

# PASS4SURES.COM

A Composite Solution With Just One Click

# Microsoft

**70-980 PRACTICE EXAM**

Recertification for MCSE: Server Infrastructure

# **Product Questions: 450/17 Case Study**

## **Version: 8.0**

### **Case Study: 1**

#### **Contoso Ltd Case A**

##### **Overview**

Contoso, Ltd., is a healthcare company in Europe that has 2,000 users. The company is migrating to Windows Server 2012.

The company has two main offices and two branch offices. The main offices are located in Paris and Amsterdam. One of the branch offices is a sales office located in Berlin. The other branch office is a research office located in Brussels.

The offices connect to each other by using a WAN link.

##### **Current Environment**

###### **Active Directory**

The network contains an Active Directory forest named contoso.com. An Active Directory site exists for each office.

The forest contains a child domain named research.contoso.com.

The functional level of both the domains is Windows Server 2008.

In each site, there are two domain controllers for the contoso.com domain and two domain controllers for the research.contoso.com domain. The domain controllers run Windows Server 2008 R2.

All of the domain controllers are global catalog servers.

The FSMO roles were not moved since the domains were deployed.

###### **Network Infrastructure**

All servers run Windows Server 2008 R2.

Each user has a laptop computer that runs Windows 7.

The company has 10 print servers. Each print server contains several shared printers.

The company has 10 file servers that have the following disk configurations:

- A simple volume named C that is the System and Boot volume and is formatted NTFS
- A mounted virtual hard disk (VHD) named DATA that is formatted NTFS
- A simple volume named D that is formatted FAT32
- A simple volume named E that is formatted NTFS
- A Clustered Shared Volume (CSV)

The Paris office contains a server named PA1. The Amsterdam office contains a server named AM1.

Both servers have the following server roles installed:

- DNS Server
- DHCP Server
- Remote Access

The DNS servers are configured to use the DNS servers of the company's Internet Service Provider (ISP) as forwarders.

Users often work remotely. The users access the internal network by using an SSTP-based VPN connection.

## **Requirements**

### **Planned Changes**

The company plans to implement the following changes:

- Create a child domain named sales.contoso.com. Only the domain controllers in sales.contoso.com will host a zone for the sales.contoso.com domain. The domain controllers in sales.contoso.com will run Windows Server 2012. The client computers in sales.contoso.com will use the sales.contoso.com domain controllers as their DNS servers.
- Implement two servers in the Amsterdam office and two servers in the Paris office to replace PA1 and AM1. These new servers will run Windows Server 2012 and will not have shared storage.
- Decommission the research.contoso.com domain. All of the users and the Group Policy objects (GPOs) in research.contoso.com will be migrated to contoso.com.
- Migrate the existing print queues to virtualized instances of Windows Server 2012.
- Migrate the file servers to new servers that run Windows Server 2012.
- Implement RADIUS authentication for VPN connections.
- Deploy Windows Server 2012 to all new servers.

## **Technical Requirements**

The company identifies following technical requirements:

- All changes to Group Policies must be logged.
- Network Access Protection (NAP) policies must be managed centrally.
- Core networking services in each office must be redundant if a server fails.
- The possibility of IP address conflicts during the DHCP migration must be minimized.
- A central log of the IP address leases and the users associated to those leases must be created.
- All of the client computers must be able to resolve internal names and internet names.
- Administrators in the Paris office need to deploy a series of desktop restrictions to the entire company by using Group Policy.
- The new sales.contoso.com domain will contain a web application that will access data from a Microsoft SQL Server located in the contoso.com domain. The web application must use integrated Windows authentication. Users' credentials must be passed from the web applications to the SQL Server.

---

## **Question: 1**

---

You implement and authorize the new DHCP servers. You import the server configurations and the scope configurations from PA1 and AM1.

You need to ensure that clients can obtain DHCP address assignments after you shut down PA1 and AM1. The solution must meet the technical requirements.

What should you do?

- A. Run the Get-DhcpServerv4Lease cmdlet and the Remove-DhcpServerv4Lease cmdlet. Run the Windows Server Migration Tools.
- B. Run the Get-DhcpServerv4Lease cmdlet and the Add-DhcpServerv4Lease cmdlet. Activate the scopes.
- C. Run the Get-DhcpServerv4FreeIPAddress cmdlet and the Invoke-DhcpServerv4FailoverReplication cmdlet. Run the Windows Server Migration Tools.
- D. Run the Get-DhcpServerv4FreeIPAddress cmdlet and the Invoke-DhcpServerv4FailoverReplication cmdlet. Activate the scopes.

---

**Answer: B**

---

The Get-DhcpServerv4Lease cmdlet gets one or more lease records from the Dynamic Host Configuration Protocol (DHCP) server service.

The Add-DhcpServerv4Lease cmdlet adds a new IPv4 address lease on the Dynamic Host Configuration Protocol (DHCP) server service. This cmdlet is only supported for DHCP server service running on Windows Server® 2012.

---

**Question: 2**

---

You need to recommend a management solution for the GPOs. The solution must meet the technical requirements. What should you include in the recommendation?

- A. Microsoft Baseline Security Analyzer (MBSA)
- B. Microsoft Desktop Optimization Pack (MDOP)
- C. Microsoft System Center 2012 Operations Manager
- D. Microsoft System Center 2012 Data Protection Manager (DPM)

---

**Answer: B**

---

Explanation:

\* Scenario:

/ All changes to Group Policies must be logged.

/ Administrators in the Paris office need to deploy a series of desktop restrictions to the entire company by using Group Policy.

\* Microsoft Desktop Optimization Pack

Windows Vista Enterprise helps global organizations and enterprises with complex IT infrastructures lower IT costs, reduce risk, and stay connected. The Microsoft Desktop

Optimization Pack for Software Assurance further extends this value by reducing application deployment costs, enabling delivery of applications as services, and allowing for better management and control of enterprise desktop environments. Together these technologies deliver a highly cost-effective and flexible Windows desktop management solution.

What is the Microsoft Desktop Optimization Pack?

The Microsoft Desktop Optimization Pack (MDOP) for Software Assurance is an add-on subscription license available to Software Assurance customers. It uses innovative technologies to help reduce the total cost of ownership (TCO) of the Windows desktop by accelerating operating system and application management and enhancing IT responsiveness and end-user uptime. It will enable you to better control the desktop, accelerate and simplify desktop deployments and management, and create a dynamic infrastructure by turning software into centrally managed services.

MDOP facilitates accelerated deployment and manageability of Windows through these innovative technologies—available only to Windows Software Assurance customers.

Reference:

Microsoft Desktop Optimization Pack

URL: <http://technet.microsoft.com/en-us/library/cc507880.aspx>

---

### **Question: 3**

---

You are planning the decommissioning of research.contoso.com.

You need to ensure that an administrator named Admin5 in the research department can manage the user accounts that are migrated to contoso.com. The solution must minimize the number of permissions assigned to Admin5. What should you do before you migrate the user accounts?

- A. Run the New-Object cmdlet, and then run the Add-ADPrincipalGroupMembershipcmdlet.
- B.Create a new organizational unit (OU), and then add Admin5 to the Account Operators group.
- C.Create a new organizational unit (OU), and then run the Delegation of Control Wizard.
- D.Run the New-Object cmdlet, and then run the Add-ADCentralAccessPolicyMembercmdlet.

