's to hoping I can get the workday to mostly leave me alone so I can be here for the majority of the conference.

**Answer:** Hope so as well!

---

10:43:15 PDT

**Question:** I know that nested virtualization is not supported and i cant run vms within a nested virtualization but i think in the holesystem labs ther are nested virtualization to demo a hyper-v cluster hoe does this work?

**Answer:** you can next, but only for the UI - no functionality and the virtual machines you create can't start.

---

10:44:21 PDT

**Question:** If I use SoFS + DAS solution for Hyper-V, what kind of disk resiliency should I choose : simple, mirror or parity? Should I just go for simple since SoFS already adds some kind of HA capability?

**Answer:** Always go with Two-Way Mirror or Three-Way Mirror with Storage Spaces.

---

10:44:24 PDT

**Question:** beside vmware and citrix, does sc support other virtualization hypervisors)?

**Answer:** Right now only Xen, Hyper-V, and ESX are supported.

---

10:44:30 PDT

**Question:** Stanislav, the 2012 and 2012 R2 clusters must have identicle storage and network settings to migrate VMs between them, correct?

**Answer:** Not at all... storage is shared, and the network settings d not need to match exactly. You can use Network pooling to allow the VM to find a network to connect. Corey will cover that later.

---

10:44:59 PDT

**Question:** What type of workloads can be backed up using SC DPM?

**Answer:** Hi Arpit, best of all for Microsoft Products. Please see the the support matrix page here:

<http://technet.microsoft.com/en-US/library/jj860400.aspx>

---

10:46:20 PDT

**Question:** How do VM's keep their running state even after restarting the Hyper-V host?

**Answer:** If you don't have a Hyper-V cluster and VMs haven't live migrated to another hosts, you have the option to save the state of VM during the host reboot and resume after the host is up and running.

---

---

10:47:54 PDT

**Question:** How big is a large deployment?

**Answer:** A single cluster can handle up to 8000 VMs. Hyper-V is also the underlying platform for Windows Azure which houses 30000-100000 hosts per datacenter.

---

10:48:25 PDT

**Question:** It's possible install hyper-v in pendrive? Core installation and use local disk to storage vms?

**Answer:** This scenario's only supported for OEM. Please see: [http://technet.microsoft.com/en-us/library/ee731893\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ee731893(WS.10).aspx)

---

10:48:40 PDT

**Question:** how will the P2V used if the feature is removed??

**Answer:** use Disk2VHD for simple server workloads or a 3rd party solution for enterprise P2V

---

10:48:47 PDT

**Question:** I'm VMware certified but i'm kinda lost now on what management tools the presenters are using now and on what platforms and how to get them and how to install them. I tried to manage a core Hyper-V once from a non-domain client and it was a nightmare. The presenters flew past that at 30,000 feet it seemed to me.

**Answer:** I am sorry if it felt 30,000 feet. you can use Hyper-V Manager to achieve what you are saying, but it does require extra steps. The presenters are showing both Hyper-V manager and PowerShell to manage the Hyper-V server. You can see some of the details in [http://blogs.msdn.com/b/virtual\\_pc\\_guy/archive/2010/11/11/configuring-remote-management-of-hyper-v-server-in-a-workgroup.aspx](http://blogs.msdn.com/b/virtual_pc_guy/archive/2010/11/11/configuring-remote-management-of-hyper-v-server-in-a-workgroup.aspx)

---

10:49:34 PDT

**Question:** Is Xenserver 6.2 supported in SCVMM 2012 R2?

**Answer:** No, at this point only 6.1 is supported in VMM 2012 R2.

---

10:50:05 PDT

**Question:** Is there any specific Recovery Time Objective when Hyper V replication is done ?

**Answer:** RTO is set by you 😊 you need to test your environment to determine best settings. Corey and Symon will cover Hyper-V replica later today.

---

10:50:09 PDT

**Question:** Is upgrading Server 2012 to 2012 R2 a fairly simple upgrade? Would anyone have a link for this?

**Answer:** Here are the instructions: <http://technet.microsoft.com/en-us/library/dn469607.aspx>

---

10:50:31 PDT

**Question:** how live migration technology work in back ground and what is the architecture of cluster and how it work?

**Answer:** We will cover this later today.

---

10:50:40 PDT

**Question:** Can you explain about dynamic memory sir?

**Answer:** I'm sure he'll talk about DM. Also, please see this article: <http://technet.microsoft.com/en-us/library/hh831766.aspx>

---

10:51:34 PDT

**Question:** Citrix P2V tool works great for Hyper-V, and its free

**Answer:** true

---

10:52:18 PDT

**Question:** what is the definition for NUMA again?

**Answer:** Discussing it now ...

---

10:53:10 PDT

**Question:** I've heard that DM should not be configured for SQL, Exchange, other high performance applications. Any truth to this?

**Answer:** Really it depends. For Exchange I know that static memory is recommended. For SQL you can go with Dynamic if you configure your SQL right.

---

10:53:16 PDT

**Question:** Instructor told us please better reinstall win2k12 r2 instead of inplace upgrade

**Answer:** It is usually a best practice to do a new install instead of in place upgrade. Especially since a lot of times there are deprecated features from one version of the OS to the other. Yet, when it comes to Windows Server 2012 to 2012 R2, an in-place upgrade does not provide as many issues.

---

10:53:17 PDT

**Question:** for the love of god, fix the website on IE11, seriously. I'm now running this in a vm.....

**Answer:** Odd Im running IE11 with no issues. Did you by chance disable Enhanced Protection mode, I did a week ago and it has helped

---

10:53:40 PDT

**Question:** SysInternals Disk2vhd is also awesome.

**Answer:** yeah

---

10:53:48 PDT

**Question:** Does anyone have server hardware recommendations for virtualizing graphics workstations workloads (sketchup rendering, autocad, photoshop, etc)?

**Answer:** Hi Banny, each Microsoft Products has a clear supportability statement regarding Virtualization. You might check with each product's support statement. for instance, SQL fully supports DM. Please see Q7 under the following article: <http://support.microsoft.com/kb/956893?wa=wsignin1.0>

---

10:54:26 PDT

**Question:** @Vladimir that link was regarding VMM upgrade..what about Server 2012 OS to 2012R2

**Answer:** Please try this:<http://technet.microsoft.com/en-us/library/dn303416.aspx>

---

10:54:49 PDT

**Question:** can we do in-place upgrade from windows server 2008 to 2012 R2?

**Answer:** You can find the update paths here <http://technet.microsoft.com/en-us/library/dn303416.aspx>

---

10:55:38 PDT

**Question:** There is a white paper available for running SQL with DM.

**Answer:** Please see these articles: <http://blogs.msdn.com/b/sqlosteam/archive/tags/dynamic+memory/>

---

10:55:59 PDT

**Question:** Any link to documentation on the design architecture for virtualization + system center, including failover?

**Answer:** Check out the Build Your Cloud series at <http://aka.ms/BuildYourCloud>

---

10:56:52 PDT

**Question:** I'm using Server2012R2 Hyper-V Cluster and wanna dedup the storage (not the system drives). Should I enable dedup on the csv or inside guest in a vhd?

**Answer:** Do not enabled Dedup on CSV that will host server virtual machines. You can enabled dedup inside a vm .

---

10:57:26 PDT

**Question:** is that possible to configure VM through power shell in server 2012 R2? any article ?

**Answer:** absolutely control the VM via powershell on the host.

---

10:58:00 PDT

**Question:** So if Im right new DELL VRTX is like a great one NUMA node right ?

**Answer:** nope - it's a full 4 node cluster with shared local storage.

---



10:58:09 PDT

**Question:** Any link to documentation on the design architecture for virtualization + system center, including failover?

**Answer:** in field, we see many cases use VMM on Failover cluster HA <http://technet.microsoft.com/en-US/library/jj628163.aspx>

---

10:58:29 PDT

**Question:** I do wish enhanced session would allow you to move the window to another monitor. so I can full screen on my 2nd monitor.

**Answer:** You can move the window to other monitors, I do that today, even without Enhanced Session. With Enhanced Session you can also use multiple monitors for the same VM.

---

10:59:02 PDT

**Question:** is enhanced session mode available for gen 1 VMs ?

**Answer:** Yes.

---

10:59:05 PDT

**Question:** Does enhanced session mode work for older guests?

**Answer:** today only for W8.1 and Windows Server 2012 R2.

---

11:00:33 PDT

**Question:** Can a VM use a USB License Key?

**Answer:** Hi Bill, you may use one of 3rd party USB to Ethernet solutions and pass your USB Key into the VM.

---

11:00:35 PDT

**Question:** What is the upgrade path for gen 1 to gen 2 vms?

**Answer:** You have to install the server again. You cannot upgrade but you can check this <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

---

11:00:48 PDT

**Question:** Do you have any best practices regarding dealing with windows updates on Hyper-V hosts and also best practises regarding Antivirus on a Hyper-V Host?

**Answer:** Hi Henrik, a corruption of the root Partition will cause all of the VMS to be compromised. We Support AV in the parent Partition as Long the documneted AV exclusions are in place. Reg. Updates, depends if you hav a Cluster or just standalone Hosts. if you can live migrate VMS automatically(Cluster aware updateing, scvmm) than patching is easy

---

11:00:52 PDT

**Question:** Will adding GPUs in a system allow higher density by reducing the load on CPU by offloading graphics processing to the GPU for VDI?

**Answer:** less CPU will be used but the amount of GPU support available in the box will likely be the limiting factor, not the CPU

---

11:00:52 PDT

**Question:** It is advisable to migrate from server 2012 to server 2012R2 only for improvements in new hyper-v?

**Answer:** That is a question only you can answer. It depends on your business needs, and cost. If you have software assurance you are covered on price, so it's a matter of business requirements. From a technical standpoint, yes, I would make the move.

---

11:01:13 PDT

**Question:** which is the cpu ratio recommended for use in vms

**Answer:** This is always a question that is best addressed by, what does the application actually require in the VM. Since CPU scheduling is quite different in Hyper-V than VMware, we can be a bit looser on CPU assignment, but still less vCPUs is always better than too many. See my post here for more info:

<https://www.virtuallycloud9.com/index.php/2013/08/virtual-processor-scheduling-how-vmware-and-microsoft-hypervisors-work-at-the-cpu-level/>

---



11:02:29 PDT

**Question:** Would you be able to apply your own W2012 licenses (such as Open or SA?) to Azure?

**Answer:** You would need to have this conversation with your account manager. Some licenses do transport to Azure though.

---

11:03:07 PDT

**Question:** what type of virtualization being used by the presenters??? type-1 or type-2???

**Answer:** Hyper-V is a type 1 Hypervisor

---

11:03:26 PDT

**Question:** Hello from Ukraine

**Answer:** Hello 🙄

---

11:03:31 PDT

**Question:** Hello from Ukraine

**Answer:** Hey Max , welcome to the session

---

11:03:32 PDT

**Question:** Is there an equivalent for storage DRS for Hyper-V?

**Answer:** We take a different approach to storage optimization - it's done dynamically at an IO-level, rather than at a per VM/virtual disk level. You can use automated storage tiering in R2 to optimize storage based on IO requirements.

---

11:03:48 PDT

**Question:** Resource Pool in server 2012 R2 sounds great!!!

**Answer:** Thanks Riyaz 🙄

---

11:04:24 PDT

**Question:** Does anyone know if the Enhanced Session Manager enabled on the host will provide the needed changes on the individual guests or does that inherit the setting from the host?

**Answer:** Enhanced session is disabled on the server by default, but you can enable it and leverage RDP over VMBus.

---

11:04:34 PDT

**Question:** @Jose Angel Fernandez : sir, can you please send me the link of the tool for convert VMware vhd to hyper-v vhd?

**Answer:** Here you have the details <http://technet.microsoft.com/en-us/library/gg610672.aspx>

---

11:04:48 PDT

**Question:** is there an MVA or Jump Start on powershell?

**Answer:** David yes there is a excellent powershell at

<https://microsoft.sharepoint.com/teams/MVA/Content/Lists/MVA%20Production%20Content%20Calendar/ProdDispView.aspx?ID=153>

---

11:04:58 PDT

**Question:** so if enhanced session mode enables an RDP 'style' session without network then what would happen if it wasn't enabled and i turned off the nic on the VM? would i be able to connect? or for-example if i turned off the nic on a 2012 vm/host without this mode?

**Answer:** Enhanced session mode using the host VMBus as the transport mechanism, rather they requiring vSwitch connectivity for the VM

---

11:05:32 PDT

**Question:** is there something in hyper-v like a v-distributed Switch?

**Answer:** Check this video <http://channel9.msdn.com/Events/TechEd/NorthAmerica/2012/VIR307>

---



11:05:38 PDT

**Question:** Is MCS certification basically same as MCTS. What is benefit of this certification 70-409 vs MCSEerver Infrastructure

**Answer:** This certification (70-409) is a standalone certification for virtualization. It is "the" virtualization specialist certification. The MCSE on Server Infrastructure covers some Hyper-V and VMM, but not as in depth, and it covers other System Center products.

---

11:05:43 PDT

**Question:** what is the best practise to use Dynamyc Ram or fix ram for VM?server ?

**Answer:** Depends on workload. As long as the workload supports it, I would recommend it for better density on the host.

---

11:05:51 PDT

**Question:** can anyone guide for setting up site2site vpn on server2012R2 on premises to connect to azure on cloud

**Answer:**<http://www.windowsazure.com/en-us/manage/services/networking/cross-premises-connectivity/>

---

11:06:20 PDT

**Question:** I woudl assume, but I figured I'd ask. Would change the price I'd hope.

**Answer:** Yes in some cases it would

---

11:06:30 PDT

**Question:** Are the Online lesson is will be recorded and then will be able to download at mb4 ?

**Answer:** Yes, you will be able to review this session in the future.

---

11:06:38 PDT

**Question:** Any advice for antivirus programs on hyper-v?

**Answer:** yes, it is supported. make sure you have the right exclusions configured<http://support.microsoft.com/kb/961804>

---

11:07:13 PDT

**Question:** is supported for ADM processor technology?

**Answer:** yes, it must be AMD-V (today all are)and is recommended to have SLAT Feature.

---

11:07:18 PDT

**Question:** Can we add RDM disk with VM ?

**Answer:** Yes - you can map a VM's virtual disks to physical pass-through disks

---

11:07:26 PDT

**Question:** I got build a private cloud, Windows 2012R2, System Center 2012 R2 using Netapp storage and Cisco networking. Any links to information relating to this kind of setup? Thanks!

**Answer:** Netapp should support SMI-S for storage integration, and Cisco should be supported through standard based management with extensions. please check with both Netapp and Cisco for better answer.

---

11:07:49 PDT

**Question:** can I use a Hyper-V to bulid a two or three Cluster Node Configuration with local Storage mirror like VMware VSA or HP virtual Lefhand?

**Answer:** Failover clustering doesn't do this, except with the DHCP Failover Role. Shared storage is otherwise required, but this can use easy SMB over Hyper-V with File Shares.

---

11:08:14 PDT

**Question:** Is site to site VPN only way to connect on premise to Azure?

**Answer:** Yes. Site-2-Site or Point-2-Site for the IaaS part. We also support other connectivity options like Azure Connect, Service Bus and DataSync.

---

11:09:04 PDT

**Question:** Regarding to network virtualization, why there are still no any technet content about it, it seems that it supports only ICMP, TCP and UDP, and it does not support GRE inside this virtual network, (since it uses in





background NV-GRE). Just recommendation to write more specification and limits of using network virtualization.

**Answer:** It supports GRE, and there is some documentation on TechNet. You can see some information here:

<http://technet.microsoft.com/en-us/library/jj134174.aspx>

---

11:09:29 PDT

**Question:** Is there a converter available (Physical to VM)?

**Answer:** <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx> or you can use free disk2vhd tool

---

11:09:44 PDT

**Question:** Should each system center component be installed on bare metal or as it's own VM? What is the "best practice"?

**Answer:** I prefer to use VMs for System Center components. Easier to manage. There is no NEED for physical computers.

---

11:09:53 PDT

**Question:** can I please get a link to the rom

**Answer:** do you mean the VHD or ISO for Server 2012 R2? if so <http://aka.ms/ws2012r2tp>

---

11:10:22 PDT

**Question:** can anyone see my posts at all???

**Answer:** yes.

---

11:10:31 PDT

**Question:** Could anyone advise me how to connect to a Server 2012 Hyper-V from a Windows 7 machine with RSAT on it ?

**Answer:** open Hyper-v Manager on Win7 then right click on the upper left pane on Hyper-v Manager and connect to the 2012 host

---

11:10:36 PDT

**Question:** What was the thinking behind removing P2V? Curious...

**Answer:** I believe we might see something in the future. Maybe it is just my wishful thinking. But this decisions are beyond my knowledge.

---

11:11:31 PDT

**Question:** What is the biggest VM talking in Hard disk size i can migrate using MAT?

**Answer:** I do not believe there is a size limit.

---

11:11:37 PDT

**Question:** i mean a demo or trial?!

**Answer:** Yes, <http://aka.ms/ws2012r2tp>

---

11:11:54 PDT

**Question:** i have a question about hyper-v for widows 7 64 bit

**Answer:** Please write it here, and it will be answered, if somebody knows the answer.

---

11:12:01 PDT

**Question:** So this would allow us to deploy apps to endpoints? Is there a source to actually get hold of the apps from the marketplace, onto a server for deployment?

**Answer:** I am sorry Danny, what is the "this" you refer to here?

---

11:12:14 PDT

**Question:** May you download the vhd of the VM that you have created on azure and make work it on demand in a local hyper-V?

**Answer:** Yes - it would be a VHD file and you can download and run on Hyper-V

---



11:12:15 PDT

**Question:** Do you have any recommendations for setting up a iSCSI cluster?

**Answer:** Be sure to check with your iSCSI SAN vendor to see if they supply a specific MPIO DSM for you to use.

---

11:12:36 PDT

**Question:** Can I get chance to download this video ? Internet connection is very slow here

**Answer:** Check the FAQ for more details

---

11:12:39 PDT

**Question:** Is there a good link anywhere for setting up SC2012 components on VMs?

**Answer:** Hi Ricky, please see <http://technet.microsoft.com/en-us/library/hh546785.aspx>

---

11:14:05 PDT

**Question:** Is there anyway to deploy a pre-packaged VM in a similar way to deploying a VMWare OVA file?

**Answer:** You can import OVF files in VMM. Check <http://technet.microsoft.com/en-us/library/jj158932.aspx>

---

11:14:08 PDT

**Question:** RSAT is no way near vSphere Client I am afraid...

**Answer:** Be sure to check out VMM in tomorrow's content.

---

11:14:19 PDT

**Question:** Are company has a corporate telcomm (network) and security (firewall) group. What common challenges might we encounter with network/security group when moving from many (50) physical servers to hyper-v based servers?

**Answer:** Basically, the virtual switches you create still connect to the physical network, you will of course need to make sure you adhere to the VLAN standards and such already outlined by those teams. I find once you sit down and show them how it works, they help to define the policy around how to implement. I consulted for nearly 7 years, not once did the network or security team stop the project once they understood how it worked.

---

11:14:23 PDT

**Question:** I'm using Server2012R2 Hyper-V Cluster and wanna dedup the storage (not the system drives). Should I enable dedup on the csv or inside guest in a vhd?

**Answer:** Currently - I would not do this, MS offer DuDupe only on live VMs when in VDI mode. all other loads are not supported for live de-dupe - of course at rest de-dupe is no problem for the library shares

---

11:14:48 PDT

**Question:** Is using Hyper-V over SMB without using RDMA in a production environment advisable?

**Answer:** Yes - but RDMA provides faster IO throughput.

---

11:15:14 PDT

**Question:** Is SCVMM R2 V2V supports conversion from VMware 4.1 to 2012 R2?

**Answer:** Yes you can, check it out here: <http://technet.microsoft.com/en-us/library/gg610672.aspx>

---

11:15:15 PDT

**Question:** so i tried to install the Remote Server Administration Tools and it says that it isnt accepted by my system. From what i know i cant have service pack 1 on windows 7 to be able to get hyper-v. Is this correct?

**Answer:** For managing Server 2012 R2, you'll need to install the RSAT tools on Windows 8.1

---

11:15:39 PDT

**Question:** what storage appliance are they using in this presentation??

**Answer:** we are using DataOn DNS9220 2 node cluster in a box.

---

11:15:44 PDT

**Question:** its still can install 2 VM with windows server 2012 with 1 license of windows server 2012 standar

**Answer:** Yes correct

---



11:15:49 PDT

**André Schuiki posted:** is there a download of 2012 R2 Standard Eval? i just find the datacenter Edition

**Answer:** Both editions are the same functionally - only the virtualization licensing rights for Windows Server VMs are different.

---

11:15:57 PDT

**Question:** Is there something modern SANs do and Storage spaces does not?

**Answer:** Cost lots of money? 😊

---

11:16:29 PDT

**Question:** ODX

**Answer:** there is equivalent with SMB offload.

---

11:16:55 PDT

**Question:** What was the reasoning behind this move (removing P2V), for many SME's considering virtual infrastructures the ability to convert their existing Physical servers easily is a major driver. Yes there are 3rd party tools available, but personally it was a major reason to invest in VMM.

**Answer:** I agree with you. I do not believe any of the SME's here have the actual knowledge on the reasoning. From my personal view, I believe we might see something in the future. Yet, you can use disk2vhd at least for the VHDs.

---

11:17:04 PDT

**Question:** Hi..My Name is Amar.. To Start Virtual Machine using Storage attached to NAS/SAN..Do we need special feature in BIOS to boot the machine from NAS/SAN

**Answer:** Do you mean the host or the guest virtual machines? Guest virtual machines do not require any changes. Hyper-v hosts would need to make sure the path is seen

---

11:17:10 PDT

**Question:** What's the name of that hardware provider again? DataOp?

**Answer:** DataOn Storage

---

11:17:25 PDT

**Question:** what these storage model called.??

**Answer:** Storage Spaces

---

11:18:32 PDT

**Question:** Dear Santa, for Christmas I would like a cluster in a box

**Answer:** Who doesn't like a Cluster-in-the-Box? 😊

---

11:18:44 PDT

**Question:** Storage Space can be setup with just 2 nodes?

**Answer:** storage space is possible on a NON clustered device as a single server, but can be multiple-node Scale Out File Servers...

---

11:18:56 PDT

**Question:** Your limit of what can be done with Powershell is only limited by you...

**Answer:** True! 😊

---

11:19:12 PDT

**Question:** Thanks for the reply. RSA tool for windows 7?

**Answer:** RSAT tools require Windows 8 for Server 2012, and 8.1 for 2012 R2.

---

11:19:16 PDT

**Question:** Modern SANs, as well, as old ones, usually don't require antivirus installation or monthly patching, However, they costs LOTS of money, really.

**Answer:** they do require firmware updates and controller maintenance.

---



---

11:19:18 PDT

**Question:** Hi Keith, kinda expected to see you here

**Answer:** Hello!

---

11:19:42 PDT

**Question:** @ricksterCDN the page for the cluster in a box is down atm, same with their site, looks like we crashed it already

**Answer:** oh nice...

---

11:20:03 PDT

**Question:** Will these links be included in the transcript?

**Answer:** Yes

---

11:20:26 PDT

**Question:** speaking of Demo environment does MS offer any server licenses for test environments i.e. for exam practice etc.

**Answer:** you can use TechNet Eval center to get software to build your own lab.

<http://technet.microsoft.com/evalcenter>

---

11:20:40 PDT

**Question:** link to storage Jump Start?

**Answer:** check the <http://www.microsoftvirtualacademy.com> site for storage Jump Start.

---

11:20:57 PDT

**Question:** you will need to uninstall service pack 1 on your windows 7 machine and then install Remote Server Administration Tools in order to get access to Hyper-V manager

**Answer:** Hyper-V Manager for R2 requires 8.1 - the older versions of Hyper-V Manager will connect, but they don't support the new features.

---

11:20:59 PDT

**Question:** Is there additional information on the single license for multiple VM's?

**Answer:** Charles, Windows Server 2012 Datacenter edition can be used to host as many VMs running Windows server as you want. It has unlimited licenses. However, if the VM is running another OS you need a license.

---

11:21:03 PDT

**Question:** rick thanks

**Answer:** no problem

---

11:21:09 PDT

**Question:** Windows Server 2012R2 hardware req. same as Windows Server 2012?

**Answer:** yes.

---

11:21:18 PDT

**Question:** Can anyone recommend a good source for information on introductory hyper-v storage concepts?

**Answer:** Here you go - <http://blogs.technet.com/b/keithmayer/archive/2013/10/31/why-r2-your-next-san-with-smb-3-02-scale-out-file-server-sofs.aspx>

---

11:21:19 PDT

**Question:** you will be unable to get the hyper-v manager on a windows 7 machine unless you dont have service pack 1 installed on it

**Answer:** Hyper-V Manager for R2 requires 8.1 - the older versions of Hyper-V Manager will connect, but they don't support the new features.

---



11:21:32 PDT

**Question:** Is there additional information on the single license for multiple VM's?

**Answer:** Hi Charles, it's System Center Datacenter. You can use CIS (Core Infrastructure Sku) Datacenter that includes Windows Server 2012 R2+System Center 2012 R2 with 5% discount.

---

11:21:36 PDT

**Question:** Whats the best way to measure the VM Performance in-terms of CPU & Memory & IO. Do we have to measure it from Host or inside VM

**Answer:** We will cover that later. It depends on what you are monitoring. You can monitor most performance counters from the host.

---

11:21:55 PDT

**Question:** Im not yet done P2V of all my machines and Im already going all latest 2012. how can I do the P2V for the remaining servers..??

**Answer:** <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx> and disk2vhd tool

---

11:22:15 PDT

**Question:** Whats the best way to measure the VM Performance in-terms of CPU & Memory & IO. Do we have to measure it from Host or inside VM

**Answer:** Using Hyper-V specific Perf Counters on the host is the most reliable method

---

11:22:28 PDT

**Question:** you can also force pin certain data to ssd or slow disk

**Answer:** yes you can pin files instead of allowing the OS to determine which portion of the file to Pin.

---

11:22:44 PDT

**Question:** @Corey, what we've seen is that Data Depuplication is not supported in Hyper-V 2012R2 Core

**Answer:** Correct, dedup is not supported for Hyper-V workloads. IN R2, VDI workloads are supported, however you would do this on the file share server, not necessarily the Hyper-V host.

---

11:22:48 PDT

**Question:** Storgae spaces - automatic storage tiering? I thought I heard Corey say that.

**Answer:** yes - demo is coming up.

---

11:23:08 PDT

**Question:** So can i do tiering between different SANs, merge ssd/sas storage with sata disk from a 2nd SAN? all in windows storage spaces?

**Answer:** no - storage spaces tiering is amongst all locally attached disk in the JBOD.

---

11:23:10 PDT

**Question:** please recommend best resources for service manager deployment

**Answer:** Hi, - MVA has a great session on service manager, and i have also started a new series on the perti KB on configuring the service manager for incidents - alsk the technet wiki is a great resource - fainlly MVP blogs!

---

11:23:21 PDT

**Question:** What product is Storage Tiering included in?

**Answer:** Windows Server 2012 R2

---

11:23:41 PDT

**Question:** Keep in mind that datacenter will cover your server licenses only. You're still paying for SQL, Remote Desktop CALs, etc

**Answer:** true

---

11:23:57 PDT

**Question:** The P2V option, using a down-level version of VMM is weak sauce from MS. Is there plans to introduce and add-on in the future instead of using a down-level version?



**Answer:** Hi TJ, here's the official announcement around this:  
<http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvm-2012-r2-environment.aspx>  
I'm sure VMM's product team has heard your feedback and working on an alternative solution. Please stay tuned.

---

11:24:03 PDT

**Question:** Will there be demos today and more of technet articles and blogs with concrete configuration and best practices?

**Answer:** a lot more demos

---

11:24:11 PDT

**Question:** So if you have couple of Standart server licenses 2012 for a node, what is preferable - use its role or install pure hyper-v server, if the management is not a problem?

**Answer:** The latter is more than 2 VMs.

---

11:24:24 PDT

**Question:** is storage server do the same ?

**Answer:** storage server can be setup by the OEM to use either their own RAID cards, or to use StorageSpaces. Depends on the OEM offering.

---

11:24:40 PDT

**Question:** these guys talk over each other a lot.... can we get them boxing gloves?

**Answer:** that would be fun to watch! 😊

---

11:24:41 PDT

**Question:** is it syntactically correct to ask "which is better... SMB3 or iSCSI LUN?"

**Answer:** yep - we would ask - if you would recommend file storage (SMB3) or block storage (iscsi). right now smb3 with rdma is proving to be amazing, and a lot easier to manage

---

11:24:59 PDT

**Question:** Can I create Geo Scale-Out File Server ? based on servers from different locations ?

**Answer:** Scale-out File Server storage commonly would be single location, but could then use Hyper-V Replica to replicate VM's to second location.

---

11:25:11 PDT

**Question:** When will there be more supported jbod enclosures available?

**Answer:** I would check here for new certified jbods <http://www.windowsservercatalog.com/>

---

11:25:20 PDT

**Question:** how do you manage a hyper-v server without AD?

**Answer:** here is a link with how-to instructions: <https://www.virtuallycloud9.com/index.php/2012/12/connecting-to-a-non-domain-workgroup-windows-2012-server-with-rsat-for-windows-8/>

---

11:25:34 PDT

**Question:** how can i deploy the private cloud by svmm and sccm

**Answer:** Mahaba! You use VMM, not necessarily SCCM. We will see private clouds tomorrow when we cover VMM.

---

11:25:43 PDT

**Question:** Would storage spaces and SOFS be good for regular user shares, or would that be overkill? Also, for a SOFC be good on virtual file servers or is it best on physical (or can you do a combination)?

**Answer:** SOFS is specific to Hyper-V and SQL Database workloads - normal information worker shares should use General File Server cluster instead

---

11:25:48 PDT

**Question:** can you share link for Windows server 2012 and SCVMM 2012 licensing guide, di we any changes in Win 2012 R2 and SCVMM 2012 R2?

**Answer:** Hi Ganesh, here's Windows Server 2012 R2 Licensing guide:

---



[http://download.microsoft.com/download/F/3/9/F39124F7-0177-463C-8A08-582463F96C9D/Windows\\_Server\\_2012\\_R2\\_Licensing\\_Datasheet.pdf](http://download.microsoft.com/download/F/3/9/F39124F7-0177-463C-8A08-582463F96C9D/Windows_Server_2012_R2_Licensing_Datasheet.pdf) and here's System Center 2012 R2 Licensing Guide: [http://download.microsoft.com/download/B/4/A/B4A98A4E-2F43-489D-8761-5362C8C2C328/System\\_Center\\_2012\\_R2\\_Licensing\\_Datasheet.pdf](http://download.microsoft.com/download/B/4/A/B4A98A4E-2F43-489D-8761-5362C8C2C328/System_Center_2012_R2_Licensing_Datasheet.pdf)

---

11:25:52 PDT

**Question:** Why important for us this Exam 74-409 ?

**Answer:** it is the first test towards the MCSE

---

11:26:05 PDT

**Question:** Let me rephrase. To migrate from a 2008 R2 Hyper-V cluster to 2012 R2 cluster I would need a new cluster on a 2012 R2 node? I couldn't do an in-place upgrade?

**Answer:** I would definitely not even consider it. do a migration and use tools like VMM to make your life really pain free. note that moving from 2008 to 2012 will need the vms to be powered off, but you can do it one at a time if you like

---

11:26:20 PDT

**Question:** Does This mean we are getting RSAT for windows 7 to manage Windows Server 2012?????

**Answer:** No, nothing has been released on this, Windows 8 is required for the RSAT tools of 2012.

---

11:26:51 PDT

**Question:** Let me rephrase. To migrate from a 2008 R2 Hyper-V cluster to 2012 R2 cluster I would need a new cluster on a 2012 R2 node? I couldn't do an in-place upgrade?

**Answer:** You cannot do an in place upgrade of a Cluster node. Setup will be blocked. But you can do it in a rolling fashion. Evict one node and install 2012R2 fresh with Clustering. Do a migration from the old to the new. Rebuild the old with 2012R2 and add it to the Cluster

---

11:26:59 PDT

**Question:** would SMB 3.0 be a lot better compared to let's say an equallogic 6000's performance

**Answer:** With SMB 3.02 over multiple RDMA interfaces, we're seeing storage performance that is very close to direct-attached storage. So, yes - it can provide better performance, but will be based on the level of scale-out architecture you design.

---

11:27:00 PDT

**Question:** ok, then we don't have hypervisor OS separately right

**Answer:** Ramesh, Hyper-V is a Type 1 hypervisor. When you install the Hyper-V role, it takes over the OS. the OS becomes a VM in itself.

---

11:27:04 PDT

**Question:** Is DeDup on the fly or post?

**Answer:** Dedupe is on the fly, tiered storage is scheduled 1am by default

---

11:27:21 PDT

**Question:** is it better to place my VMs on EMC SAN and also do a boot from SAN....will there be a performance hit ?

**Answer:** Only if you over saturate the fibre links to the SAN. That would be up to the workloads in the VMs and the hosts. I would separate the two if it were me, but really depends on size of the environment.

---

11:27:29 PDT

**Question:** Is deduplication supported for server workloads?

**Answer:** Yes, but for hyper-v only if you are using VDI, not for normal vm loads

---

11:27:44 PDT

**Question:** Question: Which one is better to Implement : Type-1 or Type-2 Virtualization ??? ... and Why???

**Answer:** Type1 hypervisor is a true server class virtualization from security and performance. Please see this page: <http://en.wikipedia.org/wiki/Hypervisor>

---



11:27:44 PDT

**Question:** Is deduplication supported for server workloads?

**Answer:** Dedupe of closed files supported for server workloads, Dedupe of open files supported for VDI workloads

---

11:27:44 PDT

**Question:** Is this deduplication file-based or block-based?

**Answer:** Block Based.

---

11:27:59 PDT

**Question:** What are the redundancy options for JBOD storage spaces?

**Answer:** spaces are enclosure aware when they lay out the patterns for redundancy for Mirroring, 3 waymirror and parity.

---

11:28:03 PDT

**Question:** how to decide which virtualization to use??? ...Type-1 or Type-2???

**Answer:** If you are talking about Generation 1 versus Generation 2 virtual machines, here is a Good 10 part blog series on Generation 2 virtual machines that most likely answers most of your questions Hyper-V generation 2 virtual machines – part 1 <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

---

11:28:08 PDT

**Question:** So what is MS P2V Solution going forward?

**Answer:** Hi Dean, please see this article: <http://blogs.technet.com/b/scvmm/archive/2013/10/03/how-to-perform-a-p2v-in-a-scvmm-2012-r2-environment.aspx>

---

11:28:18 PDT

**Question:** Deduplication is block-level?

**Answer:** It dedupes common clusters of blocks across files.

---

11:28:29 PDT

**Question:** for SOFS, what format is preferred (NTFS vs reFS) for Hyper-V over SMB and SQL over SMB?

**Answer:** not an easy question - refs will be the goal, but you need to reseach more based on what you will implement - mvps like workinghardinit, have good content on this.

---

11:28:53 PDT

**Question:** Is the licensing good for down level licenses or does the guest os have to be the same as the host?

**Answer:** Good for down-level.

---

11:29:09 PDT

**Question:** hi mark type is software virtualizer?

**Answer:** Hyper-V is a type 1 hypervisor

---

11:29:22 PDT

**Question:** Has anyone tried running Scale-out File server with NFS for Windows Server on a VMWare stack?

**Answer:** NFS is not supported with Scale-out File Server, but NFS is supported with Continuously Available General File Servers - testing shows that NFS performance is on par with 3rd party NFS solutions. Supported for VMware remote datastores.

---

11:29:22 PDT

**Question:** I notice that Disk Deduplication requires NTFS; What is Microsoft's position on using ReFS vs NTFS? Will ReFS be compatible with Disk Deduplication?

**Answer:** refs is still ver 1.0, expect to see it get all these ntfs features and a lot more as time progresses

---

11:29:25 PDT

**Question:** so all of these options would be created with VMM?

**Answer:** Yes. We will cover VMM tomorrow.

---





11:29:37 PDT

**Question:** are we still on break? I have no video...

**Answer:** no - we are live

---

11:29:41 PDT

**Question:** Is the licensing good for down level licenses or does the guest os have to be the same as the host?

**Answer:** You can use any supported down level OS versions inside VMs

---

11:29:57 PDT

**Question:** 70-409 isn't prerequisite for any MCSE I can see?

**Answer:** Merlus..correct 70-409 is a stand alone exam

---

11:30:57 PDT

**Question:** If you run deduplication and many VMs are referencing data on the same disk, won't that cause a performance bottle neck?

**Answer:** MS only support dedupe on VDI workloads, and not normal workloads. the amazing answer is yet it has a performance hit, - a gain of 10-12 times on vdi boot, as the deduped data is cached to ram for the first vdi boot, all the rest just boot from the cache, giving a unreal hit.

---

11:31:21 PDT

**Question:** How big is a block in dedup? Is it adjustable for performance?

**Answer:** Dedup will skip files less than 32 KB. You should not see any performance issues with dedup if you use supported scenarios.

---

11:31:25 PDT

**Question:** How many distributions of Linux actually have the integration services? I've read that only 2 specific versions of linux are actually supported with Gen2 VMs.

**Answer:** no, there is a supported link here <http://technet.microsoft.com/library/hh831531>

---

11:31:44 PDT

**Question:** Is SCVMM 2012 R2 an in-place upgrade if I already have SCVMM 2012 SP1 or do I have to start from scratch?

**Answer:** In place - just make sure your database is on a supported sql version, run a pilot test by backup you db and try it in a test scenario.

