

# Microsoft

## Exam 74-409

### Server Virtualization with Windows Server Hyper-V and System Center

Version: 7.1

[ Total Questions: 99 ]

**Question No : 1**

You administer a Windows Server 2012 R2 server that has the Hyper-V role installed. You deploy a new virtual machine. You add two virtual network adapters to the virtual machine.

You need to ensure that the virtual machine maintains network connectivity if one virtual network adapter fails.

What should you do?



- A. Run the Windows PowerShell cmdlet Enable-VMReplication.
- B. Enable Dynamic Host Configuration Protocol (DHCP) Guard.
- C. Run the Windows PowerShell cmdlet Set-VMHost.
- D. Run the Windows PowerShell cmdlet Set-VMNetworkAdapter.

**Answer: D**

**Explanation:** Ref: <http://technet.microsoft.com/en-us/library/hh848457.aspx>

**Question No : 2**

You administer a server that runs Windows Server 2012 R2 that has the Hyper-V role installed. You plan to apply an update to a virtual machine (VM). You have the following requirements:

-  You must be able to quickly revert back to a pre-update state.
-  The solution must minimize storage requirements on the server.

You need to apply the update. What should you do?

- A. Run the Windows PowerShell cmdlet New-VirtualDiskClone.
- B. Create a checkpoint of the VM.
- C. Run the Windows PowerShell cmdlet Export-VMSnapshot.
- D. Export the VM.

**Answer: B**

**Explanation:**

Ref: <http://technet.microsoft.com/en-us/library/cc956044.aspx>

**Question No : 3**

A company has Windows Server 2012 R2 servers that have the Hyper-V role installed. The guest virtual machines are configured as follows:

Configuration	Description
Operating System	Windows Server 2012
Virtual Machine Generation	Generation 1
Operating System Drive Format	.vhdx
Data Drive Format	.vhd

You need to ensure that the environment supports online virtual hard disk resizing.

What should you do?

- A. Convert the virtual machines to Generation 2 virtual machines.
- B. Deploy clustered storage spaces.
- C. Convert the drive format of the virtual machines to the VHDX file format.
- D. Deploy Serial Attached SCSI (SAS).

**Answer: C**

**Explanation:** Ref: <http://technet.microsoft.com/en-us/library/dn282286.aspx>

**Requirements**

The following functionality is required for resizing a virtual hard disk:

- A server capable of running Hyper-V. The server must have processor support for hardware virtualization. The Hyper-V role must be installed.
- A user account that is a member of the local Hyper-V Administrators group or the Administrators group.




The following functionality is required for resizing a virtual hard disk:

- VHDX - the ability to expand and shrink virtual hard disks is exclusive to virtual hard disks that are using the .vhdx file format. Online resizing is supported for VHDX disk types, including fixed, differencing, and dynamic disks. Virtual hard disks that use the .vhd file format are not supported for resizing operations.
- SCSI controller - the ability to expand or shrink the capacity of a virtual hard disk is exclusive to .vhdx files that are attached to a SCSI controller. VHDX files that are attached to an IDE controller are not supported.

**Question No : 4**

A Windows Server 2012 R2 Hyper-V host server has four network adapters that are connected to two different network switches. The server contains a virtual machine named NYC-WEB.

You have the following requirements:

-  increase the available bandwidth for NYC-WEB
-  implement network fault tolerance for NYC-WEB without modifying network switch configurations
-  use the least amount of administrative effort

You need to configure the Hyper-V environment. What should you do first?

- A.** Enable NIC teaming. Configure the team to use Static Teaming mode.
- B.** Enable NIC teaming. Configure the team to use Switch Independent mode.
- C.** Enable Bandwidth Management on NYC-WEB.
- D.** Run the Windows PowerShell command `Set-NetLbfoTeam -Name Team1 -TeamingMode Static`.