---

### **Answer: C**

---

Explanation:

\* Scenario: Decommission the research.contoso.com domain. All of the users and the Group Policy objects (GPOs) in research.contoso.com will be migrated to contoso.com.

Reference:

Delegation of Control Wizard

<http://technet.microsoft.com/en-us/library/dd145344.aspx>

---

### **Question: 4**

---

You need to recommend changes to the DNS environment that support the implementation of the sales.contoso.com domain. The solution must ensure that the users in all of the domains can resolve both Internet names and the names of the servers in all of the internal domains.

What should you recommend?

- A. On the DNS servers in contoso.com, configure a reverse lookup zone. On the DNS servers in sales.contoso.com, configure a conditional forwarder to contoso.com.
- B.On the DNS servers in contoso.com, add a conditional forwarder to the sales.contoso.com zone. On the DNS servers in sales.contoso.com, add a forwarder to the DNS servers of the company's ISP.
- C.On the DNS servers in contoso.com, create a zone delegation in the contoso.com zone. On the DNS servers in sales.contoso.com, add a forwarder to the contoso.com DNS servers.
- D.On the DNS servers in contoso.com, configure a conditional forwarder to sales.contoso.com. On the DNS servers in sales.contoso.com, configure a reverse zone.

---

### **Answer: C**

---

Scenario: The client computers in sales.contoso.com will use the sales.contoso.com domain controllers as their DNS servers.

---

### **Question: 5**

---

You are evaluating the implementation of data deduplication on the planned Windows Server 2012 file servers.

The planned servers will have the identical disk configurations as the current servers.

You need to identify which volumes can be enabled for data deduplication.

Which volumes should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. C
- B.D
- C.E
- D. The CSV
- E.DATA

---

**Answer: C, E**

---

Explanation:

\* Scenario:

A mounted virtual hard disk (VHD) named DATA that is formatted NTFS

A simple volume named E that is formatted NTFS

\* Note: Data Deduplication feature doesn't do everything in this version. It is only available in certain Windows Server 2012 editions and has some limitations. Deduplication was built for NTFS data volumes and it does not support boot or system drives and cannot be used with

Cluster Shared Volumes (CSV). We don't support deduplicating live VMs or running SQL databases. See how to determine which volumes are candidates for deduplication on Technet.

Incorrect:

Not A: Volume C is a boot volume. Data deduplication does not work on boot volumes.

Not B: Volume B is FAT32 volume. Data deduplication requires NTFS.

Not D: Deduplication cannot be used with CSV.

---

### **Question: 6**

---

You are planning the implementation of two new servers that will be configured as RADIUS servers.

You need to recommend which configuration must be performed on the VPN servers. The solution must meet the technical requirements.

What should you do on each VPN server?

- A. Add a RADIUS client.
- B. Install the Health Registration Authority role service.
- C. Enable DirectAccess.
- D. Modify the authentication provider.

---

**Answer: D**

---

Explanation:

\* Implement RADIUS authentication for VPN connections.

\* The new sales.contoso.com domain will contain a web application that will access data from a Microsoft SQL Server located in the contoso.com domain. The web application must use integrated Windows authentication. Users' credentials must be passed from the web applications to the SQL Server.

---

### **Question: 7**

---

You need to recommend which changes must be implemented to the network before you can deploy the new web application.

What should you include in the recommendation?

- A. Change the forest functional level to Windows Server 2008 R2.
- B. Upgrade the DNS servers to Windows Server 2012.
- C. Change the functional level of both the domains to Windows Server 2008 R2.
- D. Upgrade the domain controllers to Windows Server 2012.

---

**Answer: D**

---

**Explanation:**

The web application is in the sales.contoso.com domain, which will have Windows Server 2012 Domain controllers. We should therefore upgrade the other domain controller to Windows Server 2012.

**Scenario:**

- \* The new sales.contoso.com domain will contain a web application that will access data from a Microsoft SQL Server located in the contoso.com domain. The web application must use integrated Windows authentication. Users' credentials must be passed from the web applications to the SQL Server.
- \* Planned changes include: create a child domain named sales.contoso.com. Only the domain controllers in sales.contoso.com will host a zone for the sales.contoso.com domain. The domain controllers in sales.contoso.com will run Windows Server 2012.

---

**Question: 8**

---

You need to recommend a fault-tolerant solution for the VPN. The solution must meet the technical requirements. What should you include in the recommendation?

- A. Network adapter teaming
- B. Network Load Balancing (NLB)
- C. Failover Clustering
- D. DirectAccess

---

**Answer: B**

---

**Explanation:**

- \* Scenario: Core networking services in each office must be redundant if a server fails.
- \* The Network Load Balancing (NLB) feature distributes traffic across several servers by using the TCP/IP networking protocol. By combining two or more computers that are running applications into a single virtual cluster, NLB provides reliability and performance for web servers and other mission-critical servers.

**Reference:**

Network Load Balancing Overview

<http://technet.microsoft.com/en-us/library/hh831698.aspx>

---

**Question: 9**

---

You are planning the migration of research.contoso.com.

You need to identify which tools must be used to perform the migration.

Which tools should you identify?

- A. Active Directory Migration Tool version 3.2 (ADMT v3.2) and Group Policy Management Console (GPMC)
- B. Active Directory Federation Services (AD FS) and Microsoft Federation Gateway
- C. Active Directory Migration Tool version 3.2 (ADMT v3.2) and Active Directory Federation Services (AD FS)
- D. Active Directory Lightweight Directory Services (AD LDS) and Group Policy Management

Console (GPMC)

---

**Answer: A**

---

Explanation:

\* Scenario:

All of the users and the Group Policy objects (GPOs) in research.contoso.com will be migrated to contoso.com. two domain controllers for the research.contoso.com domain. The domain controllers run Windows Server 2008 R2.

---

### **Question: 10**

---

You need to recommend a solution for DHCP logging. The solution must meet the technical requirement.

What should you include in the recommendation?

- A. Event subscriptions
- B. IP Address Management (IPAM)
- C. DHCP audit logging
- D. DHCP filtering

---

**Answer: B**

---

\* Scenario: A central log of the IP address leases and the users associated to those leases must be created.

\* Feature description

IPAM in Windows Server 2012 is a new built-in framework for discovering, monitoring, auditing, and managing the IP address space used on a corporate network. IPAM provides for administration and monitoring of servers running Dynamic Host Configuration Protocol (DHCP) and Domain Name Service (DNS). IPAM includes components for:

- Automatic IP address infrastructure discover): IPAM discovers domain controllers, DHCP servers, and DNS servers in the domains you choose. You can enable or disable management of these servers by IPAM.
- Custom IP address space display, reporting, and management: The display of IP addresses is highly customizable and detailed tracking and utilization data is available. IPv4 and IPv6 address space is organized into IP address blocks, IP address ranges, and individual IP addresses. IP addresses are assigned built-in or user-defined fields that can be used to further organize IP address space into hierarchical, logical groups.
- Audit of server configuration changes and tracking of IP address usage: Operational events are displayed for the IPAM server and managed DHCP servers. IPAM also enables IP address tracking using DHCP lease events and user logon events collected from Network Policy Server (NPS), domain controllers, and DHCP servers. Tracking is available by IP address, client ID, host name, or user name.
- Monitoring and management of DHCP and DNS services: IPAM enables automated service availability monitoring for Microsoft DHCP and DNS servers across the forest. DNS zone health is displayed, and detailed DHCP server and scope management is available using the IPAM console.

