



**QUESTION & ANSWER**  
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**Exam : 70-417**

**Title : Upgrading Your Skills to  
MCSA Windows Server  
2012**

**Version : DEMO**

1. Your network contains an Active Directory domain named contoso.com. The domain contains a server named Server1. Server1 runs Windows Server 2012 R2 and has the Hyper-V server role installed. On Server1, you create and start a virtual machine named VM1. VM1 is configured as shown in the following table.

Setting	Configuration
Minimum RAM	2048 MB
Maximum RAM	4096 MB
Disk type	Fixed size
Disk size	100 GB

You plan to create a checkpoint of VM1. You need to recommend a solution to minimize the amount of disk space used for the checkpoint of VM1.

What should you do before you create the checkpoint?

- A. Decrease the Maximum RAM.
- B. Convert Disk1.vhd to a dynamically expanding disk.
- C. Run the Stop-VM cmdlet.
- D. Run the Resize-VHD cmdlet.

**Answer: C**

**Explanation:**

For checkpoints created when the virtual machine is stopped

The checkpoint contains the state of the hard disks only.

For checkpoints created when the virtual machine is running

The checkpoint contains the state of the hard disks and the data in memory.

Note: A checkpoint saves the state of each virtual hard disk that is attached to a virtual machine and all of the hard disk's contents, including application data files. For virtual machines on Hyper-V and VMware ESX Server hosts, a checkpoint also saves the hardware configuration information. By creating checkpoints for a virtual machine, you can restore the virtual machine to a previous state.

2. Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the Hyper-V server role installed.

Server1 hosts four virtual machines named VM1, VM2, VM3, and VM4.

Server1 is configured as shown in the following table.

Hardware component	Configuration
Processor	Eight quad-core CPUs that have non-uniform memory access (NUMA)
Memory	32 GB of RAM
Disk	Two local 4-TB disks
Network	Eight network adapters VMQ-supported PCI-SIG-supported

You install a network monitoring application on VM2.

You need to ensure that all of the traffic sent to VM3 can be captured on VM2.

What should you configure?

- A. NUMA topology
- B. Resource control
- C. Resource metering
- D. Virtual Machine Chimney
- E. The VLAN ID
- F. Processor Compatibility
- G. The startup order
- H. Automatic Start Action
- I. Integration Services
- J. Port mirroring
- K. Single-root I/O virtualization

**Answer: J**

**Explanation:**

[http://technet.microsoft.com/en-us/library/jj679878.aspx#bkmk\\_portmirror](http://technet.microsoft.com/en-us/library/jj679878.aspx#bkmk_portmirror)

What's New in Hyper-V Virtual Switch

Port Mirroring

With Port Mirroring, traffic sent to or from a Hyper-V Virtual Switch port is copied and sent to a mirror port. There are a range of applications for port mirroring an entire ecosystem of network visibility companies exist that have products designed to consume port mirror data for performance management, security analysis, and network diagnostics. With Hyper-V Virtual Switch port mirroring, you can select the switch ports that are monitored as well as the switch port that receives copies of all the traffic.

The following examples configure port mirroring so that all traffic that is sent and received by both MyVM and

MyVM2 is also sent to the VM named MonitorVM.

Set-VMNetworkAdapter VMName MyVM PortMirroring Source

Set-VMNetworkAdapter VMName MyVM2 PortMirroring Source

Set-VMNetworkAdapter VMName MonitorVM PortMirroring Destination

3. Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the Hyper-V server role installed.

Server1 hosts four virtual machines named VM1, VM2, VM3, and VM4.

Server1 is configured as shown in the following table.

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You plan to schedule a complete backup of Server1 by using Windows Server Backup.

You need to ensure that the state of VM1 is saved before the backup starts.

What should you configure?