---

11:31:54 PDT

**Question:** Hi, Wih System Center can i manage CISCO router or no ?

**Answer:** Hi Guiga, SC Operations Manager provides network monitoring to your managed network devices (using read-only community string) and SC Orchestrator can use SSH and SNMP traps to manage any devices capable of receiving those.

---

11:31:55 PDT

**Question:** Does the CSV dedup work across different CSV volumes or just per volume?

**Answer:** Per volume

---

11:31:55 PDT

**Question:** So when will Gen 2 support RemoteFX adapters ?

**Answer:** Unfortunately, no. The reason is that there is a dependency on PCI in the RemoteFX stack. PCI is not present in generation 2 virtual machines, and it was not possible to remove this dependency in the timeframe and resources available for the Windows 8.1 release cycle.

---

11:31:57 PDT

**Question:** Is there MCSE - Virtualization certification?

**Answer:** Rudy, no there is not. We have Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---



11:31:58 PDT

**Question:** is it supported to dedup a csv with running vms in the csv?

**Answer:** Only in VDI scenario. It is not supported for server VMs.

---

11:32:11 PDT

**Question:** Does the CSV dedup work across different CSV volumes or just per volume?

**Answer:** Jason - its per CSV

---

11:32:21 PDT

**Question:** They were discussing de-duplication issues with parity data, what was the problem with this?

**Answer:** Wasn't previously supported on cluster shared volumes.

---

11:32:39 PDT

**Question:** will the VM restart when failover during host crash..??

**Answer:** Yes

---

11:32:50 PDT

**Question:** Can I have a linux VM running over SMB?

**Answer:** Yes

---

11:32:51 PDT

**Question:** we have a NETAPP FAS.... we give our users the file share via CIFS..... would the "upgrade" to this be to see if they offer SMB?

**Answer:** Basically the two names mean the same thing. What you need to find out is if your Filer Ontap version supports SMB3.

---

11:33:07 PDT

**Question:** Can I have a linux VM running over SMB?

**Answer:** Yes - SMB connection is performed at Hyper-V hypervisor level, not at VM level

---

11:33:13 PDT

**Question:** Is SMB 3.0 supported with Windows 7?

**Answer:** No. SMB3.0 requires SMB3 in both 'ends'. On server side and client side.

---

11:33:14 PDT

**Question:** Is SMB 3.0 supported with Windows 7?

**Answer:** No, only Windows 8/Server 2012 and up.

---

11:33:18 PDT

**Question:** If I upgrade the Hyper V host to 2012 r2 from 2012, will it cause any problems with the 2012 vms?

**Answer:** no - you wont add 2012 r2 to the same cluster, but instead you will move from 2012 to r2 - live migration between the clusters - this is a ONE WAY migration - check out Aidan Finns posts on the petri kb

---

11:33:34 PDT

**Question:** Am I correct in understanding that if you buy Server 2012 Datacenter, you do not need to buy OS licenses for your VM's? Or would you still need to buy OS licenses for your VM's?

**Answer:** Unlimited DC licensnes included with Datacenter license on the host.

---

11:33:34 PDT

**Question:** Is SMB 3.0 supported with Windows 7?

**Answer:** Windows8 and higher understand SMB3. Older Oses will automatically connect over SMB2.

---

11:33:42 PDT

**Question:** Can Linux use SMB 3 that is used in Server 2012 r2

**Answer:** Linux VMs can be placed on SMB3

---



11:33:46 PDT

**Question:** Are SMB VMs just R2 or does old 2012 do it too?

**Answer:** 2012 supports smb3 also 😊

---

11:33:59 PDT

**Question:** I good with 74-410 exam objectives. Will they be useful for 74-409?

**Answer:** Arpan001 ... Partially ... check out the objectives on the 70-409 page and compare.

---

11:34:04 PDT

**Question:** Will these Q&As be available offline later ? There're tons of links I'd like to check later

**Answer:** yes

---

11:34:05 PDT

**Question:** Am I correct in understanding that if you buy Server 2012 Datacenter, you do not need to buy OS licenses for your VM's? Or would you still need to buy OS licenses for your VM's?

**Answer:** Windows Server 2012 Datacenter edition includes unlimited Windows Server OS licenses for VM's running on a host with up to 2 physical processors.

---

11:34:44 PDT

**Question:** Server 2012 Hyper-V R2 Does not support SMB 3.0 correct?

**Answer:** nope - fully supported as a storage target.

---

11:34:55 PDT

**Question:** Can you have one node with a 10Gb NIC using vRSS and a second node with a 10Gb NIC with RDMA in the same cluster?

**Answer:** Hi, Yes you can, mix and match, but plan carefully, as you might want to use RDMA card for smb3 traffic, and the 10gb card for vm traffic- so not converged fully

---

11:34:59 PDT

**Question:** We are only a small business so only have one hyper-v host at this stage. What do I do in that situation?

**Answer:** Using local storage on the Hyper-V host.

---

11:35:16 PDT

**Question:** Which are the supported Linux Operating systems for Windows Server 2012 R2?

**Answer:** Check this link for more details: <http://www.windowsservercatalog.com/>

---

11:35:17 PDT

**Question:** Keith, no core limit? So a dual processor with 16 cores per processor, one license is good?

**Answer:** Correct - Datacenter licensing based on physical proc's not cores.

---

11:35:24 PDT

**Question:** in which case i use dedup a csv without running vms?

**Answer:** use for file services on a traditional Clustered file server.

---

11:35:29 PDT

**Question:** in which case i use dedup a csv without running vms?

**Answer:** Chris - only supported option is VDI workloads.

---

11:35:32 PDT

**Question:** DID he say that AZURE uses .VHD..... (NOT vhdx) ?

**Answer:** Correct VHD only at this time in Azure.

---

11:35:48 PDT

**Question:** Does an SoFS cluster support only 8 nodes or the full 64?

**Answer:** 8 is the recommended supported limit for SOFS.

---



11:36:04 PDT

**Question:** What's the difference between VHD SSD and HDD?

**Answer:** Basically means the VHD is sitting on SSD drives or HDD(SATA, SAS) drives.

---

11:36:04 PDT

**Question:** Why do we need to convert VHDX to VHD for Azure? Would like to know the reasoning

**Answer:** Azure is not using the latest and greatest yet!

---

11:36:29 PDT

**Question:** SMB 3.0 do you have datacenter experience ?

**Answer:** we use SMB3 in our datacenters. As have our other WS2012 customers.

---

11:36:33 PDT

**Question:** no performance hit with dynamic?

**Answer:** Little to no performance hit with Server 2012 and above.

---

11:36:39 PDT

**Question:** Does an SoFS cluster support only 8 nodes or the full 64?

**Answer:** 8 nodes

---

11:36:49 PDT

**Question:** is there a way I can use USB dongle for license for some application on VM..??

**Answer:** Yes - USB devices can be passed from host to VM using 3rd party software and/or hardware solutions.

---

11:37:03 PDT

**Question:** Are dynamic disks supported for SQL instances? We've always used fixed.

**Answer:** Fixed is recommended as it is less prone to fragmentation.

---

11:37:15 PDT

**Question:** is it not recommended to use vhdx in productive environments?

**Answer:** VHDX is recommended for production environments.

---

11:37:22 PDT

**Question:** Are there considerations that need to be made RE snapshots w/VHD(x)?

**Answer:** Not really, snapshots are called checkpoints in R2, they do not have near the impact on the performance of a machine when running multiple checkpoints as you would see in a VMware host with many snapshots on a VM. The Technology is quite different.

---

11:37:43 PDT

**Question:** does de-duplication apply to vhds

**Answer:** Only for VDI workloads at this time.

---

11:37:45 PDT

**Question:** So is the RAM used as cache for the enhanced file server?

**Answer:** SOFS can use server RAM for additional caching of the CSV volumes

---

11:37:46 PDT

**Question:** If the user is a member of multiple SCVMM user roles, Which role the user needs to login to check all the VMs in AppController self-service portal

**Answer:** app controlller uses all the same rules as defined in vmm - its just a plug in-so if the user sees the vms in vmm - he will see them in appcontroller - checkout book MS private cloud computing

---

11:38:13 PDT

**Question:** dynamic vhdx does have better performance than dynamic vhd

**Answer:** Agree VHDX performance is better, as is stability/resiliency.

---



11:38:23 PDT

**Question:** Any performance improvement for parity storage spaces in R2?

**Answer:** There are improvements but better use Mirror for best performance.

---

11:38:39 PDT

**Question:** I would have loved to see the feature in virtual pc with NAT in the hyper-v for win 8.1

**Answer:** unfortunately Hyper-V vSwitch is a layer-2 switch and can't do that. you can use a software solution to do that.

---

11:39:06 PDT

**Question:** is it possible boot windows server from differenci vhd? If yes please send me link. Because I think it it impossible, and some MVP too

**Answer:** Follow my guide, I use differencing disks to boot many of my servers. <http://aka.ms/tp2012lab>

---

11:39:28 PDT

**Question:** Any chance of supporting iSCSI in the future along with SMB?

**Answer:** iSCSI is supported today. Maybe we are missing the question here?

---

11:39:38 PDT

**Question:** why Azure does not support VHDx format? I assume it will become available at some point, but wondering what is preventing it right now

**Answer:** Yep - its just that the hyper-visors in azure are not ready just yet

---

11:39:48 PDT

**Question:** if you are using an autotier storage system, isn't fragmentation a moot point?

**Answer:** auto-tiering only gets rebalanced during the evening maintenance window at 1 AM.

---

11:39:55 PDT

**Question:** Is posible to migrate from differencing vhd to exp. fixed ?

**Answer:** basically right click and Export the VM, it will create one VHD at that point.

---

11:39:58 PDT

**Question:** On so called converged virtualization platforms where the hardware already runs a hypervisor provided by the hardware manufacturer, can you run a VM with Windows Datacenter addition and have that provide the umbrella licenses for other Windows Server VM's n the same hardware?

**Answer:** if you have the Datacenter licenses (One per Two Sockets), then you'll be covered for unlimited VMs on that host.

---

11:40:07 PDT

**Question:** can we expect Oracle Enterprise Linux as a compatible gust for Hyper-V in near future ? I see that even with Windows server 2012 R2, its supported with Redhat Kernel.

**Answer:** Yes - this has being offically announced on the oracle site!

---

11:40:11 PDT

**Question:** what should be preferred to dedup virtual fileservers. Enable dedup inside the guest, or on the csv where the fileshare-vhd resides?

**Answer:** Enable dedup inside the VM. Do not enabled dedup where vhd files for server VMs reside.

---

11:40:24 PDT

**Question:** can we use a differencing disk like a backup??

**Answer:** nope - still need proper backup routines.

---

11:40:26 PDT

**Question:** Is direct attached storage supporting LiveMigration? (if you have LUN)

**Answer:** 100% - YES

---



11:40:28 PDT

**Question:** What about fault tolerance? What happens to the VM's when the host fails?

**Answer:** The VM restarts in another host.

---

11:40:45 PDT

**Question:** If I download Hyper-V from <http://www.microsoft.com/en-us/server-cloud/hyper-v-server/default.aspx>, will I allow me to download the R2 or the non-R2 version?

**Answer:** most current version is R2.

---

11:41:15 PDT

**Question:** Is enabling Dedupe on a SAN that stores VHDs recommended?

**Answer:** not recommended.

---

11:41:21 PDT

**Question:** When you deploy VDIs from parent VM, does it clone parent VM to replica like VMware, or linked clone use original parent VM's vhd?

**Answer:** Pooled VMs use differencing disks based on the parent. Personal VMs use separate copies of each VHD. This is why dedup for VDI comes in quite handy!

---

11:41:30 PDT

**Question:** any recommendation for the cluster size for the volume that will hold the vhd/vdix files?

**Answer:** This may help you <http://blogs.technet.com/b/josebda/archive/2013/11/08/selecting-the-number-of-nodes-for-your-scaleout-file-server-cluster.aspx>

---

11:41:56 PDT

**Question:** Is there anything like FT in Hyper-v?

**Answer:** Clustering of the workload.

---

11:42:20 PDT

**Question:** Can the SMB share be on the same host as HV?

**Answer:** not recommended. should separate hyper-v role from storage role.

---

11:42:21 PDT

**Question:** Why set a minimum IOPS to more than zero?

**Answer:** 0 = unlimited - after that it is limiting

---

11:42:32 PDT

**Question:** Would it not be more beneficial to add a drive over iSCSI over a physical disk on a hyper-v host?

**Answer:** Not sure why iSCSI is more beneficial other than if you were going for raw performance with direct to disk. Keep in mind, SMB3 only has a 2% performance hit in some of our recent studies with heavy workloads like SQL.

---

11:42:49 PDT

**Question:** Why set a minimum IOPS to more than zero?

**Answer:** If you set for example to 30 and you virtual hard disk cannot get 30 IOPS you will get alert in event log that he virtual disk needs more IOPS.

---

11:42:54 PDT

**Question:** which cpu ratio you recommend for the vm's? ex: 1 physical core for 1 virtual core for the vm

**Answer:** Hi Paulo, It used to be 1:8 in Windows Server 2008 R2 but with Windows Server 2012 (R2) it's unlimited. Off course Dynamic Optimization (DO) and Performance Resource Optimization (PRO) in SCVMM will help rebalance the load when your CPUs are becoming overutilized

---

11:43:12 PDT

**Question:** If i use Hyper-V Replica the physical Hard disk from a VM also replicate?

**Answer:** nope. Physical passthrough data will not replicate.

---



11:43:12 PDT

**Question:** Host memory reservation are removed in 2012 R2 VMM?

**Answer:** Nope they are there.

---

11:43:14 PDT

**Question:** exchange can run on a dynamic virtual disk?

**Answer:** yep - no problems

---

11:43:34 PDT

**Question:** is that a percentage of total iops, or actual IOPS?

**Answer:** Actual IOPS

---

11:43:43 PDT

**Question:** does Hyper-V support jumbo frames?

**Answer:** Yes, on host and in guest

---

11:43:48 PDT

**Question:** would it be supported to run a 2-node hyper-v cluster and a separate 2-node SOFS cluster, with the VMs running on the same SMB3 shared storage as normal shares? would there be any performance issues?

**Answer:** When you create the share for the VMs you would specify the Application Mode sharing for this file share. Then all you need to watch for is the performance of the file server in general.

---

11:43:56 PDT

**Question:** How does it guarantee minimums?

**Answer:** You cannot guarantee minimum. You set minimum to get alerted when the virtual disk cannot get that minimum IOPS.

---

11:44:11 PDT

**Question:** can you MERGE the differencing disk into the children? (like converging the snapshots?)

**Answer:** Yes sort of. Basically right click and Export the VM, it will converge everything to a single VHD.

---

11:44:16 PDT

**Question:** how it calculate the iops ?

**Answer:** Using Prefmon is the simplest way

---

11:44:47 PDT

**Question:** We were unhappy when we discovered that you can't combine shared vhd and hyper-v replica.

**Answer:** Yes- we were to, and MS are very aware - fingers crossed for vnext

---

11:44:52 PDT

**Question:** This iops thing, can it also be set for a group of vm's. instead doing it for each vm?

**Answer:** It is a Per VM setting.

---

11:45:18 PDT

**Question:** Does Live migration of SQL server (VM) cause SQL connections to be reconnected or are they dropped?

**Answer:** Nope

---

11:45:18 PDT

**Question:** I got a question, If i want to migrate from server 2008 R2 to server 2012 R2 but i buy a new san or storage spaces, what would be the process to migrate the vm's to the new storage?

**Answer:** See this link here: <http://www.virtuallycloud9.com/index.php/2013/02/migrating-hyper-v-virtual-machines-from-server-2008r2-to-server-2012-part-10-of-the-migration-and-deployment-series/>

---

11:45:26 PDT

**Question:** I believe Microsoft recommends using a pre-allocated VHD/VHDX for high I/O scenarios such as Exchange and SQL Server. Correct?



**Answer:** Yes, dynamic disks have a higher overhead as the need to expand this is not the case on the fixed vhds, so perf will be better - 5% or so

---

11:46:14 PDT

**Question:** If you enable VHD sharing, is the VM still allowed to be live migrated?

**Answer:** Yes the machine can be live migrated but cannot be storage or shared-nothing migrated.

---

11:46:31 PDT

**Question:** On SQL boxes does using fixed helps limit over allocation of ram?

**Answer:** RAM and Disk are managed differently - in SQL you should configure the instance for its RAM requirements following the SQL best practices.

---

11:46:40 PDT

**Question:** is there an equivalent to vmware's Fault tolerance in Hyper-V? where the machines are actually running side by side?

**Answer:** No, VMwares Fault Tolerance is a unique offering

---

11:46:50 PDT

**Question:** Did he just say the shared vhdX has to be on SoFS? Can't it live on CSV?

**Answer:** Can be on CSV

---

11:47:03 PDT

**Question:** 10GbE iSCSI comparable to FC and a darn sight easier to implement!

**Answer:** Agree

---

11:47:20 PDT

**Question:** So did he say that VHD sharing is only available on an SMB share? Because I've set up a shared VHD in an iSCSI CSV and it seems to work fine.

**Answer:** Yes it works

---

11:47:31 PDT

**Question:** Server specs 24 bays (20 HDDs + 4 SSDs). What is best practices to create a Storage Space with tiering (Mirror) to store VMs? One volume for all 24 disks or two volumes for better performance?

**Answer:** the GUI creation will allocate the proper number of columns for this setup. you would have 2 SSD per column.

---

11:47:53 PDT

**Question:** Server specs 24 bays (20 HDDs + 4 SSDs). What is best practices to create a Storage Space with tiering (Mirror) to store VMs? One volume for all 24 disks or two volumes for better performance?

**Answer:** i believe 3 is the recommended, but you might want to check the technet site for some same scenarios, and look for presentations and blog posts from jose bareto !

---

11:48:08 PDT

**Question:** Is it best to use iscsi or SMB 3.0 to store vhd files?

**Answer:** either one's OK. Please keep in mind if you have multiple routes between your Hyper-V 2012 Server and SMB 3.0 file share server, then SMB 3.0 multi-channel would provide better performance

---

11:48:33 PDT

**Question:** Is shared VHDX only offered on SMB ? Cant I create it on CSV ?

**Answer:** Either is supported.

---

11:48:43 PDT

**Question:** Would VM guest clustering for SQL be supported for system center 2012 R2 suite?

**Answer:** Yes. I'd recommend using Always-on feature SQL Server though 😊

---





11:48:46 PDT

**Question:** Is shared VHDX only offered on SMB ? Cant I create it on CSV ?

**Answer:** shared VHDX needs to be hosted on a ScaleOutFileServer.

---

11:48:54 PDT

**Question:** I have two new 2012R2 hosts with internal dasd only in each. I want to use the share nothing so each host will see the others disk. Is there recommendations on best way to do this?

**Answer:** setup both servers as SMB3, and use UNC paths - that will make this possible

---

11:49:07 PDT

**Question:** can you do storage QoS from VMM?

**Answer:** Nope

---

11:49:28 PDT

**Question:** Did the session fail? It says closed instead of buffering

**Answer:** Hi Michael, No, still going

---

11:49:32 PDT

**Question:** Is in place upgrade to 2012 R2 from 2012 RTM supported/recommended?

**Answer:** Yes this is supported. You can also live migrate VMs from 2012 to 2012R2 if you choose to install from scratch.

---

11:50:21 PDT

**Question:** So you can't make guest clusters other than using SMB vhd?

**Answer:** No, you can still use the other methods like iSCSI, etc. Shared VHDX just makes things much simpler.

---

11:50:23 PDT

**Question:** So you need to keep Gen1 VMs if you use Azure? Gen 2 Support in Azure?

**Answer:** Correct - Azure is not Gen2 ready

---

11:50:36 PDT

**Question:** So you can't make guest clusters other than using SMB vhd?

**Answer:** You have the option to use iSCSI to the VM, Virtual HBA for Hyper-V and Shared VHDX on SMB 3.0 share

---

11:50:56 PDT

**Question:** He stated a shared VHDX is only supported on a SOFS, I believe you can also use block-level storage in a CSV? Is that correct?

**Answer:** Correct. See link here: <http://technet.microsoft.com/en-us/library/dn265980.aspx>

---

11:51:15 PDT

**Question:** So 2012 R2 and 2012 RTM hosts can be part of the same failover cluster?

**Answer:** No - 2 different clusters- you can upgrade the vms with shared nothing live migrations so no downtime

---

11:51:22 PDT

**Question:** So 2012 R2 and 2012 RTM hosts can be part of the same failover cluster?

**Answer:** No - 2 different clusters- you can upgrade the vms with shared nothing live migrations so no downtime

---

11:51:28 PDT

**Question:** Plz let me know any tool for convert gen 1 vm to gen 2 vm?

**Answer:** Hyper-V generation 2 VM conversion utility (Convert-VMGeneration)<http://code.msdn.microsoft.com/ConvertVMGeneration>

---

11:51:30 PDT

**Question:** Can a Gen2 VM boot from network for WDS using a synthetic adapter?

**Answer:** Yes

---



11:51:32 PDT

**Question:** Is a BIOS upgrade needed in a VM? For any reason.

**Answer:** No. you only update the Hyper-V Integration Services if needed

---

11:51:52 PDT

**Question:** Are Gen2 VMs supported in scvmm 2012 r2?

**Answer:** Yes!

---

11:52:05 PDT

**Question:** can you live migrate gen 2 from 2012R2 to 2012?

**Answer:** You cannot migrate backwards. 2012 to 2012R2 only

---

11:52:11 PDT

**Question:** will scsi support Pxe boot in gen2?

**Answer:** Yes

---

11:52:12 PDT

**Question:** can you live migrate gen 2 from 2012R2 to 2012?

**Answer:** No. Only one way 2012 to 2012 R2 is supported. Not backward.

---

11:52:28 PDT

**Question:** is gen2 vm are compat. with linux guest ?

**Answer:** No - Windows 8.1 and 2012R2 guests only for now

---

11:52:42 PDT

**Question:** is SMB Cache work for normal workload (SQL?)

**Answer:** writeback cache? yes.

---

11:52:47 PDT

**Question:** Can VMM create a gen 2 VM. I do not see that option when creating a VM in a cluster

**Answer:** You need VMM2012 R2 RTM and Yes its there 😊

---

11:53:05 PDT

**Question:** In Gen2 VM you have no more a BIOS

**Answer:** No, it's UEFA instead of BIOS

---

11:53:07 PDT

**Question:** Can storage spaces work across 2 hosts without shared SAS, i.e. mirror over the network between hosts ?

**Answer:** no. DAS required like sharred SAS

---

11:53:16 PDT

**Question:** Can you PXE boot the Gen 2 VMs?

**Answer:** yes

---

11:53:18 PDT

**Question:** is it recommended/possible to install a domain controller or exchange 2013 on windows 2012 r2 in the VM? or is this unsupported?

**Answer:** Supported- i run my production like this!

---

11:53:32 PDT

**Question:** windows 8 and 2012 are supported on gen 2 as well as 2012r2 and 8.1

**Answer:** Generation 2 VMs are only an option with 2012R2

---

11:53:37 PDT

**Question:** It looks like shared VHDX are supported both on CSV and SMB3.0: <http://technet.microsoft.com/en-us/library/dn265980.aspx>

**Answer:** Yes, you are correct

---

11:53:44 PDT

**Question:** windows 8 and 2012 are supported on gen 2 as well as 2012r2 and 8.1

**Answer:** No - not at the moment

---

11:54:03 PDT

**Joseph A. Scaravilli posted:** Will P2V conversion come back to VMM 2012 R2?

**Answer:** Not in product i expect - external tools now needed

---

11:54:16 PDT

**Joseph A. Scaravilli posted:** Will P2V conversion come back to VMM 2012 R2?

**Answer:** Nothing's been announced on this yet

---

11:54:27 PDT

**Question:** UEFA? do you mean UEFI?

**Answer:** Good Catch 😊

---

11:54:38 PDT

**Question:** UEFA? do you mean UEFI?

**Answer:** Yes typo. Unified Extensible Firmware Interface (UEFI)

---

11:54:43 PDT

**Question:** Is there a place to see more information on the differences between gen1 and gen2 VMs?

**Answer:** Good 10 part blog series on Generation 2 virtual machines Hyper-V generation 2 virtual machines – part 1 <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

---

11:55:02 PDT

**Question:** What's comparable to VMware vmtools for HyperV VMs ?

**Answer:** morade, the integration services

---

11:55:09 PDT

**Question:** Is there a place to see more information on the differences between gen1 and gen2 VMs?

**Answer:** Technet and MVP blogs, and petri kb

---

11:55:33 PDT

**Question:** Hyper-v server 2012 R2 version available or only available on the full 2012 R2 version.

**Answer:** Either is available. Check the links on my site: <http://virtuallycloud9.com>

---

11:55:34 PDT

**Question:** Are you watching the football updates Damian?

**Answer:** Damn - i wish - to many questions - wife has that eastenders shit on 😞

---

11:56:13 PDT

**Question:** Regarding the difference between IDE and SCSI in the context of Hyper-V; I thought both virtual controllers used the Hyper-V VMBus, which is extremely fast. In other words, the performance of both should be identical. Ben Armstrong (Sr. Program Manager Lead @Microsoft) explains as such on his blog. What is your position on this?

**Answer:** That post is old - iSCSI is the way to go on 2012 r2 if possible

---



11:56:52 PDT

**Question:** Vmware been doing this for years.

**Answer:** Yes, but now Hyper-V's doing it too 😊

---

11:57:00 PDT

**Question:** Could be worse Damian might be Corrie

**Answer:** Oh god! that i can not stand.

---

11:57:28 PDT

**Question:** Is there a performance difference between dynamic memory disabled/enabled?

**Answer:** Yes possibly, if the host is overly saturated and physical memory is constrained, then a cache file is utilized, this file when residing on slow storage would cause slow performance. Same as VMware ballooning technology issues if you are aware of those. Be careful with Dynamic Memory or Memory Limits as you need to understand the server workloads as a whole. (That's from my consulting years, so a cautious answer)

---

11:57:34 PDT

**Question:** here is a blog series on gen 2 vm's <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

**Answer:** Hi Chris, here's the 10 part series on Gen 2 VMs <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

---

11:57:35 PDT

**Question:** Any performance improvement using gen2 VM instead of gen1?

**Answer:** Not so much in general, but boot time and installation time has major improvement

---

11:58:13 PDT

**Question:** Is RAM ballooning supported with linux guests?

**Answer:** With Windows Server 2012 R2 and latest guest integration drivers - yes

---

11:58:26 PDT

**Question:** I have 2x HP D6000 SAS external storage enclosures with dual-port SAS links (140 spindles) total Do I present each disk to my 2 windows servers' SAS controllers? Then, should I make 140x individual single disk volumes? or should I make 2x (70 disk) sets and hand 70 to each?

**Answer:** present each to both servers, enable MPIO and make storage spaces configuration. Storage Spaces are enclosure aware.

---

11:58:48 PDT

**Question:** I have 2x HP D6000 SAS external storage enclosures with dual-port SAS links (140 spindles) total Do I present each disk to my 2 windows servers' SAS controllers? Then, should I make 140x individual single disk volumes? or should I make 2x (70 disk) sets and hand 70 to each?

**Answer:** Man thats a real question - but i would say you are not going to make 140 single disk volums - search for Jose Barretto (MS), he covers all this on the blog and in his teched presnetatinos ([channel9.microsoft.com](http://channel9.microsoft.com))

---

11:58:55 PDT

**Question:** so If I give a VM 16Gb of ram as a maximum and 512mb as a minimum... will my VM think it has 16Gb or something in between?

**Answer:** It will think that it has 16GB of RAM.

---

11:59:19 PDT

**Question:** Have you gone past showing the Microsoft version of the vCenter?

**Answer:** Ian, they talked about Virtual Machine Manager (VMM) already, but I am sure they will revisit it

---

11:59:21 PDT

**Question:** How does this scale licensing wise? Datacenter server is licensed for an unlimited number of VM's. Hyper-V Server they said you need to license your VM's. Can you use your datacenter license on the Hyper-V server?

**Answer:** Yes. Datacenter license on Hyper-v or VMware ESXi will save you money. 😊

---



---

12:00:04 PDT

**Question:** will I be eligible for the free voucher if I was couple of hours late for the session

**Answer:** yup.

---

12:00:10 PDT

**Question:** When memory is dynamically allocated...will it release also the memory dynamically..??

**Answer:** Yes, if the demand goes down in the VM, Hyper-V will reclaim back the memory and keep it in the available memory pool

---

12:00:20 PDT

**Question:** if we have Exchange on VM, where the database and logs should reside, is it ok to be on a VHD or on directly connected SAN drive..?? what is recommended..

**Answer:** I would recommend using VHDX for the drives

---

12:00:23 PDT

**Question:** Damian: we can't do iSCSI: we have SAS controllers and dual-port SAS disks with dual-domain SAS switches for full N+1 connectivity to all 140 spindles and both windows servers for storage spaces

**Answer:** unless im missing your point - its the guest vm your speaking to- in which case you can and prob should use scsi interfaces - the physical suff is not important - eg my laptop is ide but my vm is a scsi attached.. virtual 😊

---

12:00:53 PDT

**Question:** Can you specify location of smart page file?

**Answer:** Yes, you can modify the path per VM

---

12:01:38 PDT

**Question:** ok so I don't have that much in the way of hardware what's the minimum specs to run say 4 vm machines

**Answer:** my lab has 3 old pe860 machines with 4gb ram, i can run windows in 512mb so i can get about 4 or 5 running - slowly!

---

12:02:32 PDT

**Question:** Does HyperV host still need pagefile? What size? (if I have 512Gig of RAM, 1,5x can be alot)

**Answer:** Look here for page file on 2012 / r2 <http://www.aidanfinn.com/?p=14288>

---

12:02:35 PDT

**Question:** pass through disks are the devil (especially if you like decent backup solutions) Avoid like the plague

**Answer:** with all the performance improvements in VHDX format and being able to expand up to 64TB, I'd vote for VHDX over anything else 😊

---

12:03:05 PDT

**Question:** How to minimize the VM deployment time using VM templates from 15 min to 5 min?

**Answer:** have the VMM Library and your hyper-v servers both running ws2012 or r2 - then if you use scvmm 2012 r2 - the library will use ODX to copy the templates - boom - win!

---

12:03:07 PDT

**Question:** Should the time Synchronisation be deactivated for virtual machines that are member of Domain ?

**Answer:** I would disable it on VMs that are in domain and the domain synchronize all machines in it.

---

12:04:44 PDT

**Question:** Damian: I'm asking about storage spaces configuration between physical SAS disk spindles in physical external storage enclosures; We then present this as an SMB3.0 share and store VHDs on the share. The VHD's are mapped to the VM's as SCSI devices.

**Answer:** Got ya - yes this will work - you can use SCVMM 2012 R2 to manage the luns so - i was assuming that you would just present an SMB3 share from the space - but both work well.



12:05:28 PDT

**Question:** Can we boot a Hyper-V host to a USB key the way we can do with ESXi? Many servers now include a secure internal USB port to support this.

**Answer:** Yes but only supported by OEM. Please see: <http://technet.microsoft.com/en-us/library/jj733589.aspx>

---

12:05:37 PDT

**Dannie A. posted:** Is there any issue if the Hyper-V host is part of a domain in which the Domain Controller is its guest?

**Answer:** No this works fine. I use it quite often, just make sure it is set to always boot that VM upon host startup!

---

12:05:37 PDT

**Question:** Is there a comparison sheet between VMware 5.5 and Hyper V 2012? I would like to see and share how they match up on paper. Business decision

**Answer:** I don't know about paper - but Matt presented this topic at TechDays Berlin last week - these presentations will be online in the next few days - and will help you.

---

12:05:49 PDT

**Question:** video dropped....

**Answer:** It is working on my end. Maybe refresh.

---

12:05:56 PDT

**Question:** Domain Controller and if its NTP for sure we need to disable this right..??

**Answer:** yep - time sync services off. 😊

---

12:05:56 PDT

**Question:** its back now.

**Answer:** good good

---

12:06:06 PDT

**Question:** Virtualizing Exchange Workloads with Microsoft Hyper-V

[R2http://download.microsoft.com/download/F/0/9/F09FEDCA-1FEA-4DB4-B131-563145BF0B6F/ESG%20Preso%20Microsoft%20Hyper-V%20Performance%20Exchange%20Mar%202011\\_Wide.pdf](http://download.microsoft.com/download/F/0/9/F09FEDCA-1FEA-4DB4-B131-563145BF0B6F/ESG%20Preso%20Microsoft%20Hyper-V%20Performance%20Exchange%20Mar%202011_Wide.pdf)

**Answer:** Good Link

---

12:06:33 PDT

**Question:** HUNG?#

**Answer:** should be working, maybe refresh your browser. We have a record number of people on, so maybe just a network glitch occurred.

---

12:07:20 PDT

**Question:** HBA function : NPIV?

**Answer:** Yes - requires NPIV for Virtual FC

---

12:07:44 PDT

**Question:** Hi, will you share later a text version of the Q&A window?

**Answer:** Yes! We will be sending you a copy of the Q&A Log (publicly-answered questions only) via email after the event.

---

12:07:44 PDT

**Question:** Link for Hyper-V 2012 R2 with VMM vs VMware ESXi 5.5 with vCenter:

<http://blogs.technet.com/b/keithmayer/archive/2013/10/03/vmware-or-microsoft-comparing-vsphere-5-5-and-windows-server-2012-r2-at-a-glance.aspx>

**Answer:** Good comparison

---



12:07:54 PDT

**Question:** Me to

**Answer:** Should be up and running

---

12:08:06 PDT

**Question:** buffering stuck at 0%

**Answer:** Should be up and running

---

12:08:15 PDT

**Question:** Anyone else's video stream fail?

**Answer:** Should be up and running.

---

12:09:32 PDT

**Question:** My Name is Amar..How can we upgrade HyperV 2012 to HyperV2012 R2 ?

**Answer:** You can just do an in-place upgrade with the DVD or an ISO. I suggest a full backup first and also make sure that your hardware is supported for 2012 R2

---

12:10:42 PDT

**Question:** Can we copy Hyper-V 2008R2 VM files and import them directly in 2012 R2 ?

**Answer:** you will lose metadata etc - i recommend using VMM for this

---

12:10:45 PDT

**Question:** May I know the Hyper-V footprint on the disk please ..? And does it consume the entire disk on installation ?

**Answer:** Hi Ayush, Microsoft recommends 32GB minimum storage. Please see: <http://technet.microsoft.com/en-us/library/jj134246.aspx>

---

12:11:25 PDT

**Question:** Copy and pasting VMs? Can we have a step-by-step instruction?

**Answer:** dead easy - needs ws2012R2 - install hyper-v - in the hyper-v console got to setting and turn on enhanced session - done 😊

---

12:11:40 PDT

**Question:** Is this Q&A available or downloadable at the end of Jump Start, because it provides a lot of valuable Information ?

**Answer:** Q&A log should be available later

---

12:11:58 PDT

**Question:** sent to Team:

> *Quoted question:* I switched to standard quality and it reconnected Comment: Yes, you can download from TechNet Evaluation Center

---

12:12:33 PDT

**Question:** Is there a API for .vhdx files ? I want to be able to explore them using the API like I can do at the moment with .vhd files.

**Answer:** Yes ms have this posted - i think its on technet

---

12:12:34 PDT

**Question:** is there a cluster upgrade guide?

**Answer:** We cover some of that in the 20409 class, but you upgrade one node at a time, using live migration to move the VMs.

---

12:12:45 PDT

**Question:** do you still need to shutdown VM to remove checkpoints compared to seamless snapshot removal in VMWare?

**Answer:** No you no longer need to do that with Windows Server 2012 and above.

---



---

12:12:48 PDT

**Question:** Is this a 2 day or 5 day course?

**Answer:** 2 days 😊

---

12:12:51 PDT

**Question:** Any info regarding two-factor solutions for Azure pack?

**Answer:** You should be able to use Windows Azure Multi-Factor Authentication. Please see:

<http://technet.microsoft.com/en-us/library/dn249471.aspx>

---

12:13:03 PDT

**Question:** How can I prepare for the exam?

**Answer:** Stick around for the two days, build a test environment, take the 20409 class, study 😊

---

12:13:04 PDT

**Question:** Does enhanced connection give you RDP level performance even over a WAN connection?

**Answer:** Yes !- and supported RD Gateway!

---

12:13:29 PDT

**Question:** Difference between Checkpoint and Snapshots?

**Answer:** Just a new name 😊

---

12:13:48 PDT

**Question:** If migrating from 2008R2 to 2012R2 hyper-v can I just copy the VM config and vhd to 2012R2 host and import from there? Even with snapshots?

**Answer:** Hi Janaka, you don't support copying config files. I recommend exporting your VMs and importing them on Windows Server 2012 R2 Hyper-V server.

---

12:13:54 PDT

**Question:** do checkpoints still lose trust with domain after 30 or so days?

**Answer:** depends on the domain - tombstone will occur 30-60days

---

12:14:07 PDT

**Question:** Where can I find the script for ISO->vxd?

**Answer:** <http://gallery.technet.microsoft.com/scriptcenter/Convert-WindowsImageps1-0fe23a8f>

---

12:14:11 PDT

**Question:** It was stated earlier that Azure only supports .vhd and Gen1... what about Azure Pack for local setup? Same "limitations"?

**Answer:** WAP rocks - supports vhdx and gen2!

---

12:14:30 PDT

**Question:** How much space does a checkpoint consume?

**Answer:** Depends on how long you keep it and how many differences are made on the server.

---

12:14:33 PDT

**Question:** It was stated earlier that Azure only supports .vhd and Gen1... what about Azure Pack for local setup? Same "limitations"?