Reference:

IP Address Management (IPAM) Overview

---

### **Question: 11**

---

After the planned upgrade to Windows Server 2012, you restore a user account from the Active Directory Recycle Bin. You need to replicate the restored user account as quickly as possible.

Which cmdlets should you run?

- A. Get-ADReplicationSite and Set-ADReplicationConnection
- B. Get-ADReplicationAttributeMetadata and Compare-Object

- C. Get-ADReplicationUpToDateTable and Set-ADReplicationSite
- D. Get ADDomainController and Sync-ADObject

---

**Answer: D**

---

Explanation:

\* Scenario:

All of the domain controllers are global catalog servers.

The FSMO roles were not moved since the domains were deployed.

\* Example: The following command replicates the user “James” to all the domain controllers:

```
Get-ADDomainController -filter * | ForEach {Sync-ADObject -object "CN=James, OU=BusinessUsers, DC=Test, DC=Local" -source NKAD1 -destination $_.hostname}
```

Note:

\* The Get-ADDomainController cmdlet gets the domain controllers specified by the parameters.

You can get domain controllers by setting the Identity, Filter or Discover parameters.

\* The Sync-ADObject cmdlet replicates a single object between any two domain controllers that have partitions in common. The two domain controllers do not need to be direct replication partners. It can also be used to populate passwords in a read-only domain controller (RODC) cache.

Reference:

Get-ADDomainController, Sync-ADObject

---

### **Question: 12**

---

You implement a new virtualized print server that runs Windows Server 2012.

You need to migrate the print queues.

Which tool should you use?

- A. Windows Server Migration Tools
- B. Active Directory Migration Tool (ADMT)
- C. Print Management
- D. Computer Management

---

**Answer: C**

---

Explanation:

\* Scenario: Migrate the existing print queues to virtualized instances of Windows Server 2012.

\* To manage the migration process, use one of the following:

The Printer Migration Wizard, which you access through Print Management, a snap-in in Microsoft Management Console (MMC).

The Printbrm.exe command-line tool.

You can perform the migration locally or remotely, and from either a client computer or server.

Important

As a best practice, run the Printer Migration Wizard or Printbrm.exe from a computer running Windows Server 2012

\* Reference:

Migrate Print and Document Services to Windows Server 2012

---

### **Question: 13**

---

What method should you use to deploy servers?

- A. WDS
- B. AIK
- C. ADK
- D. EDT

---

**Answer: A**

---

WDS is a server role that enables you to remotely deploy Windows operating systems. You can use it to set up new computers by using a network-based installation. This means that you do not have to install each operating system directly from a CD, USB drive, or DVD.

Reference:

What's New in Windows Deployment Services in Windows Server

<https://technet.microsoft.com/en-us/library/dn281955.aspx>

## **Case Study: 2**

### **Proseware, Inc A**

#### **Overview**

#### **General Overview**

Proseware, Inc. is a pharmaceutical services company that has a sales department, a marketing department, an operations department, and a human resources department.

#### **Physical Locations**

Proseware has two main offices. One of the offices is located in New York. The other office is located in Chicago. The New York office uses a 172.16.1.0/24 network ID. The Chicago office uses a 192.168.1.0/24 network ID.

The offices connect to each other by using a high-bandwidth, low-latency WAN link. Each office connects directly to the Internet.

#### **Existing Environment**

The network contains an Active Directory forest named `proseware.com`. The forest contains two domains named `proseware.com` and `chicago.proseware.com`. All of the user accounts and the computer accounts in the New York office reside in the `proseware.com` domain. All of the user accounts and the computer accounts in the Chicago office reside in the `chicago.proseware.com` domain. All DNS zones are Active-Directory-integrated.

Each office is configured as an Active Directory site. The network ID for each office is associated to the appropriate site.

Each office contains two domain controllers. The domain controllers were recently upgraded from Windows Server 2008 R2 to Windows Server 2012 R2. The functional level of the domain and the forest is Windows Server 2003.

The company uses Active Directory user attributes to store the personal information of its employees in custom attributes.

#### **Existing Servers**

The relevant servers are configured as shown in the following table.

Server name	Role	Site
DC01	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DNS server</li> <li>• DHCP server</li> </ul>	New York
DC02	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DNS server</li> </ul>	New York
WDS01	Windows Deployment Services (WDS) server	New York
Host01	Hyper-V host	New York
Host02	Hyper-V host	New York
Host03	Hyper-V host	New York
RAS01	Remote access server	New York
File01	File server	New York
DC03	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DHCP server</li> </ul>	Chicago
DC04	Domain controller	Chicago
Host04	Hyper-V host	Chicago
Host05	Hyper-V host	Chicago
Host06	Hyper-V host	Chicago
RAS02	Remote access server	Chicago
File02	File server	Chicago

All servers run Windows Server 2012 R2.

DC01 has an IPv4 scope. The starting IP address in the range is 172.16.1.100 and the ending address is 172.16.1.199.

DC03 has an IP4v scope. The starting IP address in the range is 192.168.1.100 and the ending IP address is 192.168.1.199. There are no exclusion ranges configured on DC01 or DC03.

## Requirements

### Planned Changes

Proseware plans to implement the following changes:

- Deploy a read-only domain controller (RODC) to the London office.
- Give users remote access to both offices by using a VPN connection from their laptop or tablet.
- If DC01 fails, ensure that the computers in the New York office can receive IP addresses within 30 minutes.
- In the New York site, deploy two 50-TB, Fibre Channel SAN disk arrays. Offloaded Data Transfer (ODX) will be used on both storage arrays. The Hyper-V hosts will use the new SANs for virtual machine storage.
- Open three additional offices in Montreal, Atlanta, and London. The offices will connect to each other by using a high-bandwidth, low-latency WAN link. Each office will connect directly to the Internet.
- For legal reasons, the Montreal site will have its own forest named montreal.proseware.com.
- The Montreal and Atlanta offices will have local IT administrators to manage the network infrastructure of their respective office. The London office will not have a local IT staff. Each office will have approximately 50 client computers.

## Technical Requirements

Proseware identifies the following technical requirements:

- Users in the Montreal office must only be allowed to access shares that are located on File01 and File02. The Montreal users must be prevented from accessing any other servers in the proseware.com forest regardless of the permissions on the resources,
- Users in the New York office must be able to reconnect to the remote access VPN servers automatically. Users in the Chicago office must use SSL to connect to the remote access VPN servers.
- Domain controllers that run Windows Server 2012 R2 and Windows Server 2008 R2 must be able to be deployed to the proseware.com domain.
- Administrators in the New York office must be able to restore objects from the Active Directory Recycle Bin.
- The DNS servers must be prevented from overwriting the existing DNS entries that have been stored in cache.
- Each DNS server must be managed by an administrator from the same office as the DNS server.
- The required time to create new fixed virtual hard disks (VHDs) on the SANs must be minimized.
- The remote access servers must be able to restrict outgoing traffic based on IP addresses.
- All certificates must be deployed to all of the client computers by using auto-enrollment.
- All of the DHCP Server server roles must be installed on a domain controller.
- Only one DHCP server in each site must lease IP addresses at any given time.
- DHCP traffic must not cross site boundaries.
- RODCs must not contain personal user information.