**Answer: B**

**Explanation:**

Ref: <http://blogs.technet.com/b/privatecloud/archive/2012/06/19/nic-teaming-in-windows-server-2012-brings-simple-affordable-traffic-reliability-and-load-balancing-to-your-cloud-workloads.aspx>

**Question No : 5 DRAG DROP**

You administer a Windows Server 2012 R2 server that has the Hyper-V role installed. The host server has the following configuration:

Server	Switch	VLAN ID	Description
VM-SERVER1	VirtualSwitch1	30	Lab Environment
VM-SERVER2	VirtualSwitch2	50	Production Environment

You deploy a new lab virtual machine named VM-SERVER3.

You need to ensure that VM-SERVER3 communicates only with VM-SERVER1.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

On VM-SERVER3, add a virtual network adapter and associate it with VirtualSwitch1.

Run the Windows PowerShell cmdlet **Enable-VMSwitchExtension**.

On VM-SERVER3, add a virtual network adapter and associate it with VirtualSwitch2.

Enable virtual LAN (VLAN) identification.

Configure a virtual LAN (VLAN) ID of 50.

Configure a virtual LAN (VLAN) ID of 30.

**Answer:**

On VM-SERVER3, add a virtual network adapter and associate it with VirtualSwitch1.

Run the Windows PowerShell cmdlet **Enable-VMSwitchExtension**.

On VM-SERVER3, add a virtual network adapter and associate it with VirtualSwitch2.

Enable virtual LAN (VLAN) identification.

Configure a virtual LAN (VLAN) ID of 50.

Configure a virtual LAN (VLAN) ID of 30.

**Question No : 6**

A company plans to create a Hyper-V environment that will contain three virtual machines (VMs). A limited amount of storage space is available to host the VMs. The VMs will be configured as follows:

Virtual Machine Name	Operating System	Server Role
NYC-EX1	Windows Server 2012	Exchange Server 2013
NYC-DC1	Windows Server 2012	Active Directory Domain Services
NYC-SQL1	Windows Server 2008 R2	SQL Server 2008

You must maximize disk performance.

You need to recommend a storage solution.

Which type of virtual disk type should you configure for each VM?

- A. pass-through
- B. fixed
- C. dynamically expanding
- D. differencing

**Answer: B**

**Explanation:**

Ref: <http://www.petri.co.il/choosing-hyper-v-storage-virtual-hard-disks-2.htm#>

### Virtual Disk Types

There are considerations for using virtual disks, and what types of virtual disks are available:

- Fixed—The VHD image file is pre-allocated on the backing store for the maximum size requested.
- Expandable—Also known as "dynamic", "dynamically expandable", and "sparse", the VHD image file uses only as much space on the backing store as needed to store the actual data the virtual disk currently contains. When creating this type of virtual disk, the VHD API does not test for free space on the physical disk based on the maximum size requested, therefore it is possible to successfully create a dynamic virtual disk with a maximum size larger than the available physical disk free space.

Note The maximum size of a dynamic virtual disk is 2,040 GB.

- Differencing—A parent virtual disk is used as the basis of this type, with any subsequent writes written to the virtual disk as differences to the new differencing VHD image file, and the parent VHD image file is not modified. For example, if you have a clean-install system boot operating system virtual disk as a parent and designate the differencing virtual disk as the current virtual disk for the system to use. then the operating system on the parent virtual disk stays in its original state for quick recovery or for quickly creating more boot images based on additional differencing virtual disks.

Note The maximum size of a differencing virtual disk is 2,040 GB.

All virtual disk types have a minimum size of 3 MB.

With Pass-through disks, you lose all of the benefits of VHD files such as portability, snapshotting and thin provisioning.

Performance is marginally better than that of VHD files.

Reference: <http://clusteringformeremortals.com/2009/09/25/hyper-v-pass-through-disk-performance-vs-fixedsize-vhd-files-and-dynamic-vhd-files-in-windows-server-2008-r2/>

**Question No : 7 HOTSPOT**

You administer the Hyper-V environment for a company. All virtual machines must use dynamic memory and virtual non-uniform memory access (NUMA) settings that are aligned to the underlying hardware.

One virtual machine is misconfigured.