**Answer:** Azure pack (Hyper-V on premise) supports VHDx and Gen2 VMs.

---

12:14:39 PDT

**Question:** Wow!! i used hyper-v in 2008 and I decided to learn VM\*. Hper-V has really changed in the last 4 years.Any white papers compairing Vmw and hyper-v 2012's TCO and functionality?

**Answer:** Check this out: <http://download.microsoft.com/download/E/8/E/E8ECBD78-F07A-4A6F-9401-AA1760ED6985/Competitive-Advantages-of-Windows-Server-Hyper-V-over-VMware-vSphere.pdf>





---

12:14:53 PDT

**Question:** How its differ from other products..like VMware

**Answer:** Here is a comparison: <http://download.microsoft.com/download/E/8/E/E8ECBD78-F07A-4A6F-9401-AA1760ED6985/Competitive-Advantages-of-Windows-Server-Hyper-V-over-VMware-vSphere.pdf>

---

12:14:59 PDT

**Question:** Damian you mean I can use rdgateway to connect to the console of my vms?

**Answer:** You bet - WAP uses this feature for its portal also 😊 and the guest can be linux - or even bios screen - COOL!

---

12:15:15 PDT

**Question:** What is WAP

**Answer:** WAP = Windows Azure pack - fingers getting tired

---

12:15:25 PDT

**Question:** is this over or did I just lose my connection?

**Answer:** refresh the connection -

---

12:15:25 PDT

**Question:** Do i need the Orchestrator Runbooks to automate VM deployment with SCVMM over a XML Api?

**Answer:** Hi Watsen, you can use PowerShell or SC Orchestrator to automate VM deployment. Windows Azure Pack for Windows Server also allows self-service VM deployment

---

12:15:28 PDT

**Question:** Exporting a 2008 R2 Hyper-V Guest to Hyper-V 2012 R2 should work without issue I assume?

**Answer:** Yes works fine. No need to export either. Check this guide:

<https://www.virtuallycloud9.com/index.php/2013/02/migrating-hyper-v-virtual-machines-from-server-2008r2-to-server-2012-part-10-of-the-migration-and-deployment-series/>

---

12:15:43 PDT

**Question:** is it possible to have VM ware workstation and Hyper-v on same machine?

**Answer:** Yes- but not recommended 😊

---

12:16:23 PDT

**Question:** In a scenario where I convert my Hyper-V host to a VHD using Disk2VHD and have that VHD booted up on my Hyper-V, it forms a nested hyper-V scenario. Will the VMs work?

**Answer:** Hyper-V inside Hyper-V = NOPE 😞

---

12:16:35 PDT

**Question:** Hy from Italy! Is there also a book to prepare for the exam 70-409?

**Answer:** abro1978, no, not at this time.

---

12:16:57 PDT

**Question:** Keith, Mark, What type of questions will be asked in the exam 74-409 exam? Is it MCQs?

**Answer:** Multiple choice questions, build lists, scenarios, hot area questions, among other types. You can find out more here: <http://social.microsoft.com/Forums/en-AU/47aedf10-ea1b-4628-a116-263760e4db50/exam-question-types-and-scoring>

---

12:17:21 PDT

**Question:** Is it best practice to shutdown the machine before creating a snapshot?

**Answer:** TH VM is quiesced during the Checkpoint creation, so should not be a problem. This is imperceptible to the end user.



12:17:31 PDT

**Question:** Mark, you mentioned using Export and then Import to go from 2008 R2 to 2012 R2. I tried that and ran into the issue with the VM not being recognized because of the metadata file being an .exp file. Did something go wrong, or without VMM are you limited to reattaching the .vhd to a new machine?

**Answer:** I dont think this works - i had to make a powershell script to create a new xml file - its a hack - use the supported route go VMM for this one 😊

---

12:17:41 PDT

**Question:** Are there a MVA for App v and VDI? I am coming from a Citrix XD XA XS background

**Answer:** Here's one: [http://www.microsoftvirtualacademy.com/training-courses/windows-server-2012-virtual-desktop-infrastructure#?fbid=dyql\\_TQ2BMd](http://www.microsoftvirtualacademy.com/training-courses/windows-server-2012-virtual-desktop-infrastructure#?fbid=dyql_TQ2BMd) and there might be new courses coming up soon. Please check with MVA's website.

---

12:17:42 PDT

**Question:** What type of questions will be asked in the exam 74-409 exam? Is it MCQs?

**Answer:** Different types. You can view them here: <http://social.microsoft.com/Forums/en-AU/47aedf10-ea1b-4628-a116-263760e4db50/exam-question-types-and-scoring>

---

12:17:56 PDT

**Question:** You can run Hyper-V INSIDE VMware Workstation: VMware products support nested virtualization. But it's not supported by VMware or Microsoft.

**Answer:** Yep!

---

12:18:39 PDT

**Question:** Back to Type I and Type II hypervisors (to also avoid any confusion in this Q&A log).

Is Windows 8.x Client Hyper-V a real Type I or Type II hypervisor ?

**Answer:** Type I

---

12:19:13 PDT

**Question:** When importing in the new Server 2012 R2, when copy and pasting VMs, should I use Same UniqueID or New?

**Answer:** if you want the vms not to re-enumerate etc- use the same 😊

---

12:19:57 PDT

**Question:** Any competitive docs that compare with the current version of vSphere?

**Answer:** This is what we have: <http://download.microsoft.com/download/5/8/2/58258EB6-39A9-4C44-8E58-328559A9DC78/Competitive-Advantages-of-Windows-Server-2012-Hyper-V-over-VMware-vSphere-5-1-EN.pdf> I don't know if we have one for vSphere 5.5 yet

---

12:20:08 PDT

**Question:** There is a study resource list for 74-409 exam here --> <http://bit.ly/1aqvjde>

**Answer:** Sharing

---

12:20:16 PDT

**Question:** Guys, Is there anything that Hyper-V can't do? Seems it can do everything?

**Answer:** yep - it has its limits -but these are getting pretty scarce - ms have made serious progress in the last 2 years

---

12:20:28 PDT

**Question:** Can we export/import machine to OVA/OVF?

**Answer:** 3rd party tools needed

---

12:20:50 PDT

**Question:** Will SC VMM 2012 SP1 Support Windows Server 2012 R2? I would think not. Is there SC VMM SP2 nearly ready?

**Answer:** no, you're gonna need SCVMM 2012 R2 for that.

---



12:21:36 PDT

**Question:** What happens if the host crashes while taking a snapshot of a VM? Will it corrupt the VM?

**Answer:** Nope - it will corrupt that snapshot only

---

12:21:50 PDT

**Question:** If I have a license for SCVMM 2012, can I then use SCVMM 2012 R2?

**Answer:** if you have EA and software assurance

---

12:22:08 PDT

**Question:** isn't type 1 hypervisor a bare-metal hyper visor ? if so windows 8 + client hyper-v is just type 2

**Answer:** No, Windows 8 Client includes that Type1 hypervisor that is the same Hyper-V on the server.

---

12:22:21 PDT

**Question:** if we have purchased vmm2012 sp1, is there an upgrade to R2 or does it mean a re-purchase?

**Answer:** if you have software assurance your all set, after that i cant help - hit up your vendor

---

12:22:47 PDT

**Question:** What if I make a checkpoint I don't want to keep and don't want to revert to? How do I delete it without applying its contents?

**Answer:** right click on that snap - delete 😊

---

12:23:28 PDT

**Question:** Once you install Hyper-V, your original OS becomes a guest of the hypervisor

**Answer:** Correct, The Hyper-V Hypervisor boots first at this point.

---

12:23:55 PDT

**Question:** Does Active Directory domain service support Snapshoots

**Answer:** I wouldn't recommend doing that. Anything that could expose you to going back in time isn't good with AD or any other live datasource. with new Generation ID on Hyper-V, if you revert back, your DC will initiate a reverse replication from an up to date DC

---

12:23:57 PDT

**Question:** What does hyper-v have that VMware doesn't? Sorry if this sounds like a contentious question but I'm VCP with little knowledge of hyper-V and looking to expand my knowledge

**Answer:** Take a look at <http://aka.ms/CompareToVSphere> for a top-level comparison

---

12:24:02 PDT

**Question:** Still no one has answered my question - can you package a VM for deployment in a similar way to a VMWare OVA file?

**Answer:** I answered this a few times. You can use OVF in VMM, as seen here: <http://technet.microsoft.com/en-us/library/jj158932.aspx>

---

12:24:20 PDT

**Question:** Are we going to need to wait about 3 months for SCVMM 2012 R2 like we did for SCVMM 2012 SP1 last year, or is there any sort of fast track?

**Answer:** No - launched on the same day 18th oct - go get it!

---

12:24:52 PDT

**Question:** Is it OK to use a checkpoint if you only have a single DC (SBS 2011 virtualized)?

**Answer:** Suppose so, but what if a new computer came online during that span of time, the computer account would then be missing. Amongst other things like this scenario.

---

12:25:14 PDT

**Question:** is this vm generation ID available for generation 1 and 2 ???

**Answer:** Yes - both Generations - as long as both guest and host are running 2012 or later.

---



12:25:23 PDT

**Question:** Are all of these comments going to be available once this is over?

**Answer:** Yes check the FAQ for details

---

12:25:40 PDT

**Question:** What happens if the host is crashed while taking a snapshot of a VM? Will it corrupt the data on VM?

**Answer:** No, the operation isn't complete until it's complete 😊 and snapshot is just like a differencing disk. your parent virtual disk always stays intact.

---

12:25:55 PDT

**Question:** if a machine changed its password in the time since the snapshot, it will be untrusted to the domain.

**Answer:** Right

---

12:25:59 PDT

**Question:** is there is an official study guide for the exam

**Answer:** There is no official study guide for the exam. You can view what the exam covers at <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409>

---

12:26:55 PDT

**Question:** VM Generation ID is a Windows Server 2012 feature I think. What's new in Windows Server 2012 R2 for safeguarding virtualization?

**Answer:** This is open API (on Windows Server 2012 and above Domain Controllers) for any hypervisors should they choose to implement

---

12:27:17 PDT

**Question:** VMWare is also Generation ID aware.

**Answer:** Yes - vSphere 5.0 Update 2 and later

---

12:27:31 PDT

**Question:** the storage tiering in r2 ... is this configure on hyperv layer? or require system center?

**Answer:** Windows Server 2012 R2 provides storage tiering at the storage space level. I am not sure this is what you are referring to. But as far as storage tiers for VMs, this is done in VMM only.

---

12:28:20 PDT

**Question:** Can one directly appear for the exam 74-409 if he is MCSA 2012 ????

**Answer:** Anyone can take exam 70-409. This exam is not part of any MCSA or MCSE certification.

---

12:28:51 PDT

**Question:** Will the playback have this chat window or is this text captured somewhere? You guys are putting out a lot of good information in chat.

**Answer:** Thanks, yes check the FAQ tab for details

---

12:29:34 PDT

**Question:** Is it possible to use cluster aware updating to storage migrate your hyperV guests?

**Answer:** Cluster aware updating is used to update the hosts. It will update one node at a time, and migrate (live migration) the VMs to another node.

---

12:30:00 PDT

**Question:** Is it possible to configure Storage Spaces with System Center VMM as it can discover the storage devices?

**Answer:** SCVMM 2012 R2 can deploy physical SOFS (WinSRV 2012 R2) with Storage Space and configure Storage Spaces.

---

12:30:14 PDT

**Question:** are all the features (aside from the pretty management obviously) available now in the Server Core install, or do you have to have the full blown Windows install on every member of a cluster?



**Answer:** The support stance of the Cluster Team is that all versions must be the same as well as the GUI vs Core. All nodes are Core installs or all nodes are GUI installs. Cannot mix and match. One of the Cluster Validation tests actually checks for this

---

12:30:52 PDT

**Question:** Is it possible to configure Storage Spaces with System Center VMM as it can discover the storage devices?

**Answer:** Yes - if you check out a presentation i done 2 weeks ago on TechDays Online UK with Andrew Fryer, i demo this - also i have this details in a step by step ready to publish on the Petri KB

---

12:31:27 PDT

**Question:** Metering only enabled by powershell?

**Answer:** Yes - powershell only -

---

12:31:42 PDT

**Question:** 70-409 gives you a MCTS status, right?

**Answer:** Yury: It gives you Microsoft Certified Specialist Server Virtualization with Hyper-V and System Center

---

12:32:00 PDT

**Question:** Does 2012R2 support install & booting via SD card or USB thumb drive?

**Answer:** yes, but supported with OEM. Please see: <http://technet.microsoft.com/en-us/library/jj733589.aspx>

---

12:32:02 PDT

**Question:** Thanks, folks! (Just installed Server 2012 and building a VM.)

**Answer:** Awesome

---

12:32:40 PDT

**Question:** @Damian: Cool, I'll check it out. Could you send me the link as well?

**Answer:** mail me at [info@damianflynn.com](mailto:info@damianflynn.com) and as soon as its up ill send it

---

12:32:43 PDT

**Question:** will the videos recorded and downlodable in a few weeks?

**Answer:** Check the FAQ tab for details.

---

12:33:01 PDT

**Question:** Man this is going to be one long Q&A, it will get posted at a later date wont it? I need some bedtime reading!

**Answer:** Yes check the FAQ tab

---

12:33:16 PDT

**Question:** Where can I find Service Manager to use the Metering information?

**Answer:** metering will not really show in service manager - you will see it come to life in the azure pack

---

12:33:21 PDT

**Question:** how long is a meal break?

**Answer:** 1 hour

---

12:33:22 PDT

**Question:** Gen 2 has issues booting from iSO - Found this out the hard way.

**Answer:** Yes, just need to add the virtual DVD Drive to the virtual SCSI controller and you're good to go 😊

---

12:33:27 PDT

**Question:** Is this PowerShell v3 integrated with Hyper-V server?

**Answer:** yes

---



12:33:43 PDT

**Question:** is the resourcemetering data acumulative or does it capture resource usage per interval (min, hour etc)?

**Answer:** Both 😊

---

12:34:03 PDT

**Question:** how long is the meal break for

**Answer:** 1 hour

---

12:34:06 PDT

**Question:** What's the difference between the 70-xxx and the 74-xxx series exams?

**Answer:** Wojs 74-xxx will be Microsoft specialist cert exam, 70-xx are MCSA & MCSE

---

12:34:10 PDT

**Question:** How much time is for the meal break?

**Answer:** 1 hour

---

12:34:12 PDT

**Question:** i want to use 2 physical hosts with 2012r2. do i need shared external storage to provide failover capability?

**Answer:** If you want Automatic Failover then you will need to cluster the two machines and either use CSV disks or use an SMB 3.0 share such as a Scale-out File Server.

---

12:35:02 PDT

**Question:** is there a time limit till one must take the exam? (voucher for this exam is valid till?)

**Answer:** Joseph, yes there is ... it will be listed on the voucher email you receive.

---

12:35:31 PDT

**Question:** Is there a gui in hyperv?

**Answer:** Yes unless you install the Hyper-V Server SKU or Server Core Edition

---

12:36:10 PDT

**Question:** for shared vhdX withing guest cluster can I create it on CSV living on iSCSI ? sory some articles on the net are contradicting from what you answered to my last question ..

**Answer:** The CSV disks can be through iSCSI, yes.

---

12:37:45 PDT

**Question:** When 70-409 will be availabe to take it and also when we can use the Voucher from this Training?

**Answer:** Anastasis it is available since Nov. 5th

---

12:37:54 PDT

**Question:** can we install server 2012 r2 on the hyper v available with windows 8.1

**Answer:** Hi Taha, if you install Hyper-V feature on your Windows 8.1 machine you'll have the almost Hyper-V as Hyper-v 2012 R2 and you can export/import your VMs to Hyper-V 2012 R2 server

---

12:38:44 PDT

**Question:** Phelsel, Is the exam taken online?

**Answer:** RickAKASpud, at Prometric

---

12:39:23 PDT

**Question:** test

**Answer:** Pass

---

12:39:42 PDT

**Question:** When we can take the 74-409 exam (also using the Voucher from this Training)?

**Answer:** Anastasis , since Nov 5th

---

12:40:19 PDT

**Question:** Obviously MS isn't putting this on just completely out of the kindness of their hearts, but I just wanted to say thank all you guys for taking the time to answer our questions and provide this training course.

**Answer:** hey THANKS! hard to keep up with the SLEW of questions.

---

12:41:14 PDT

**Question:** Can we add client Hyper-v to Hyper-v manager in windows server 2012?

**Answer:** nope

---

12:41:20 PDT

**Question:** Hi, why is the exam called 74 and not 70?

**Answer:** Rolf-Walter 74-xxx are Microsoft Certified Specialist certs. 74-409 is the first Server Virtualization with Hyper-V and System Center

---

12:41:32 PDT

**Question:** Didn't they just say that shared VM storage is only available on SMB 3.0 share?

**Answer:** shared VHDX is supported on scale out file server.

---

12:43:01 PDT

**Question:** Does VM have the ability to access to the tape drive?

**Answer:** If the tape device is configured as an iSCSI target and is supported as such and you've correctly configured it as well as the initiator settings in the virtual machine then by all accounts you should be able to use the tape device in the VM.

---

12:43:02 PDT

**Question:** I installed Hyper-v client on 8.1 and trying to test windows phone app and emulator always gives error for the need of memory which actually needs just 512 mb of my 4GB RAM,,is it a Hyper-v issue?

**Answer:** this is PhoneEmulator specific issue with Windows 8.1 client virtualization

---

12:44:32 PDT

**Question:** Whats pricing look like on those DNS9220 cluster in a box units?

**Answer:** your costs depends on the options. They are very friendly to chat with for pricing options. Sample box could come in at \$20k based on drive apps.

---

12:45:18 PDT

**Question:** Sorry if I missed how they managed to displaying Disk stats via Taskmanager? I thought its not available via server products (2012/R2)?

**Answer:** If the stats aren't showing up, run Diskperf -y from a command prompt and reopen task manager.

---

12:46:44 PDT

**Question:** i noticed when I enabled hyper-v on win 8.1 pro I can no longer browse to internet. I still can get patch updates. is that because I have one nic and switch as external for my vm's?

**Answer:** you need to check your BINDING ORDER for your network cards. you'll see that the VM network gets priority. see my article here on how to do it. <http://regularitguy.com/2012/12/06/how-to-change-nic-binding-order-in-windows-8-and-windows-server-2012/>

---

12:47:54 PDT

**Question:** Is it possible to run NT4 and W2K on 2012R2 Hyper-V?

**Answer:** not supported. both of those OSs are no longer in support window

---

12:48:42 PDT

**Question:** Is there a API for vhd files ? My programing guy is waiting on an API to be released before we move over to vhd as at the moment we use the API to read .vhd files

**Answer:** here you go: <http://www.microsoft.com/en-us/download/details.aspx?id=34750>

---



12:51:01 PDT

**Question:** Madburg: They said exactly that - Disk stats in Task Manager are unfortunately available only in client OS.

**Answer:** Diskperf -y will make them show up.

---

12:51:56 PDT

**Question:** I meant, how do i manage hyperv sku on its own?

**Answer:** Using RSAT (Remote Server Administration Tools) for Windows 8 or another Server that has Administration Tools installed. Please see: <http://social.technet.microsoft.com/wiki/contents/articles/2202.remote-server-administration-tools-rsat-for-windows-vista-windows-7-windows-8-windows-8-1-windows-server-2008-windows-server-2008-r2-windows-server-2012-and-windows-server-2012-r2-dsforum2wiki.aspx>

---

12:52:17 PDT

**Question:** As NT4 and W2K are no longer supported how could you virtualise servers that required these OSs for Legacy applications?

**Answer:** they CAN be virtualized and installed, but they are unsupported. just like on other virtualization platforms.

---

12:52:59 PDT

**Question:** I find it a little funny that the other hypervisor does support the older OS's while MS does not.... But, MS does not have any support for them so your on your own

**Answer:** there is a difference with CAN INSTALL and supported. they will not give you any support with issues on their platform.

---

12:53:24 PDT

**Question:** Aw, c'mon RicksterCDN, I want to run a Win 3.1 VM.

**Answer:** Hey - settle down Rigsby. 😊

---

12:53:45 PDT

**Question:** Which guest Operation Systems are supported on Hyper-V?

**Answer:** Here you go: <http://technet.microsoft.com/library/hh831531>

---

12:54:02 PDT

**Question:** I have even OS/2 Warp running on Virtual server 2005 (it was so long ago

**Answer:** good one

---

12:55:33 PDT

**Question:** Does Active Directory domain service support Snapshoots

**Answer:** Not a best practice. Please see: <http://technet.microsoft.com/en-us/library/hh831734.aspx>

---

12:56:35 PDT

**Question:** May be a problem with Active directory replication ven we rewert to rprevious snapshoot?

**Answer:** if your DC is a WS2012 domain controller and your hypervisor is Hyper-V, you can safely virtualize your domain controllers.

---

12:56:49 PDT

**Question:** Windows 2012 is supported because it has a attribute to track snapshots

**Answer:** it's VM Gen ID actually.

---

12:57:09 PDT

**Question:** Do you know if Ubuntu 12.04 has support for the integration services?

**Answer:** It looks like it does. Please check here. <http://technet.microsoft.com/en-us/library/dn531029.aspx>

---

12:59:04 PDT

**Question:** Is there a way to convert Gen1 VM to Gen2 VM?

**Answer:** No, you cannot. The generation can only be set when the VM is created.

---





12:59:34 PDT

**Question:** for those of us that werent' actually looking at the clock when we broke, what time are they starting up again

**Answer:** I believe it will be in approximately 30 minutes.

---

13:00:02 PDT

**Question:** We run NT4 and W2K at VMWare 5.1 because of old applications which is needed.

**Answer:** You should be able to run them on Hyper-V but they won't be supported by Microsoft

---

13:00:49 PDT

**Question:** I think it is awesome how far Hyper V has progressed over the last few years, its leapt ahead in leaps and bounds, really impressed with the dev team and how they listen to customers and what they want, and then voila next release it is in there!

**Answer:** Agreed!

---

13:03:38 PDT

**Question:** When will Disk2VHD update to vhdx?

**Answer:** You could use Disk2VHD, then convert VHD to VHDX using HyperV Manager

---

13:04:42 PDT

**Question:** Microsoft Also won't Support Exchange 2003 on Hyper-V quite dissapointing

**Answer:** Please keep in mind that support statements come from the respected Product Teams. They won't support Exchange 2003 on VMware either.

---

13:04:56 PDT

**Question:** Now if only Azure supported VHDX.....

**Answer:** I'm sure it'll be soon 😊

---

13:06:38 PDT

**Question:** Are these 2 sessions sufficient to succeed on the exam or will additional material be necessary since there aren't any books on the 70-409?

**Answer:** These should give you guidance, but you will really need hands-on experience also, this way you know where items are located

---

13:07:50 PDT

**Question:** yes I know, but it's supported on Virtual Server 2005 LOL

**Answer:** Not anymore. It was 5 years ago. mainstream support for Exchange 2003 was ended on 4/14/2009

---

13:08:07 PDT

**Question:** Can I get the document link that Corey Hynes mentioned when talking about evaluating and planning for Hyper-V Infra? that 7-8 years ago document that covers everything

**Answer:**<http://technet.microsoft.com/en-us/solutionaccelerators/ee395429.aspx>

---

13:09:36 PDT

**Question:** Are there any VMM / System Center labs available that might help with the test prep?

**Answer:** Chris, you might be able to find some labs here: <http://technet.microsoft.com/en-us/virtuallabs/bb467605.aspx>

---

13:10:57 PDT

**Question:** what are the improvements on iSCSI target in Windows Server 2012 R2?

**Answer:** Hi Arpit, please see <http://technet.microsoft.com/en-us/library/dn305893.aspx>

---

13:12:19 PDT

**Question:** Is there anything else apart from Exchange that cannot be virtualised on Hyper V?

**Answer:** Exchange can be virtualized. I work on them all the time in VMware and Hyper-V.

---

13:24:49 PDT

**Question:** will gen-2 VM restart, when the failover cluster node crash?

**Answer:** It depends on what you have the Restart Action set to, but if it's set to Automatically restart, then the VM should restart after it fails over to another node in the cluster.

---

13:29:42 PDT

**Question:** Seeing as performance/resiliency increases with the increase of nodes in a SoFS; Is there any guidance/articles/blogs on setting up (potentially cheap) SoFS's using commodity hardware?

**Answer:** You should check out Jose's blog on this. [smb3.info](http://smb3.info)

---

13:32:12 PDT

**Question:** i.e. can I use the local storage on both and use them as CSV storage?

**Answer:** Local storage cannot be used for CSV disks. Only shared storage such as iSCSI, HBA or SAS can be used.

---

13:33:51 PDT

**Question:** Should setting up a v-switch kill a nic?

**Answer:** No but you can select the option to take the Hyper-V host off of that vSwitch and then your host won't have access to that physical NIC port

---

13:35:09 PDT

**Question:** How difficult to move from vSphere to Hyper-V?

**Answer:** Hi Chris, please see this post: [http://blogs.technet.com/b/in\\_the\\_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx](http://blogs.technet.com/b/in_the_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx)

---

13:36:31 PDT

**Question:** Can I add a Hyper-V host that is not a member of domain into SC VMM?

**Answer:** Yes you can

---

13:36:50 PDT

**Question:** Could you link to Kristin's Logical Switch whitepaper please?

**Answer:** Hi Stephen, please see these blog series: <http://blogs.technet.com/b/scvmm/archive/2013/01/08/virtual-networking-in-vmm-2012-sp1.aspx>

---

13:37:58 PDT

**Question:** Will the "Cloud Services Process Pack" be updated for SC 2012 R2?

**Answer:** Sorry Patrik but nothing's announced on this CSPP yet.

---

13:40:24 PDT

**Question:** Do you guys go over installing System Center via the Powershell Deployment Toolkit?

**Answer:** Sorry, no. this isn't on the exam as it is an OOB tool. I've been using it to build System Center labs - great tool.

---

13:40:45 PDT

**Question:** will gen-2 VM are restart, when failover cluster node crashed ?

**Answer:** Yes, clusters treat them the same way as Gen1.

---

13:41:33 PDT

**Question:** Is there a reason that Enhanced Session Mode isn't ON by default?

**Answer:** Security in hoster environment to limit what the hsoter can do within the client's vm. If you're not a hoster, you probably want to turn it on.

---

13:42:10 PDT

**Question:** will be the slides available for download after the session?

**Answer:** Slides are available now

Here are links to the decks: Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Presentation Slides (<http://mslcc->

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[admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)

---

13:43:19 PDT

**Question:** Is there any recommended sequence to go through the virtual labs available on TechNet?

**Answer:** Hi Gabriel, not really. it depends on you and what sections are in more immediate need for your projects

---

13:44:57 PDT

**Question:** Where can I find more detail regarding the vswitches in vmm fabric?

**Answer:** Hi Bill, please see the following blog series: <http://blogs.technet.com/b/scvmm/archive/2013/01/08/virtual-networking-in-vmm-2012-sp1.aspx>

---

13:45:01 PDT

**Question:** What does "Allow management OS to share this NIC mean"

**Answer:** Check this: <http://technet.microsoft.com/en-us/library/cc754263.aspx>

---

13:46:42 PDT

**Question:** Is there a second occurrence of this session as I seem to have miss some of the modules?

**Answer:** We have a replay next week, check the same registration page:

<http://www.microsoftvirtualacademy.com/liveevents/server-virtualization-w-windows-server-hyper-v-system-center-jump-start>

---

13:46:59 PDT

**Question:** Server 2012/R2 new networking technologies will make VLANs a thing of the past wont they one day?

**Answer:** Software Defined Networking (SND) goes way beyond traditional VLAN. With Hyper-V you have network virtualization and Private VLANs

---

13:48:20 PDT

**Question:** is the exam online ? or clas room?

**Answer:** Berend at a testing center, i.e. Prometric

---

13:49:11 PDT

**Question:** NAT on a host, is there a how-to somewhere?

**Answer:** Hi TJ, Hyper-V vSwitch is a layer-2 switch and can't do NATing and routing. If you use Network Virtualization vGRE then with the Gateway VM, you can do routing to each tenant. Please see: <http://technet.microsoft.com/en-us/library/jj618319.aspx>

---

13:49:31 PDT

**Question:** Can you force a VM to a particular MAC address?

**Answer:** Yes, you can assign Static MAC Addresses to VMs

---

13:49:43 PDT

**Question:** With the free Hyper V server, can I setup software (Windows based) disk arrays just like in a regular version of Win server?

**Answer:** Yes Storage Spaces works in the free HyperV as well!

---

13:50:29 PDT

**Question:** What time is the event tomorrow? in my calendar it says only one day 19:00pm - 02:30am am i wrong?

**Answer:** Anastasis my calendar has 9 AM PDT

---

13:50:57 PDT

**Question:** Where is the GRE stuff with the Virtual-Switch to Keep different tenants separated with the same ip range?

**Answer:** will soon be covered

---

13:54:04 PDT

**Question:** is new mac generated automatically when a VM is cloned ?

**Answer:** yes.

---



---

13:55:49 PDT

**Question:** I'm sorry I still couldn't find the number ports on each virtual switch. Like in VMware the default is 256 I think

**Answer:** It is unlimited in Hyper-V. You will need to set the MAC Address range accordingly if wishing to scale higher than the predetermined mac range provided.

---

13:55:54 PDT

**Question:** Under what conditions will be VM change MAC addresses ?

**Answer:** If you move it from one host to another one and reboot it, unless the MAC is being managed by SC VMM

---

13:56:02 PDT

**Question:** is the fix for r2 storage spaces and azure still on target for jan?

**Answer:** Yes

---

13:58:34 PDT

**Question:** How can i clone a VM with Hyper-V on windows server 2012?

**Answer:** Using SC VMM you can easily clone a VM. If you'd like to use Hyper-V, then you'll need to export and then import back the VM. Please make sure not to run both VMs on the same network unless you run Sysprep on one of them.

---

14:01:22 PDT

**Question:** Is NIC team addictive? Will I need to use a patch after a while to kill the cravings?

**Answer:** Nice one.

---

14:01:22 PDT

**Question:** So they talked about charge back, check Poshstats.net because I found it very useful

**Answer:** Also please see <http://social.technet.microsoft.com/wiki/contents/articles/13427.chargeback-a-scenario-example.aspx> and <http://blogs.technet.com/b/privatecloud/archive/2013/02/19/chargeback-with-system-center-2012-sp1-tutorial.aspx>

---

14:01:46 PDT

**Question:** Is it supported to run VMM as a VM on the cluster?

**Answer:** Sure

---

14:02:26 PDT

**Question:** How can you check if VMQ is available/enabled on your NIC?

**Answer:** PowerShell. please see: <http://blogs.technet.com/b/networking/archive/2013/09/10/vmq-deep-dive-1-of-3.aspx>

---

14:02:48 PDT

**Question:** hello is it possible to have the recordings of these sessions

**Answer:** Yes, it'll be available later on

---

14:03:15 PDT

**Question:** Rogue DHCP could push WPAD which would allow proxying and interception. Bad times.

**Answer:** yes

---

14:04:18 PDT

**Question:** Hi, the session has closed here

**Answer:** No, still going

---

14:04:20 PDT

**Question:** When will the replay be available?

**Answer:** You will receive an email on Nov 27 announcing the availability of the on-demand recording of this course and a link directing you to obtain your free voucher.



14:05:11 PDT

**Question:** maybe I missed the step but.. comparison was made with Vmware vSwitch. What about vDS?

**Answer:** vDS is Functionally equivalent to the HYper-V extensible switch

---

14:05:34 PDT

**Question:** Will SR-IOV require a dedicated NIC for that? or can the NIC(s) be a part of a logical switch?

**Answer:** When you create the virtual switch it is at this point that you enable SRIOV, so that when you assign the switch to a VM, SRIOV can then be configured. This is done on a per VM basis, under Hardware Acceleration

---

14:06:16 PDT

**Question:** can you team the nic's in earlier versions of server?

**Answer:** Windows 2012 first offered in-box teaming drivers. The network cards must be RSS capable for them to use our teaming

---

14:06:35 PDT

**Question:** Is this teaming 2012 r2 only?

**Answer:** 2012 and 2012R2 as long as RSS capable cards with our in-box drivers

---

14:06:39 PDT

**Question:** Is this teaming 2012 r2 only?

**Answer:** Teaming was introduced in 2012

---

14:06:59 PDT

**Question:** So is teaming only active/standby?

**Answer:** you can do load balance or active/passive

---

14:07:29 PDT

**Question:** Sorry, I think I missed a step. If you've teamed NICs on the host (say, using LACP), what was the purpose of teaming within the VM?

**Answer:** There really isn't a real purpose for it. usually on the host or in the VMs, but not both

---

14:08:00 PDT

**Question:** It was harder to break our old vendor teaming than it was to setup 2012 NIC teaming

**Answer:** LOL 😊 Sharing

---

14:08:01 PDT

**Question:** I am impressed with how far hyperv has come.

**Answer:** 😊

---

14:08:13 PDT

**Question:** Did I just hear that if I have two ethernet connections coming into the HyperV host, and I build a team from them. Then I configure a switch on top of that team. That the virtual switch will not sense the failure of one of the ethernet connections? I dont think that is correct. I think he might have confused that type of teaming with SR-IOV teaming. Am I confused on this point?

**Answer:** You cannot use our teaming software with SR-IOV adapters.

---

14:08:19 PDT

**Question:** If NIV teaming is performed on the HOST, is NIC teaming in guest supported or suggested ?

**Answer:** Yes, you can team VM vNICs too

---

14:08:55 PDT

**Question:** Unless it has changed, you cannot team SR-IOV physical adapters on a single vswitch

**Answer:** That is correct. Only RSS capable adapters

---



14:09:08 PDT

**Question:** I think the value of guest clustering only applies when using SR-IOV

**Answer:** well, you can also team alternative routes using different vSwitches with teaming vNICs

---

14:09:42 PDT

**Question:** any tips for studying for the exam ? cannot afford the 5 day course.....

**Answer:** I would review the skills listed on the exam page for the exam and judge your own knowledge

---

14:10:06 PDT

**Question:** what is corey using for the presentation, the software?

**Answer:** PowerPoint with Surface for touch drawing capabilities

---

14:10:10 PDT

**Question:** why not enable SRIOV by default for all VM's?

**Answer:** Your card must support SR-IOV. If you have it, then it is a bit of a performance upgrade because it bypasses the local TCP/IP Stack. So networking is a bit faster

---

14:10:10 PDT

**Question:** If I change NIC team members in a future on a host, will it apply on a VMs with no problem?

**Answer:** your Hyper-V vSwitch is sitting up top of your team, so it'll be seamless to the VMs

---

14:11:13 PDT

**Question:** Is teaming working in 2012 R2 outside of hyper-V without additional drivers ?

**Answer:** No, as long as NICs are installed with their proper Windows Server 2012 R2 driver and show up to the Host OS, you can team them up to 32 NICs (off course the same speed NICs)

---

14:11:44 PDT

**Question:** Do all NICs in a team need an identical IP

**Answer:** No, they can't be

---

14:12:35 PDT

**Question:** Is there a reason you wouldn't use SR-IOV?

**Answer:** SR-IOV is faster because of the way it works. However, SR-IOV cards are more expensive. Our teaming works with RSS capable adapters which are not as expensive

---

14:12:48 PDT

**Question:** NIC team is a L2 array. Only IP address is assigned to NIC team

**Answer:** correct

---

14:13:04 PDT

**Question:** The only adapter to be configured with Ip will be the resulting one from the teaming

**Answer:** correct

---

14:13:21 PDT

**Question:** SO if you have (2) SRIOV 10gb nics you can team them? how would you use both for one VM Network?

**Answer:** You cannot team SR-IOV adapters with our software. Only RSS capable cards

---

14:17:46 PDT

**Question:** How can I take this MS Virtual network gateway ?

**Answer:** it is by Default incorporated in Server 2012 R2

---

14:17:51 PDT

**Question:** What does RSS stand for in a network adapter?

**Answer:** Receive Side Scaling

---



14:19:18 PDT

**Question:** If we have 2 physical nic, with 4 ports total, should we then configure 2 teams, 1 for management and 1 for vm traffic on the host, and storage is FC. is this a correct config ?

**Answer:** Correct, that is the best practice, then one for SMB3 as well if being used.

---

14:19:25 PDT

**Question:** Do you have some step-by-step guide for Network virtualization?

**Answer:** Here you go: <http://blogs.technet.com/b/scvmm/archive/2013/01/08/virtual-networking-in-vmm-2012-sp1.aspx> and <http://channel9.msdn.com/Events/TechEd/NorthAmerica/2013/MDC-B380#fbid=>

---

14:20:11 PDT

**Question:** Is the standard GRE protocol is used?

**Answer:** Please see <http://tools.ietf.org/html/draft-sridharan-virtualization-nvgre-02>

---

14:21:05 PDT

**Question:** Testing ODX in my Lab, it rocks

**Answer:** Yea, glad we finally started taking advantage of something the SANs have had abilities for

---

14:21:16 PDT

**Question:** is iSCSI + NIC Teaming supported?

**Answer:** iscsi Needs multipathIO, not Nic teaming

---

14:21:46 PDT

**Question:** How NVGRE know the right Hyper-V host to a specific customer and VM?

**Answer:** you define the relationship. please see: <http://technet.microsoft.com/en-us/library/dn282658.aspx> FYI, using SCVMM 2012 R2 will make this much easier

---

14:24:09 PDT

**Question:** how is NLB handled in Hyper-V ? is there anything different that needs to be done?

**Answer:** You'll need to use an NLB solution such as Microsoft Windows Network Load Balancing for VMs. please see: <http://blogs.msdn.com/b/clustering/archive/2009/03/09/9468109.aspx>

---

14:25:48 PDT

**Question:** might need to enable MAC address spoofing on virtual NIC's used in NLB

**Answer:** it is a must for nlb to function

---

14:26:33 PDT

**Question:** Does WS2012R2 dedupe only work with storage spaces ? or can a normal LUN/drive be deduped

**Answer:** CSV is not required. You can DeDupe normal drives

---

14:27:04 PDT

**Question:** a few Linux NLB appliances exist.

**Answer:** I'd just use Windows NLB <http://blogs.msdn.com/b/clustering/archive/2009/03/09/9468109.aspx>

---

14:29:18 PDT

**Question:** Would you recommend an external NV Gateway over the available Windows VM based GW? Am thinking F5 based device?