---

### **Question: 1**

---

#### **HOTSPOT**

You need to recommend a configuration for the DHCP infrastructure.

What should you recommend? To answer, select the appropriate options in the answer area.

#### **Answer Area**

Server on which to deploy the  
DHCP Server server role:

DHCP failover mode:

DHCP failover setting to configure:

**Answer Area**

Server on which to deploy the DHCP Server server role:

DC02
DC04
RAS01
RAS02

DHCP failover mode:

Hot standby
Load-balanced

DHCP failover setting to configure:

Load percentage
Reserve percentage
State switchover interval

**Answer:****Answer Area**

Server on which to deploy the DHCP Server server role:

DC02
DC04
RAS01
RAS02

DHCP failover mode:

Hot standby
Load-balanced

DHCP failover setting to configure:

Load percentage
Reserve percentage
State switchover interval

Box 1: DC02

DC02 is in New York site, which does not have a DHCP server, and it is a domain controller (which is required). Not RAS01 as it is not a domain controller.

Not DC4 or RAS02 as they are located in Chicago, and the Chicago site already has a DHCP server.

Box 2: Host standby.

In Host standby mode only one of the servers actively leases IP addresses.

Not Load-Balanced as in this mode both DHCP servers answer client request, but according to scenario only one DHCP Server in each site must lease IP addresses at a given time.

Box 3: State switchover interval

For automatic state switchover to happen from communication interrupt to partner down state, you need to enable state switchover interval. If you don't do that then you would need to manually transition primary server to partner down mode.

\* Scenario:

- All of the DHCP Server server roles must be installed on a domain controller.
- Only one DHCP server in each site must lease IP addresses at any given time.

Reference:

DHCP Failover Hot-Standby Mode

<https://blogs.technet.microsoft.com/teamdhcp/2012/09/03/dhcp-failover-hot-standby-mode/>

**Question: 2**

You need to recommend a trust model.

What should you include in the recommendation?

- A. A one-way, forest trust that has selective authentication.
- B. A one-way, external trust

- C.A two-way, external trust  
D.A one-way, forest trust that has domain-wide authentication.

---

**Answer: A**

As users in the Montreal office is in a separate site, and they need access to only to some of the resources, the File01 file server in New York and the File02 file server in Chicago, we should use a one-way forest trust with selective authentication.

\* When you enable the selective authentication feature of a forest trust relationship, users accessing cross-forest resources from one forest cannot authenticate to a domain controller or resource server (e.g., file server, print server) in the other forest unless they are explicitly allowed to do so. Selective authentication lessens the attack surface by restricting the quantity of authentication requests that can pass through an interforest trust.

\* From case study:

/ The Montreal site will have its own forest named montreal.proseware.com.

/ Users in the Montreal office must only be allowed to access shares that are located on File01 and File02. The Montreal users must be prevented from accessing any other servers in the proseware.com forest regardless of the permissions on the resources.

Reference:

<http://windowsitpro.com/security/selective-authentication>

---

**Question: 3**

DRAG DROP

You need to recommend the VPN protocols for Proseware.

What should you recommend? To answer, drag the appropriate VPN protocols to the correct offices. Each protocol may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content,

VPN Protocols	Answer Area
IKEv2	The New York office: <input type="text"/>
L2TP	The Chicago office: <input type="text"/>
PPTP	
SSTP	

---

**Answer:**

The New York office:  IKEv2

The Chicago office:  SSTP

Explanation

Box 1: IKEv2

An IKEv2 VPN provides resilience to the VPN client when the client moves from one wireless hotspot to another or when it switches from a wireless to a wired connection. This meets the requirement that users in the New York office must be able to reconnect to the remote access VPN servers automatically.

Box 2: SSTP

SSTP is the only of the listed tunneling protocols that uses SSL, and users in the Chicago office must use SSL to connect to the remote access VPN servers.

Reference:

VPN Tunneling Protocols

[https://technet.microsoft.com/en-us/library/dd469817\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/dd469817(v=ws.10).aspx)

---

#### Question: 4

HOTSPOT

You need to recommend a storage configuration for the Hyper-V hosts.

What should you recommend? To answer, select the appropriate options in the answer area.

#### Answer Area

File system type:

Volume type:

#### Answer Area

File system type:   
FAT32  
NTFS  
REFS

Volume type:   
Basic volume  
Dynamic volume  
Storage spaces volume

---

#### Answer:

#### Answer Area

File system type:   
FAT32  
NTFS  
REFS

Volume type:   
Basic volume  
Dynamic volume  
Storage spaces volume

Scenario: The required time to create new fixed virtual hard disks (VHDs) on the SANs must be minimized

---

#### Question: 5

You need to recommend a deployment method for Proseware.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. A WDS Deployment server and Multicast transmissions
- B. A WDS Deployment server and Unicast transmissions
- C. A WDS Transport server and Multicast transmissions
- D. A WDS Transport server and Unicast transmissions

---

#### Answer: A

A WDS deployment server is appropriate in this scenario with three offices that will have 50 new clients each. As the WAN links are fast the computers can be deployed through multicast.

Incorrect:

Not B: As the offices are connected through high-bandwidth, low-latency WAN links unicast is not necessary.

Not C, Not D: As each office only will have 50 client computers, a small network, a deployment through a WDS transport server is not required.

Reference:

Windows Deployment Services Overview

<https://technet.microsoft.com/en-us/library/hh831764.aspx>

### **Question: 6**

You need to recommend a solution for the remote access servers. What should you include in the recommendation?

- A. Network address translation (NAT)
- B. Logging levels
- C. Packet filtering
- D. Packet tracing

### **Answer: C**

Scenario: The remote access servers must be able to restrict outgoing traffic based on IP addresses.

Packet filtering can be used to restrict outgoing traffic with the help of an output filter.

Note: Packet filtering consists of creating a series of definitions called filters, which define for the router what types of traffic are allowed or disallowed on each interface. Filters can be set for incoming and outgoing traffic.

\* Input filters define what inbound traffic on that interface the router is allowed to route or process.

\* Output filters define what traffic the router is allowed to send from that interface.

Incorrect:

Not A: NAT is not able to restrict outgoing traffic. NAT supports static filters can be added to the private interface to protect against threats from internal clients.

Reference:

Filters and Remote Access Configurations

[https://technet.microsoft.com/en-us/library/Cc754895\(v=WS.10\)](https://technet.microsoft.com/en-us/library/Cc754895(v=WS.10))

### **Question: 7**

DRAG DROP

You need to recommend changes for the Active Directory infrastructure.