- A. NUMA topology
- B. Resource control

- C. Resource metering
- D. Virtual Machine Chimney
- E. The VLAN ID
- F. Processor Compatibility
- G. The startup order
- H. Automatic Start Action
- I. Integration Services
- J. Port mirroring
- K. Single-root I/O virtualization

**Answer: I**

**Explanation:**

<http://www.altaro.com/hyper-v/vss-crash-consistent-vs-Application-consistent-vss-backupspost-2-of-2/Backup>

Operations in Hyper-V

No

VSS Writer Available?

In some cases, you need an Application-consistent backup but there is no VSS writer available. One example of this is MySQL. Hyper-V backups of virtual machines containing MySQL will always result in either a crashconsistent or an image-level backup. For MySQL, the latter is probably acceptable as MySQL doesn't perpetually expand the log file. However, if you're using MySQL within a VSS-aware VM, then a Hyper-Vbased backup tool is going to take a crash-consistent backup. MySQL (like any other database system) isn't always recoverable from a crash-consistent backup; tool is going to take a crash-consistent backup. MySQL (like any other database system) isn't always recoverable from a crash-consistent backup; even when recovery is possible, it may be painful. MySQL is just one example; any number of line-of-business Applications could tell a similar tale. In the case of MySQL, one solution is to find a guest-level backup Application that is MySQL- aware and can back it up properly. For Applications for which no backup Application has a plug-in, you may need to have pre- and post-backup scripts that stop services or close Applications. If brief downtime is acceptable, you can disable the Backup item in Hyper-V Integration Services, thereby forcing Hyper-V to save the state of the VM during backup. This technique results in an image-level backup and can be used on any Application that doesn't have a VSS writer.

4.Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the Hyper-V server role installed.

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VM3 is used to test applications.

You need to prevent VM3 from synchronizing its clock to Server1.

What should you configure?

- A. NUMA topology
- B. Resource control
- C. Resource metering
- D. Virtual Machine Chimney
- E. The VLAN ID
- F. Processor Compatibility
- G. The startup order
- H. Automatic Start Action
- I. Integration Services
- J. Port mirroring
- K. Single-root I/O virtualization

**Answer: I**

**Explanation:**

Integration Services settings on virtual machines includes services such as operating system shutdown, time synchronization, data exchange, Heart beat, and Backup (volume snapshot services. Thus you should disable the time synchronization using Integration Services.

References:

<http://blogs.technet.com/b/virtualization/archive/2008/08/29/backing-up-hyper-v-virtual-machines.aspx>

Exam Ref 70-410, Installing and Configuring Windows Server 2012, Chapter 3: Configure Hyper-V, Objective 3.1: Create and Configure virtual machine settings, p. 144

5. Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the Hyper-V server role installed.

Server1 hosts four virtual machines named VM1, VM2, VM3, and VM4.

Server1 is configured as shown in the following table.

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VM2 sends and receives large amounts of data over the network.

You need to ensure that the network traffic of VM2 bypasses the virtual switches of the parent partition.

What should you configure?

- A. NUMA topology
- B. Resource control
- C. Resource metering
- D. Virtual Machine Chimney
- E. The VLAN ID
- F. Processor Compatibility
- G. The startup order

- H. Automatic Start Action
- I. Integration Services
- J. Port mirroring
- K. Single-root I/O virtualization

**Answer: K**

**Explanation:**

Single-root I/O virtualization -capable network adapters can be assigned directly to a virtual machine to maximize network throughput while minimizing network latency and the CPU overhead required for processing network traffic.

References:

[http://technet.microsoft.com/en-us/library/cc766320\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc766320(v=ws.10).aspx)

<http://technet.microsoft.com/en-us/library/hh831410.aspx>

Exam Ref 70-410, Installing and Configuring Windows Server 2012, Chapter 3: Configure Hyper-V, Objective 3.1: Create and Configure virtual machine settings, p. 144

Training Guide: Installing and Configuring Windows Server 2012: Chapter 7: Hyper-V Virtualization, Lesson 2: Deploying and configuring virtual machines, p. 335