**Answer:** It all depends on what you need from it and how large you'd like to scale. IronNetworks also has a Gateway Appliance

---

14:29:24 PDT

**Question:** So, would it be a good idea to team your NICS prior to install of HyperV feature? Then select the Team NIC for MNG traffic etc? What about HyperV Server installs?

**Answer:** You can team the cards before or after. However, if it is going to be after Hyper-V role is installed, do not add a network card in as a switch before teaming it

---



14:29:45 PDT

**Question:** Yeah, I was referring to windows NLB in particular for things like sharepoint front end servers and ADFS servers. We have it configured in our VMware environment as well, and was looking at differences if we migrate.

**Answer:** Yes will. you'll use Microsoft NLB for that. you can set that up in a VM

---

14:30:54 PDT

**Question:** Can you use Windows 2012 R2 as a load balancer (not only network, but also cpu, disk and ram) or do you still need an external or virtual appliance for that task?

**Answer:** That'll need a 3rd party load balancer. I know F5 has a Hyper-V VM version of their Load Balancer

---

14:31:06 PDT

**Question:** is there a list of modules that are being discussed today and tomorrow?

**Answer:** You can download the slides to see what you have missed Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Presentation Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx))

---

14:32:11 PDT

**Question:** Is Hyper-V 2012 R2 Core available?

**Answer:** Yes. When you install Windows, you will be given the option to install as Core or Full GUI

---

14:34:07 PDT

**Question:** What are the benefits of Virtual Core over Full GUI?

**Answer:** less binaries on the disk and smaller footprint for files / security patching

---

14:36:09 PDT

**Question:** Corey, can you confirm if LiveMigration is now supported to Azure or to a Partner hosted cloud running Hyper-v?

**Answer:** LiveMigration requires AD domain and servers in same domain. Azure - no livemigration possible. Partner/hoster - probably not.

---

14:36:12 PDT

**Question:** Wish Core could be installed/supported on SD Card/Pen Drives

**Answer:** it's possible via OEM

---

14:36:34 PDT

**Question:** Do live migrations require Active Directory ?

**Answer:** member servers must be in same ActiveDirectory domain.

---

14:36:34 PDT

**Question:** I think JadeK was asking because the official download site for HyperV server only has R1. I found R2 from here <http://technet.microsoft.com/en-US/evalcenter/dn205299.aspx>

**Answer:** TechNet Evaluation Center is the best place to find all software 😊

---

14:37:35 PDT

**Question:** mark, can't you use Microsoft NLB w/ dynamic memory?

**Answer:** NLB and Dynamic Memory aren't exclusive

---

14:38:27 PDT

**Question:** so for NLB we turn on allowing of promiscuous mode

**Answer:** you'll need to enable MAC Spoofing on the VM's vNIC that's connected to NLB server

---

14:38:57 PDT

**Question:** I don't think I've seen a longer Q&A out of all of the live events I've attended Good Job Everybody!

**Answer:** Thanks!

---





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14:39:03 PDT

**Question:** Mark, any links?

**Answer:** here you go Patrick: <http://blogs.msdn.com/b/clustering/archive/2009/03/09/9468109.aspx>

---

14:40:26 PDT

**Question:** Is there any percentage what the Hyper-V R2 is faster than 2012?

**Answer:** I haven't seen any. it's more of feature addition. Hyper-V 2012 already had awesome scale and performance

---

14:41:47 PDT

**Question:** How does live migration differ from vmotion? VMotion uses the same back end therefore the data is unchanged while the server is moving

**Answer:** Same process, the data does not move, just the in-state memory moves. For a storage LM/vmotion, the backend data does move

---

14:42:12 PDT

**Question:** mark - I get it, but MS NLB load balances the network requests - dynamic ram for a vm allows for a VM to consume more / less RAM resources as needed - Seems like an f5 load balancer would be a waste unless there was a specific vendor requirement...\\

**Answer:** I agree. but then there are CPU utilization and other complex algorithms for load balancing if needed for any reasons.

---

14:43:48 PDT

**Question:** Does CSV supports caching?

**Answer:** Yes, latest CSV includes support for cache. please see: [http://technet.microsoft.com/en-us/library/jj612868.aspx#BKMK\\_cache](http://technet.microsoft.com/en-us/library/jj612868.aspx#BKMK_cache)

---

14:44:19 PDT

**Question:** What happens if you click cancel?

**Answer:** Nothing 😊

---

14:44:38 PDT

**Question:** If you move from one share to another, what's about NTFS Permissions ?

**Answer:** We do not change NTFS Permissions, so those would have to already be set. Defaults are fine. Would only come into play if you have manipulated them.

---

14:45:05 PDT

**Question:** does VMM support SAN / NAS vendor plugins?

**Answer:** Yes, VMM can plug into your storage via SMI-S provider. even Microsoft iSCSI software target has SMI-S provider

---

14:46:10 PDT

**Question:** do checkpoints get saved when moving storage to another location?

**Answer:** checkpoints move with the parent virtual disk as you're moving them

---

14:46:28 PDT

**Question:** what about the performance during of the move process??

**Answer:** There really isn't much of a performance hit as the user would still be connected to the initial host. The "migration" works in the background where it is copying everything from memory to the other. Once that is completed, the user is switched over to the new machine and runs from there

---

14:47:20 PDT

**Question:** Where I can find deep documentation about HV Replica ? I need information about permission in AD and all SPN which must be added to make it work

---



**Answer:** Hi Bartek, please see <http://technet.microsoft.com/en-us/library/jj134172.aspx> at the bottom of the page you'll find more documentation

---

14:47:24 PDT

**Question:** There will be another session tomorrow?

**Answer:** tomorrow is most System Center. Slides are here so you can see the agenda Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Presentation Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx))

---

14:47:31 PDT

**Question:** Which MS would release a Load Balancer for HyperV (a real load balancer NLB need not apply)

**Answer:** No plans to release an alternative to NLB, however most hardware-based LBs now have software based version that can also plug in VMM, such as F5, Netscaler, etc.

---

14:48:39 PDT

**Question:** I've seen an issue in VMware where (AMD) processor graphics support can lead to incompatibilities. Does the processor compatibility option get round that?

**Answer:** You need to have the same type processor. So if both are intel but different families, it can help. But if one is Intel and one is AMD, it most likely is not going to work

---

14:49:09 PDT

**Question:** who you configure a cluster with different families of processors, something like VMware EVC?

**Answer:** you can do that as long as they're the same manufacturer and you'll need to enable virtual processor compatibility mode on VMs that are being Live Migrated between those hosts

---

14:49:26 PDT

**Question:** what kind of performance hit can i expect with processor compatibility turned on?

**Answer:** It is more capabilities of the processor in the VM. Nothing from a performance standpoint

---

14:50:48 PDT

**Question:** Despite windows support for 32 NICs in team I came to limit of LACP, which supports only 8 NICs

**Answer:** Did you try this on Windows Server 2012 R2?

---

14:52:42 PDT

**Question:** Is the powerpoint available?

**Answer:** Todays topic [http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)

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14:52:48 PDT

**Question:** where was the storage moved during the first part of the shared nothing live migration?

**Answer:** Move to the local storage on the destination host. you can place it anywhere on the destination host

---

14:56:17 PDT

**Question:** Does WinSrv 2012 R2 use KMS for licensing and activation for the the host servers?

**Answer:** yes but you can use this new feature in WS2012 R2 and have the host activate the VMs. Please see: <http://blogs.technet.com/b/askcore/archive/2013/11/13/activating-virtual-machines-via-automatic-virtual-machine-activation-in-windows-server-2012-r2.aspx>

---

14:56:51 PDT

**Question:** Can you use Hyper-V Replica for cloning servers?

**Answer:** No, you just need to use Export and import to clone the VMs

---

14:56:57 PDT

**Question:** Can replicas be created between a Server 2012 cluster and a Server 2012 R2 cluster?

**Answer:** Same version only. 2012 to 2012 and 2012R2 to 2012R2

---

---

14:57:45 PDT

**Question:** How does the switch(es) know the new Location of a VM after a livemigration?

**Answer:** One of the very last things that occurs is the MAC Address of the VM is sent out as an ARP so the switches are made aware

---

14:57:57 PDT

**Question:** 2012 to 2012R2 replica works, also I don't think it's supported

**Answer:** Correct, not supported

---

14:58:13 PDT

**Question:** Can I get a copy of the outline and slides that are brought up?

**Answer:** Today's slides are here [http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)

---

14:58:15 PDT

**Question:** do you have any guide is how to setup test lab for this?

**Answer:** Please find all Microsoft Test Lab Guides here:

<http://social.technet.microsoft.com/wiki/contents/articles/1262.test-lab-guides.aspx>

---

14:58:50 PDT

**Question:** Can Exchange 2010 be used with replica?

**Answer:** Hi Mitchy, unfortunately Exchange 2012 isn't supported on Windows Server 2012 Hyper-V 😞

---

14:59:32 PDT

**Question:** With a source cluster and a destination cluster, does the replica broker needs to be installed at both ends?

**Answer:** Yes

---

15:00:43 PDT

**Question:** Thx Mark, but I need more specific where I should add and what permissions in case of installation Replica Broker because standard installation model is not working for me Cannot start service with problem General Access Denied.

**Answer:** Would this help? <http://blogs.technet.com/b/yungchou/archive/2013/01/10/hyper-v-replica-explained.aspx>

---

15:01:36 PDT

**Question:** Mark, what is Exchange 2012 (2010? 2013?) and why do you say it's not supported?

**Answer:** LOL, I meant Exchange 2010. that's what you asked, right?

---

15:02:28 PDT

**Question:** Mark: it is no Exchange 2012

**Answer:** LOL. I've been typing Server 2012 and System Center 2012, then everything looks like 2012 😊

---

15:03:03 PDT

**Question:** Ok next time make sure this training is EST...

**Answer:** Ah but remember, Symon and folks are on the West Coast

---

15:04:14 PDT

**Question:** Do I still need to change the firewall rules when I have it turned off? I use hardware firewalls only.

**Answer:** If you are using some other firewall rule, Windows Firewall would be disabled. So no change needed. But if it is enabled, then you would need to enable the rules

---

15:07:35 PDT

**Question:** Yes, but are you now saying Exchange 2010 is not supported under Server 2012 Hyper-V?

**Answer:** I'll take it back. It's going out of support 1/13/2015 please see: [http://technet.microsoft.com/en-us/library/jj126252\(v=exchg.141\).aspx](http://technet.microsoft.com/en-us/library/jj126252(v=exchg.141).aspx)

---



15:07:46 PDT

**Question:** Lol think about the german ones 0:03am here

**Answer:** IT People never sleep!

---

15:08:38 PDT

**Question:** Mark, can you expand on the Exchange 2010 supported comment please? I am confused as to how this is so...

**Answer:** I just did. I confused the lifecycle for EX2012 that is Jan. 2015 end of support. Please see:

[http://technet.microsoft.com/en-us/library/jj126252\(v=exchg.141\).aspx](http://technet.microsoft.com/en-us/library/jj126252(v=exchg.141).aspx)

---

15:09:11 PDT

**Question:** Can you initiate the replication coming back from the primary site or does it need to be 'pushed' each time?

**Answer:** It only goes from Primary to secondary unless you select Failover. This would make the Secondary the one that is being used which pushes to the primary that would be down

---

15:09:14 PDT

**Question:** IT people just hibernates !!

**Answer:** hahaha! xD

---

15:10:20 PDT

**Question:** Is a physical domain controller still required for clustering on Hyper-V?

**Answer:** No. It is required for Live Migrations between the nodes. But 2012 and 2012R2 Cluster will start without a DC and start CSV and the VMs on it

---

15:10:39 PDT

**Question:** do you mean failback or failover John?

**Answer:** Failover

---

15:12:40 PDT

**Question:** If Exchange 2010 isn't supported in replica, is 2013?

**Answer:** Hi John, Please see this post. Microsoft Exchange doesn't support Hyper-V Replica.

<http://blogs.technet.com/b/rmilne/archive/2013/07/29/exchange-and-hyper-v-replica-support.aspx>

---

15:13:09 PDT

**Question:** Does the replica work with SQL/Exchange and other apps that need consistency

**Answer:** Hi Michael, please see this article on Exchange

<http://blogs.technet.com/b/rmilne/archive/2013/07/29/exchange-and-hyper-v-replica-support.aspx>

---

15:13:49 PDT

**Question:** exchange 2010 is not supported on server 2012 R2 Hyper V? Is that correct?

**Answer:** Exchange 2010 is supported but Replica of Exchange isn't. please see:

<http://blogs.technet.com/b/rmilne/archive/2013/07/29/exchange-and-hyper-v-replica-support.aspx>

---

15:14:18 PDT

**Question:** Exchange 2010 is seriously not supported on 2012 R2 Hyper-V???

**Answer:** Hi Steve, Exchange 2010 is but Replica of Exchange 2010 isn't. please see:

<http://blogs.technet.com/b/rmilne/archive/2013/07/29/exchange-and-hyper-v-replica-support.aspx>

---

15:15:08 PDT

**Question:** Mark, He asked about Exchange 2010, it is supported under 2012 Hyper-V (Correct?)

**Answer:** Hey Mike, Exchange 2010 is supported on Hyper-V until Jan. 2015

---

15:15:22 PDT

**Question:** @Mark - Exchange 2010 on Hyper V - <http://blogs.technet.com/b/keithmayer/archive/2012/08/28/best-practices-for-virtualizing-microsoft-exchange-2010-msexchange-itpro-hyperv-vmware.aspx>

**Answer:** Yes. thx

---



---

15:15:40 PDT

**Question:** Mark, do you mean Exchange 2010 can't be installed on Windows Server 2012? In Exchange 2010 SP3 they fixed it, as far as I remember.

**Answer:** You're correct.

---

15:17:44 PDT

**Question:** Can we configure something more than 15 minutes for vm replica? maybe with PowerShell

**Answer:** 30 seconds, 5 minutes and 15 minutes are the only replication windows available.

---

15:22:49 PDT

**Question:** Is it possible to dedicate NIC on Hyper-V host for replica traffic?

**Answer:** You can set static routes to the other servers and we will honor it

---

15:23:05 PDT

**Question:** Is it 30, 5, 15? I found this on the MS website: Replication section for the virtual machine in Hyper-V Manager. You can configure the replication frequency so that the changes are sent every 30 seconds, every 5 minutes, or every 30 minutes.

**Answer:** correct

---

15:24:47 PDT

**Question:** I think so far it's a pity that there's no real way to further tailor Hyper-V Replica. I mean being able to also choose other intermediate values among current ones might help to better accommodate customer environments... :-o

**Answer:** We are getting there. 2012 was hardcoded at 5 minutes and could not change it.

---

15:25:31 PDT

**Question:** Does tomorrow's demo focus on SCVMM or Hyper-V manager as the management tool?

**Answer:** More System Center than anything else

---

15:26:19 PDT

**Question:** Why are WS2012 and WS2012 R2 unable to use the same cluster?

**Answer:** Different versions have different internals that it does. Have not been able to cluster different versions since 2000 and 2003 Clusters

---

15:27:03 PDT

**Question:**

> *Quoted answer:* Hi Steve, Exchange 2010 is but Replica of Exchange 2010 isn't. please see: link To tell the truth, this post looks like a speculation. One thing is true "Use DAG to obtain better DR". I can't see any official prohibition to use Replica with Exchange - only blog posts.

**Answer:** Hi Vital, that blog is from Microsoft PFE and verified by Exchange Product team. Please contact your Microsoft Support if you need any official document. The same blog also mentions Hyper-V Replica Not Supported with Exchange that was announced at TechEd. This could certainly change if support statement changes by Exchange Product Team.

---

15:27:05 PDT

**Question:** Is there a schedule of future live MVA Jump Starts like this? These are very helpful

**Answer:** Yes, there are ones offered a lot of the time for different products.

---

15:27:52 PDT

**Question:** Can Hyper-V Server function as a cluster node or do you need Server DC?

**Answer:** You can have the Hyper-V Server as part of a Cluster physically, or have guests that are clustered on the Hyper-V sServer

---

15:28:03 PDT

**Question:** @John thank you, this is all new for me

**Answer:** Anytime

---



15:29:08 PDT

**Question:** how install a linux on Hyper- V

**Answer:** Create a New VM and attach a Linux ISO to the VM and boot.

---

15:31:29 PDT

**Question:** E-mail is one of the most critical systems and to have it replicated to DR seems the most logical thing to do. So to find out that it's not supported is a shock (especially without any real explanation). I'll admit to mine being replicated and I'd rather suck it and see in a DR scenario before reaching for the backups.

**Answer:** Hi Matt, you certainly have good options that are fully supported by Exchange Product team. You can use DAG to obtain better HA and DR and also System Center DPM 2012 R2

---

15:31:58 PDT

**Question:** Where did Symon get Remote Desktop Connection Manager v2.5? Is it in the Download Center?

**Answer:** Internal only release...sorry 😞

---

15:32:04 PDT

**Question:** with a setup of cluster failover 4 nodes, which is the recommendation for the quorum disk size?

**Answer:** With 2012R2, it is recommended to always have a witness resource (disk or share) as we use the witness as a tie breaker now

---

15:32:24 PDT

**Question:** anybody is facing video problems?

**Answer:** Hi Roberto, please try to flip between standard and HD

---

15:32:43 PDT

**Question:** For all this saved me big time, I had issues enabling guest clustering even when the cluster test passed on the guest. When the cluster was deployed to the guest the setup failed with a network timeout issue.

The issues is due to the "Microsoft Failover Cluster Virtual Adapter Performance Filter" is enabled on the Nic's used for the hyper-v switches that the VM use. <http://support.microsoft.com/kb/2872325>

**Answer:** Yes, we had that with 2012. In 2012R2, that is unchecked as a default

---

15:33:03 PDT

**Question:** Is there a RDCM v2.4??

**Answer:** 2.2 is latest released version

---

15:33:52 PDT

**Question:** is teaming with iscsi supported if I don't have nic partitioning available and only 2 10gb ports on a blade?

**Answer:** If you are using our teaming software, yes, it is supported

---

15:33:56 PDT

**Question:** Exchange 2013 however is not supported on Hyper-v 2012, at least it wasn't 2 weeks or so ago...

**Answer:** Hi Mikey, I don't see anything against it. It looks like anything version of Hyper-V has support for Exchange 2013. please see: [http://technet.microsoft.com/en-us/library/jj619301\(v=exchq.150\).aspx](http://technet.microsoft.com/en-us/library/jj619301(v=exchq.150).aspx)

---

15:35:27 PDT

**Question:** Does Hyper-V support SAN based replication?

**Answer:** Yes, through 3rd party, not in box

---

15:35:42 PDT

**Question:** Is it a best practice to route iSCSI traffic on its own physical NIC?

**Answer:** Yes. that is basically a requirement we have always had. iSCSI traffic isolated to its own network

---

15:36:44 PDT

**Question:** Those timings you say could be on the exam, aren't they 30sec, 5min or 30 minutes ?

**Answer:** 30 sec, 5 min, 15 min

---



15:37:06 PDT

**Question:** What is the best way to migrate from Hyper-V 2008R2 to 2012R2?

**Answer:** I'll answer live shortly

---

15:37:15 PDT

**Question:** Is there any best practice documentation for deploying Exchange 2013 on Hyper-V 2012 R2?

**Answer:** Hi Garrett, it's the same but I'd take advantage of fixed size VHDX. please see:

[http://technet.microsoft.com/en-us/library/jj619301\(v=exchg.150\).aspx](http://technet.microsoft.com/en-us/library/jj619301(v=exchg.150).aspx)

---

15:37:22 PDT

**Question:** with a setup of cluster failover 4 nodes, which is the recommendation for the quorum disk size?

**Answer:** The recommendation for the size of the witness is 500meg. This is more due to NTFS as it performs at its optimum level at 500meg or larger. We will never use most of the space as it is basically holding a copy of the Cluster registry

---

15:38:06 PDT

**Question:** How would scale out file server compare with DFS?

**Answer:** SOFS is on the one drive that all nodes have access to. So there is one copy of the data. DFS has multiple copies as it is on multiple machines with their own drives

---

15:38:09 PDT

**Question:** else where I see 30sec, 5min, 15min. Can you confirm please

**Answer:** confirm

---

15:38:26 PDT

**Question:** How much longer do you expect the webinar go today?

**Answer:** 9am to 5pm PDT is the time allocated

---

15:38:35 PDT

**Question:** do you recommend disk witness even when there is an odd number of nodes?

**Answer:** before this release, no. In R2, yes. We'll cover dynamic quorum briefly (new feature)

---

15:38:41 PDT

**Question:** I posted this link earlier when asking if hyper-v replica would support exchange

**Answer:** Based on the announcement from Exchange Product Team at last TechEd, it looks like Exchange 2013 doesn't support Replica. please see: <http://channel9.msdn.com/Events/TechEd/NorthAmerica/2013/OUC-B326#fbid=>

---

15:39:22 PDT

**Question:** it says hyper-v replica is not supported with

exchange <http://blogs.technet.com/b/rmilne/archive/2013/07/29/exchange-and-hyper-v-replica-support.aspx>

**Answer:** you're correct. it's not supported

---

15:40:12 PDT

**Question:** are we going to look at VMM?

**Answer:** Tomorrow

---

15:41:01 PDT

**Question:** Is SCVMM included in SC 2012 R2 or a separate download or role?

**Answer:** It's in the same suite but a separate ISO download. You'll need to download SQL too.

---

15:41:45 PDT

**Question:** Can you make SOFS with SAN disks (LUNs)?

**Answer:** Yes. CSV drives are required for SOFS. That could be SAN or iSCSI or SAS

---

15:42:23 PDT

**Question:** Can you have Hyper-V and SOFS cluster running on the same two servers? Poor man config?

**Answer:** Recommendation with Hyper-V Clusters is that HYPER-V be the only running roles on the Clsuter. Product Group recommendation

---

15:42:50 PDT

**Question:** Is SOFS on the 70-409 exam ?

**Answer:** We cannot comment on specific exam content. Check the "Skills Measured" tab at <http://www.microsoft.com/learning/en-us/exam.aspx?ID=74-409>

---

15:43:16 PDT

**Question:** Can we use DFS with SOFS?

**Answer:** Not really desired. SOFS has a name in DNS and the IP Addresses of the nodes. It uses DNS round robin to point the users to the different nodes

---

15:43:44 PDT

**Question:** Do you run a hardware RAID under the storage space or run the storage space on JBOD?

**Answer:** If you run hardware RAID, you'll mask the spindles from Storage Spaces. you should use Enclosure Aware SATA arrays and let Storage Spaces to manage those disks. Add some SSDs and using tiering too

---

15:45:03 PDT

**Question:** Can you point me to download SCVMM and the correct SQL version..

**Answer:** Hi Angel, please see software requirements for SC VMM here: <http://technet.microsoft.com/en-US/library/gg610562.aspx>

---

15:45:22 PDT

**Question:** sent to Team:

> *Quoted question:* sent to Team: Hi Team, it is near 1:00 AM here in Spain. Is there enough people to finish the session? It's time to sleep here Comment: I am here

**Answer:** me 2

---

15:45:26 PDT

**Question:** The shares used for SOFS must reside on a Windows-based file share, not NAS device, correct?

**Answer:** CSV drive on that same Cluster

---

15:45:39 PDT

**Question:** In a 'scale out file server' model, are the file server host(s) required to implement the Hyper-V role?

**Answer:** no

---

15:46:30 PDT

**Question:** Why not use a generic RAID5 SMB share as your CSV and replica to a standalone for your HA requirements?

**Answer:** Is an option

---

15:46:53 PDT

**Question:** @Mark : ISO booting in Gen 2 The other issue is the "Press any key to boot from CD / DVD" appears to quickly to press any key. (Will just show failed to boot) Also Gen2 only supports x64

**Answer:** Yes, I just provisioned bunch of Gen 2 VMs this past weekend. Don't really use any 32-bit OS in my lab.

---

15:47:57 PDT

**Question:** Mark - I noticed that Windows 8 (and 8.1) RSAT couldn't connect to 7 (2008 R2) Hyper-V management to admin - Can / Has this been fixed?

**Answer:** Hi Anthony, they were supposed to do some level of support. I'm not aware of this. maybe someone else know here!

---





15:49:45 PDT

**Question:** TJ: Why not use a generic RAID5 SMB share as your CSV and replica to a standalone for your HA requirements? Instead of a SoFS, you save yourself the cost of a server, no?

**Answer:** yes. there are multiple ways of doing this. This is just one of the ways

---

15:50:39 PDT

**Question:** what applications are commonly clustered?

**Answer:** File shares, SQL, Exchange, Virtual Machines. Many more, but those are the most widely used

---

15:50:57 PDT

**Question:** I have the same issue with Hyper-V Manager in 8/8.1 Cannot manage Hyper-V before 2012. Win 7 cannot manage 2012+. Makes it difficult for an admin; requires me to run a Win 7 and Win 8 management station.

**Answer:** yes. same version to same version

---

15:52:39 PDT

**Question:** is there a step-by-step SOFS for Hyper-V and SQL Cluster

**Answer:** this should help Deploy Scale-Out File Server <http://technet.microsoft.com/en-us/library/hh831359.aspx>

---

15:53:37 PDT

**Question:** Is there any documentation/blogs with perhaps examples on implementing SoFS with Hyper-V? There is no real discussion on what hardware would be required for such a scenario.

**Answer:** This article gives step by step and includes SQL and Hyper-V information

Deploy Scale-Out File Server <http://technet.microsoft.com/en-us/library/hh831359.aspx>

---

15:53:50 PDT

**Question:** Do you know of any links or documentation on the SOFS process Corey just explained?

**Answer:** This article should help

Deploy Scale-Out File Server <http://technet.microsoft.com/en-us/library/hh831359.aspx>

---

15:54:30 PDT

**Question:** Mark, hot add of CPU is supported as of 2008 [http://technet.microsoft.com/en-us/library/bb964703\(v=sql.105\).aspx](http://technet.microsoft.com/en-us/library/bb964703(v=sql.105).aspx)

**Answer:** Hi Geoffrey, yes but unfortunately this isn't supported on any Windows Server editions. right?

---

15:54:35 PDT

**Question:** When you are creating CSV storage, you can also rename your Volumes by your wish (e.g. Production, Test, fast)

**Answer:** Yes, you can rename them to whatever you want. You just want to do it before you create VMs on them

---

15:55:34 PDT

**Question:** @Mark Ghazai -which software solution? re: NAT

**Answer:** Hey TJ, you can use Microsoft RRAS

---

15:55:52 PDT

**Question:** Will we be talking configuring about Service Templates tomorrow?

**Answer:** I believe so

---

15:56:54 PDT

**Question:** Is storage spaces only available in SRV12 Essentials?

**Answer:** Storage Spaces is available in 2012/2012R2 Standard and Datacenter versions as well

---

15:57:07 PDT

**Question:** what tool would you suggest for migrating VMware VMs to HyperV.?

**Answer:** Hey Jim, please check out MAT. here: [http://blogs.technet.com/b/in\\_the\\_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx](http://blogs.technet.com/b/in_the_cloud/archive/2013/11/04/vmware-migration-like-you-ve-never-seen.aspx)

---



15:57:41 PDT

**Question:** So, basically, is CSV the same as a SAN, from Windows viewpoint?

**Answer:** CSV is a drive that is shared between the cluster nodes. It can be a SAN., yes

---

15:58:07 PDT

**Question:** Will the slides be available for downloading?

**Answer:** Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Presentation Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx))

---

15:58:09 PDT

**Question:** is it possible to perform cluster failover with out comon shared storage?

**Answer:** you can perform Shared Nothing Live Migration without any clustering and shared resources involved.

---

15:58:30 PDT

**Question:** should you also put the vm configuration fil on csv ?

**Answer:** Yes, all info should be on a CSV if using CSV

---

15:58:41 PDT

**Question:** Do you have a more information about metering?

**Answer:** Here you go Logan: <http://technet.microsoft.com/en-us/library/hh831661.aspx>

---

15:59:47 PDT

**Question:** In Failover cluster version of HyperV is only missing "Import VM" option. You have to make import throught HyperV tools on host. Though making VM as HA is very easy since WS 2012.

**Answer:** Correct. Import it to Hyper-V then create it as a resource in Cluster

---

16:01:22 PDT

**Question:** is anti-affinity still called availability sets in VMM?

**Answer:** Yes

---

16:02:43 PDT

**Question:** can you add a description to a vm in the failover manager console ?

**Answer:** Yes

---

16:03:06 PDT

**Question:** What time is kick off tomorrow please guys? a great day, very enjoyable, but in UK and eyes need matchsticks now! Again great job!!!

**Answer:** 9:00am PDT which I believe is GMT-8

---

16:04:27 PDT

**Question:** Can we create affinity rules?

**Answer:** Antiaffinity, yes <http://blogs.msdn.com/b/clustering/archive/2008/10/14/9000092.aspx>

---

16:07:45 PDT

**Question:** what is the name of the patching tool he just said ?

**Answer:** Cluster Aware Updating WSV322 - Update Management in Windows Server 2012: Revealing Cluster-Aware Updating and the New Generation of WSUS

---

16:08:20 PDT

**Question:** What is the best way to update cluster (hyperv) ?

**Answer:** Cluster Aware updating will update the Cluster nodes only. It will not patch virtual machines in the Cluster

---



16:08:47 PDT

**Question:** Do group policy preference update settings take precedence over cluster aware updating?

**Answer:** CAU goes out to either Windows update or a WSUS Server if you have that specified

---

16:09:14 PDT

**Question:** SCCM then ?

**Answer:** yes

---

16:10:43 PDT

**Question:** Thanks John, but I meant does it take settings for automatic updates from group policy before settings in CAU?

**Answer:** These are mutually exclusive for all intensive purposes

---

16:11:11 PDT

**Question:** If using VMM , is VMM Update manager better than CAU ?

**Answer:** VMM Update will do VMs as well, CAU will only do Cluster nodes.

---

16:11:50 PDT

**Question:** So then is it recommended to NOT add the SCCM agent on the Cluster Hyper-V nodes and CSV nodes?

**Answer:** it is really up to you. CAU is an option you may or may not want to use

---

16:12:25 PDT

**Question:** Does Shared Nothing Live Migration can be done automtically, is there any heart beat?

**Answer:** No, manual process for the most part

---

16:13:50 PDT

**Question:** Can we set a server as first to start up, no matter which node comes up first?

**Answer:** In cluster, you set priorities. High, Medium, Low. It can be random for the High priority VM. So what you may want to be first no matter what, make that your High and all else Medium and Low

---

16:14:34 PDT

**Question:** Is it a VMM per cluster or can a VMM manage multiple clusters?

**Answer:** Can more do multiples. CAU is per Cluster. Each Cluster will have its own CAU configured

---

16:15:35 PDT

**Question:** how I can configure heartbeat network in a cluster?i believe it is different then live migration setting in networks area of clustering. ? thanks

**Answer:** Heartbeats are configurable and is different Configure Heartbeat and DNS Settings in a Multi-Site Failover Cluster[http://technet.microsoft.com/en-us/library/dd197562\(v=WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd197562(v=WS.10).aspx)

---

16:16:52 PDT

**Question:** Don't VMs with low priority only quickmigrate?

**Answer:** Not in 2012R2. all is Live Migration. 2012 was quick for Low priority

---

16:17:10 PDT

**Question:** does cluster aware updating work with CM 2012? or only with WSUS

**Answer:** WSUS or Windows Update only

---

16:17:30 PDT

**Question:** plus in CAU you can make sure all nodes are available, if not then it will not run the CAU

**Answer:** There are some rules where you can set that

---

16:18:27 PDT

**Question:** again, is there a feature like VMware FT? thanks

**Answer:** Through 3rd parties, such as EverRun. We decided not to build it in box as it is so limited in what it can actually protect, considering you already have redundancy through every other hardware component. All is protects

---



you against in non-redundant hardware failures, like a motherboard failure. It also replicates bug checks, limits scalability and has limitations with live migrations.

---

16:18:40 PDT

**Question:** Is the amount of the voucher exams is limited? First 500 people or more/less? Exam is 70-409 or 74-409?

**Answer:** Pawel Liebich the exam is 74-409. I do not know your second question

---

16:18:53 PDT

**Question:** What was the vm that virtualized networking, is it free?

**Answer:** NVGRE gateway ships for free in VMM 2012 R2

---

16:19:57 PDT

**Question:** how many minutes is the delayed start of a medium priority VM to a high priority VM?

**Answer:** Once all High priority VMs a started, then Medium starts. So basically it varies

---

16:20:29 PDT

**Question:** Who sends to the 'extended' replica server? The primary node or the replicated node?

**Answer:** replicated

---

16:21:37 PDT

**Question:** Can you still use powershell cmdlets to deploy a VM to a failover cluster?

**Answer:** yes

---

16:22:07 PDT

**Question:** how do we control which replica gets started with the primary fails

**Answer:** it is a manual process, so you have the control

---

16:22:18 PDT

**Question:** Can VMs be extend replicated to Azure?

**Answer:** Not at this point in time

---

16:22:27 PDT

**Question:** where is VMM patching tool in VMM ?

**Answer:** Fabric, under Update Server

---

16:22:50 PDT

**Question:** Are we going to cover some of the nuances of geo/metro clusters, and whether they're recommended if we want to deploy a VMM infrastructure? Or would it be better handled where clusters are kept within the same layer-2 domain in datacenters, in the same host groups in VMM, and/or having additional VMM roll-outs to support them versus just one?

**Answer:** Sorry, its not in scope for the exam. Check out this webcast I made with the best practices:

<http://technet.microsoft.com/en-us/video/hh133452.aspx>

---

16:22:52 PDT

**Question:** To what degree is Hyper-V able to compress replication data between clusters?

**Answer:** Nothing really set in stone. depends on how it can compress the memory

---

16:23:45 PDT

**Question:** what about the Quorum Configs in a Cluster?

**Answer:** Recommendation for 2012R2 Cluster is to have a witness (Disk or Share) no matter the number of nodes.

---

16:25:20 PDT

**Question:** Does the amount of the memory you assign to all VM's max the host server memory?

**Answer:** In 2012R2, it will always reserve a minimum of 2gig memory for the host



16:27:11 PDT

**Question:** What is the best practice for upgrading a cluster from 2012 to 2012 R2?

**Answer:** Fresh new install and use Cluster Migration Wizard. YOU cannot upgrade a cluster node. Setup will block it

---

16:28:27 PDT

**Question:** Upgrade: Best way to move Vms from Hyper-V 2008 R2 hosts to Hyper-V 2012 R2 hosts ?

**Answer:** power off the VMs copy all the VHD files and config (xml and such) to the 2012R2 machine Do an Import Virtual Machine

---

16:29:19 PDT

**Question:** what are the commands to export and import for hyperv

**Answer:** export-vm import-vm but you need import-module Hyper-v

---

16:29:40 PDT

**Question:** what about the host Memory reserve when using CSV Cache. Do I have to configure something manually?

**Answer:** no. the host will always reserve 2gig for itself

---

16:30:02 PDT

**Question:** Do you have technical details why 2012 R2 cannot be part of 2012 cluster?

**Answer:** Internal components differ

---

16:30:55 PDT

**Question:** When building a hyper-v cluster on CSV's that are presented from iSCSI or FC, is it recommended or does it provide any benefit to use the SharedBlockCache variable to assign memory to the CSV?

**Answer:** this blog should answer your

questions <http://blogs.msdn.com/b/clustering/archive/2012/03/22/10286676.aspx>

---

16:33:13 PDT

**Question:** is there a way to move VM from Hyper-V2012 to Hyper-v 2008R2 ?

**Answer:** you must take the .VHD or VHDX to the 2008R2 and create a new virtual machine. There is no migration or import method

---

06:43:51 PDT

**Question:** Is there a best practise on implementing Storage QoS in view to vendor specific features? I'm wondering if this impacts automated storage tiering.

**Answer:** The only thing the QoS policy is doing is limiting the number of IOPS being sent from the VM. It does not take advantage of any other features

---

07:02:39 PDT

**Question:** when doing storage live migration, the systems involved uses unbuffered copy, how much faster has that become in R2 ?

**Answer:** There really is no change with the storage migration

---

07:25:34 PDT

**Question:** Can I install a 2012 STD on a physical server and the 2 VMs on a separated Hyper-V server or other hypervisor?

**Answer:** Not sure what you are meaning, but if you are saying have 2 VMs running on the 2012 Standard Hyper-V and the storage (.vhd/vhdx files) residing on a separate server, yes, you can

---

07:27:05 PDT

**Question:** Is there a plan to integrate a hotadd cpu feature in a future release?

**Answer:** Unfortunately, we cannot discuss future products or design changes

---

07:57:02 PDT

**Question:** Can you replicate to Azure?

**Answer:** Hi Adam, nothing out of the box yet. You can certainly use 3rd party solutions such as Double-Take Vision

---



Solutions to do this. Please see:

[http://www.visionsolutions.com/Downloads/releases/AzureDTMOVE\\_Release\\_FINAL.pdf](http://www.visionsolutions.com/Downloads/releases/AzureDTMOVE_Release_FINAL.pdf)

---

07:59:03 PDT

**Question:** What did he just say, you can't over commit memory?

**Answer:** Hyper-V doesn't have memory overcommit. you can reduce the startup RAM for VMs and let Hyper-V take care of distribution of RAM between VMs using Dynamic Memory

---

08:33:45 PDT

**Question:** Anybody have issues w/2012 R2, joined to domain but network location gets stuck as Public rather than domain when Hyper-V role is installed? I found that people had the same exact issue w/2k8 and there was a fix for it, but nothing for 2012 or so it seems.