What should you recommend? To answer, drag the appropriate domain and forest functional levels for proseware.com to the correct locations. Each functional level may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

#### **Functional Levels**

- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2

#### **Answer Area**

Domain functional level for proseware.com:

Functional level

Forest functional level for proseware.com:

Functional level

### **Answer:**

Domain functional level for proseware.com: Windows Server 2008 R2

Forest functional level for proseware.com: Windows Server 2008 R2

Explanation:

From the scenario we have that Domain controllers that run Windows Server 2012 R2 and Windows Server 2008 R2 must be able to be deployed to the proseware.com domain. We should therefore set both domain functional level and forest functional level to Windows Server 2008 R2.

**Box 1: Windows Server 2008 R2**

We can set the domain functional level for proseware.com to Windows Server 2008 R2 as only Domain controllers that run Windows Server 2012 R2 and Windows Server 2008 R2 must be able to be deployed to the proseware.com domain.

**Box 2: Windows Server 2008 R2**

As we cannot set the domain functional level to a value that is lower than the forest functional level we should set the forest function level to Windows Server 2008 R2 as well.

Reference:

Understanding Active Directory Domain Services (AD DS) Functional Levels

[https://technet.microsoft.com/library/understanding-active-directory-functional-levels\(WS.10\).aspx](https://technet.microsoft.com/library/understanding-active-directory-functional-levels(WS.10).aspx)

---

### **Question: 8**

You need to recommend a solution for the RODC.

Which attribute should you include in the recommendation?

- A. systemFlags
- B.searchFlags
- C.policy-Replication-Flags
- D.flags

---

### **Answer: B**

You can modify the searchFlags value for a read-only domain controller (RODC) to indicate confidential data on order to exclude specific data from replicating to RODCs in the forest. This meets the requirement as it is stated that RODCs must not contain personal user information.

Reference:

Customize the RODC Filtered Attribute Set

[https://technet.microsoft.com/en-us/library/cc754794\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc754794(v=ws.10).aspx)

---

### **Question: 9**

You run the Get-DNSServer cmdlet on DC01 and receive the following output:

ServerCache:  
=====

```
IsReverseLookupZone False
IsDsIntegrated True
IsReadOnly False
MaxNegativeTtl 00:15:00
ZoneName .
MaxTtl 1.00:00:00
StoreEmptyAuthenticationResponse True
ZoneType Cache
IsPaused False
IsShutdown False
DistinguishedName DC=RootDNSServers,cn=MicrosoftDNS,DC=...
EnablePollutionProtection True
LockingPercent 50
MaxKBSIZE 0
IsAutoCreated False
```

You need to recommend changes to DC01. Which attribute should you recommend modifying?

- A. EnablePollutionProtection
- B.isReadOnly

- C.Locking Percent
- D.ZoneType

---

**Answer: C**

- \* Scenario: The DNS servers must be prevented from overwriting the existing DNS entries that have been stored in cache.
- \* Cache locking is configured as a percent value. For example, if the cache locking value is set to 50, then the DNS server will not overwrite a cached entry for half of the duration of the TTL. By default, the cache locking percent value is 100. This means that cached entries will not be overwritten for the entire duration of the TTL. The cache locking value is stored in the CacheLockingPercent registry key. If the registry key is not present, then the DNS server will use the default cache locking value of 100.

Reference:

DNS Cache Locking

<https://technet.microsoft.com/en-us/library/ee649148%28v=ws.10%29.aspx>

### **Case Study: 3**

#### **Litware, Inc**

##### **Overview**

Litware, Inc., is a manufacturing company. The company has a main office and two branch offices. The main office is located in Seattle. The branch offices are located in Los Angeles and Boston.

##### **Existing Environment**

###### **Active Directory**

The network contains an Active Directory forest named litwareinc.com. The forest contains a child domain for each office. The child domains are named boston.litwareinc.com and la.litwareinc.com. An Active Directory site exists for each office.

In each domain, all of the client computer accounts reside in an organizational unit (OU) named AllComputers and all of the user accounts reside in an OU named AllUsers.

All domain controllers run Windows Server 2008 R2 and are configured as DNS servers.

The functional level of the domain and the forest is Windows Server 2008.

###### **Network Infrastructure**

The main office has the following servers:

- Five physical Hyper-V hosts that run Windows Server 2012
- Three virtual file servers that run Windows Server 2008 R2
- One physical DHCP server that runs Windows Server 2008 R2
- Ten physical application servers that run Windows Server 2012
- One virtual IP Address Management (IPAM) server that runs Windows Server 2012
- One virtual Windows Server Update Services (WSUS) server that runs Windows Server 2008 R2
- One physical domain controller and two virtual domain controllers that run Windows Server 2008 R2

Each branch office has following servers:

- One virtual file server that runs Windows Server 2008 R2
- Two physical Hyper-V hosts that run Windows Server 2012
- One physical DHCP server that runs Windows Server 2008 R2
- One physical domain controller and two virtual domain controllers that run Windows

## Server 2008 R2

All of the offices have a high-speed connection to the Internet. The offices connect to each other by using T1 leased lines.

The IPAM server in the main office gathers data from the DNS servers and the DHCP servers in all of the offices.

### **Requirements**

#### **Planned Changes**

The company plans to implement the following changes:

- Implement the Active Directory Recycle Bin.
- Implement Network Access Protection (NAP).
- Implement Folder Redirection in the Boston office only.
- Deploy an application named Appl to all of the users in the Boston office only.
- Migrate to IPv6 addressing on all of the servers in the Los Angeles office. Some application servers in the Los Angeles office will have only IPv6 addresses.

### **Technical Requirements**

The company identifies the following technical requirements:

- Minimize the amount of administrative effort whenever possible.
- Ensure that NAP with IPSec enforcement can be configured.
- Rename boston.litwareinc.com domain to bos.litwareinc.com.
- Migrate the DHCP servers from the physical servers to a virtual server that runs Windows Server 2012.
- Ensure that the members of the Operators groups in all three domains can manage the IPAM server from their client computer.

### **VPN Requirements**

You plan to implement a third-party VPN server in each office. The VPN servers will be configured as RADIUS clients. A server that runs Windows Server 2012 will perform RADIUS authentication for all of the VPN connections.

### **Visualization Requirements**

The company identifies the following visualization requirements:

- Virtualize the application servers.
- Ensure that the additional domain controllers for the branch offices can be deployed by using domain controller cloning.
- Automatically distribute the new virtual machines to Hyper-V hosts based on the current resource usage of the Hyper-V hosts.

### **Server Deployment Requirements**

The company identifies the following requirements for the deployment of new servers on the network:

- Deploy the new servers over the network.
- Ensure that all of the server deployments are done by using multicast.

### **Security Requirements**

A new branch office will open in Chicago. The new branch office will have a single read-only domain controller (RODC). Confidential attributes must not be replicated to the Chicago office.

---

### **Question: 1**

---

You need to recommend a server deployment strategy for the main office that meets the server deployment requirements.

What should you recommend installing in the main office?

- A. Windows Deployment Services (WDS)
- B.The Windows Automated Installation Kit (Windows AIK)
- C.The Express Deployment Tool (EDT)
- D.The Windows Assessment and Deployment Kit (Windows ADK)

---

### **Answer: A**

---

WDS is a server role that enables you to remotely deploy Windows operating systems. You can use it to set up new computers by using a network-based installation. This means that you do not have to install each operating system directly from a CD, USB drive, or DVD.

Reference:

What's New in Windows Deployment Services in Windows Server

---

### **Question: 2**

---

You need to recommend changes to the Active Directory site topology to support on the company's planned changes.