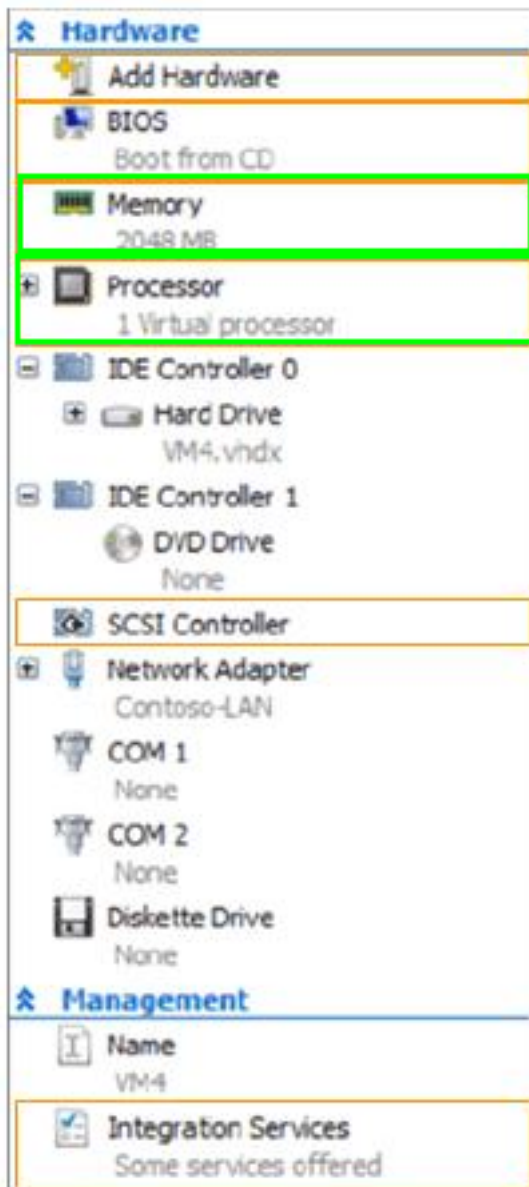
You need to update the misconfigured virtual machine.

In the Settings dialog box for the virtual machine, which two options should you select?



Answer:



**Question No : 8**

A company has servers that run Windows Server 2012 R2. The company has one Active Directory Domain Services (AD DS) domain.

A user reports that USB devices are not redirected when he uses the Virtual Machine Connection tool to connect to a virtual machine. USB device redirection works for other users that connect to this VM.

You need to ensure that USB devices are redirected for all users when they connect to this VM.

What should you do?

- A. Add the user as a member of the Administrators group on the VM.
- B. Ensure that the Allow enhanced session mode setting is set to Enabled on the VM.
- C. Ensure that the Remote Desktop Services service is running on the VM.
- D. Add the user as a member of the Administrators group on the AD DS domain.

**Answer: A**

**Explanation:** Ref: <http://technet.microsoft.com/en-us/library/dn282274.aspx>



Re-direction works for other users on this VM. This means that Enhanced Session Mode is already enabled on the server and VM.

Additionally, Remote Desktop Services needs to be running, and the user account you use to sign in to the virtual machine needs to be a member of the Remote Desktop Users local group or the local Administrators group.

#### Question No : 9

A company has seven Windows Server 2012 R2 virtual machines (VMs). The VMs are running and are accessible over the network. You plan to copy a large .ISO file from the host server to each of the VMs.

The copy operations must meet the following requirements:

-  The VMs must remain accessible over the network during the copy operations.
-  The copy operations must NOT use a network connection.

You need to configure the VMs. What should you do on each VM?

- A. Enable the Guest services integration service.
- B. Enable the Data Exchange integration service.
- C. Add a network adapter, and then enable the virtual machine queue (VMQ) option on the adapters.
- D. Set the value of the Smart Paging File Location property to %SYSTEMROOT%\temp.

**Answer: A**

**Explanation:** Ref: <http://technet.microsoft.com/en-us/library/dn282278.aspx>

Q: What is the new Guest services integration service in Windows Server 2012 R2 Hyper-V?