**Answer:** I get this in my demo environment. disabling and re-enabling the nic get's things working again.

---

08:36:07 PDT

**Question:** We need a Joey Snow mix for background music to pump us up before the seminar starts.

**Answer:** that would be GOOD...

---

08:36:41 PDT

**Question:** hey hello i try to install the Hyper-V Server without Domain, is there a esayer Way like the way with the HVRemote Tool? Thanks ralf

**Answer:** 5nine software has a GUI interface for core implementations of WS with Hyper-V.

---

08:36:56 PDT

**Question:** Does MS have a guidance plan for upgrading from WS2008R2 and its VMs to 2012R2 ?? Thanks

**Answer:** check out this teched NA session. <http://channel9.msdn.com/Events/TechEd/NorthAmerica/2013/MDC-B331#fbid=-XFpjhMsdxC>

---

08:37:41 PDT

**Question:** Hi, are there any problems to have nodes in a Hyper-V cluster with different CPU mask?

**Answer:** all your cluster nodes should be identical. but - so long as it passes validation, it will be supported.

---

08:41:44 PDT

**Question:** good evening from The Netherlands

**Answer:** Goedenavond 😊

---

08:42:43 PDT

**Question:** Is there a new slide deck for today?

**Answer:** We'll have the slides for today's sessions posted shortly.

---

08:44:39 PDT

**Question:** Hello, got a question, can i move vm's from free hyper-v version to standard 2012 ?

**Answer:** absolutely

---

08:47:05 PDT

**Question:** I work in a school and we have several server. Only one of which was really good enough for hyper v. we rolled out 2012 about four months ago, now r2 is out we wanna upgrade. If I export the VM's, Upgrade the hyper v host then import the vms back will they work fine?

**Answer:**

---

08:48:43 PDT

**Question:** quick question, do we have a link to the free hyper v server from yesterdays session?

**Answer:** you can get it from the TechNet eval center. <http://technet.microsoft.com/en-us/evalcenter/dn205299.aspx>

---



08:50:50 PDT

**Question:** Your work to make Linux a first class citizen on Hyper V has been noticed and much appreciated. I'm curious if there is a similar effort planned (or underway) for BSD guests; particularly on the network side of things where only legacy network adapters are currently supported?

**Answer:** thanks for the comments! I'm not aware of any BSD work, but we continue to cover as many distros as make sense. Integration capabilities are now in Linus kernel 2.61 and above.

---

08:50:57 PDT

**Question:** thanks Rickster

**Answer:** your welcome

---

08:51:40 PDT

**Question:** Does the SMB/RDMA storage network require a DC and/or DNS?

**Answer:** Yes SMB requires both DC and DNS

---

08:51:52 PDT

**Question:** Can I apply Windows Server 2012 R2 GPO settings for Hyper-V server 2012 R2?

**Answer:** Yes

---

08:52:02 PDT

**Question:** What are the minimum system requirements for Hyper-V Server?

**Answer:** minimum requirements are here. <http://technet.microsoft.com/library/dn303418.aspx>

---

08:53:19 PDT

**Question:** and this can be installed on a Windows 7 desktop, or server only

**Answer:** Hyper-V is Server, with client version in Win8. what are you asking specifically?

---

08:53:48 PDT

**Question:** @rickster: are you still trying to get the day2 slides up there ?

**Answer:** I just heard they are in progress rom the support team.

---

08:54:16 PDT

**Question:** @Stanislav Is there any way to host it on one of the VMs, or does it need to be there for storage to initiate?

**Answer:** Ye can host in a VM but if that VM is on that SMB I would recommend using Physical server for DC/DNS.

---

08:54:16 PDT

**Question:** Is there a list anywhere of what applications (Exchange, SQL, Lync ect...) are able to use Dynamic memory on a Hyper-V host? I know Sharepoint requires static memory, but I couldn't find anything related to other applications.

**Answer:** The "able to" and "should" are different things. You in general should not use dynamic memory for server workloads, especially SQL as those apps assume they can use *all* memory and will generally cause DM to keep growing and growing as more memory is allocated, and because there is more memory they take it and so on.

---

08:54:28 PDT

**Question:** can I inplace upgrade typer-v from 2012 to 2012 r2?

**Answer:** Yes

---

08:56:00 PDT

**Question:** When R2 was announced I had some concerns with 2012... Will it eventually become what Server 2008 is now? Regretting that we went with 2012 instead of waiting for R2?

**Answer:** you'll find that with the 2012 release (and R2) we have made it a lot easier to co-exist and migrate to new versions when they come into our environment. .

---

08:56:21 PDT

**Question:** Can I run Win server 2012 R2 with a Hyper V role on VMware esx? Provided I have the licenses I need?

**Answer:** why would you wnt to run a hypervisor within another hypervisor?

---



---

08:56:33 PDT

**Question:** Which one is the best to use...MS Hyper-v server 2012 or MS Windows Server 2012 data center edition

**Answer:** The answer to that question is driven by licensing only

---

08:56:56 PDT

**Question:** VDI and a massive dose of System Center please would be nice

**Answer:** SC dose on the way

---

08:57:17 PDT

**Question:** Which one is the best to use...MS Hyper-v server 2012 or MS Windows Server 2012 data center edition

**Answer:** Depends on your specific needs, from a virtualization point of view, they don't lack in functionality

---

08:57:28 PDT

**Question:** I would always recommend one physical DC

**Answer:** I used to, but have updated my recommendations now that we have VM-Gen-ID in 2012R2

---

08:57:47 PDT

**Question:** Amsterdam here. Hope it won't continue until 01:30AM like yesterday. Got an early morning meeting :-o

**Answer:** sorry! 😊

---

08:57:57 PDT

**Question:** Can live migration / vmotion be done if the VM is on a file share?

**Answer:** Yes

---

08:58:06 PDT

**Question:** How do I download SCVMMM R2

**Answer:** Go here <http://technet.microsoft.com/en-US/evalcenter/dn205295.aspx>

---

08:58:06 PDT

**Question:** which Hypervisor is better for small organization upto 3-4 VM servers

**Answer:** Hyper-V of course

---

08:58:14 PDT

**Question:** how the lab setup will work with windows 8 ?

**Answer:** You can set up a lab by using the Client Hyper-V

---

08:58:33 PDT

**Question:** Server 2012 Hyper-V server edition is free, correct me if im wrong. Datacenter isn't but would allow you unlimited Hyper-V VMs.

**Answer:** datacenter allows unlimited "licenses" not unlimited VM's. There are limits on supported VM's (though they are in the many thousands)

---

08:59:10 PDT

**Question:** Is the good practice to virtualize domain controllers ?

**Answer:** provided you have WS2012 / R2 DCs, and they are virtualized on Hyper-V or other VM-Gen-ID aware hypervisors - you are OK to run DC in virtualized environment,.

---

08:59:51 PDT

**Question:** In regards to doing an in-place upgrade, am I correct in saying a HV cluster cannot be upgraded? A new cluster will be required and VMs moved? Do all cluster nodes have to be running either 2012RTM or 2012R2?

**Answer:** all nodes in the cluster have to be running same version of OS. You are correct to migrate workload between clusters for a migration.

---





09:01:12 PDT

**Question:** my understand re hypre-v edition - is that its free but that all the guests need to licensed individually - with DC it includes licenses for Microsoft OS Guests - is this correct?

**Answer:** correct

---

09:02:00 PDT

**Question:** So if one of the machines doesn't windows update while the others have. Would this cause problems with the cluster?

**Answer:** you will want to find out why the updates are failing on that cluster node and resolve it.

---

09:02:09 PDT

**Question:** Do you have a link where I can take a look at PowerShell commands for working with the Hyper-V drives, (Copy, Replace, ect...)

**Answer:** Mark just open Powershell ISE and select the Hyper-V commands

---

09:02:11 PDT

**Question:** Do you have a link where I can take a look at PowerShell commands for working with the Hyper-V drives, (Copy, Replace, ect...)

**Answer:** Mark just open Powershell ISE and select the Hyper-V commands

---

09:02:29 PDT

**Question:** Are there any SCVMM 'minimum' requirements somewhere? More along the Domain Size, number of VMs, etc than hardware requirements. I'm more curious if it would be overkill for our network.

**Answer:** Yes - min requirements and recommended requirements for VMM are listed at

<http://technet.microsoft.com/en-us/library/gg610562.aspx>

---

09:02:34 PDT

**Question:** Is it possible to create vhd instead of vhdx upon initial VM creation? just to make the VM compatible with azure right from the start. or are all VM vhdx only and require conversion?

**Answer:** Yes

---

09:02:48 PDT

**Question:** Because the VM hosts would need to be in a domain, I would need at least one physical DC? Or could I use Azure AD for that?

**Answer:** I ru my DC as virtual on my Hyper-V host and then add the host into domain after DC has been made.

---

09:03:00 PDT

**Question:** Is this the last session (or is there one tomorrow?)

**Answer:** last one for this series today.

---

09:03:18 PDT

**Question:** are we going to have a dedicated Q&A time today?

**Answer:** you are in it. 😊

---

09:03:29 PDT

**Question:** Well if nothing else I've learned so far that I want to replace my 2008/2008r2 boxes with 2012r2.

**Answer:** nice!

---

09:03:37 PDT

**Question:** When one VM tries to connect to other VM (both connected to the same Virtual Switch on physical server; NIC Team - 2 network adapters -> connected to one physical switch), are packets beeing send directly to this machine? Do they even "reach" physical network?

**Answer:** Unicast packets sent between VMs on the same host, vSwitch and VLAN are forwarded directly on the vSwitch

---



09:03:42 PDT

**Question:** does a 2012R2 Cluster need a DNS-Server running physical for start-up/boot or is it possible to run DNS-Servers just virtualized

**Answer:** Failover Cluster in Windows Server 2012 and above can boot without domain and DNS.

---

09:03:55 PDT

**Question:** Are there any free tools from Microsoft compare to vmware converter for hyper-v? Only thing I've notice thus far was disk2vhd which lacks in functionality for a P2V.

**Answer:** Hi, you could use the Microsoft Virtual Machine converter  
<http://technet.microsoft.com/library/hh967435.aspx>

---

09:03:58 PDT

**Question:** after finish this course what exam number I can do

**Answer:** 74-409 is the related exam.

---

09:04:47 PDT

**Question:** Will these sessions be available later as recordings?

**Answer:** Yes check the FAQ tab for details please

---

09:05:08 PDT

**Question:** I thought you could do an in place cluster upgrade? There are some specific requirements, and it will break HA until finished etc. Not that I would want to in place upgrade a cluster.

**Answer:** You'd migrate to roles to a new cluster when performing a cross-version upgrade, using Cluster Migration Wizard -or- if moving VMs between 2012 and 2012R2 clusters, can Live Migrate between clusters.

---

09:05:13 PDT

**Question:** is this a replay of yesterdays?

**Answer:** No this is a continuation.

---

09:05:35 PDT

**Question:** Hello, with regards to the exam 74-409 - does this or will this in the future count towards any certifications? thanks

**Answer:** Microsoft Virtualization Specialist

---

09:06:05 PDT

**Question:** which one is the best for smaller organization

**Answer:** Hyper-V Manager and Cluster Manager are both great. SCVMM you will see today scales in many directions. Hopefully that answers your question.

---

09:06:14 PDT

**Question:** Does a 2012 DC running Hyper-V license cover all versions of VM guest OS licenses, or only guest VMs running Server 2012?

**Answer:** You should check your licensing agreement with your licensing contact to make sure it includes downgrade rights.

---

09:06:16 PDT

**Question:** What is the easiest way to migrate vSphere guests to Hyper-V?

**Answer:** The easiest way I know of is certainly SHIFT from Netapp, in combination with MAT

---

09:06:36 PDT

**Question:** Hi I am having hard time logging into the session from Windows 8.1 It works fine from win 7. when I try access from Win 8.1 button Join session is missing.

**Answer:** Try turning off Enhanced Protection Mode in IE11 advanced settings. Worked well for me.

---



09:06:59 PDT

**Question:** Does a Linux VM count against your VM licenses? For example, on Server 2012 Standard, can I run two Windows 2012 VM's and one Linux VM for a total of three VM's without violating the license?

**Answer:** license is for MS clients only.

---

09:07:02 PDT

**Question:** going back a few questions, Rickster, you run a hypervisor in a VM because not all of us have Microsoft's budget to buy a new server every time we want to play around with the new version of something.

**Answer:** A great use case for spinning up a lab on-demand in Azure. You can spin up new 2012R2 servers faster than you can download the bits! 😊

---

09:07:33 PDT

**Question:** Which solution is better for vm domain controller... checkpoints or windows server backup ?

**Answer:** Checkpoints in DCs are bad idea. Really bad. Always perform backups, and when restoring make sure that newer copies of the AD DB do not exist in the environment. Always follow the proper DC restore guidelines.

---

09:07:44 PDT

**Question:** So I should use a cluster in a box for hosting the fileshare with the VHDs and use a blade chassis with blades running Hyper-V Server and my datacenter is up-to-date?

**Answer:** that is a great option for hosting your systems.

---

09:07:53 PDT

**Question:** VMware has the capability when you remove a VM they have the option to delete from disk for house keeping Does Hyper-v and/or SCVMM provide this feature from the console?

**Answer:** You can always export the virtual machine to the library prior deleting it.

---

09:08:01 PDT

**Question:** I want create fully automated service catalog for our customer...Please let me know how i can perform and also let me know about some tools.

**Answer:** You'll want to consider System Center 2012 R2 + Windows Azure Pack.

---

09:08:01 PDT

**Question:** is anyone else having issues with sound quality? have refreshed several times, restarted the computer, changed headset but the sound quality is still really bad

**Answer:** Should be better now.

---

09:08:33 PDT

**Question:** after finish this course what exam number I can do

**Answer:** This course helps get you ready for 70-409 however you may want to read through the other suggested reading first.

---

09:09:04 PDT

**Question:** Is there any way (supported or unsupported) to run a Hyper-V VM inside another Hyper-V VM (nested)?

**Answer:** Not supported, but you can run Hyper-V in a VM for lab testing purposes. Not that you will not be able to actually start VM's from the nested Hyper-V, but it is useful in a lab for working through the configuration and management tools.

---

09:09:16 PDT

**Question:** When creating a snapshot is it best practice to do it with the server turned off or does it make any difference.

**Answer:** You can do it whenever you want! But remember, the machine returns to the same state of when the checkpoint (snapshot) was made....

---



09:09:33 PDT

**Question:** Are there any virtual labs that tie to this content we are learning about yesterday and today?

**Answer:** yes TechNet Virtual Labs are always available for use. You can also build your own lab by following my guide here: <http://aka.ms/tp2012lab>

---

09:10:08 PDT

**Question:** What is the vm limit on the free version of Server 2012 Hyper-V? We currently picked up about 20 licenses for 2012 Enterprise edition and this class has made me really interested in trying out a Hyper-V installation.

**Answer:** no limit for VMGuests on HYper-v server 2012 R2. you have to purchase guest licenses separately. no hard limit for what is supported.

---

09:10:20 PDT

**Question:** Thanks, I was getting a bit confused last night, as everyone thought we clustered. (just a primary school, we work with the money we get) So in that case, I can then begin to upgrade the vms after the hyper v host has been updated? Or does it not matter on order?

**Answer:** Update the host first then the VMs.

---

09:10:27 PDT

**Question:** How can use MDT to deploy several VMs without letting these VMs reach my network?

**Answer:** You'd be better off deploying via VMM - you can build a template that connects to Private or Internal vSwitches or uses Network Virtualization to isolate from physical network.

---

09:10:27 PDT

**Question:** Guys, you can virtualize DC all day, it's using the checkpoints that is not recommended. And honestly, with a good mgmt. plan around those systems, you'll never need to do checkpoints n DCs

**Answer:** 2012 / R2 DC on my-erv... all managed with VM-Gen-ID.

---

09:10:41 PDT

**Question:** I got the reply for VM Manager for V2V from ESX to VMWare but what about a free utility for P2V?

**Answer:** There is a tool called Disk2VHD: <http://technet.microsoft.com/en-us/sysinternals/ee656415.aspx>

---

09:11:02 PDT

**Question:** I have a very small Hyper-V setup, it's a single 2012 box with the VMs stored on a RAID 5. Do I have to have a 2nd server to upgrade to 2012 r2, or is there a way to do an in-place upgrade on the same hardware?

**Answer:** You can perform in-place upgrade, confirming that all the VMs are shut down.

---

09:11:05 PDT

**Question:** is it just server 2012r2 dc that are aware they are vm, and can survive a check point restore

**Answer:** Windows Server 2012 and Windows Server 2012 R2 DC's support VM Generation ID when running on a 2012 or later version of Hyper-V

---

09:11:14 PDT

**Question:** Good Morning, i wana mount videogame room (Example Call of Duty), for registred client's of my site, it's possible in Windows server 2012 R2 virtualized?, From Durango Mexico

**Answer:** if it is a PC based game that runs on INTEL - no problem.

---

09:11:20 PDT

**Question:** quick question, can I create a large/extralarge VM in azure, and then add the Hyper-v role and then build VMs inside of it?

**Answer:** No, it's not possible to do nested virtualisation with Hyper-V

---

09:11:30 PDT

**Question:** does the NAS storage device have to support SMB 3.0? Or is all the processing from the server side?

**Answer:** NAS Device would need to support SMB3 if you plan to use VMs on a share offered by the NAS. If you are using iSCSI volumes mounted to 2012 file servers then you could offer SMB3 shares this way to the the Hyper-V environment.

---



09:11:44 PDT

**Question:** So if you made a snapshot with the server off. When you use that snapshot the server will be off as well.

**Answer:** Correct

---

09:12:16 PDT

**Question:** i want to virtualize 8 applications on 2 HP DL 580 servers using hyper v 2012, what are best practices that i should consider during my plan phase

**Answer:** this answer depends on the storage being used. Bottomline, will the VMs reside on the local disks or some shared storage somewhere?

---

09:12:34 PDT

**Question:** Keith - do you have a link for that (nesting)?

**Answer:** Not supported, so it's not documented in an official link. The easiest way is to download free Hyper-V Server 2012 R2 and install directly into a VM. It will install and be functional, but can't start the VMs.

---

09:12:43 PDT

**Question:** Is possible to install hyper-V, DC and RDS role on one machine ?

**Answer:** No, it's not supported... You could install Hyper-V on the host and create a virtual DC on there...

---

09:13:12 PDT

**Question:** Does taking the 70 – 409 award you with a certification?

**Answer:** Yes, Microsoft Specialist Virtualization

---

09:13:18 PDT

**Question:** we can do live vmotion with snapshot on hyper-v 2012 R2 ?

**Answer:** Hyper-V Server 2012 and Hyper-V Server 2012 R2 both support Live VM Migration and Snapshots.

---

09:13:25 PDT

**Question:** we can do live vmotion with snapshot on hyper-v 2012 R2 ?

**Answer:** Yes you can.

---

09:14:07 PDT

**Question:** Is there any recommendation links to study along with this event in order to get ready for the exam , as long as there's no official study material yet ?

**Answer:** You could use the community resources here: <https://msandbu.wordpress.com/2013/11/19/study-resources-74-409-server-virtualization-with-windows-server-hyper-v-and-system-center/>

---

09:14:20 PDT

**Question:** What's the advantage of using SMB shares when you have attached iSCSI vs just using the iSCSI?

**Answer:** You divide storage from compute. Easier for managemen.

---

09:14:25 PDT

**Question:** Hello all, is the stream already started?

**Answer:** refresh browser

---

09:14:47 PDT

**Question:** Thanx RicksterCDN !!

**Answer:** NP

---

09:14:58 PDT

**Question:** Suggestions for a "home brew lab", to do this at home; in addition to TechNet Labs?

**Answer:** You can find manuals (Technical Lab Guides) here: <http://blogs.technet.com/b/tlgs/>

---

09:15:04 PDT

**Question:** can you please type the link for the labs aka....

**Answer:** eliassl, TechNet Virtual Labs <http://technet.microsoft.com/en-us/virtuallabs/bb467605.aspx>

---



09:15:52 PDT

**Question:** Can the 2012 Hyper-V manager also connect to 2012 r2 servers?

**Answer:** The supported management tool for 2012 R2 is Hyper-V Manager running from 2012 R2 or Windows 8.1 Hyper-V Manager 2012 R2 will support both 2012 R2 and 2012 Hyper-V hosts.

---

09:16:29 PDT

**Question:** Is SCVMM included in SCCM 2012 or is it an additional bolt on and chargeable component?

**Answer:** VMM is included in System Center 2012 R2 - Along with all of the other SC components.

---

09:16:36 PDT

**Question:** Will 74-409 be a start path for future Certificate?

**Answer:** Anastasis, there is a certification associated with 74-409 exam, Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---

09:16:39 PDT

**Question:** Can system center be installed on a VM?

**Answer:** yes

---

09:16:54 PDT

**Question:** Can somebody please alert when the presentation slides are posted so we can open those up and add notes to them as we progress through the day? Thanks very much

**Answer:** There are already there, see the FAQ tab.

---

09:17:44 PDT

**Question:** I love the way you can manage Linux machines with Powershell! Awesome stuff!

**Answer:** So do we! 😊

---

09:17:57 PDT

**Question:** What are Microsoft's long term plans for exam 70-409? Is this going to lead any general Microsoft title like MCSE?

**Answer:** Nigel, our plan is to offer the Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---

09:17:58 PDT

**Question:** Can VMM be installed on a VM in a cluster that it is managing?

**Answer:** Yes. I've setup many of these.

---

09:18:09 PDT

**Question:** Surface is clean again

**Answer:** They had bacon for breakfast....what's a bacon lover to do....

---

09:18:19 PDT

**Question:** Surface is clean again

**Answer:** They had bacon for breakfast....what's a bacon lover to do....

---

09:18:29 PDT

**Question:** Are there trial versions of System Center / VMM?

**Answer:** yup - available from <http://technet.microsoft.com/evalcenter>

---

09:18:39 PDT

**Question:** can you use VMM in System Center 2012 or does it require upgrading to SC R2?

**Answer:** VMM is part of the System Center 2012 Suite...

---

09:18:40 PDT

**Question:** Hi guys, question: which kind of classes do we have within Service Manager, you know?

**Answer:** Geovanni, we have courses for Configuration Manager, Operations Manager, and more coming

---



---

09:18:55 PDT

**Question:** Can system center be installed on a VM?

**Answer:** Yes - System Center is a suite of components that can be deployed on physical or virtual servers.

---

09:19:08 PDT

**Question:** any version of ms sql server edition is part of system center license?

**Answer:** You get Standard version of SQL Server for free for your System Center databases

---

09:19:27 PDT

**Question:** what is the recommended upgrade scenario for my current 2008 R2 Host systems to 2012 R2?

**Answer:** This depends, are you happy with the current setup of the environment? I personally like to build fresh hypervisors and migrate workloads over to the newer system. This is much easier once on 2012 as Live migration to 2012r2 is supported, and a promise from Microsoft that all future releases of server will allow Live Migrations. As for 2008R2 you can upgrade in place, I like migrating the workload, you can see the how-to guide here:

<http://www.virtuallycloud9.com/index.php/2013/02/migrating-hyper-v-virtual-machines-from-server-2008r2-to-server-2012-part-10-of-the-migration-and-deployment-series/>

---

09:19:38 PDT

**Question:** TechNet labs link again please?

**Answer:** sample labs link for current technologies. <http://technet.microsoft.com/en-us/virtuallabs?id=kiMIFILzuAw>

---

09:19:56 PDT

**Question:** Is 74-409 a substitute for exams 70-246 and 70-247?

**Answer:** No - 74-409 is an exam for virtualization professionals specifically supporting Hyper-V and VMM - Private Cloud exam path targets all System Center components and all Windows Server components.

---

09:20:02 PDT

**Question:** Do i need CAL for each product from system center suite?

**Answer:** With System Center 2012 (R2) you purchase a license for the entire Suite...

---

09:20:17 PDT

**Question:** how about metro vmotion in vmware compare with hyper-v ?

**Answer:** As long as the target Hyper-V host can be seen on the network you should be able to Live Migrate, WAN speed will dictate your success here of course.

---

09:20:20 PDT

**Question:** Can System Center be installed on on VM or does it need multiple VM's?

**Answer:** multiple VMs

---

09:20:49 PDT

**Question:** Are there any plans to put Hyper-V on smartphones to compete with VMwares upcoming offerings?

**Answer:** We are not at liberty to talk about futures on these webinars. Sorry 😞

---

09:20:50 PDT

**Question:** can i buy just vmm, or i need buy the fully suite?

**Answer:** VMM is a component part of the SC product, so you must buy System Center (and get all the components)

---

09:20:54 PDT

**Question:** Can System Center be installed on on VM or does it need multiple VM's?

**Answer:** You can install VMM on a single VM, but consider the need for high availability of this product and the library...

---

09:21:01 PDT

**Question:** can we virtualize HBA cards also?like NIC

**Answer:** Yes



---

09:21:25 PDT

**Question:** How does App Contr integrate with the Azure Pack?

**Answer:** It doesn't - App Controller is a self-service GUI option for managing Hybrid Clouds ( Private Clouds, Hosted Clouds, Public Clouds ) from one web GUI. Azure Pack targets bringing the Windows Azure UI to a Private Cloud to create a multi-tenant self-service Private Cloud fabric.

---

09:21:37 PDT

**Question:** When adding a vCenter server in VMM 2012 R2 I accept and install the vCenter certificate. This will then add the hosts and the VMs in the VMware cluster to my VMM. On each VMware host I can open Properties, go to Management and Retrieve the hosts certificate and accept it. Do I have to do that or will the vCenter handle this? I ask because the hosts have local authentication and is not AD integrated, so I cannot use the same account that is used for vCenter without reconfigure the hosts.

**Answer:** You can use different Run as Accounts for both the vCenter integration and when managing the VMware hosts. So yes.

---

09:22:06 PDT

**Question:** if I buy 8 datacenter system center licenses, then how many sql server standard licenses I get (1 or 8)

**Answer:** No matter how many SC licenses you buy you get free SQL Server Standard license for every SC database.

---

09:22:22 PDT

**Question:** Is SQL server license included in SC package?

**Answer:** Yes Standard edition is included

---

09:22:42 PDT

**Question:** I am not seeing any video yet other then the green screen have we started yet?

**Answer:** refresh browser

---

09:22:42 PDT

**Question:** I am curious whats vmm, a service?

**Answer:** VMM is the private cloud fabric manager that runs as a management service on a VMM server. It can centrally manage virtualization hosts (Hyper-v, vSphere, Citrix), Storage fabric and Network fabric - and then create Private Clouds that are delegated to teams within an organization.

---

09:23:01 PDT

**Question:** can i use the PDT on a lab platform? (just for testing, no licenses implied)

**Answer:** yes - lab environment or production environment.

---

09:23:10 PDT

**Question:** Is System Center something you install? I see Service Manage, Ops Manager, App Controller, Config Manager, Orchestrator, VMM, Data Protection Manager, but not System Center itself...

**Answer:** System Center is the Suite, where all these great products are a part of.....

---

09:23:22 PDT

**Question:** Is System Center something you install? I see Service Manage, Ops Manager, App Controller, Config Manager, Orchestrator, VMM, Data Protection Manager, but not System Center itself...

**Answer:** Each of the components are installed individually or can be installed in an orchestrated approach using the PDT toolkit.

---

09:23:25 PDT

**Question:** Wish I knew about PDT sooner! Set System Center up in my lab and had about 6 hours of pain and suffering.

**Answer:** once you start using it, you won't go back.

---





09:23:28 PDT

**Question:** Is System Center something you install? I see Service Manage, Ops Manager, App Controller, Config Manager, Orchestrator, VMM, Data Protection Manager, but not System Center itself...

**Answer:** System Center is one product and Service Manage, Ops Manager, App Controller, Config Manager, Orchestrator, VMM, Data Protection Manager are components of that product.

---

09:24:32 PDT

**Question:** Will i be able to use VMM to manage multiple Hyper-V/VMWare from other companies/customers, or will they have to be from the same domain?

**Answer:** You can manage Hyper-V and vCenters without AD integration. You'll be using RunAs accounts instead. They just need to be accessible to VMM server over network.

---

09:24:50 PDT

**Question:** Will i be able to use VMM to manage multiple Hyper-V/VMWare from other companies/customers, or will they have to be from the same domain?

**Answer:** Virtualization hosts can be from separate trusted, untrusted or perimeter networks, but you may wish to consider having each customer deploy their own VMM management server and then roll-up management across multiple VMM servers with App Controller.

---

09:24:59 PDT

**Question:** Can you use PDT on Trial versions on 2012 R2 and SystemCenter ?

**Answer:** Yes you can! Let us know how your experiments are going!

---

09:25:51 PDT

**Question:** Is there previous versions of the exam available for studying?

**Answer:** ShaunS1469, this is the first version or I,e, the "A" version

---

09:26:09 PDT

**Question:** Does scom require an agent install?

**Answer:** Yes. You could perform agentless monitoring as well but functionality won't be the same as full agent monitoring.

---

09:26:09 PDT

**Question:** What's MS tool like vCenter SRM?

**Answer:** Windows Azure Hyper-V Recovery Manager is our solution for orchestrated DR failover.

---

09:26:13 PDT

**Question:** Can VMM manage stand-alone unlicensed Esxi hosts that are not connected to vCenter?

**Answer:** No, VMM needs the vCenter API's to communicate with

---

09:26:27 PDT

**Question:** can I install System Center on the same Windows server 2012 r2, where I have installed the hyper-v role?

**Answer:** That is not recommended. Hyper-V should be the only role on a server if it is deployed in production

---

09:26:34 PDT

**Question:** For System Center 2012 R2 & Windows 2012 R2, what version of SQL is recommended (e.g. SQL 2014, SQL 2012 R2, or SQL 2012)

**Answer:** SQL Server 2012 SP1

---

09:26:47 PDT

**Question:** Does the Advisor work with VMWare for best practice assessment?

**Answer:** no it just looks at AD windows Server health and SQL Server

---

09:26:50 PDT

**Question:** Does this integrate well with our existing VMware platform ?

**Answer:** I don't know how your VMWare platform is configured, but when you have a vCenter, you're good to go...

---



09:26:58 PDT

**Question:** Can I use System Center to manage multiple networks across different organizations?

**Answer:** Yes you can. VMM can manage its logical networks and virtual networks, and SCOM can monitor networks as well.

---

09:27:01 PDT

**Question:** As a VMware admin, I just want to know the analogous to a simple vCenter install as it relates to VMM. As you mentioned there are ALOT of pieces to System Center, to start I just want VMM is that a quick single app installer?

**Answer:** Yes - you can get started with just installing VMM and then have the option to light up the other System Center components at a later time.

---

09:27:01 PDT

**Question:** I just logged in for day two instead there is a video playing from day 1. Am I the only one having this issue?

**Answer:** Is this still the case?

---

09:27:16 PDT

**Question:** Can VMM deploy VM in VMWare environment?

**Answer:** Yes - as long as it is managing VMware through vCenter.

---

09:27:27 PDT

**Question:** Is a scom agent required to be installed on the vCenter server?

**Answer:** No

---

09:27:33 PDT

**Question:** Is it me or is System Center more for data centers, not really for SMB like 2 hyper-v hosts and 15 vm's at most?

**Answer:** yes if you have less than 100VMs then just use server manager, more than that then get System Center

---

09:27:40 PDT

**Question:** Hi ,I have 2008 R2 hyper V environment .Can I assign a different MAC on a P2Vd server in hyper V which is out of hyper V MAC range ..actually application has MAC dependency and they dont want to change the MAC

**Answer:** Yes - you can manually specify a MAC address on a per-VM, per vNIC basis.

---

09:27:54 PDT

**Question:** For a hyper-v/vmware mixed datacenter, which VMware (vcloud?) components are still needed to create a System Center self-servicing site?

**Answer:** No. App Controller can embrace both environments through VMM integration, so no need for multiple self-service portals

---

09:28:26 PDT

**Question:** What OS is the most likely to run SC? Desktop or Server OS given that it runs a SQL Server?

**Answer:** Windows Server is the foundation of System Center, so you will need the server OS.

---

09:28:45 PDT

**Question:** Do I need a System Center Datacenter license per node, like windows server, or just one license for my entire datacenter?

**Answer:** Datacenter per node.

---

09:28:49 PDT

**Question:** could someone help to measure windows server performance counter threshold, mircosoft recommend threshold

**Answer:** In regard to which metric, there is memory, network, CPU, disk, etc. My answers would depend on what you are trying to measure.

---



09:29:03 PDT

**Question:** Is there a recommended order for installing the various SC parts?

**Answer:** Start with VMM first. Then App Controller, Ops Manager, DPM, Orchestrator, Service Manager

---

09:29:06 PDT

**Question:** In theory could you use the vCenter Converter to P2V and then the MS Virtual Machine Converter to get this into Hyper-V?

**Answer:** Yes in theory that would work.

---

09:29:09 PDT

**Question:** I don't think there is use of System Center 2012 for small enterprises....

**Answer:** there is. you do not have to use all components.

---

09:29:16 PDT

**Question:** Do I need a System Center Datacenter license per node, like windows server, or just one license for my entire datacenter?

**Answer:** Yes, you can use the CIS (Core Infrastructure SKU) that is a mixed WS2012R2+SC2012R2 with 5% discount.

---

09:29:43 PDT

**Question:** as exam 74-409 is an MVC, how does that compare in "value", along side individual MCP exams?

**Answer:** 70-409 is an MCP exam, and the first in the MCSE track.

---

09:29:44 PDT

**Question:** Can VMM manage stand-alone unlicensed Esxi hosts that are not connected to vCenter?

**Answer:** vSphere hosts must be connected to a vCenter server, as that's the only published management API that VMware supports for 3rd party management tools.

---

09:30:22 PDT

**Question:** Can I install SM portal on Sharepoint 2013 ?

**Answer:** No

---

09:30:24 PDT

**Question:** @keith - if you use multiple management clusters and multiple VMM servers based on physical locations, so one VMM server in one datacenter and another VMM server in a datacenter 20+miles away with a slower link between them, when you begin to group your hosts in VMM, does App Controller just work? Or do you need to write scripts to pull data from the different VMM servers to bring them together?

**Answer:** App Controller can directly connect to multiple VMM servers without scripting.

---

09:30:26 PDT

**Question:** How to decide over-allocation of memory???

**Answer:** you can't over allocate memory in Hyper-V what you can do is dynamically provision what you have

---

09:30:27 PDT

**Question:** How to decide over-allocation of memory???

**Answer:** you can't over allocate memory in Hyper-V what you can do is dynamically provision what you have

---

09:31:02 PDT

**Question:** Are the R2 System Center products backward compatible with, for example, Hyper-V 2008 R2 and Hyper-V 2012?

**Answer:** Yes they are... And VMM2012R2 is a nice ramp up to migrate your hosts to Server2012R2

---

09:31:08 PDT

**Question:** Is it possible to manage NIC Timing for Hyper-V via System Center ?

**Answer:** Yes, VMM port profiles gives you that option. Please see this:

<http://blogs.technet.com/b/scvmm/archive/2013/11/07/logical-switch-deployment-with-virtual-network-adapters-for-host-management-in-vmm-2012-sp1.aspx>

---



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09:31:31 PDT

**Question:** Would System Center really be necessary for a small environment with <10 servers (mostly file/print/AD)?

**Answer:** If you are primarily interested in virtualization, HA, Live VM Migration and DR, then the Windows Server management tools will be fine. If you're looking for more- Private Clouds, advanced template management, multi-hypervisor management, etc - then VMM would be required.

---

09:31:58 PDT

**Question:** Can i download Windows 2012 R2 Standard Edition either 60 or 180 days evaluation version from the Microsoft site

**Answer:** You can get evaluation versions from the Evaluation Center on TechNet <http://technet.microsoft.com/en-us/evalcenter/hh670538>

---

09:32:17 PDT

**Question:** does scvmm have web console?

**Answer:** No but you can use Windows Azure Pack for Windows Server. please see <http://www.microsoft.com/en-us/server-cloud/products/windows-azure-pack/default.aspx>

---

09:32:47 PDT

**Question:** VM couldn't boot from iSCSI Disk in Hyper-v 2012. Is this possible with Hyper-V 2012 R2?

**Answer:** Yes with Gen 2 VMs

---

09:32:49 PDT

**Question:** is it possible to get a pdf copy for these sessions

**Answer:** I don't know whether we can get Corey and Symon into a PDF 😊 You can find the slides of these sessions in the FAQ sections

---

09:33:05 PDT

**Question:** To be honest, I've heard of problems and lacking features when running VMM against a mixed environment of VMware and Hyper-V, so I'll definitely recommend to go for a pure Hyper-V environment if possible. (Or a pure VMware if you have a fair contract.)

**Answer:** Multi hypervisor management has been greatly improved in VMM 2012 and 2012 R2, but vSphere host-level configuration and provisioning would still be performed via vCenter. Once the environment is setup, VMM provides a strong solution for cross-platform VM and cloud fabric management.