What should you include in the recommendation?

- A. A new site
- B.A new site link bridge
- C.A new site link
- D.A new subnet

---

### **Answer: D**

---

Explanation:

From the Planned Changes section of the scenario we find that a migration to IPv6 addressing in the Los Angeles office will happen.

A new subnet would be needed to implement this change.

Incorrect:

Not A: A new branch office will open in Chicago, and this would require a new site. However, this change is classified as Security Requirements, not as Planned Changes.

Reference:

Understanding Sites, Subnets, and Site Links

<http://technet.microsoft.com/en-us/library/cc754697.aspx>

---

### **Question: 3**

---

You need to recommend changes to the Active Directory environment to support the virtualization requirements.  
What should you include in the recommendation?

- A. Raise the functional level of the domain and the forest.
- B. Upgrade the domain controller that has the domain naming master role to Windows Server 2012.
- C. Implement Administrator Role Separation.
- D. Upgrade the domain controllers that have the PDC emulator master role to Windows Server 2012.

---

**Answer: D**

---

- \* From case study: Ensure that the additional domain controllers for the branch offices can be deployed by using domain controller cloning.
- \* To support DC cloning the PDC emulator role holder must be online and available to the cloned DC and must be running Windows Server 2012.

Reference:

Virtual Domain Controller Cloning in Windows Server 2012

<https://blogs.technet.microsoft.com/askpfeplat/2012/10/01/virtual-domain-controller-cloning-in-windows-server-2012/>

---

#### **Question: 4**

---

You need to recommend a change to the Active Directory environment to support the company's planned changes.  
What should you include in the recommendation?

- . Raise the functional level of the domain and the forest.
- B. Implement Administrator Role Separation.
- C. Upgrade the domain controllers that have the PDC emulator master role to Windows Server 2012.
- D. Upgrade the domain controller that has the domain naming master role to Windows Server 2012.

---

**Answer: A**

---

Explanation:

\* Scenario planned changes include: Implement the Active Directory Recycle Bin.

The functional level of the domain and the forest is Windows Server 2008.

\* To support the Active Directory Recycle Bin, the functional level of your AD LDS configuration set to Windows Server 2008 R2 or higher.

Incorrect:

Not C: All domain controllers, not just the ones with the PDC emulator role, must be upgraded to Windows Server 2012.

Not D: All domain controllers, not just the ones domain naming master role, must be upgraded to Windows Server 2012.

Reference:

Requirements for Active Directory Recycle Bin

[https://technet.microsoft.com/en-us/library/dd379484\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/dd379484(v=ws.10).aspx)

---

### **Question: 5**

---

You need to recommend an IPAM management solution for the Operators groups. The solution must meet the technical requirements.

What should you include in the recommendation?

- A. Run the Invoke-IpamGpoProvisioningcmdlet in all three domains. Add the computers used by the members of the Operators group to the IPAM server.
- B. Modify the membership of the IPAM Administrators group and the WinRMRemoteWMIUsers\_ group on the IPAM server.
- C. Run the Set-IpamConfigurationcmdlet and modify the membership of the WinRMRemoteWMRJsers\_ group on the IPAM server.
- D. Run the Set-IpamConfigurationcmdlet on the IPAM server. Run the Invoke-IpamGpoProvisioningcmdlet in all three domains.

---

### **Answer: B**

---

Explanation:

Scenario: Ensure that the members of the Operators groups in all three domains can manage the IPAM server from their client computer.

---

### **Question: 6**

---

You need to recommend a solution that meets the security requirements.

Which schema attribute properties should you recommend modifying?

- A. isIndexed
- B. searchFlags
- C. isCriticalSystemObject
- D. schemaFlagsEx

---

### **Answer: B**

---

Explanation:

\* Scenario: Confidential attributes must not be replicated to the Chicago office.

\* Applies To: Windows Server 2008, Windows Server 2012

This topic includes procedures for adding an attribute to the filtered attribute set (FAS) for a readonly domain controller (RODC) and marking the attribute as confidential data. You can perform these procedures to exclude specific data from replicating to RODCs in the forest.

Because the data is not replicated to any RODCs, you can be assured that the data will not be revealed to an attacker who manages to successfully compromise an RODC. In most cases, adding an attribute to the RODC FAS is completed by the developer of the application that added the attribute to the schema.

- Determine and then modify the current searchFlags value of an attribute
- Verify that an attribute is added to the RODC FAS

- Determine and then modify the current searchFlags value of an attribute

To add an attribute to an RODC FAS, you must first determine the current searchFlags value of the attribute that you want to add, and then set the following values for searchflags:

- To add the attribute to the RODC FAS, set the 10th bit to 0x200.
- To mark the attribute as confidential, set the 7th bit to 0x080.

Reference:

Adding Attributes to the RODC Filtered Attribute Set

[http://technet.microsoft.com/en-us/library/cc754794\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc754794(v=ws.10).aspx)

---

### **Question: 7**

---

You need to recommend a migration strategy for the DHCP servers. The strategy must meet the technical requirements.

Which Windows PowerShell cmdlet should you recommend running on the physical DHCP servers?

- A. Import-SmigServerSetting
- B. Export-SmigServerSetting
- C. Receive-SmigServerData
- D. Send-SmigServerData

---

**Answer: B**

---

\* Scenario:

/ Main office: One physical DHCP server that runs Windows Server 2008 R2

/ each branch office: One physical DHCP server that runs Windows Server 2008 R2

/ The IPAM server in the main office gathers data from the DNS servers and the DHCP servers in all of the offices.

\* Example:

Command Prompt: C:\PS>

Export-SmigServerSetting -Feature "DHCP" -User All -Group -Path "c:\temp\store" -Verbose

This sample command exports the Dynamic Host Configuration Protocol (DHCP) Server and all other Windows features that are required by DHCP Server.

Reference:

DHCP Server Migration: Migrating the DHCP Server Role

<https://technet.microsoft.com/en-us/library/dd379483%28v=ws.10%29.aspx>

---

### **Question: 8**

---

You need to implement the technical requirements for the boston.litwareinc.com domain.

Which tools should you use?

- A. Gpfixup and Gpupdate
- B. Rdom and Gpfixup
- C. Gpupdate and Dcpofix
- D. Adprep and Rdom

---

**Answer: B**

Explanation:

\* Scenario, technical requirements include:

Minimize the amount of administrative effort whenever possible

Rename boston.litwareinc.com domain to bos.litwareinc.com

\* Rdom.exe is a command-line tool that is used to rename Active Directory domains.

Gpfixup fixes domain name dependencies in Group Policy Objects and Group Policy links after a domain rename operation.

Reference:

Rdom

[http://technet.microsoft.com/en-us/library/cc732097\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc732097(v=ws.10).aspx)

Reference:

Gpfixup

<https://technet.microsoft.com/en-us/library/hh852336.aspx>

---

### **Question: 9**

You need to recommend a server virtualization strategy that meets the technical requirements and the virtualization requirements.

What should you include in the recommendation?

- A. Windows Server Backup
- B. The Microsoft Virtual Machine Converter
- C. Microsoft System Center 2012 Virtual Machine Manager (VMM)
- D. Disk2vhd

---

**Answer: C**

Explanation:

\* Scenario:

Virtualize the application servers.

Automatically distribute the new virtual machines to Hyper-V hosts based on the current resource usage of the Hyper-V hosts.

The main office has the following servers: Five physical Hyper-V hosts that run Windows Server 2012

\* System Center Virtual Machine Manager 2012: VMM Gets Major Upgrade

Expanded hypervisor support, virtual application support and a myriad of other upgrades are coming in the new VMM 2012.

Note: There's no doubt that Microsoft is making System Center Virtual Machine Manager (VMM) a key component of the System Center suite. The scope of the product is being expanded so much that it could be renamed "System Center Virtual Datacenter Manager." The new version of

VMM is currently in beta and is scheduled for release in the second half of 2011.

VMM can now do bare-metal installations on fresh hardware, create Hyper-V clusters instead of just managing them, and communicate directly with your SAN arrays to provision storage for your virtual machines (VMs). The list of supported hypervisors has also grown—it includes not only Hyper-V and VMware vSphere Hypervisor, but

Reference:

System Center Virtual Machine Manager 2012: VMM Gets Major Upgrade  
<http://technet.microsoft.com/en-gb/magazine/hh300651.aspx>

---

### **Question: 10**

---

You need to recommend a remote access solution that meets the VPN requirements.

Which role service should you include in the recommendation?

- A. Routing
- B. Network Policy Server
- C. DirectAccess and VPN (RAS)
- D. Host Credential Authorization Protocol

---

**Answer: B**

---

Explanation:

Scenario:

A server that runs Windows Server 2012 will perform RADIUS authentication for all of the VPN connections.

Ensure that NAP with IPSec enforcement can be configured.

Network Policy Server

Network Policy Server (NPS) allows you to create and enforce organization-wide network access policies for client health, connection request authentication, and connection request authorization. In addition, you can use NPS as a Remote Authentication Dial-In User Service

(RADIUS) proxy to forward connection requests to a server running NPS or other RADIUS servers that you configure in remote RADIUS server groups.

NPS allows you to centrally configure and manage network access authentication, authorization, and client health policies with the following three features: RADIUS server. NPS performs centralized authorization, authentication, and accounting for wireless, authenticating switch, remote access dial-up and virtual private network (VPN) connections. When you use NPS as a RADIUS server, you configure network access servers, such as wireless access points and VPN servers, as RADIUS clients in NPS. You also configure network policies that NPS uses to authorize connection requests, and you can configure RADIUS accounting so that NPS logs accounting information to log files on the local hard disk or in a Microsoft SQL Server database.

Reference:

Network Policy Server

<http://technet.microsoft.com/en-us/library/cc732912.aspx>

---

### **Question: 11**

---

You need to recommend a Group Policy strategy to support the company's planned changes.

What should you include in the recommendation?

- A. Link a Group Policy object (GPO) to the AllComputers OU in each domain.
- B. Link a Group Policy object (GPO) to litwareinc.com and configure filtering.
- C. Link a Group Policy object (GPO) to each domain.

D. Link a Group Policy object (GPO) to the Boston site.

---

**Answer: D**

---

Explanation:

We link a GPO, which implements folder redirection and deploys App1 for the Boston Users.

\* Scenario:

Implement Folder Redirection in the Boston office only.

Deploy an application named App1 to all of the users in the Boston office only.

---

### **Question: 12**

---

You need to ensure that NAP meets the technical requirements.

Which role services should you install?

- A. Network Policy Server, Health Registration Authority and Host Credential Authorization Protocol
- B. Health Registration Authority, Host Credential Authorization Protocol and Online Responder
- C. Certification Authority, Network Policy Server and Health Registration Authority
- D. Online Responder, Certification Authority and Network Policy Server

---

**Answer: C**

---

Explanation:

\* Scenario:

Implement Network Access Protection (NAP).

Ensure that NAP with IPsec enforcement can be configured.

\* Health Registration Authority

Applies To: Windows Server 2008 R2, Windows Server 2012

Health Registration Authority (HRA) is a component of a Network Access Protection (NAP) infrastructure that plays a central role in NAP Internet Protocol security (IPsec) enforcement.

HRA obtains health certificates on behalf of NAP clients when they are compliant with network health requirements. These health certificates authenticate NAP clients for IPsec-protected communications with other NAP clients on an intranet. If a NAP client does not have a health certificate, the IPsec peer authentication fails and the NAP client cannot initiate communication with other IPsec-protected computers on the network.

HRA is installed on a computer that is also running Network Policy Server (NPS) and Internet Information Services (IIS). If they are not already installed, these services will be added when you install HRA.

Reference:

Health Registration Authority

### **Case Study: 4**

#### **Northwind Traders A**

##### **Overview**

Northwind Traders is a retail company.

The company has offices in Montreal and San Diego. The office in Montreal has 1,000 client computers. The office in San Diego has 100 computers. The computers in the San Diego office are often replaced. The offices connect to each other by using a slow WAN link. Each office connects directly to the Internet.

## Existing Environment

### Active Directory Environment

The network contains an Active Directory forest named northwindtraders.com. The forest contains two domains named northwindtraders.com and west.northwindtraders.com. All servers run Windows Server 2012 R2.

All client computers run Windows 7.

Each office is configured as an Active Directory site. The site in the Montreal office is named Site1. The site in the San Diego office is named Site2.

The forest contains four domain controllers. The domain controllers are configured as shown in the following table.

Domain controllers name	Domain	Site	Role
DC1	Nothwindtraders.com	Site1	<ul style="list-style-type: none"> <li>• DNS server</li> <li>• Global catalog server</li> </ul>
DC2	Northwindtraders.com	Site1	<ul style="list-style-type: none"> <li>• DNS server</li> <li>• Global catalog server</li> </ul>
DC3	West.northwindtraders.com	Site1	DNS server
RODC1	West.northwindtraders.com	Site2	DNS server

DC1, DC2, and DC3 are writable domain controllers. RODC1 is read-only domain controller (RODC). All DNS zones are Active Directory-integrated. All zones replicate to all of the domain controllers.

All of the computers in the San Diego office are configured to use RODC1 as their only DNS server.

The northwindtraders.com domain contains a Group Policy object (GPO) named GPO1. GP01 is applied to all of the users in the Montreal office.

All of the user accounts for the Montreal users are in the northwindtraders.com domain. All of the user accounts for the San Diego users are in the west.northwindtraders.com domain.

### Network Environment

Site1 contains the member servers in the northwindtraders.com domain shown in the following table.

Server name	Component
Server1	Hyper-V host
Server2	System Center 2012 R2 Virtual Machine Manager (VMM) server
Server3	IP Address Management (IPAM) server File server
Server4	Routing and Remote Access server
Server5	Web server

Server1 connects to SAN storage that supports Offloaded Data Transfer (ODX). All virtual hard disks (VHDs) are stored on the SAN.

A web application named App1 is installed on Servers.

Server3 has a shared folder that contains sales reports. The sales reports are read frequently by the users in both offices. The reports are generated automatically once per week by an enterprise resource planning (ERP) system.

A perimeter network in the Montreal office contains two standalone servers. The servers are configured as

shown in the following table.