---

09:33:06 PDT

**Question:** Will these labs be available after the Technet subscription is suspended next year ?

**Answer:** Labs are not going away on TechNet. They are separate from subscriptions.

---

09:33:13 PDT

**Question:** 74-409 is compare to a VCP5-DCV right?

**Answer:** Angel, correct. Except we do not require that you take a course to take the exam. The course we offer, but do not require is ourse 20409A: Server Virtualization with Windows Server Hyper-V and System Center

---

09:33:42 PDT

**Question:** iSCSI vs. SMB -- it's nice not to have to configure iSCSI on the HV hosts!

**Answer:** Agree! I would go SMB3 any day of the week!

---

09:34:10 PDT

**Question:** Do you have a link for the 2012 Microsoft Specialist Virtualization cert information?

**Answer:** <http://www.microsoft.com/learning/en-us/mcse-certification.aspx> looking for this?

---

09:34:12 PDT

**Question:** Yes i Know i can assign manually but can it be out of Hyper V range ?I know hyper V has specific MAC range ...I want to use same MAC as it has on physical box..CAN I do this?

**Answer:** Yes.

---



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09:34:13 PDT

**Question:** You mention that for anything less than 100 VM's you recommend Server Manager instead of System Center. Now if you have multiple SMB customers [each with their own environments], would you still recommend the use of Server Manager or would this be something for System Center?

**Answer:** You could use SC2012R2 for that if they let you put the agents for System Center on those servers and configure gateways so you can see those servers from your offices. All of SC2012 uses run as accounts to connect to things and manage them so you would have sets of those accounts with the right permissions to connect

---

09:34:36 PDT

**Question:** if you want to use all the features of system center - is it recommended to install it on the same server and can it be a VM?

**Answer:** Each System Center component would typically be installed in their own VM.

---

09:34:50 PDT

**Question:** most of system center software like scom, sccm, etc requires sql server. does the sql server license part of system center suite?

**Answer:** Yes it does!

---

09:34:56 PDT

**Question:** how about DR like SRM in Vmware ?

**Answer:** Synchronous replication isn't possible with Hyper-V at this time. We've done some amazing work with Hyper-V replica and it's "near synchronous", even when using it between multiple datacenters

---

09:35:41 PDT

**Question:** 70-409 does not exist.....

**Answer:** RLast, it can be found here: <http://www.microsoft.com/learning/en-us/exam.aspx?ID=74-409>

---

09:35:57 PDT

**Question:** 100 VMs would be a pain without VMM, I have ~40 and use VMM. And it is great, especially R2

**Answer:** Awesome! Glad you like it!

---

09:36:19 PDT

**Question:** If we have to purchase and use vCenter, using VMM seems a little redundant. Why not just use vCenter?

**Answer:** VMM provides a consistent UI for managing a Private Cloud and managing VM/Application Workloads/Templates across multiple hypervisors, so that you don't have to use separate tools to manage workloads running on separate hypervisors.

---

09:37:08 PDT

**Question:** can SM communicate with Azure AD?

**Answer:** It can be tied into Windows Azure Active Directory by leveraging ADFS to federate on-premises AD with Windows Azure AD.

---

09:37:18 PDT

**Question:** Is there ways/info to integrate Service Manger into other ticket systems such as ServiceNow

**Answer:** Yes with Orchestrator and third party Integration packs

---

09:37:46 PDT

**Question:** This is very good, is not necessary to do a presencial course to get the exam

**Answer:** Alex, correct. Your voucher or \$150.00 and you can take the exam. We do have a course if you want to work with the labs you see being demoed, at <http://www.microsoft.com/learning/en-us/course.aspx?ID=20409A&Locale=en-us>

---

09:37:46 PDT

**Question:** it's possible to install Windows Server 2012 with Hyper-V in a VM on esxi platform?

**Answer:** vSphere 5.1 update 1 and later supports Windows Server 2012

---



09:38:34 PDT

**Question:** Hello! Can i install all components of System Center into one server, jr i must separate them?

**Answer:** You need to separate them specifically Service Manager, Service Manager data warehouse and operations manager MUST be on different servers/VMs

---

09:38:46 PDT

**Question:** Is there any toolkit for upgrading system center configuration manager 2012 to system center 2012 R2?

**Answer:** Hi Jack Yan, at this time there's no central way of upgrading the entire suite. Since no company uses the entire suite in the same way that could lead to major risks. Updating the suite product by product is the way to go...

---

09:39:45 PDT

**Question:** Q, Hyper-V Manager running on Windows 8.1, is W8.1 req'd to be Pro? As I don't see it on "plain W8.1 as an option to install in cntl panel win options.

**Answer:** Yes Pro is required

---

09:40:01 PDT

**Question:** Will the exam for 70-409 require details on Orchestrator or is this bit just informational?

**Answer:** You can find the skills being measured here: <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409>

---

09:40:18 PDT

**Question:** Is there a mechanism that allow to share locals host's disks so that cluster can be deployed and HA, etc.I be deployed thru the physical network?

**Answer:** Shared VHDX is new for Hyper-V in windows Server 2012R2 <http://technet.microsoft.com/en-us/library/dn265980.aspx>

---

09:40:45 PDT

**Question:** What is the recommended scenario to upgrade my current 2008 R2 Hyper-V Hosts to 2012 R2?

**Answer:** This depends, are you happy with the current setup of the environment? I personally like to build fresh hypervisors and migrate workloads over to the newer system. This is much easier once on 2012 as Live migration to 2012r2 is supported, and a promise from Microsoft that all future releases of server will allow Live Migrations. As for 2008R2 you can upgrade in place, I like migrating the workload, you can see the how-to guide here: <http://www.virtuallycloud9.com/index.php/2013/02/migrating-hyper-v-virtual-machines-from-server-2008r2-to-server-2012-part-10-of-the-migration-and-deployment-series/>

---

09:41:06 PDT

**Question:** Is there a course like this for Orchestrator?

**Answer:** james, Yessee <http://www.microsoft.com/learning/en-us/course.aspx?ID=55007A&Locale=en-us> , it is being updated to R2

---

09:41:19 PDT

**Question:** What is the best route to upgrade my 2012 VMM to R2?

**Answer:** You must uninstall VMM, retain the database, Install VMM 2012 R2 and point to the database. Then the setup will perform the update.

---

09:41:26 PDT

**Question:** Do we have any SC Orchestrator big tutorial for reading and how it works? i'm trying for days with System Center Suite and Orchestrator

**Answer:** Orchestrator is easy to setup and integrate, what exactly is the problem so ping me (afryer@microsoft.com)

---

09:41:35 PDT

**Question:** is orchestrator a stand alone or part of system center?

**Answer:** Orchestrator is part of the System Center

---

09:42:10 PDT

**Question:** is it okay to install VMM on a WSUS and WDS server?

**Answer:** Ok for a lab deployment, or very small sized deployment. I like to spread the roles on different servers.

---



---

09:42:32 PDT

**Question:** is orchestrator a stand alone or part of system center?

**Answer:** It is a component of the System Center suite.

---

09:42:40 PDT

**Question:** Should Azure pack be installed on the Hyper V host server or a dedicated VM?

**Answer:** Dedicated VM(s). You would probably like multiple VMs for a scale-out deployment for production.

---

09:43:10 PDT

**Question:** Does system center run on and work for Server 2008R2 as well or is it only really for Server 2012?

**Answer:** You can manage hyper-v 2008 R2 from vmm 2012 r2 <http://technet.microsoft.com/en-us/magazine/hh300651.aspx>

---

09:43:16 PDT

**Question:** Does SMB 3.0 have IOPS limitation? (like iSCSI does)

**Answer:** No it does not

---

09:43:30 PDT

**Question:** Can Orchestrator be used by support providers to automate tasks across multiple domains/client networks?

**Answer:** Sure. When you configure configurations in Orchestrator you specify the credentials of the service you are connecting too

---

09:43:42 PDT

**Question:** Thanks. Bert. I will look into upgrading my system center 2012 product by product.

**Answer:** You're welcome! And remember to have fun in the proces! 😊

---

09:43:56 PDT

**Question:** i have Sql server 2008 installed in my pc? can I install Sql server 2012 side by side in same OS?

**Answer:** Yes you would just install that in a new INSTANCE

---

09:44:06 PDT

**Question:** Is the SQL license included with System Center for 1 installation that all components must share or can you break out separate DBs for VMM, SCOM, etc...?

**Answer:** You can break out the DBs if you want

---

09:44:10 PDT

**Question:** where I can read how to build test lab with Azure to host own VM's?

**Answer:** I just so happen to have just released a step by step guide on this on my blog. <http://www.virtuallycloud9.com/index.php/2013/11/live-technet-radio-the-microsoft-cloud-bonus-intro-cloudy-thoughts-uploading-virtual-machines-to-windows-azure/>

---

09:44:14 PDT

**Question:** Do we have an option to choose a VLAN for VMs getting created through a template ?

**Answer:** In VMM, you should be able to do that, if your environment is configured properly.

---

09:44:18 PDT

**Question:** Can you please share the link for slides for this Jump Start?

**Answer:** Check the FAQ tab

---

09:44:47 PDT

**Question:** Should I expect any questions about the Windows Azure Pack in the exam?

**Answer:** No, not on 409

---



09:44:53 PDT

**Question:** since SysCenter comes with SQL server license included, i assume that centralizing all the data on one SQLServer central solution is not recommended, right?

**Answer:** Not recommended indeed... You really don't want to create a single point of misery/failure for your datacenter management

---

09:44:57 PDT

**Question:** Can the System Centre be a Virtual Machine?

**Answer:** Yes - all components are supported as virtual machines.

---

09:45:15 PDT

**Question:** Has the whole "1,000 hosts and 25,000" VM's scenario been verified and proven? That's pretty cool!

**Answer:** Yes, it was tested by the product team and is supported.

---

09:45:21 PDT

**Question:** Can we get the individual products or all-or -nothing?

**Answer:** The purchase is all or nothing, the downloads are individualized.

---

09:45:40 PDT

**Question:** Is SQL standard free?

**Answer:** No, but the license comes with SC for each component of SC.

---

09:45:42 PDT

**Question:** App center versus Azure pack?

**Answer:** Different focus App Controller looks at Azure and VMM, Windows Azure Pack (WAP) is only based on what you have in your data centre and makes that LOOK like Azure

---

09:46:35 PDT

**Question:** can you have more than one System Center to monitor Hyper-V host?

**Answer:** One Hyper-V host can be managed by only one System Center Virtual Machine Manager (SCVMM). However, the same host can be monitored by System Center Operations Manager. They are different component of the System Center.

---

09:46:50 PDT

**Question:** how many host hyper-v 2012 support ?

**Answer:** UNLIMITED guests - only limited by hardware.

---

09:47:09 PDT

**Question:** is the mgmt. server the equiv of VMware v-center server?

**Answer:** yes and no. VMM is quite a bit more robust than VC itself. Hyper-V Manager or Cluster Manager are more equivalent to VC in my opinion. Short answer it is difficult to do apple to apples on this topic.

---

09:47:17 PDT

**Question:** Can you confirm - is it a good idea to have VMM installed in the same cluster as the VM's it's managing?

**Answer:** As Guest VM - yes. As role on the Hyper-v cluster - no

---

09:47:25 PDT

**Question:** If you want to make your DB redundant, you still need an additional license?

**Answer:** Correct. More information can be found here <http://technet.microsoft.com/en-us/library/gg610574.aspx>

---

09:47:42 PDT

**Question:** Is there recommended upgrade path to upgrade from SC2012 to R2, like it was in previous version (SM-->DMP-->...)?

**Answer:** Here are the instructions: <http://technet.microsoft.com/en-us/library/dn469607.aspx>

---





09:47:55 PDT

**Question:** Can all the system center components be VM's?

**Answer:** Yes

---

09:48:16 PDT

**Question:** Can all the system center components be VM's?

**Answer:** Yes they can all be virtualized...

---

09:48:22 PDT

**Question:** Did Tommy just say that scale out file server is designed for VM's, and you should use a normal clustered file server for normal file share services?

**Answer:** Symon did, not me 😊 But yes he just answered that in the broadcast.

---

09:49:07 PDT

**Question:** Does VMM have the same recommendations as vCenter, meaning us SQL Express for a limited number of hosts and move to a SQL 2010 or Oracle for a larger number of hosts?

**Answer:** here are the requirements: <http://technet.microsoft.com/en-us/library/gg610663.aspx>

---

09:49:23 PDT

**Question:** What if server is the domain controller. Can i install on it DPM for example, or its better install on virtual machine?

**Answer:** Don't mix the DC role with anything SC related. Recommended to put that in an isolated VM.

---

09:49:30 PDT

**Question:** What is the best practice for deploying VMM on a single server? Can you deploy it as a VM in a cluster that is being managed by VMM? Or should it be in a separate cluster dedicated to VMM?

**Answer:** All depends on the amount of availability you seek. It can be installed in VMs in the cluster that it manages. You get into the same conversation as installing VC in a VM on ESX really. If the host goes down, do you want all of your tools down?

---

09:49:35 PDT

**Question:** Where do I start? Migrating 120 vm's from vsphere/VC

**Answer:** Let's start by connecting your VMM server to the vCenter server

---

09:49:47 PDT

**Question:** Do you need different servers for the different system center roles? Or can it run it all on one server?

**Answer:** needs multiple. resource contention and issues with multiple instances of SQL on a single box.

---

09:49:49 PDT

**Question:** Migrate running VM host+storage and the same time, What does technical call?

**Answer:** Shared Nothing Live Migration

---

09:49:49 PDT

**Question:** May i create replication between hyper -V 2012 and 2012 R2?

**Answer:** No. It must match the version of the hypervisor. Different feature set in 2012 compared to 2012 R2.

---

09:49:54 PDT

**Question:** Does the # of hosts apply to managing VMWare hosts as well?

**Answer:** Yes, the total is 1000 hosts for Hyper-V, ESX, and XenServer.

---

09:50:02 PDT

**Question:** where can I get the slides of today

**Answer:** Check the FAQ tab

---



09:50:08 PDT

**Question:** Scale-out File Server (SoFS) can only host certain workloads, like SQL databases and VHDX files, correct?

**Answer:** that is what it is optimized for. Regular clustered file server is better for office files.

---

09:50:12 PDT

**Question:** vmm required standalone based or required cluster ?

**Answer:** Can be either.

---

09:50:20 PDT

**Question:** Is it possible to cluster the SCVMM after a stand alone installation for HA?

**Answer:** Yes - as long as the VMM account is running on domain cred and that you have configured DKM during the setup.

---

09:50:29 PDT

**Question:** Is there any support to view this event on android devices such as galaxy note

**Answer:** you need Silverlight to view the video player.

---

09:50:52 PDT

**Question:** Question about shared VHDXs. It seems like yesterday it was mentioned that within the VM they should only be used as a SOFS. If you attached a shared VHDX and set it as a CSV (say, for a shared config IIS setup), is that bad? Should a shared VHDX never be used as a CSV within the guests?

**Answer:** It can be CSV, it can be regular cluster disk. No limitations on that.

---

09:50:55 PDT

**Question:** Question about shared VHDXs. It seems like yesterday it was mentioned that within the VM they should only be used as a SOFS. If you attached a shared VHDX and set it as a CSV (say, for a shared config IIS setup), is that bad? Should a shared VHDX never be used as a CSV within the guests?

**Answer:** A shared VHDx can be used as a CSV in the guests. that is not a problem.

---

09:51:02 PDT

**Question:** May i create replication between hyper -V 2012 and 2012 R2?

**Answer:** yup

---

09:51:11 PDT

**Question:** I have, its not there

**Answer:** [http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf)

---

09:51:29 PDT

**Question:** I did, but day 2 is missing!!!

**Answer:** I see it here: [http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf)

---

09:51:33 PDT

**Question:** Can you have multiple admins logged into VMM and managing it at once?

**Answer:** YEs

---

09:51:55 PDT

**Question:** what are the sql requirements (DB-Size, own Instance,...) for small Environments (<10hosts,<100VMs) ?  
thx

**Answer:** <http://technet.microsoft.com/en-us/library/gg610574.aspx>

---

09:52:12 PDT

**Question:** what are the sql requirements (DB-Size, own Instance,...) for small Environments (<10hosts,<100VMs) ?  
thx



**Answer:** You can find good SQL documentation for VMM here: <http://technet.microsoft.com/en-us/library/gg610574.aspx>

---

09:52:28 PDT

**Question:** Can we get the VMM with the SC standard version?

**Answer:** Yes. You get every component no matter what license you have (std/datacenter)

---

09:52:45 PDT

**Question:** Can we get the VMM with the SC standard version?

**Answer:** VMM is part of any System Center license... Standard and Datacenter!

---

09:53:22 PDT

**Question:** is there a limit on how many vm can vmm mgmt servers manage?

**Answer:** Yes, 25000

---

09:53:43 PDT

**Question:** System Center is just so huge...I can see how this alone can be someones job.

**Answer:** It is a lot even for one person 😊

---

09:54:15 PDT

**Question:** How many VMs we can create in a single Hyper-V? is there any limit or it depends on the Hardware resources?

**Answer:** Depends on the hw resources

---

09:54:25 PDT

**Question:** To manage an environment would you do some in SCCM and some in SCVMM - I presume they are different management consoles that do different tasks?

**Answer:** Yes depending on the actions required, you would do some work in both.

---

09:54:45 PDT

**Question:** To manage an environment would you do some in SCCM and some in SCVMM - I presume they are different management consoles that do different tasks?

**Answer:** Rule of thumb: use VMM for your virtualization hosts, and SCCM on everything else.

---

09:55:02 PDT

**Question:** Is the APP Controller a total replacement for VMM self service portal ?

**Answer:** Yes.

---

09:55:05 PDT

**Question:** Is the APP Controller a total replacement for VMM self service portal ?

**Answer:** Yes, VMM self service portal was replaced with App Controller starting with VMM 2012. However, now you can also use Windows Azure Pack as the portal for users

---

09:55:30 PDT

**Question:** can we manage both types 1& 2 VMs with System Center??

**Answer:** Yes - VMM will handle both Gen1 and Gen2 VMs.

---

09:55:32 PDT

**Question:** can we manage both types 1& 2 VMs with System Center??

**Answer:** Yes, VMM 2012 R2 fully supports get 1 VMs and extensive support for gen 2 VMs

---

09:55:56 PDT

**Question:** Did I miss VMM? Had a fire drill.

**Answer:** Still in progress

---

09:56:32 PDT

**Question:** How many VMs we can create in a single Hyper-V? is there any limit or it depends on the Hardware resources?

**Answer:** Totally depends on the hardware... There is a support limit by the way of 1024 vm's per host  
<http://technet.microsoft.com/en-us/library/jj680093.aspx>

---

09:57:14 PDT

**Question:** Please post the link for orchestrator

**Answer:** <http://aka.ms/sc2012r2tplt> once you kick off the download just select which component you would like downloaded

---

09:57:24 PDT

**Question:** Host still needs to have Hyper-v to add to VMM...right?

**Answer:** No, the adding of the host will install Hyper-V if needed

---

09:57:26 PDT

**Question:** Host still needs to have Hyper-v to add to VMM...right?

**Answer:** VMM will enable it, if it doesn't have the role enabled. VMM can also managed VMware ESX and XenServer hosts

---

09:58:23 PDT

**Question:** can we set the vm to join domain automatically after deploy from SCVMM?

**Answer:** Yes, you can specify this in your Guest OS Profile and provide credentials so VM will be joined to domain during provisioning

---

09:58:30 PDT

**Question:** Is there a good link to go to, so I can compare SC Datacenter to Standard?

**Answer:** Hi Rusty, the only thing to compare is the license... Functionality is equal for both licensing packages...

---

09:58:44 PDT

**Question:** Can a Gen 2 vm be provisioned on a host which has legacy bios ?

**Answer:** Yes

---

09:58:48 PDT

**Question:** you can install any of the SC components on server 2008r2

**Answer:** Check this link: <http://technet.microsoft.com/en-us/library/dn281935.aspx>

---

09:58:53 PDT

**Question:** Still not in the FAQ, Tommy. Will refresh in the next break. And if not there, will let you know.

**Answer:** Team has been notified, thanks

---

10:00:01 PDT

**Question:** Where is the download link on the Powershell Deployment toolkit? Its not on the link

**Answer:** <http://gallery.technet.microsoft.com/PowerShell-Deployment-f20bb605>

---

10:01:05 PDT

**Question:** Do you need to install the VMM agent on every VM of your infrastructure to be able to get data to VMM?

**Answer:** the VMs would need integration components, provided by Hyper-V and implemented by VMM.

---

10:01:17 PDT

**Question:** is there a web interface for VMM?

**Answer:** No, there's no web interface bundled with VMM, but you could use App Controller for that scenario...

---

10:01:17 PDT

**Question:** do you have maximum configuration for hyperV and scvmm similar to VMware?

**Answer:** Each management server can manage 1000 hosts, and up to 25,000 virtual machines.

---



10:01:29 PDT

**Question:** how to add a esx host in vmm?

**Answer:** You have to add vCenter server first to VMM because VMM uses vCenter to manage ESX hosts.

---

10:01:44 PDT

**Question:** best tool to migrate sphere vm to hyper-v?

**Answer:** Personally, Double Take Move is a good product to migrate from VMware to Hyper-V. But you can also use VMM with its V2V conversion option.

---

10:01:59 PDT

**Question:** do we have a link for the powershell deployment toolkit?

**Answer:** <http://gallery.technet.microsoft.com/PowerShell-Deployment-822d44c7>

---

10:02:07 PDT

**Question:** Can a cluster be created in VMM?

**Answer:** Yes, you can create clusters from VMM.

---

10:02:30 PDT

**Question:** Wondering when you deploy image to bare metal host what other structure is needed as Symon never showed where he pulled the image from.

**Answer:** The image is based on a sysprep'd VHDx stored in the VMM library. VMM will download this file to the host and configure the OS.

---

10:02:38 PDT

**Question:** app controller vs Azure Pack similar technologies or related but used for different purposes?

**Answer:** Different in purpose. Azure Pack overlays the SC components to make your cloud appear and act like Windows Azure.

---

10:03:02 PDT

**Question:** I apologize if this was covered already, but are there additional resources available to study for this exam?

**Answer:** Take a look at these resources: <https://msandbu.wordpress.com/2013/11/19/study-resources-74-409-server-virtualization-with-windows-server-hyper-v-and-system-center/>

---

10:03:12 PDT

**Question:** VMAgent only goes on hosts?

**Answer:** Yes

---

10:03:58 PDT

**Question:** does the pdt work with a 2008 environment for deploying system centre

**Answer:** It works on Server 2008 R2, but is meant for SC2012SP1/R2

---

10:04:02 PDT

**Question:** do the vcenter has to be domain joined to add it to vmm?

**Answer:** Not 100% sure, but I don't think that is a requirement: <http://technet.microsoft.com/en-US/library/gg610681.aspx>

---

10:04:36 PDT

**Question:** Any chances for full Esxi management without Vcenter?

**Answer:** This is not available in VMM. It requires vCenter for ESX management.

---

10:04:44 PDT

**Question:** for those with poor audio - have found that if i'm not actually on the IE tab for the presentation the audio is awful - if I stay on the tab then is okay - hope this helps

**Answer:** Good to know thanks!

---



10:05:03 PDT

**Question:** can System Center be installed on top of the hyper-V(2012 R2 server)?

**Answer:** Inside a VM yes.

---

10:05:10 PDT

**Question:** Do you have a link for best upgrade process to go from a 2008r2 cluster to 2012r2 cluster? Thanks.

**Answer:** there really is not any links other than using Cluster Migration. But it all depends on how you are going to be doing it. Are you using the same machines or new machines. If new machines, it is just a matter of installing and using the Cluster Migration Wizard (accessed from Failover Cluster Manager) and migrating resources over. If you are using the same machines, the process is basically to evict one of the nodes and rebuild it with 2012R2 as a Cluster. Migrate some or all of the resources over. Rebuild the remaining node with 2012 and join it to the Cluster. Brings resources online.

---

10:05:36 PDT

**Question:** do i require a separate licence for system center

**Answer:** Yes SC is licensed separately from Server

---

10:05:48 PDT

**Question:** How to cluster SCVMM? Is there any doc available?

**Answer:** <https://blogs.technet.com/b/scvmm/archive/2011/03/28/scvmm-2012-creating-a-highly-available-vm-server.aspx?Redirected=true>

---

10:05:50 PDT

**Question:** Is there a link on a how-to install the Azure pack so my cloud looks like Azure?

**Answer:** <http://technet.microsoft.com/en-us/library/dn296435.aspx>

---

10:06:35 PDT

**Question:** If you add a VMWare host, does it install any software onto the VMware host or does it just use the relevant APIs for management

**Answer:** VMM uses vCenter APIs to manage the ESX hosts, so no software is installed on the host.

---

10:06:56 PDT

**Question:** how do you work out the requirements (Network/CPU/Memory) for a server hosting SMB that is to be used for VM storage? Or can you give any examples that will help?

**Answer:** this really depends on the workloads of the VMs themselves, the hardware(for instance are RDMA capable cards in use in the environment), etc.

---

10:07:05 PDT

**Question:** MPIO vs NIC teaming, would MPIO still be the best practice for connection?

**Answer:** Yes, NIC Teaming and MPIO are not the same thing, you could TEAM MPIO interfaces

---

10:07:14 PDT

**Question:** If the Hyper-V host locks up or blue screens, do the guest VMs continue to run?

**Answer:** They restart on another host if your hyper-v host is in cluster

---

10:07:34 PDT

**Question:** can we do bare metal deployment without pxe server ? As you said host OS VHD is stored in library and using BMC can we just install Host OS ?

**Answer:** No, it is a requirement.

---

10:08:00 PDT

**Question:** On the DNS and ad requirements for SMB , with multipath , does each subnet need them?

**Answer:** You can segregate the SMB traffic to a specific subnet, if that is what you are asking. Without a diagram this is tough to answer in chat I'm afraid.

---



10:08:20 PDT

**Question:** How much history is kept for Jobs?

**Answer:** 90 Days by default. It can be changed for less or more.

---

10:08:46 PDT

**Question:** You may even migrate VMs to non-clustered Hyper-V hosts for the time of cluster OS upgrade/reinstallation (loosing resiliency during upgrade).

**Answer:** Correct. That is an option that some have used

---

10:10:17 PDT

**Question:** I highly recommend the Powershell Jump Start with Jeffrey Snover @jsnover and Jason Helmick @theJasonHelmick over at MVA

**Answer:** Agreed, Jeffrey is the man!

---

10:10:39 PDT

**Question:** is there a break going on ???

**Answer:** Right now there is. For 10 minutes.

---

10:11:03 PDT

**Question:** is there a break going on ???

**Answer:** Not with the Q&A team 😊 ... The presenters however are freshening up....

---

10:11:45 PDT

**Question:** will this course be available after for review on MVA?

**Answer:** Yes we'll have the recording posted on MVA November 27

---

10:14:54 PDT

**Question:** I am trying to download Hyper-V Server 2012 R2 but getting access denied on the link, anything wrong with the link?

**Answer:** I just checked this worked for me [http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft\\_Press\\_ebook\\_Introducing\\_Windows\\_Server\\_2012\\_R2\\_PDF.pdf](http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft_Press_ebook_Introducing_Windows_Server_2012_R2_PDF.pdf)

---

10:14:54 PDT

**Question:** On a test environment, if VMM is running on a VM, can I add the same VMM Server as a Host Server????

**Answer:** Yes, this is what I'm doing in my demo

---

10:15:23 PDT

**Question:** Can you skip MPIO by using nic team on host ?

**Answer:** Yes, though both are better

---

10:15:35 PDT

**Question:** Is SYSTEM Center comprise of 7 different packages?, or is there one downloadable single package?

**Answer:** One download for each component

---

10:15:42 PDT

**Question:** is that possible to manage gen - 2 vm in vmm

**Answer:** Yes.

---

10:15:46 PDT

**Question:** Thanks for the links phelse I am a big big fan of Mitch Tullochs books @mitchtulloch

**Answer:** Ricky, me too. he is great

---

10:16:36 PDT

**Question:** where i can find official study guide for exam

**Answer:** You can find more information here: <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409>

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10:16:45 PDT

**Question:** do you see any main difference between dpm and replicas , cause i work with dpm and is great can i do the something with replicas ?

**Answer:** DPM is a backup of the machines. If the original machine needs to be restored, you must restore it. It is also at that point in time that you have. With Hyper-V Replica, if the original/primary goes down, you can bring up the replica quickly and will be behind no later than 5 minutes (or whatever your setting is).

---

10:16:49 PDT

**Question:** How can I re use that script to create that HV host if there is unique ID ?

**Answer:** You don't include the -ID parameter and it will generate a new one. Stay tuned for the Demo after lunch.

---

10:17:38 PDT

**Question:** DPM is using block level or file level?

**Answer:** Block level

---

10:17:46 PDT

**Question:** Can you get an evaluation of system center?

**Answer:** Here's the link to the download: <http://technet.microsoft.com/tr-tr/evalcenter/dn205295>

---

10:18:32 PDT

**Question:** Can you recommend a book or ebook for SCCM?

**Answer:** Ytal, I have not read this but I have heard good things about "Mastering Hyper-V 2012 R2 with System Center and Azure ", [http://www.amazon.com/Mastering-Hyper-V-System-Center-Azure/dp/1118828186/ref=sr\\_1\\_4?s=books&ie=UTF8&qid=1384971350&sr=1-4&keywords=system+center+2012+r2](http://www.amazon.com/Mastering-Hyper-V-System-Center-Azure/dp/1118828186/ref=sr_1_4?s=books&ie=UTF8&qid=1384971350&sr=1-4&keywords=system+center+2012+r2)

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10:20:14 PDT

**Question:** Can you install multiple SC components on one server? And witch component beinstalls on the same server?

**Answer:** Some of the System Center 2012 SP1 components will not function properly if other components have been installed on the same computer. None of the following four components can exist on the same computer with each other:• DPM Management Server• Operations Manager Management Server• Service Manager Management Sever• Service Manager Data Warehouse Management Server Any of the remaining System Center 2012 components, App Controller, Orchestrator, and VMM can coexist with each other and with the four components in the previous list. As such, four computers is the minimum number of computers you will need to deploy all of the System Center 2012 SP1 components. Please see: <http://technet.microsoft.com/en-us/library/jj851033.aspx>

---

10:20:15 PDT

**Question:** We have running a three host failover cluster with hyper-v. Is there an easy option to monitoring these hyper-v host? We want to check the cpu and the memory load from one console like in vmware vcenter.

**Answer:** For monitoring basics Windows Server provides the resource monitor. If you want more (trends, deep analysis and server role health) Operations Manager is the way to go....

---

10:21:19 PDT

**Question:** Can anyone please share the link to download free ebook:

"Microsoft\_Press\_ebook\_Introducing\_System\_Center\_2012\_R2\_Technical\_Overview ?

**Answer:** Sumit at [http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft\\_Press\\_ebook\\_Introducing\\_Windows\\_Server\\_2012\\_R2\\_PDF.pdf](http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft_Press_ebook_Introducing_Windows_Server_2012_R2_PDF.pdf)

---

10:21:25 PDT

**Question:** do you have best reference to migrate hyper v cluster to another domain? (e.g. abc.com >> xyz.com) Do i need downtime for my vms?

**Answer:** You cannot move a Cluster from one domain to another. Clustering is integrated with Active Directory with a lot of what it does. If you wish to move it to a new domain, you must create the Clsuter in the new domain. What you can do is evict one of the nodes and put it in the new domain as a new Clsuter. Use Cluster Migration to migrate the resources. Then put the old machine in the new domain and join it to the new cluster

---





10:21:42 PDT

**Question:** Can someone tell me when to use VMM vs just the Hyper-V mmc?

**Answer:** Hi Bill, when VMM's present in an environment, I'd use VMM at all times.

---

10:23:55 PDT

**Question:** which SQL version is best for small enterprise ?

**Answer:** SQL Standard (Runtime) that is included with System Center Suite licensing should be sufficient for a small enterprise

---

10:23:56 PDT

**Question:** Can anyone please share the link to download free ebook:

"Microsoft\_Press\_ebook\_Introducing\_System\_Center\_2012\_R2\_Technical\_Overview ?

**Answer:** Sumit , I have not seen this one.

---

10:24:22 PDT

**Question:** What books can i read for learn Windows Server 2012 Hyper-V and SC 2012 more deeply?

**Answer:** Not sure how deep you want, but there is a new Server 2012 ebook that talks about Hyper-V (i.e. free) as a download [http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft\\_Press\\_ebook\\_Introducing\\_Windows\\_Server\\_2012\\_R2\\_PDF.pdf](http://download.microsoft.com/download/4/8/A/48A3ADA5-063D-4C7F-AA11-F9A3AE8C8B55/Microsoft_Press_ebook_Introducing_Windows_Server_2012_R2_PDF.pdf)

There are also some Hyper-V books that are available. Search the download site and you can find them. The Hyper-V specific are a couple of books that break it down some. These books might not go as deep as you want though

---

10:25:05 PDT

**Question:** G'day team, are will going to get a shout out when the presentation slides are ready to download?

**Answer:** Yes

---

10:25:51 PDT

**Question:** In fact, certain products MUST be upgraded before others.

**Answer:** Yes

---

10:26:18 PDT

**Question:** I guess the book is expected to release in december as per this URL:

<http://shop.oreilly.com/product/0790145395825.do>

**Answer:** Correct

---

10:26:29 PDT

**Question:** What is the depth of integration of HV with Cisco UCS vs VCenter?

**Answer:** Clsco releases their FlexPods with Hyper-V 2012 (R2) and here are their integrations with System Center 2012

Here is also the SCOM MP (v2.61)

<http://software.cisco.com/download/release.html?mdfid=283850978&flowid=25021&softwareid=283034298&release=2.6.1&reind=AVAILABLE&rellifecycle=&reltype=latest> Cisco UCS Manager Management Pack for Microsoft SCOM 2012 and 2012 SP1 (version 2.6.1) is posted to Cisco.com.

Cisco UCS Manager Management Pack, Release 2.6.1 includes the following new features:• Cisco UCS Management Service• Severity Mapping• Severity Remapping• Fault Filters• Auto-Resolution of Faults SCVMM Integration Kit (v1.02) for Cisco UCS.

<http://software.cisco.com/download/type.html?mdfid=283850978&flowid=25021>

Building on our integration with Microsoft System Center, we are pleased to announce the first release of Cisco UCSM Add-in for Microsoft System Center Virtual Machine Manager enabling administrators to manager both physical and virtual infrastructure on a single pane of glass.

Key Features of Cisco UCSM Add-in 1.0.1:• Mapping of the hypervisor host with UCS Manager managed server on which it is installed• UCS domain registration and grouping• Summary of both blades and rack servers in the UCS domain, including the firmware details. • Fault Summary• View of service profiles and service profile templates in the domain• Key actions on the servers and service profiles including o Associate and disassociate of service profiles. o Modify power state o Launch KVM console o Clone a service profile or service profile template. o Create service profile from template



System Center Configuration Manager Integration

Kit <https://communities.cisco.com/servlet/JiveServlet/download/36896-4-54847/Cisco+UCS+C-Series+Integration+Pack+0.9.1.msi.exe.zip>

Cisco has now released a new version of the Cisco UCS Integration Packs for SCORCH (v1.0). As part of this integration pack, you now have access to more UCS Activities from SCORCH.

<https://communities.cisco.com/docs/DOC-37155>

Cisco UCS Manager Integration Pack for Microsoft SCO 2012 and 2012 SP1 (version 1.0) is posted to Cisco.com. Cisco UCS Manager Integration Pack, version 1.0 supports the following activities. These activities can be used to automate the configuration, monitoring, and deployment of Cisco UCS resources in the data center by creating new runbooks or integrating it with existing runbooks.

- Connect-Ucs • Disconnect-Ucs • Get-UcsManagedObject • Set-UcsManagedObject • Add-UcsManagedObject • Remove-UcsManagedObject • Run-PowerTool • Copy-UcsServiceProfile • Add-UcsServiceProfileFromTemplate • Get-UcsTechSupport • Backup-Ucs • Import-UcsBackup • Get-UcsChild • Confirm-UcsFault

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10:26:52 PDT

**Question:** Is there somewhere that we can access copies of these runbooks?

**Answer:** If you are talking about the slide decks Day 1 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)) Day 2 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf))

---

10:27:03 PDT

**Question:** what is a PVLAN?

**Answer:** It's a Private Virtual Local Area Network, more information here:

<http://blogs.technet.com/b/scvmm/archive/2013/06/04/logical-networks-part-iv-pvlan-isolation.aspx>

---

10:27:23 PDT

**Question:** JamesTo - The slides are already available under the FAQ tab.

**Answer:** Correct

---

10:27:25 PDT

**Question:** Huh? Can't I just cluster my hosts and let the VM decided which host it's going to run on?

**Answer:** Yes, but that discussion was about much larger pictures, such as a datacenter with lots of clusters

---

10:27:33 PDT

**Question:** Would any of the SC2012 components interact in some way with Visio ... along the lines of what Corey is currently talking about in relation to diagramming (planning) prior to implementation?

**Answer:** Not currently

---

10:27:34 PDT

**Question:** Huh? Can't I just cluster my hosts and let the VM decided which host it's going to run on?

**Answer:** Yes, but that discussion was about much larger pictures, such as a datacenter with lots of clusters

---

10:29:51 PDT

**Question:** Any good resources (ebooks etc) for Service Manager and Orchestrator specifically (ie less or no focus on VMs)?

**Answer:** mickemus , this course. it is currently being updated to R2, System Center 2012 Orchestrator Course 55007A <http://www.microsoft.com/learning/en-us/course.aspx?ID=55007A&Locale=en-us>

---

10:29:59 PDT

**Question:** If you only have, say, 20 VMs, is SCVMM overkill? It was great when it was stand-alone, but does with all the other stuff that comes with the System Center suite make it overkill for a small/medium setup?

**Answer:** When you do have the license in-house because you use SCOM, or another product from the suite, I'd consider it from a single-management-pane point of view...



10:30:44 PDT

**Question:** I thought the VMs activate automatically in Hyper-V?

**Answer:** Windows Server 2012 R2 Datacenter can auto activate equal guests.

---

10:30:50 PDT

**Question:** Thank you, Can windows 8.1 Hyper V can create gen 2 VM's?

**Answer:** Yes

---

10:31:20 PDT

**Question:** Does DPM use data deplication now?

**Answer:** No

---

10:33:04 PDT

**Question:** is there any roadmap to migrate VMM to an pure web interface?

**Answer:** We cannot comment on futures on this webcast I'm afraid.

---

10:33:43 PDT

**Question:** Guys checkout this link for download many good posters for Hyper-V 2012 R2:

<http://www.microsoft.com/en-us/download/details.aspx?id=40732>

**Answer:** Sharing!

---

10:35:18 PDT

**Question:** Do you have any dump/help Q/A for this exam

**Answer:** No a dump would be illegal. However, MVP Marius Sandbu created a greated list of resources for preparing for this exam: <https://msandbu.wordpress.com/2013/11/19/study-resources-74-409-server-virtualization-with-windows-server-hyper-v-and-system-center/>

---

10:35:38 PDT

**Question:** Windows Server 2012 R2 Hyper-V Component Architecture Poster and Hyper-V Mini-Posters:

<http://www.microsoft.com/en-us/download/details.aspx?id=40732>

**Answer:** Thanks Shashank, sharing is caring!

---

10:36:06 PDT

**Question:** What is that -ID number

**Answer:** An internal job tracking number that you don't really need to worry about.

---

10:36:25 PDT

**Question:** What is SR -IOV?

**Answer:** Venkata (Single Root IO Virtualization. it was covered yesterday. check out [http://msdn.microsoft.com/en-us/library/windows/hardware/hh440148\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/hardware/hh440148(v=vs.85).aspx)

---

10:36:38 PDT

**Question:** i want link explain licencing and activation for VMs on new server 2012R2

**Answer:** Here you go, enjoy! <http://technet.microsoft.com/en-us/library/dn303421.aspx>

---

10:38:57 PDT

**Question:** hahaha - he'll get no beer

**Answer:** Damn skippy

---

10:39:19 PDT

**Question:** about DPM, it's possible working without domain ?

**Answer:** DPM requires domain account.

---

10:39:19 PDT

**Question:** when will Hyper-V offer fault tolerance?

**Answer:** We are not allowed to talk about futures on this webcast sorry

---



10:39:54 PDT

**Question:** Hi Guys Does DPM work with Office365 Sharepoint as well?

**Answer:** In office 365 case the files are not local so VSS would not be able to backup.

---

10:40:33 PDT

**Question:** Corey - If I copy that script can I drop that -ID?

**Answer:** Yep

---

10:40:43 PDT

**Question:** why would he choose one private and one public ip address range? No Beer!!!

**Answer:** Its a lab

---

10:40:50 PDT

**Question:** Are there any lab type ebook available for this so that we can practice the demos ourselves?

**Answer:** Have you checked out the Early Experts site? <http://aka.ms/earlyexpert>

---

10:43:52 PDT

**Question:** Day 2 slides ??

**Answer:** [http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf)

---

10:44:43 PDT

**Question:** Is the IP pool clever enough to put IPs back in the pool when your remove a VM?

**Answer:** Yes it is, how easy will that make your corporate-life?!

---

10:45:33 PDT

**Question:** Sorry if this is a stupid question, or if it has already been answered. Is it still considered a bad idea to run a domain controller as a VM?

**Answer:** No it is supported

---

10:46:58 PDT

**Question:** Sorry if this is a stupid question, or if it has already been answered. Is it still considered a bad idea to run a domain controller as a VM?

**Answer:** You can safely virtualize your dc's!

---

10:47:24 PDT

**Question:** just be very careful if you think you want to use checkpoints! (better still, don't use them for DCs)

**Answer:** My thoughts exactly.....

---

10:48:50 PDT

**Question:** Even to virtualize the Primary DC? Isn't it best practice to have a physical then a second DC as a VM wouldn't be a bad idea?

**Answer:** A physical DC still gives me "safe" feeling, but it isn't necessary anymore

---

10:49:19 PDT

**Question:** Symon set getway 10.0.0.1 on storage ip pool with is 20.0.0.0/24. I think it is wrong config. It is true?

**Answer:** Probably 😊 We're not perfect 😊

---

10:49:19 PDT

**Question:** Symon set getway 10.0.0.1 on storage ip pool with is 20.0.0.0/24. I think it is wrong config. It is true?

**Answer:** Probably 😊 We're not perfect 😊

---

10:49:29 PDT

**Question:** any best reference to migrate live hyper v cluster with scvmm to another domain? (e.g. abc.com >> xyz.com) Do i need downtime for my vms?

**Answer:** You cannot move a cluster from one domain to another. It would need to be re-created in the new domain

---



---

10:50:07 PDT

**Question:** for a single Host running 5 Hyepr-V VM's and a 2nd server for cold standby - is VMM overkill? I wish I could buy by itself but I have to buy System Center 2012.

**Answer:** Really depends on what you are trying to accomplish. You may find that the free tools can do the job, hard to say without knowing your service offering though.

---

10:50:08 PDT

**Question:** Can anyone please share the link for Microsoft\_Press\_ebook\_Introducing\_System\_Center\_2012\_R2\_PDF ?

**Answer:** The Introducing System Center 2012 R2 book is not yet released for anyone who asked that

---

10:50:38 PDT

**Question:** Hello Tommy, please, send the slides of the Day 1, thank you very much

**Answer:** We have asked to have them added to the FAQ

---

10:52:29 PDT

**Question:** How good it is to virtualize an exchange server?

**Answer:** Sumit, should be very good. check out: Virtualizing Exchange on Hyper-V

[http://blogs.msdn.com/b/virtual\\_pc\\_guy/archive/2013/10/07/virtualizing-exchange-on-hyper-v.aspx](http://blogs.msdn.com/b/virtual_pc_guy/archive/2013/10/07/virtualizing-exchange-on-hyper-v.aspx)

---

10:52:31 PDT

**Question:** What is Contoso?

**Answer:** Contoso also known as Contoso Ltd. is a fictional company used by Microsoft as an example company and domain.

---

10:53:15 PDT

**Question:** Anyone else brain feel a bit pickled after the last two days? lol Great Jump Start, but I can feel my brain bulging with the info!

**Answer:** Feel that way every day!

---

10:54:00 PDT

**Question:** i see this Contoso since day i study MCSE2000

**Answer:** Because it is legally owned domain by Microsoft. 😊

---

10:54:42 PDT

**Question:** excuse me again please! Can i access to my VMs published via SC2012 R2 VMM via different browsers? Is it enough to open just 443 port for this?

**Answer:** You would use RDP for VM access

---

10:54:52 PDT

**Question:** excuse me again please! Can i access to my VMs published via SC2012 R2 VMM via different browsers? Is it enough to open just 443 port for this?

**Answer:** You would use RDP for VM access

---

10:55:00 PDT

**Question:** Am I the only one who really doesn't like the word Contoso? lol

**Answer:** No

---

10:55:02 PDT

**Question:** Early Experts site? . what can some one do with that certificate?

**Answer:** It's really just an ataboy certificate, but it could also mean that you could help lead Early Experts community sessions on behalf of the program. Contact your local evangelist for more details!



10:55:04 PDT

**Question:** @John Marlin - But can u use a dedup volume as the bakup location of DPM?

**Answer:** You should be able to. But keep in mind what version Windows the Dedupe volume is. 2012 is more for non-live type data. If you were to do it, you should look at doing it to a 2012R2 dedupe volume as there were enhancements to Dedupe that provide better performance

---

10:55:23 PDT

**Question:** My brain has popped!

**Answer:** So has Symons, you should see the mess behind him

---

10:55:24 PDT

**Question:** Is the link to the slides for day1 and day2 the same?

**Answer:** No we are asking for Day 1 to be reposted.

---

10:55:33 PDT

**Question:** My brain has popped!

**Answer:** So has Symons, you should see the mess behind him

---

10:55:34 PDT

**Question:** Don't forget Fabrikam

**Answer:** Yeah!

---

10:55:36 PDT

**Question:** Do you have a good book/resource you would recommend for someone who is unable to attend a typical 5-days training on this ?

**Answer:** perhaps this will help: <http://aka.ms/gallery>

---

10:55:50 PDT

**Question:** Can i access to my VMs published via SC2012 R2 VMM via different browsers? Is it enough to open just 443 port for this?

**Answer:** Hi Eugene, there is no webportal to access your vm's with VMM 2012 R2. You can use the Appcontroller (seperate product within the System Center Suite) for that

---

10:55:58 PDT

**Question:** I hate it, its hard to say, and sounds like Costco.

**Answer:** lol

---

10:56:03 PDT

**Question:** talking about network virtualization, how does a machine in NET A communicate to another one in NET B but with its same IP address?

**Answer:** They don't 😊. To same IP's can live in the same logical network

---

10:56:27 PDT

**Question:** For live migrations is SMB 3.0 fully supported for all failover scenarios or are there instances where SAN's are required?

**Answer:** Fully supported.

---

10:58:49 PDT

**Question:** The System Center bit threw me. I don't want a whole MS infrastructure to support VMs.

**Answer:** If you go to a full virtualization solution be it VMware or Microsoft, you will have most or all of these components at some point in the future. Only use what you need though. Ive seen some VMware implementations with a lot more supporting products than System Center, and most of them did not know the other existed, so at least SC has that going for itself 😊

---



11:01:22 PDT

**Question:** How to update Microsoft patches to stored templates

**Answer:** VMM actually supports this

---

11:02:17 PDT

**Question:** DC's have been supported as VM's by Microsoft and VMware for years. There is no reason not to virtualize you DC's.

**Answer:** Correct. And with 2012, you can now Cluster those DC and not have to worry about the startup of Cluster and the CSV drives now

---

11:03:30 PDT

**Question:** Corey thanks alot! But that if i need to access to VMs without OS? As far as i know - special activex component responsible for this... Citrix and VMWare can do this.. and Experts from MSFT promised that functionality before W2K12@SC2012 launch...

**Answer:** then you must use a console connection, which is done through VMConnect

---

11:04:28 PDT

**Question:** can you assign multiple classifications? such as iSCSI and BRONZE

**Answer:** No

---

11:05:09 PDT

**Question:** My apologies if this has been answered already, but will this training be available offline for free to those who signed up?

**Answer:** You will receive an email in approx 2 weeks announcing the availability of the on-demand recording of this course

---

11:05:21 PDT

**Question:** What are the major difference in three version of SC2012. SC2012 SP1 and SC 2012 R2?

**Answer:** This page may provide some insights: <http://technet.microsoft.com/en-us/library/dn235548.aspx> scroll down and you will find what's new and the system requirements

---

11:05:46 PDT

**Question:** Yes all but 1 of my DC's is VM'd

**Answer:** Awesome! That's saves you lots of beers in hardware-money!

---

11:06:21 PDT

**Question:** Corey its all right but here is a problem itself. its just dont work with 80/443 (its need to open 2179 etc)

**Answer:** Correct. It sounds like you know how it works, which if fine, that *is* how it works. There is not another option.

---

11:06:31 PDT

**Question:** Corey its all right but here is a problem itself. its just dont work with 80/443 (its need to open 2179 etc)

**Answer:** Correct. It sounds like you know how it works, which if fine, that *is* how it works. There is not another option.

---

11:06:42 PDT

**Question:** Is SMIS-WMI working for iSCSI build on Windows Server ?

**Answer:** The SMI-S Provider is included in the box with Windows Server 2012R2. For 2012, you must get it from SCVMM 2012 SP1

---

11:06:42 PDT

**Question:** How do you magnify on the fly - Symon?

**Answer:** Look for ZoomIT from sysinternals

---

11:06:44 PDT

**Question:** What are the major difference in three version of SC2012. SC2012 SP1 and SC 2012 R2?

**Answer:** This page may help <http://technet.microsoft.com/en-us/library/dn235548.aspx> scroll down and you will find what' new and system requirements

---



11:06:53 PDT

**Question:** How do you magnify on the fly - Symon?

**Answer:** Zoomit from Sysinternals site

---

11:06:54 PDT

**Question:** what is the exchange rate between server dollars, hardware-money & beers?

**Answer:** You get a lot of beers with datacenter dollars

---

11:07:03 PDT

**Question:** what is the exchange rate between server dollars, hardware-money & beers?

**Answer:** You get a lot of beers with datacenter dollars

---

11:08:17 PDT

**Question:** (sorry for the aside, but I raise you a Brewery GB £)

**Answer:** 1 brewery = 100 datacenter dollars

---

11:09:29 PDT

**Question:** So is VMM using CIM or WMI to perform the actions on the storage device?

**Answer:** Correct

---

11:09:48 PDT

**Question:** We skip the VMM installation but was wondering what kind of domain permissions the VMM service account requires?

**Answer:** <http://technet.microsoft.com/en-us/library/gg697600.aspx>

---

11:10:43 PDT

**Question:** Sorry, I may have missed this but is there a list of storage vendors supported by this?

**Answer:** Yes, there's an extensive list... Some doing over 1,5 million IOPS in a VM....

<http://social.technet.microsoft.com/wiki/contents/articles/16100.supported-storage-arrays-for-system-center-2012-vmv.aspx>

---

11:11:29 PDT

**Question:** Am I correct at thinking that 74-409 is the latest version of 70-659?

**Answer:** 70-659 and more.... Have a look at the skills measured here.... <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409>

---

11:12:23 PDT

**Question:** Where can i get the documents for preparing 74-409 exam?

**Answer:** Here you go, sir Anup... <https://msandbu.wordpress.com/2013/11/19/study-resources-74-409-server-virtualization-with-windows-server-hyper-v-and-system-center/>

---

11:15:39 PDT

**Question:** So a logical switch is the same as the old VMware vSwitch???

**Answer:** From a functional standpoint - no, from an implementation procedure viewpoint - similar

---

11:15:45 PDT

**Question:** Can you team the adapters after the switch is created?

**Answer:** Yes, but you would have to then update the switch's adapter association

---

11:16:03 PDT

**Question:** sent to Team: what is Symon's accent?

**Answer:** Generic

---

11:16:23 PDT

**Question:** When you added the SAN, you pointed the SMI-S to an IP address. This IP address would be on the MNG/Production network? The iSCSI COntrrollers are on the iSCSI LAN (different subnet)... So, does VMM need to





'see' the SMI-S IP ONLY, or does it also need a NIC on the iSCSI LAN?

**Answer:** The hosts should see the the iSCSI LAN, VMM need only OOB (out-of-band) management NIC.

---

11:16:44 PDT

**Question:** Corey - Random question, I'm quite impressed with that tablet you are using , think I'd like one myself.. which one do you have?

**Answer:** Surface

---

11:18:58 PDT

**Question:** Can you mount NFS shares the same way as volumes from VMM?

**Answer:** No, There's no need in it from VMM perspective, there's no NFS shared used in Fabric.

---

11:21:05 PDT

**Question:** Can you run WSUS on a VM in the infrastucture you are updating?

**Answer:** Yes

---

11:21:20 PDT

**Question:** can i use one wsus for vmm and sccm?

**Answer:** Yes you can.

---

11:21:59 PDT

**Question:** do i have to system center purchased in order to patch the VMM?

**Answer:** VMM is a component of System Center, so yes - SC licensing would be needed. If you don't have SC licenses, updates can be managed in Windows Server 2012 using Cluster Aware Updating.

---

11:22:34 PDT

**Question:** is there a way to update offline vms, too??

**Answer:** Yes

---

11:22:44 PDT

**Question:** does the virtual switch support VLAN???

**Answer:** Yes vSwitches support VLANs, PVLANS, and Network Virtualization as options for network isolation.

---

11:22:44 PDT

**Question:** do you recommend using cisco 1000v switch with VMM

**Answer:** It depend on your administrative model. If you have separate Roles for Systems and Networking Administrator - there's an approach. It tends to be tighten with Cisco Networking infrastructure. Or if you use FlexPod for Hyper-V or Private Cloud FastTrack...

---

11:23:18 PDT

**Question:** Is WSUS can be used with VMM without SCCM in the infrastructure?

**Answer:** Yes - VMM can leverage WSUS for managing update compliance to the fabric, regardless of whether Config Mgr is deployed.

---

11:23:50 PDT

**Question:** If you have a 2012 Storage Server for your HyperV servers, and you need some storage for your VmWare servers. Will NFS perform as well as SMB 3.0 or is there a notable performance difference?

**Answer:** SMB 3.0 performs better due to support for RDMA and scale-out active/active clusters, but our NFS implementation is on-par performance-wise with other NFS implementations.

---

11:24:02 PDT

**Question:** How many Virtual NIC can be created from a Single Physical NIC ??? and How many Virtual NICs can be created on a single VM ???

**Answer:** There's 1 vSwitch per physical switch. and then 8 vNics per VM

---



11:24:08 PDT

**Question:** is Dynamic optimization equivalent to DRS in vmware?

**Answer:** You can compare those functionalities, yes...

---

11:24:52 PDT

**Question:** where do you go to run the compliance scan before applying updates?

**Answer:** All managed within VMM - using the Fabric workspace to scan hosts for compliance.

---

11:25:26 PDT

**Question:** Does VMM 2008 R2 has CAU ?

**Answer:** Hi Arie, Cluster aware updating is an OS feature, not necessarily a VMM feature....

---

11:27:54 PDT

**Question:** Dynamic Optimization is same as VM DRS ?

**Answer:** Answered in the session! Now! 😊

---

11:28:37 PDT

**Question:** Upgrading from 2012 to 2012 R2 only way is Software Assurance ?

**Answer:** Software Assurance Upgrade Rights provide the ability to access the latest version of licensed products without additional purchase of new licenses. Without Upgrade Rights, you can still purchase R2 licenses and perform an upgrade.

---

11:29:58 PDT

**Question:** if you add an existing cluster, will it add all the associated storage and networks? im thinking where you introduce vmm into an existing fully running cluster with vms etc...

**Answer:** Yes - when adding existing hosts and clusters, storage and existing networks are brought into VMM by default. You can turn off the auto-import of networks, if desired, in the settings of VMM.

---

11:30:11 PDT

**Question:** What if SCVMM server crashed, will it effect cluster, LUN

**Answer:** No

---

11:31:34 PDT

**Question:** Does Dynamic optimization request shared storage?

**Answer:** Dynamic Optimization is used in clusters.... <http://technet.microsoft.com/en-us/library/gg675109.aspx>

---

11:31:36 PDT

**Question:** Do you have Rules in Dynamic Optimization as DRS has

**Answer:** Yes - can set placement rules, host reserves and dynamic optimization/power optimization thresholds in VMM

---

11:32:19 PDT

**Question:** is there any step-by-step document for upgrade System Center 2012 SP1 different components like VMM, APP Controller, DPM to 2012 R2 without loose any config , data ?

**Answer:** Not exactly step-by-step, but a start <http://technet.microsoft.com/en-us/library/dn521010.aspx>

---

11:32:30 PDT

**Question:** If I have two physical servers does it make sense to put them to one cluster and parallel set hyper-v replica for particular vm between this two physical servers?

**Answer:** Hmm interesting, kind of like a semi-delayed backups I guess. If you corrupt the main VM and it replicates then both would get corrupted I guess, but if you replicated once or twice throughout the day, you could save yourself some restore time right?

---

11:33:00 PDT

**Question:** Any chance of a break soon? Need to use the facilities, but don't want to miss these demos!

**Answer:** according to the timer very very soon

---



---

11:35:00 PDT

**Question:** Is there any limite, vCPU or .. limite on dynamic optimization like DRS?

**Answer:** Thresholds and host reserves? Yes.

---

11:36:08 PDT

**Question:** Tommy Patterson, so it would be better to put two host to cluster and set replica to some other (third) servers for fast restore?

**Answer:** Yes that would be ideal I think. Best not to have everything in one basket right?

---

11:36:33 PDT

**Question:** How does dynamic Optimization works when i set preferred owner inside a vm?

**Answer:** Preferred owner is used as additional input to Intelligent Placement for placement of VMs.

---

11:38:18 PDT

**Question:** Only VMM is needed for Dynamic Optimization, right?

**Answer:** Correct

---

11:38:42 PDT

**Question:** Can you use SR-IOV with teamed adapters?

**Answer:** No. Our in-box teaming drivers works with RSS Capable adapters. SR-IOV is not RSS capable

---

11:38:47 PDT

**Question:** can we specify who can use which runas accounts?

**Answer:** Yes, this is specified in a User Role's properties when creating a user role in the Settings workspace of VMM admin console

---

11:39:36 PDT

**Question:** Does Dynamic Optimization also work with VMware vSphere 5.5?

**Answer:** vSphere 41/5.0/5.1 - complete details on supported vSphere host environments at <http://technet.microsoft.com/en-us/library/gg697603.aspx>

---

11:40:11 PDT

**Question:** really? people in this session don't recognize a surface?

**Answer:** Ehhh I guess.. 😊

---

11:40:29 PDT

**Question:** For Dynamic Optimization - which resource utilization are we monitoring?? CPU?? RAM?? Disk space?? network bandwidth??

**Answer:** All of them in combination. If one of the types falls behold the threshold - the optimization action will be taken.

---

11:40:31 PDT

**Question:** Regarding updates I do have a question... How to place HotFix, which is not visible through WSUS by default (it does not come through Windows update site, but it is custom patch (e.g. kb2870270)?

**Answer:** Can use ConfigMgr to deploy as a package.

---

11:41:13 PDT

**Question:** Is it possible to add SMB 3.0 storage to your already created (Hyper-V) Cluster?

**Answer:** Yes, Indeed.

---

11:41:33 PDT

**Question:** Sorry, one more time. We have certificate of archivemente in final of session ?

**Answer:** There's no certificate of achievement tied to this session. You will be eligable for a voucher to take the Microsoft Exam 74-409 for free. That could earn you a certificate....



11:43:14 PDT

**Question:** When will we receive the voucher? At the end of today's session?

**Answer:** Please check the FAQ section for that answer... Another task for today is to review all tabs, like for instance the FAQ tab... :-D

---

11:44:38 PDT

**Question:** Does DMP do backup to a Tape Library?

**Answer:** Disk-to-Disk first, then tape and/or cloud for offsite

---

11:45:27 PDT

**Question:** Does Hyper-V has equivalent technology to Fault Tolerance in vSphere?

**Answer:** Due to the extreme limitations inherent in software-based solutions like FT, we have taken a different direction - leveraging Guest clusters and/or hardware FT solutions where those same limitations are not present.

---

11:46:36 PDT

**Question:** Existing virtual switches on a host when added to VMM, shows as a logical network, not logical switch, how do you get it into Logical Switches?

**Answer:** Yes - existing vSwitches configured in Hyper-V tools are brought into VMM as standard switches. Logical switches can be defined under Networking\Logical Switches in the Fabric workspace of VMM and then assigned to hosts

---

11:47:08 PDT

**Question:** why NTFS and not ReFS?

**Answer:** ReFS use cases are currently related to long term archive / file server storage.

---

11:47:36 PDT

**Question:** why we keep comparing with VMware

**Answer:** Because many attendees are using VMware today and want to see how their knowledge and skills translate to Hyper-V and System Center.

---

11:48:04 PDT

**Question:** Does the SMI-S 'feature' configure things like iSCSI names - IQN etc, and assign these to the LUN for Host access?

**Answer:** No, SMI-S is a specification storage vendors can write to. It was actually introduced in Windows 2012. Here is a blog that one of the guys from the Product Group wrote on it. <http://blogs.technet.com/b/filecab/archive/2012/06/25/introduction-to-smi-s.aspx>

---

11:48:14 PDT

**Question:** are there any microsoft press books that assist in getting ready for System Center Configuration Manager exams?

**Answer:** Check out the free study guide at <http://aka.ms/sg70243>

---

11:49:29 PDT

**Question:** If I buy Windows Server 2012 Standard R2, and I want to run 2 Windows 2012 VM's and 1 Linux VM, is that within the realms of the license? Or would that be a violation?

**Answer:** Perfectly fine

---

11:50:24 PDT

**Question:** can we do High availability between AD Servers : one hosted on a Physical server and another on VM ????

**Answer:** With AD, it has built in replication that provides HA at an Active Directory-level, so HA does not need to be configured separately.

---

11:50:29 PDT

**Question:** What is the retail price for the SC (VMM)?

**Answer:** This may help, <http://download.microsoft.com/download/0/D/9/0D9DDDF52-A855-487B-9B74->

---



[5A09A9389551/Windows%20Server%20System%20Center%20and%20Forefront%20Pricing%20and%20Licensing%20Guide.pdf](#)

---

11:50:34 PDT

**Question:** It seems that if I use popup window for Q&A, my questions don't come to team, while using embeded, they do. My questions also don't appear on bot windows, but just on one.

**Answer:** Thanks for the info! Sharing...

---

11:50:57 PDT

**Question:** Regarding updates I do have a question... How to place HotFix, which is not visible through WSUS by default (it does not come through Windows update site, but it is custom patch (e.g. kb2870270)?

**Answer:** If this was about patching Clusters using CAU, there are two plug-ins you can use. WindowsUpdatePlugIn which goes to WSUS/Windows Update and HotfixPlugin which will go to a share.. For more information, please consult this article. <http://technet.microsoft.com/en-us/library/jj134213.aspx>

---

11:50:59 PDT

**Question:** PowerPoint slides posted... thanks!

**Answer:** You're welcome...

---

11:51:20 PDT

**Question:** If the iSCSI storage was configured on the cluster before the cluster was imported in VMM, does the iSCSI need to be added in VMM after the import? or is it automatic? so reverse of what you just demo'd.

**Answer:** Existing iSCSI storage that was already assigned to a host will be brought in, but if you want to use VMM to manage additional capacity on an iSCSI array, it would still be brought in separately.

---

11:52:48 PDT

**Question:** am having terrible internet connection when will this session be replayed

**Answer:** Check the FAQ tab for details.

---

11:53:03 PDT

**Question:** What's in the bag?

**Answer:** Sliced apples

---

11:53:59 PDT

**Question:** Corey, I sent this earlier but it might have been missed: Is there out of the box support for routing between tenants when using network virtualization with tenants that have similar network subnets using some NAT-like functionality?

**Answer:** Yes, windows includes a "network virtualization gateway" component that provides that

---

11:54:05 PDT

**Question:** am i wrong in thinking that a hyper-v cluster where vms are living on a SoFS would be far simpler to upgrade cluster OS versions? IE 2012 to 2012 R2 to at some point Server 9?

**Answer:** You cannot upgrade Windows if the Failover Cluster feature is enabled. Setup will check for this and block it. The reasoning is that you cannot mix and match Windows versions in the same Cluster.

---

11:54:38 PDT

**Question:** I'm looking at the TechNet VirtualLabs at the moment. Which labs are the "ideal" ones to use for this certification track? I would imagine that the complete SCCM2012R2 track would be a bit overkill... Perhaps add an option to search for examtrack # to get "recommended labs"?

**Answer:** Great question Robert, I don't have a "Standard answer" for that... You can map the labs to the "Skills Measured" at this <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409>

---

11:54:44 PDT

**Question:** Does CAU integrate with VMM?

**Answer:** No it does not. Cluster Aware Updating (CAU) is only going to patch Cluster Nodes

---



11:54:47 PDT

**Question:** Can I use a SAN that does not have SMI-S with VMM ?

**Answer:** Richard probably your storage use proxy, provider by SMI-s.. check on Storage supported on <http://social.technet.microsoft.com/wiki/contents/articles/16100.supported-storage-arrays-for-system-center-2012-vmv.aspx>

---

11:55:42 PDT

**Question:** Can you prioritize VM resources in low/normal/high profiles like share values in VMware DRS?

**Answer:** In a Cluster, yes

---

11:55:43 PDT

**Question:** Who says men can't multi-task... Corey's proving them all wrong From giving the seminar to replying in live Q&A.... awesome job [also everyone else providing answers btw]

**Answer:** duuuuuuuude

---

11:55:53 PDT

**Question:** Who says men can't multi-task... Corey's proving them all wrong From giving the seminar to replying in live Q&A.... awesome job [also everyone else providing answers btw]

**Answer:** duuuuuuuude

---

11:55:56 PDT

**Question:** When dynamic optimization shutdown or starts the host , does it use ILO

**Answer:** Yes - uses IPMI to start servers.

---

11:56:49 PDT

**Question:** what will CAU do when it patch cluster node? will it put the host into maintenance automatically?

**Answer:** It wil drain the host from guest vm's, patch it, when needed do a reboot, and then goes on to do the next node in the cluster (simplified version of the truth 😊)

---

11:57:52 PDT

**Question:** Can the library server be a VM on the actual Host on a remote site or does it have to be a machine on another host [either virtual or physical]

**Answer:** Could be virtual or physical

---

11:58:29 PDT

**Question:** if if Dell, that would be iDRAC, yes?

**Answer:** Yes - just a base RAC with IPMI support.

---

11:58:45 PDT

**Question:** Corey: What was your favourite Amiga game?

**Answer:** Second one

---

11:59:11 PDT

**Question:** Can you use library server replacing file server functionality to take advantage of dedu?

**Answer:** Yes - library server shares can use Dedupe if enabled on Windows Server 2012 R2 file server volume.

---

11:59:41 PDT

**Question:** @Keith, the biggest question was if the library server could be on the host server or if it has to be on a separate host

**Answer:** VM or separate physical host - should not be directly on the host.

---

11:59:58 PDT

**Question:** For simplicity's sake can you run the library server on the VMM management server?

**Answer:** Yes you can!

---



12:00:01 PDT

**Question:** For simplicity's sake can you run the library server on the VMM management server?

**Answer:** Yes - that's actually the default configuration when you install VMM.

---

12:00:17 PDT

**Question:** Can a NAS be used as a Library Server?

**Answer:** Only when it supports SMB 3.0

---

12:00:28 PDT

**Question:** Any issues using DFSR to replicate VMM Libraries across servers?

**Answer:** Should be configured as DFS-R one-way replication from a central location out to other spoke library shares.

---

12:00:35 PDT

**Question:** The virtual infrastructure, is it stored on and running on all participating hyper-v host machines?

**Answer:** Hyper-V hosts are the destination of your service/vm deployments, i.e. where the service/vm instances live, while the VHDs are in storage fabric and connected via network fabric.

---

12:00:36 PDT

**Question:** if you rerun the cluster validation wizard and there are new issues could that bring down your cluster?

**Answer:** No. Cluster Validation itself will not take down the Cluster. You can even run it while in production. The Storage Tests are the only thing that could take you out of production. The Storage tests will run against drives that are: 1. In the Available Disks Group 2. Drives not in the Cluster but are determined to be "clusterable" 3. Drives that are committed to groups but are in an offline state. So when you run Cluster Validation and Storage is one of the tests, it will prompt and tell you that these disks are committed to a group and online. It will also ask if you want to take them offline to test. Default action is to leave them online and ignore them. If you select to test them anyway, everything in the group will be taken offline, which in essence, takes you out of production. The default action here is to leave them online and ignore them.

---

12:00:37 PDT

**Question:** I didn't answer to my early question, if I have only one 10Gig Nic on Hyper-V can i still push extensible switch from VMM - no bare metal deployment though

**Answer:** Yes, Bare metal deployment does not use the "NIC" per se, it used the BMC port, which *might* also be the NIC.

---

12:00:37 PDT

**Question:** I didn't answer to my early question, if I have only one 10Gig Nic on Hyper-V can i still push extensible switch from VMM - no bare metal deployment though

**Answer:** Yes, Bare metal deployment does not use the "NIC" per se, it used the BMC port, which *might* also be the NIC.

---

12:02:29 PDT

**Question:** What is the advantage of running fileserver failover clustering over running the fileserver in a VM that resides on a Hyper-V failover cluster?

**Answer:** in the event of node failure, the VM containing the fileserver will reboot, which will take longer than failover of the cluster role

---

12:02:31 PDT

**Question:** What is the advantage of running fileserver failover clustering over running the fileserver in a VM that resides on a Hyper-V failover cluster?

**Answer:** in the event of node failure, the VM containing the fileserver will reboot, which will take longer than failover of the cluster role

---

12:03:45 PDT

**Question:** DPM - file or block level ?

**Answer:** For DPM, Disk to Disk backups are block level. Tape backups are file level

---



12:04:09 PDT

**Question:** Why are Coreys post double? Are his hands shaking of excitement

**Answer:** I don't know I don't know

---

12:04:29 PDT

**Question:** Is there support in the product to logically "carve up" one or more physical NICs for multiple purposes; i.e., you have two teamed 10gb NICs, you want to use 10% of the bandwidth for management, 20% for vm traffic, 40% for migrations, etc. is there a way to configure that type of setup?

**Answer:** Yes - via Network QoS defined in virtual port profiles in the Fabric workspace of VMM

---

12:05:31 PDT

**Question:** What are csv disks again?

**Answer:** Cluster Shared Volumes - essentially CSVs are multi-server shared volumes in a cluster - similar to VMFS datastores in vSphere.

---

12:05:47 PDT

**Question:** Credit to all the people answering questions today, top job!

**Answer:** Thanks, mate!

---

12:07:18 PDT

**Question:** Is this an old picture of Symon?<http://3.bp.blogspot.com/-6HolNmfaAsU/Twgr5ToDhn/AAAAAAAAAFqg/XRJ4qPbvVhk/s1600/Vanilla-Ice.jpg>

**Answer:** oh dear god i'm in tears

---

12:07:25 PDT

**Question:** Any idea how i can update VMM from 2012 to 2012 R2.? A lot of problems after my Users upgrade to windows 8.1 VMM Console take error when you trying to open a Console of a VM (is this known issue?)

**Answer:** Here you go sir.... <http://technet.microsoft.com/en-us/library/dn521014.aspx>

---

12:09:16 PDT

**Question:** There is excellent article from Thomas Maurer (MVP from Swiss) regarding converged switches (with or without VMM) --> so single NIC (or team) can be user for several purposes

**Answer:** Sharing....<http://www.thomasmaurer.ch/2013/04/hyper-v-converged-fabric-with-system-center-2012-sp1-virtual-machine-manager/>

---

12:10:53 PDT

**Question:** Could you give us more information about how deduplication is performed inside a library server?

**Answer:** Dedup is set from File and Storage Services Server Role and enabled at the volume level. Here's how it works <http://technet.microsoft.com/en-us/library/hh831602.aspx>

---

12:11:36 PDT

**Question:** processors in VMM, does this really equal to cores and not physical CPU's

**Answer:** Answered live

---

12:12:09 PDT

**Question:** john marlin: sorry. poor use of the term "upgrade". i was not referring to in-place but rather moving VMs from being hosted on a 2012 --> 2012 R2 cluster and moving forward to a server 9 cluster

**Answer:** @tysw Yes, you can Live Migrate the VMs between the two. However, you must have the proper trust relationships between the domains

---

12:13:33 PDT

**Question:** Does using Processor Compatibility mode affect performance or anything else?

**Answer:** No it will not... Great blog from Mitch Garvis: <http://blogs.technet.com/b/canitpro/archive/2013/09/17/hyper-v-cpu-compatibility-mode.aspx>

---





12:15:06 PDT

**Question:** woohoo I made it on the live show =)

**Answer:** Everyone's entitled to their cut of the webcast... 😊

---

12:15:39 PDT

**Question:** yesterday it was mentioned assigning two different VM's the same IP was possible ... how does the underlying network understand how to route this?

**Answer:** Each VM would be on a separate isolated network managed by Hyper-V Network Virtualization - to route between the isolated networks, you'd use an HNV gateway that uses NAT translation.

---

12:21:49 PDT

**Question:** is it possible to Export e.g the application templates and give it to a customer for Import it for deployment?

**Answer:** You can export a service template and import it into another VMM library. Then you must map the resources in the service definition to match the right resources in that library

---

12:21:59 PDT

**Question:** Just to clarify, Templates and profiles are part of VMM correct?

**Answer:** correct 😊

---

12:22:37 PDT

**Question:** Is there a function equal to clone a VM? and can I create a template from a VM? like VMware does it?

**Answer:** You can perform a live clone of a VM when running on Hyper-V in 2012 R2, using VMM. And then you can create a VM template based on that clone.

---

12:23:12 PDT

**Question:** when you created the VHDX are the sysprep'd

**Answer:** They are sysprep'ed when you create a template with VMM. Then VMM will run through the generalization process.

---

12:23:51 PDT

**Question:** can you do this sql server automatic setup with a script?

**Answer:** Yes you can. Everything in VMM can be scripted with powershell.

---

12:24:19 PDT

**Question:** SMB file share serves as CSV for HyperV storage.....server was rebooted, and guests show "incomplete VM configuration." Any idea when VMM will pole to check status, or is this only a manual refresh?

**Answer:** Restart the Hyper-V service on the host, and it will quickly refresh, and not affect those VMs already running. At least that is what I do in the lab.

---

12:24:31 PDT

**Question:** Is there a way to automate creation of a profiles and templates from existing VMs?

**Answer:** It depends. Once you have an existing VM, you can create a template out of it, and also store the profiles for both the guest profile and hw profile for that VM, and use them towards other templates.

---

12:24:38 PDT

**Question:** And what about VM-Templates?? can I Export these, too??

**Answer:** Sure thing.

---

12:25:50 PDT

**Question:** Does the profile install the OS as part of the process?

**Answer:** the guest OS profile will configure the OS with some properties like computername, workgroup/domain etc. If using service templates, you can extend this and also add server roles and features.

---



12:28:32 PDT

**Question:** If you modify a template, would it do these modification on VMs which have this template in use already ?

**Answer:** Templates are used for the deployment of vm's only... Changes in these templates will affect any new deployment from that moment in time

---

12:30:36 PDT

**Question:** How is DPMs speed backing up full VM's now? In 2010 it wouldn't do an "incremental" of a VM.

**Answer:** @Blangis the backup speed is tremendously faster

---

12:31:03 PDT

**Question:** Where are you guys physically located? new york or

**Answer:** The presenters are in Redmond and the Q&A team is from all around the world.....

---

12:35:21 PDT

**Question:** washington...

**Answer:** @Raymond Ha Seattle to be a little more specific

---

12:37:43 PDT

**Question:** Can you make a profile/template from a running vm?

**Answer:** Creating a template from a running vm will destroy it (generalizing the vm, etc), what you can do is create a clone of that vm and then create a template from the clone.....

---

12:42:13 PDT

**Question:** If I create a Physical Computer Template, how do I link it to Server? same for Hardware Profiles?

**Answer:** Hardware profiles are used for vm's You select them when deploying a vm, or incorporate them in a service template. The physical computer profile will be called for when deploying a hyper-v host or scale out file server

---

12:43:09 PDT

**Question:** Good evening from Belgrade, Serbia. A bit late, but ready for learning now!

**Answer:** Welcome Srdjan, open your mind and get ready to be blown away! 😊

---

12:50:11 PDT

**Question:** how will we get a free voucher fort the exam 74-409?

**Answer:** Please check the FAQ section for information regarding the examvoucher

---

12:50:59 PDT

**Question:** Holy Moly - am I finally in after trying for 2 days!???

**Answer:** Welcome, be prepared to be baffled... You're just in time for the lunch-break....

---

12:52:47 PDT

**Question:** Is it possible to Add a Host, deploy a few VM's from templates and then Remove the Host again [for example if you'd want to deliver a "standard" Hyper-V environment for a SMB customer]?

**Answer:** Yes, you can remove hosts

---

12:53:35 PDT

**Question:** apologies if this has already been asked, but where can i get the slides for day 2? The presentation slides link on the Q&A appears to be just for day 1.

**Answer:** Please refresh the page, it should pop-up in the Q&A section

---

13:00:18 PDT

**Question:** The Powershell Deployment Toolkit is great, although I think the vmm download has been throttled at the moment. I got six GB since the start hit VMM download and download speed dropped right down

**Answer:** I think it's in high demand due to the evangelism of Corey and Symon... Hope you don't pay internet by the hour... 😊

---



13:02:56 PDT

**Question:** Can you in place upgrade Server 2012 to 2012 R2 running Hyper-V role?

**Answer:** Yes, you can but please make sure you take precautions (backup,etc) and destroy any nic teams you might have created in server 2012..... That's something I've found out the "hard" way... 😬

---

13:05:54 PDT

**Question:** Hi John, cheers for the Day2 slides. can I have link for Day1 Slides please

**Answer:** @A Riaz Day 1 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx))

---

13:06:21 PDT

**Question:** In Storage Pools is the Powershell only way to define physical disk media type?

**Answer:** @Jukka To define it, yes. Powershell only

---

13:06:27 PDT

**Question:** What time are we back?

**Answer:** around 1:30 PM PDT

---

13:09:01 PDT

**Question:** "destroy any NIC teaming" great tip. Thanks

**Answer:** Ehhh with "destroy" I mean "delete" ofcourse :-\$ Don't want you guys to tear out al kind of NIC's from servers in the morning, because the voice in the box told you so... 😬

---

13:09:37 PDT

**Question:** can I install a 2012R2 vm on a 2012 host?

**Answer:** Yes, please do so... You'll want more R2 goodness underneath... and upgrade your host

---

13:11:14 PDT

**Question:** When is the next oppurtunity for this class? I have co-workers who want to be apart of this

**Answer:** @Joe Ringuette Actually, the response to this one was so overwhelming from an overseas standpoint, they are doing this same class again 11/25 and 11/26, starting at 11pm PDT. So if they want to go overnight, they can sign up for it. Otherwise, you will receive the on-demand video link that can share as will also be available on the Virtual Academy site. Other than that, just have to keep an eye out on the Virtual Academy site.

---

13:12:44 PDT

**Question:** I was away when the break started. rough eta of when it will return?

**Answer:** @auzgc 1:30pm PDT is time coming back

---

13:12:56 PDT

**Question:** the session is awesome, learned a lot about virtualization and scvmm. Super abstract stuff.

**Answer:** Don't tell that to Corey and Symon, they'll go into another dimension and do even more scary stuff to our brains....

---

13:14:11 PDT

**Question:** Haha.. Glad to see we still have people around from the NT days.

**Answer:** Dude, couldn't picture my life without them....

---

13:16:32 PDT

**Question:** ... So how many others still have NT4 SP6a machines actually running production???

**Answer:** Not personally, although I am trying to get Windows 3.11 running on my Server2012 R2 machine... I have a couple of customers with ehm "Vintage" Os-es? 😬

---

13:16:57 PDT

**Question:** People who understand DOS, are getting rare

**Answer:** People who get DOS, can adapt to Powershell a whole lot easier....

---



---

13:18:04 PDT

**Question:** I'm looking forward to making better use of VMM after this, I've treated it purely as a "shiny" Hyper-V Cluster manager up to this point.

**Answer:** You should definitely check out making vm's from templates or even services... That makes life so much easier...

---

13:19:53 PDT

**Question:** when is the lunch break over ?

**Answer:** I believe in about 5-15 minutes, so you still have time to walk the dog....

---

13:20:56 PDT

**Question:** am I the only one that remembers using Windows 2.0?

**Answer:** @Flak\_Monkey I go back as far as Windows 286 with Support. Back when MSDOS 3.2 was awesome so we could get large than 20meg hard disks to work

---

13:21:18 PDT

**Question:** Are there any diagrams for the demos?

**Answer:** @Paul-H Unfortunately, no

---

13:22:08 PDT

**Question:** guys, how to run testlab with hyper v on laptop ? do I need to install native windows server 2012 r2 for this or can it be virtualized?

**Answer:** Hyper-v can be run from windows 8, but than you won't be able to manage it with VMM.... So if you want to practice with vmm and hyper-v on the same laptop... Yes, install server2012r2 natively

---

13:22:15 PDT

**Question:** Bert: I don't know about veteran, but I know my early Windows Grew up with Win 95 + 98 at home, Had Windows NT Workstation at school

**Answer:** @MrPK Windows 95 wasn't that early. That was like the 7th version of Windows

---

13:22:55 PDT

**Question:** I still think Win2000 was the best OS

**Answer:** @Flak\_Monkey I am more of a Windows 2003 kind of guy

---

13:23:48 PDT

**Question:** today's slides please

**Answer:** @Ravikumar Chinnasamy Day 1 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)) Day 2 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf))

---

13:23:49 PDT

**Question:** I think Corey said if the host has 32 cores you can assign up to 32 VCPUs; do you need to reserve any core/s for the host OS?

**Answer:** The hypervisor will automatically reserve the processor time for the mgmt OS/hypervisor.

---

13:23:54 PDT

**Question:** How does IPAM fit in VMM?

**Answer:** Hi Henk! It fits like a glove... Or like they say in Holland, "als een maatpak" <http://technet.microsoft.com/en-us/library/dn249418.aspx>

---

13:25:21 PDT

**Question:** SP6a was a bomb, I agree

**Answer:** @Bjarni Thor You must not have been one of the select few that got the brief experience of SP6. It was so bad, it got pulled after about a week and a half and replaced with 6a



---

13:27:26 PDT

**Question:** On the Processor Side... How I know what's the max processors I can assign?

**Answer:** This depends on the OS version. For instance Linux VMs can have p to 64 vprocs. Windows 8 - 32 vprocs. Etc. More details can be found here: <http://technet.microsoft.com/library/hh831531.aspx>

---

13:27:58 PDT

**Question:** So using VMM I should create a logical network for my physical hardware as the base of my networks, right? I'm still confused on that point

**Answer:** Correct... Layer over layer.... But my advice: Keep it as simple as possible.... Use what you need from a functional point of view.... Not only because it's fun to do technical stuff no one other but you understands... 😊

---

13:28:04 PDT

**Question:** @John, same here with, but I also cut my teeth on a ZX81

**Answer:** @Flak\_Monkey Before Microsoft, I was at Tandy with the TRS80's and TRS-DOS. Now those were the days... black background and green blinking cursor... ah the memories

---

13:28:54 PDT

**Question:** How are vCPUs distributed across underlined CPUs (or Cores)? If you have 4 vCPUs, will they be on different cores (if available, of course)?

**Answer:** Check my blog post on the subject here: <http://www.virtuallycloud9.com/index.php/2013/08/virtual-processor-scheduling-how-vmware-and-microsoft-hypervisors-work-at-the-cpu-level/>

---

13:29:47 PDT

**Question:** How often does VMM pole guests for "status"?

**Answer:** Agents are installed on the Hyper-V that monitor the activities of the host including VMs.

---

13:30:29 PDT

**Question:** John Marlin don't forget the Cassette tape drive for the TR80

**Answer:**

---

13:32:27 PDT

**Question:** I loved my TRS80 and CoCo3! They sure don't make 'em like they used to!

**Answer:** @Karl\_F CoCo and Pong. That that was some entertainment

---

13:32:56 PDT

**Question:** Can anybody point me to a document that would help me understand how to create vhd(x)'s with the appropriate roles and sysprep?

**Answer:** <http://technet.microsoft.com/en-us/library/hh831809.aspx> as for Sysprep, it can be run from the C:\windows\system32\sysprep folder

---

13:35:48 PDT

**Question:** Tommy I have read your blog on CPU, how do you tell when the CPU is over subscribed, I read somewhere else something to do with context switching?

**Answer:** Basically if queuing is occurring on a given core or if utilization hits a certain percentage then algorithms kick in to determine which core would be better suited to handle the workload. Im not the developer so I don't have those details, but this is the basics of how it works based on my interviews with the right folks.

---

13:38:08 PDT

**Question:** Hi, anyone knows where is 1 & 2 slides?

**Answer:** @Alejandro Slides are on the FAQ page, but here you go Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Day 1 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)) Day 2



[http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf)

---

13:41:10 PDT

**Question:** What is Generation 1 & 2 ... whats the difference?

**Answer:** @Shane Russell Basically, Generation 1 VMs are using emulated devices and PIC and Generation 2 uses synthetic devices (no PIC) Good 10 part blog series on Generation 2 virtual machines Hyper-V generation 2 virtual machines – part 1 <http://blogs.technet.com/b/jhoward/archive/2013/10/24/hyper-v-generation-2-virtual-machines-part-1.aspx>

---

13:41:22 PDT

**Question:** Can someone help me find a document for shared-nothing live migrations, I can go from host1 to host2, but not host2 back to host1, without SystemCenter, internet searching my error only seems to relate to SC, not plain Hyper-V Manager 0x8009030D

**Answer:** Here you go... <http://blogs.technet.com/b/canitpro/archive/2013/03/21/step-by-step-completing-storage-live-migration-in-hyper-v.aspx> Your specific situation has to do with authorization... It will work when you login to host2 and snlm (shared nothing live migrate) from there to host 1

---

13:41:29 PDT

**Question:** Are we back from break yet?

**Answer:** @John O'Connor yes. may need to refresh

---

13:42:00 PDT

**Question:** @tommyP - I am able to use VMM and select "refresh", was wondering is there is a way to automate this. That is why I asked three times about VMM polling (intervals) guests for "status."

**Answer:** Sorry my VMM lab is down at the moment, grrr. I did research this online and found that VMM in 2008R2 performed this check every 30 minutes, however issuing Refresh-VM cmdlet will also do the trick. So if this holds true for 2012(still trying to verify that) then you could have a job on the server to run that cmdlet on a scheduled basis. Not a perfect answer, but Im still digging

---

13:43:18 PDT

**Question:** Can Hyper-V hosts in a cluster be located in different datacentres? Are there any documentation and requirements to deploy a cluster? Thanks

**Answer:** @supro Yes, the nodes can reside in different datacenters. They do have to be in the same domain though. This link should get you started. Requirements and Recommendations for a Multi-Site Failover Cluster [http://technet.microsoft.com/en-us/library/dd197575\(v=WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd197575(v=WS.10).aspx)

---

13:43:29 PDT

**Question:** @Bert that answers it, I needed to use PowerShell, not the GUI (host2 being Core)

**Answer:** Use this knowledge for good, not evil (c) Mark Minassi

---

13:46:29 PDT

**Question:** what would you need to make a five star rating?

**Answer:** Sufficient CPU, memory, storage and connectivity <http://technet.microsoft.com/en-us/library/jj860428.aspx>

---

13:50:12 PDT

**Question:**

> *Quoted question:* @tommyP - I am able to use VMM and select "refresh", was wondering is there is a way to automate this. That is why I asked three times about VMM polling (intervals) guests for "status."

> *Quoted answer:* Sorry my VMM lab is down at the moment, grrr. I did research this online and found that VMM in 2008R2 performed this check every 30 minutes, however issuing Refresh-VM cmdlet will also do the trick. So if this holds true for 2012(still trying to verify that) then you could have a job on the server to run that cmdlet on a scheduled basis. Not a perfect answer, but Im still digging

**Answer:** Ok Read-SCVirtualMachine seems to have replaced that cmdlet.

---



13:50:37 PDT

**Question:** Is there an automated way to tell hyper-v the start up delay for the VM's?

**Answer:** In Hyper-V Manager, go to the Settings of the VM. In the left pane at the bottom is the Automatic Start Action. You can select "Always start this virtual machine automatically" and you have the Startup Delay (in seconds) that you can specify.

---

13:53:20 PDT

**Question:** If you save the script with those ID's built in will the script fail if you use it on a totally different Hyper V 2012 R2 host?

**Answer:** no

---

13:53:33 PDT

**Question:** Is there any way to setup a "real" dependency instead of a n-seconds delay ? I mean some setting like: start VM2 only when VM1 has completely started. This could be very usefull for DCs or DBMSs.

**Answer:** Unfortunatly, timing only

---

13:54:05 PDT

**Question:** There is a link to download presentation from day 2?

**Answer:** Day 2 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf))

---

13:58:44 PDT

**Question:** In a production environment you should be signing your scripts.

**Answer:** JasonMorgan, excellent point. Thanks

---

14:00:02 PDT

**Question:** Are these profiles basically what Azure Pack would use in the background if you spin up a VM via the Azure Pack UI?

**Answer:** Yes

---

14:00:11 PDT

**Question:** Are these profiles basically what Azure Pack would use in the background if you spin up a VM via the Azure Pack UI?

**Answer:** Yes

---

14:03:17 PDT

**Question:** for the Microsoft System Center 2012 R2 are we going to install all the component or just what we need?

**Answer:** Keep it simple... Install only what you need from all software available in the suite... Some products use quite some resources....

---

14:06:12 PDT

**Question:** any updates on P2V functionality? Will it be added to MVMC as stand-alone?

**Answer:** P2V has been pulled from current SC 2012R2. Product Group decision. Whether it will be available as a stand-alone product or not, we cannot say at this point in time.

---

14:06:37 PDT

**Question:** What are the best resources for becoming a PowerShell expert and will Perl experience significantly help?

**Answer:** You could check out the courses on MVA regarding Powershell, or, when you want a book to learn from, I can recommend the Powershell 3.0 in a Month of Lunches... Any trust of the prompt puts you miles ahead of the average GUI admin...

---

14:07:23 PDT

**Question:** Will another live session like this be presented at Tech Ed 2014?

**Answer:** Yes and no. As a complete 2 day thing, No. Bits and pieces in 75minute different sessions, yes

---



14:08:09 PDT

**Question:** Are there PPT versions of the presentations? I wanted to see the animations

**Answer:** Yes Break Slides ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides\\_f5cd41fad31a4fee8349f95c2ffbcdc4\\_7fbad8964c344520ad1f90b6eb8cc68f.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/BreakSlides_f5cd41fad31a4fee8349f95c2ffbcdc4_7fbad8964c344520ad1f90b6eb8cc68f.pptx)) Day 1 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1\\_symon\\_cce95b6ac15343f8971eae65ff5286be\\_94ff5181a3194ba58af821d60b82ed90.pptx](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay1_symon_cce95b6ac15343f8971eae65ff5286be_94ff5181a3194ba58af821d60b82ed90.pptx)) Day 2 ([http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2\\_FINAL\\_b62d1500407545e6be20fef316fbb3b8\\_15de97e91da24adb806de764e134f474.pdf](http://mslcc-admin.msccareerconference.com/Uploads/Downloadables/20409JumpStartDay2_FINAL_b62d1500407545e6be20fef316fbb3b8_15de97e91da24adb806de764e134f474.pdf))

---

14:09:10 PDT

**Question:** does it necessary to shut down the vm to clone it?

**Answer:** No, with server2012r2 we can clone a running vm, make sure the clone doesn't boot in the same network segment afterwards....

---

14:12:39 PDT

**Question:** Hyper-V is the ability to share a common base (OS) image between multiple Virtual Machines work with VMM

**Answer:** It's possible to use a differencing disk (parent disk with child differencing disks) please don't use this in production environments (Single Point of Misery) although it's a "common" used feature in VDI

---

14:12:53 PDT

**Question:** a little bit off-topic: is there a Jump Start-video or equal thing about System Center and itil?

**Answer:** Christian... yes it was live a few weeks ago. It will be posted to MVA for video viewing REAL SOON. :->

---

14:13:57 PDT

**Question:** V2V from ESX to HyperV just works. It only needs couple of reboots to gather all drivers. If you have NetApp storage also disk copying can be done in about 1/10 of time with usage of their PowerShell tools

**Answer:** Check out the Project shift video here

<http://migrate.azurewebsites.net/?loc=zTS2z&prod=zWSz&tech=zvirtz&prog=zOTprogz&type=zOTtypez&media=zVidz&country=zUSz>

---

14:17:51 PDT

**Question:** what is the command to invoke hyper-v module and show all commands?

**Answer:** "import-module hyper-v" and "get-command -Module Hyper-V"

---

14:18:34 PDT

**Question:** Can you convert an ESXi VM into Hyper-V while the ESXi VM is running live?

**Answer:** Unfortunately not... With all solutions out there, you'll need at least one reboot....

---

14:19:19 PDT

**Question:** Can a v2v conversion from vmware occur with the source vm running and online?

**Answer:** Online is almost possible, but you'll need at least one reboot....

---

14:19:54 PDT

**Question:** after the conversion process completes are the NIC settings lost due to the hardware changes - similar to the hardware updates in vmware?

**Answer:** Certain tools "keep" those settings for you and re-apply them after the conversion is done...

---

14:24:10 PDT

**Question:** where can i download the Free Hyper-V Server 2012 R2

**Answer:** There you go, a FREE Hyper-V Server 2012 R2 download, especially for you...

<http://technet.microsoft.com/en-us/evalcenter/dn205299.aspx>

---





14:27:33 PDT

**Question:** while you're at it, can you throw a free System Center link out?

**Answer:** Ok, because it's almost Christmas and I'm in a good mood, here you go! [http://technet.microsoft.com/en-US/evalcenter/dn205295.aspx?wt.mc\\_id=TEC\\_148\\_1\\_4](http://technet.microsoft.com/en-US/evalcenter/dn205295.aspx?wt.mc_id=TEC_148_1_4)

---

14:28:34 PDT

**Question:** what is the MS certification that mirrors the VCP 5. I am currently VCP 5

**Answer:** Jeff, that would be the exam 74-409 Microsoft Certified Specialist: Server Virtualization with Hyper-V and System Center

---

14:29:14 PDT

**Question:** why use Hyper-V Server 2012 R2 if you got all in Windows Server 2012 R2 or they are any difference?

**Answer:** No difference in virtualisation functionality, but if your short on licenses (not using DataCenter) it's a valid consideration...

---

14:29:37 PDT

**Question:** why use Hyper-V Server 2012 R2 if you got all in Windows Server 2012 R2 or they are any difference

**Answer:** Hyper-V Server 2012 R2 is just that, Hyper-V. That's it. nothing else. There are no Windows Licenses for the VMs that come with it either. Windows Server 2012 includes Hyper-V as well as everything else. Datacenter version includes unlimited Windows Licenses for the VMs.

---

14:29:43 PDT

**Question:** why use Hyper-V Server 2012 R2 if you got all in Windows Server 2012 R2 or they are any difference

**Answer:** msjames, the hyper-v server is free

---

14:29:59 PDT

**Question:** xenserver also can boot via pxe

**Answer:** So can my IPphone... they don't differ that much in the amount I use them... 😊

---

14:38:03 PDT

**Question:** Since a Hybrid cloud is a "on demand" cloud would this make it a cheaper option than choosing a public or a private cloud

**Answer:** Depends on usage... What we usually see when connecting to a public cloud and making it hybrid, companies taking full advantage of the "unlimited" resources and expenses growing somewhat

---

14:39:24 PDT

**Question:** Is it possible to do copy and paste between host and VMs or VMs and VMs like we do on vmware ?

**Answer:** Using the Enhanced Session Mode it's "somewhat" possible Check it out here:

<http://technet.microsoft.com/en-us/library/dn282274.aspx>

---

14:39:52 PDT

**Question:** a host group can have more than on cluster?

**Answer:** yes

---

14:40:28 PDT

**Question:** why the name azure??

**Answer:** look at non English languages, and then focus on colors.....that's a clue

---

14:44:56 PDT

**Question:** Do I need to provide credit card info to start Azure trial?

**Answer:** I'm not sure if it's the case at the moment... The Azure trial was even suspended for a while, when demand was to high... I've heard a colleague of mine, who doesn't own a creditcard having a test account in Azure, so I think it should be possible now... Go ahead and try... 😊

---



14:45:13 PDT

**Question:** Corey - Is newfie considered a non-english language?

**Answer:** English is considered Non-Newfie

---

14:45:19 PDT

**Question:** SCVMM self service portal + Orchestrator runbook + Service manager = Peace of mind for IT admins

**Answer:** Thanks! We hope you like it!

---

14:46:00 PDT

**Question:** Can single HyV host be in several clouds?

**Answer:** The vm's on a single Hyper-V host can be located in different clouds.... (Multi-tenancy!!!!)

---

14:46:28 PDT

**Question:** Can we get any free ebook for the preparation of exam 74-409

**Answer:** Check out all of these resources! <https://msandbu.wordpress.com/2013/11/19/study-resources-74-409-server-virtualization-with-windows-server-hyper-v-and-system-center/>

---

14:47:47 PDT

**Question:** how does azure overlay / tie into system center

**Answer:** It fits into the "Hybrid" cloud strategy of Microsoft. App Controller is basically where you put the clouds together..... IaaS can provide you with Vm's in the cloud, even using your own corporate images....

---

14:48:31 PDT

**Question:** How do you monitor the SQL instance inside of a VM in Azure?

**Answer:** Extend your datacenter into Azure and deploy your SCOM agent, just like in your own environment

---

14:49:36 PDT

**Question:** ...and if you are a Microsoft Partner you get Azure compute resources (\$100 per month or more) for FREE.

**Answer:** Good Point! MSDN Users, activate your monthly Azure benefits and give Azure a go!

---

14:49:53 PDT

**Question:** Corey - good to know ... and greetings from Hobart

**Answer:** Greetings to both of you too....

---

14:50:50 PDT

**Question:** Can I move VM from one cloud to other (e.g. From Test to Production cloud)?

**Answer:** On premise? Yes! From on-premise to Azure? Yes, but with the machine offline....

---

14:51:45 PDT

**Question:** Are you guys going to cover how to grant users permissions to the cloud?

**Answer:** In VMM (on-premise) with role based authentication in Azure you can define multiple admins within your subscription

---

14:56:55 PDT

**Question:** from cloud perspective how security is compliant in reference to SOX, HIPPA, PCI etc.....

**Answer:** For more information on Windows Azure and compliance... <http://www.windowsazure.com/en-us/support/trust-center/compliance/>

---

14:58:10 PDT

**Question:** ".and if you are a Microsoft Partner you get Azure compute resources (\$100 per month or more) for FREE."??? MONTHLY?

**Answer:** Yes every month! Go wild, but be carefull with SQL Reporting services....

---



14:59:40 PDT

**Question:** Should the AD best practice be applied here where AD Groups are assigned to User Roles rather than individual User accounts?

**Answer:** Answered LIVE, agree with Corey

---

14:59:45 PDT

**Question:** How would you define which storage a cloud has access to if you don't have the storage device managed under VMM with a provider.

**Answer:** You could not.

---

14:59:45 PDT

**Question:** How would you define which storage a cloud has access to if you don't have the storage device managed under VMM with a provider.

**Answer:** You could not.

---

15:00:26 PDT

**Question:** can you assign the developer-goup (self-service-user) to a specific vm in the cloud with just the right to start and save this vm?

**Answer:** That is possible

---

15:03:28 PDT

**Question:** Show me

**Answer:** If I had a dollar for every time.....

---

15:10:07 PDT

**Question:** So just to make sure I'm understanding this, you need to have a storage classification and a provider added to VMM to create a cloud?

**Answer:** No. You need to do that to allocated managed storage to hosts. You can create a cloud and use local storage if you want. That is not recommended.

---

15:10:26 PDT

**Question:** You've been in front of a camera too long today... Ha ha

**Answer:** Symon is on camera, not me.

---

15:10:40 PDT

**Question:** Can you make service out of existing VMs?

**Answer:** No, only with templates at the moment... You can clone a running VM, save it in the library and use those building blocks to create a service..... (Be creative with technology and use it only for good, not for evil)

---

15:11:19 PDT

**Question:** Can you run the system center in a VM?

**Answer:** yes you can.

---

15:13:22 PDT

**Question:** So you could create a "service template" for a share point environment with a front end and back end, SQL server ect..?

**Answer:** Yes! That's a briljant application of the service possibilities!

---

15:16:29 PDT

**Question:** Is there a web type VMM client?

**Answer:** A webportal to connect to vm's? We have AppController for that....

---

15:17:08 PDT

**Question:** anti affinity! Drink!

**Answer:** Cheers!

---



15:18:53 PDT

**Question:** Any more Anti Affinity and I'll start misspelling my notes.. hic

**Answer:** Niels said the drinking game word... Bottom's up!

---

15:20:29 PDT

**Question:** try looking at it at 11pm after a full day of work and NO BEER! :o(

**Answer:** well you have to fix that now...

---

15:21:01 PDT

**Question:** but last time i tried to do that (months ago) i got a kind of "CPU does not support virtualization"

**Answer:** Benj , your laptop Hyper-V requires a 64-bit system that has Second Level Address Translation (SLAT).

<http://technet.microsoft.com/en-us/library/hh857623.aspx>

---

15:23:47 PDT

**Question:** wil it be in exam?

**Answer:** :>

---

15:24:08 PDT

**Question:** I haven't seen the link to today's slide deck. Where is it?

**Answer:** Stephn check the FAQ tab

---

15:26:55 PDT

**Question:** Link for SLAT check -> <http://www.howtogeek.com/73318/how-to-check-if-your-cpu-supports-second-level-address-translation-slat/>

**Answer:** Sharing...

---

15:30:53 PDT

**Question:** I had to refresh my page to get the updated FAQ. I guess it doesn't refresh automatically. I was first connected early this morning.

**Answer:** Glad you sorted things out.... Now get that cup of coffee fast! We're starting in 3!

---

15:32:08 PDT

**Question:** Is there any document which describe "hardening" virtual environment?

**Answer:** You could use the Hyper-V Security Guide?

<http://blogs.technet.com/b/tlgs/default.aspx?PageIndex=1&PostSortBy=MostRecent> Enjoy!

---

15:34:13 PDT

**Question:** or is this still being applied in sysprep on the image

**Answer:** In the template you define if the machine should or should not join the domain.....

---

15:34:38 PDT

**Question:** Hyper-V Security Guide link correct?

**Answer:** Should be.... <http://technet.microsoft.com/en-us/library/dd569113.aspx>

---

15:37:16 PDT

**Question:** Just a comment to say a great 2 day event!!

**Answer:** Spread the word! 😊

---

15:37:59 PDT

**Question:** How is the connection to the 3rd party managed? Does System Center tunnel through a VPN or is that a bit out of scope for this session?

**Answer:** Symon answering Live

---

15:38:32 PDT

**Question:** that said, is there an easy to understand guide to quorum or such when working with failover clustering?

**Answer:** I'll ask symon to explain it....

---



---

15:39:56 PDT

**Question:** Is there an easy to understand guide to quorum or such when working with failover clustering?

**Answer:** I'd advise to look up Symon's sessions on clustering... That said, please be aware of the improvements on "Dynamic Quorum" in Server 2012 R2 <http://blogs.technet.com/b/avevalshah/archive/2012/08/21/windows-server-2012-failover-clustering-dynamic-quorum.aspx>

---

15:40:36 PDT

**Question:** when do we all receive our Hyper-V is king T-Shirts?

**Answer:** If anyone is providing these, I'm opting in for a XXL

---

15:41:05 PDT

**Question:** how important is app Controller for the exam?

**Answer:** <http://www.microsoft.com/learning/en-us/exam.aspx?id=74-409> See Skills Measured

---

15:42:19 PDT

**Question:** We have developers onsite that have MSDN accounts that include Azure subscriptions. Could the developers individually add their Azure subscriptions to AppController and manage the VM's in Azure.

**Answer:** Yes... I'm almost crying how good this technology is.... :-D #HyperVLove

---

15:42:53 PDT

**Question:** T-Shirt logo... To Affinity and beyond!

**Answer:** Shouldn't that be (for Symon) anti-affinity and beyond?

---

15:44:07 PDT

**Question:** Can I restore individual databases from a protected Hyper-V SQL server?

**Answer:** With DPM you can!

---

15:44:36 PDT

**Question:** @Bert Imao

**Answer:** Trying my best to keep people awake on my side of the ocean 😊

---

15:47:09 PDT

**Question:** anyone - would you go for DPM vs Veeam backup and replication ?

**Answer:** DPM and Veeam as a backup tool are not that much different... Replication is handled through Hyper-V So now let's take a look at licensing... Ow wait, you already OWN System Center licenses.... hmmm

---

15:47:51 PDT

**Question:** Looks like you are the one left answering questions Bert, others maybe feel asleep after last module

**Answer:** Or are participating in the drinking game with something else then Dr. Pepper 😊

---

15:51:13 PDT

**Question:** finally a good use for the 'drink' attribute in AD

**Answer:** That's insiders' information... Please don't trigger people to look for the "Drinks" attribute in Active Directory tomorrow... Ow, was that the Public response key?

---

15:51:22 PDT

**Question:** @corey Dos and win 3.1

**Answer:** Touche

---

15:51:51 PDT

**Question:** So put the Agent on the Hyper-V host AND the SQL virtual machine?

**Answer:** if you wanted both VM backup , and guest backup, yes

---

15:52:18 PDT

**Question:** My colleague said "Backups are for wussies".

**Answer:** Backups are for people with jobs.....

---

15:52:24 PDT

**Question:** My colleague said "Backups are for wussies".

**Answer:** I know more people with that attitude, until they need to restore stuff... 😊

---

15:53:24 PDT

**Question:** So Bert, are we going to get vouchers, will it be random or so? I am going to need time to learn and practice all of this ;P

**Answer:** I think the FAQ tab states that the vouchers will be sent next week... Please double-check

---

16:00:16 PDT

**Question:** Will DPM back up physical servers? How is it licensed?

**Answer:** Andy, I don't know about licensing but yes, for example you can back up the Virtualization host

---

16:02:58 PDT

**Question:** DPM is licensed with System Center, you can buy Standard licenses for individual machines, or Datacenter licenses which include protection for the host and all virtual machines on a host.

**Answer:** Good call on licensing!

---

16:05:39 PDT

**Question:** SCCM is able to manage mobile phones?

**Answer:** Out-of-the-box limited... In combination with a windows intune subscription? Great!

---

16:05:56 PDT

**Question:** so the DC licences are per server - i.e. eight blades with 2 processors in each = eight DC licences? (presuming the licences match windows server lics)

**Answer:** Correct!

---

16:08:16 PDT

**Question:** Can DPM restore a single email from a Msft Exchange mailbox backup? Agent installed on host or on VM?

**Answer:** From a support point of view item level restore from a restored mailbox isn't supported. I know other vendors have this feature technically in place.... But..... Just sayin'

---

16:10:04 PDT

**Question:** Is there a point to implement HyperV MP for SCOM 2012 and SCVMM 2012 MP together?

**Answer:** Consult the management pack documentation and see if there's an overlap in monitors...

---

16:12:19 PDT

**Question:** SCOM has an agent too? Just like SCDPM. Has Microsoft thought of a unified agent for System Center?

**Answer:** Nice one, I'll put it on the "to-do" list of the developers... 😊

---

16:12:44 PDT

**Question:** Can those opsman alerts also go right into service manager?

**Answer:** Yes, that's the way to go to manage your Dynamic Datacenter

---

16:13:14 PDT

**Question:** can you manage DPM with Powershell?

**Answer:** Yes, find documentation here: [http://technet.microsoft.com/en-us/library/hh881679\(v=sc.20\).aspx](http://technet.microsoft.com/en-us/library/hh881679(v=sc.20).aspx)

---

16:15:48 PDT

**Question:** Is there anyway to use SCOM in a Multi Tenant solution over the WAN? (For Managed Service Providers, for example) ?



**Answer:** Yes, you can use SCOM Gateway servers <http://technet.microsoft.com/en-us/library/hh212823.aspx> But beware, I know of some replication thingie with overrides for different customers replicating to ALL gateway servers. When you use "CustomerName\_Number" for override naming purposes.... It could lead to some unwanted situations.....

---

16:16:26 PDT

**Question:** So, I've been cutting and pasting the chat log since the start...we're up to 84 pages of single spaced text (over 64k words!)

**Answer:** Ow, okay... I'll answer less questions.... 😊 No way! Bring the pain! :-D

---

16:16:58 PDT

**Question:** Any built-in anti-virus protection for VMs?

**Answer:** SCCM using SCEP

---

16:17:23 PDT

**Question:** Any built-in anti-virus protection for VMs?

**Answer:** Built-in to the OS? No, not really.... Built-in to System Center? Ow yeah! System Center Endpoint Protection is the way to go!

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16:18:05 PDT

**Question:** SCCM with SCEP is a PAIN to setup. It's much better than SCCM 2007 was to configure, but we still haven't been able to get it to work properly.

**Answer:** Then you are doing it wrong, it is really quite simple to setup, I have done it many times. honest answer

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16:18:20 PDT

**Question:** Hi Symon, Corey .... Is there any limit of showing SCVMM Jobs/logs in SCVMM console Jobs pane? How can we increase /Decrease that limit ? How can we check the SCVMM logs Or Jobs which happened in past and which are not showing in SCVMM console so that we can track the actions in past.

**Answer:** Nobody here knows offhand, post on the SCVMM community forum

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16:19:08 PDT

**Question:** Replaced our entire AV solution with SCEP and it's so much easier to deploy and monitor.

**Answer:** My Experience at a number of Multi-nationals exactly!

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16:19:39 PDT

**Question:** Can I apply what Symon is demoing on an externally hosted sites?

**Answer:** Depends on the level of access you have...

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16:22:27 PDT

**Question:** Does Orchestrator integrate with other ticket systems?

**Answer:** You can kick off Orchestrator tasks by talking to the webservice

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16:25:26 PDT

**L.Wilson posted:** Is there a nice Dashboard for SCOM?

**Answer:** You can even create custom dashboards in SharePoint!

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16:25:54 PDT

**Question:** Thanks for answering my questions Bert.

**Answer:** Yr welcome! Now time to get some sleep!

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16:26:27 PDT

**Question:** bert could you clarify if the vouchers are given random or not ?, i need time to learn real hard stuff.

**Answer:** It's like the Oprah show... Everyone gets a voucher!

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16:28:04 PDT

**Question:** is there a link to download the presetations?

**Answer:** Please check the FAQ section for details.....

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16:28:18 PDT

**Question:** @bert: tnx for filling up the q&a (nu tijd om te slapen)

**Answer:** Zeker tijd om te slapen! :-D

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16:29:18 PDT

**Question:** apparently we get an email with the voucher.

**Answer:** Correct!

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16:29:39 PDT

**Question:** Presentation Slides - Coming Soon! - that i see in FAQ

**Answer:** Exam voucher by email around the 27th of November

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16:30:55 PDT

**Question:** Please could try to publish the Q&A logs even before than 27th November ? Plenty of information was shared indeed so it could be better to start reviewing it even before receiving the voucher...

**Answer:** You can Always try the CTRL+A , CTRL+C, CTRL+V if your buffer is big enough....

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16:32:14 PDT

**Question:** I don't see that in FAQ.. All I can see is yesterday's session slides.

**Answer:** Please refresh the webpage and check the FAQ again

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16:32:57 PDT

**Question:** Will those guys be at TechEd?

**Answer:** We've tried to keep them away before, but it didn't work... 😊

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16:34:40 PDT

**Question:** lost video? is it over?

**Answer:** Yes, we're done for now..... Check back soon for more interesting sessions!

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16:36:34 PDT

**Question:** huh... sorry, but... what was the MVA Voucher Code Again?

**Answer:** It's a dark secret, but it's probably up for grabs in the FAQ section! 😊

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16:36:52 PDT

**Question:** No results from the last Poll?

**Answer:**

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16:38:58 PDT

**Question:** That worked Bert, saving the webpage as htm preserves the links.

**Answer:** Sweet! Have fun with those line of "code" 😊

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