Server name	Component
Server6	Web application proxy
Server7	Web Server (IIS) server role

The servers in the perimeter network are accessible from the Internet by using a domain name suffix of public.northwindtraders.com.

Each administrator has a management computer that runs Windows 8.1.

## Requirements

### Planned Changes

Northwind Traders plans to implement the following changes:

On Server1, create four virtual machines that run Windows Server 2012 R2. The servers will be configured as shown in the following table.

Virtual machine name	Generation	Controller type	VHD format
VM1	Generation 1	IDE	VHDX
VM2	Generation 2	SCSI	VHD
VM3	Generation 1	SCSI	VHD
VM4	Generation 2	SCSI	VHDX

- Configure IP routing between Site1 and the network services that Northwind Traders hosts in Windows Azure.
- Place a domain controller for the northwindtraders.com domain in Windows Azure.
- Upgrade all of the computers in the Montreal office to Windows 8.1.
- Purchase a subscription to Microsoft Office 365.
- Configure a web application proxy on Server6.
- Configure integration between VMM and IPAM.
- Apply GPO1 to all of the San Diego users.
- Connect Site1 to Windows Azure.

### Technical Requirements

Northwind Traders must meet the following technical requirements:

- All virtual machines must use ODX.
- Users must be able to access App1 from the Internet.
- GPO1 must not be applied to computers that run Windows 8.1.
- All DNS zones must replicate only to DC1, DC2, and DC3.
- All computers must be able to resolve names by using a local DNS server.
- If a WAN link fails, users must be able to access all of the sales reports.
- The credentials for accessing Windows Azure must be permanently stored.
- The on-premises network must be connected to Windows Azure by using Server4.
- The administrators must be able to manage Windows Azure by using Windows PowerShell.
- The number of servers and services deployed in the San Diego office must be minimized.
- Active Directory queries for the objects in the forest must not generate WAN traffic,

whenever possible.

### **Security Requirements**

Northwind Traders identifies the following security requirements:

- Ensure that all DNS zone data is encrypted when it is replicated.
- Minimize the number of permissions assigned to users and administrators, whenever possible. Prevent an Active Directory Domain Services (AD DS) attribute named SSNumber from replicating to Site2.
- Ensure that users can use their northwindtraders.com user account to access the resources hosted in Office 365.
- Prevent administrators from being required to re-enter their credentials when they manage Windows Azure from approved management computers.

---

### **Question: 1**

---

You need to recommend an Office 365 integration solution.

What should you include in the recommendation?

- A. Active Directory directory synchronization
- B. The Active Directory Migration Tool (ADMT)
- C. Windows Identity Foundation (WIF) 3.5
- D. The Sync Framework Toolkit

---

**Answer: A**

---

\* Scenario: Each office is configured as an Active Directory site.

Reference:

Synchronizing your directory with Office 365 is easy

<https://blogs.office.com/2014/04/15/synchronizing-your-directory-with-office-365-is-easy/>

---

### **Question: 2**

---

You need to recommend a solution for the sales reports.

What should you include in the recommendation?

- A. BranchCache in distributed cache mode
- B. Offline files
- C. BranchCache in hosted cache mode
- D. Distributed File System (DFS)

---

**Answer: D**

---

DFS to increase the availability of data by storing the data on multiple servers. DFS could make the sales reports available, even if the WAN link is down.

\* Scenario: Server3 has a shared folder that contains sales reports. The sales reports are read frequently by the users

in both offices. The reports are generated automatically once per week by an enterprise resource planning (ERP) system.

If a WAN link fails, users must be able to access ALL of the sales reports

Incorrect:

Not A, Not C: Branchcache (hosted or distributed) does not work when content server is not reachable (link down).

Not B: According to the scenario, the computers in the San Diego office are often replaced, so offline caching will not make the reports available all the time if WAN link goes down.

Reference:

What Is DFS?

[https://technet.microsoft.com/en-us/library/cc779627\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc779627(v=ws.10).aspx)

### Question: 3

---

HOTSPOT

You are evaluating the virtual machine environment.

In the table below, identify which virtual machines currently support ODX and which virtual machines require a configuration change to support ODX. Make only one selection in each row.

Virtual machine	Currently supports ODX	Requires a configuration change to support ODX
VM1	<input type="radio"/>	<input type="radio"/>
VM2	<input type="radio"/>	<input type="radio"/>
VM3	<input type="radio"/>	<input type="radio"/>
VM4	<input type="radio"/>	<input type="radio"/>

---

Answer:

---

Virtual machine	Currently supports ODX	Requires a configuration change to support ODX
VM1	<input type="radio"/>	<input checked="" type="radio"/>
VM2	<input checked="" type="radio"/>	<input type="radio"/>
VM3	<input checked="" type="radio"/>	<input type="radio"/>
VM4	<input checked="" type="radio"/>	<input type="radio"/>

\* VM1 uses IDE and does not support ODX. The other VMs are ok.

\* ID requirements include:

Must be connected by using one of the following protocols:

iSCSI

Fibre Channel

Fibre Channel over Ethernet

Serial Attached SCSI (SAS)

Note: Windows Offloaded Data Transfer (ODX) functionality in Windows maximizes an enterprise's investment in intelligent storage arrays by enabling the arrays to directly transfer data within or between compatible storage devices, bypassing the host computer.

Reference:

Windows Offloaded Data Transfers Overview

<https://technet.microsoft.com/en-us/library/hh831375.aspx>

---

#### **Question: 4**

---

You need to recommend a solution for GPO1.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. In west.northwindtraders.com, create a copy of GPO1 and link the new GPO to Site2. Apply a WMI filter to the new GPO.
- B. In west.northwindtraders.com, create a copy of GPO1 and link the new GPO to west.northwindtraders.com. Configure security filtering on the new GPO.
- C. Link GPO1 to west.northwindtraders.com and configure security filtering on GPO1.
- D. Link GPO1 to Site2 and apply a WMI filter to GPO1.

---

#### **Answer: D**

---

\* Scenario:

The northwindtraders.com domain contains a Group Policy object (GPO) named GPO1. GPO1 is applied to all of the users in the Montreal office.

Apply GPO1 to all of the San Diego users.

GPO1 must not be applied to computers that run Windows 8.1.

\* WM Filter for Operating Systems. Example:

Windows 8.1 64 bit

```
SELECT version FROM Win32_OperatingSystem WHERE Version LIKE "6.3%" and ProductType = "1" AND OSArchitecture = "64-bit"
```

---

#### **Question: 5**

---

You need to recommend a solution for the replication of Active Directory.

What should you recommend modifying?

- A. The Active Directory Schema
- B. The properties of Site1
- C. The RODC1 computer account
- D. The properties of Site2

---

**Answer: A**

---

An AD Schema can be configured to prevent specific information from being replicated. You add an attribute to the RODC filtered attribute set, and then mark it as confidential.

\* Scenario: Prevent an Active Directory Domain Services (AD DS) attribute named SSNumber from replicating to Site2.

Reference:

Appendix D: Steps to Add an Attribute to the RODC Filtered Attribute Set

[https://technet.microsoft.com/en-us/library/cc772331\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc772331(v=ws.10).aspx)

---

**Question: 6**

---

DRAG DROP

You need to recommend a solution for managing Windows Azure.

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

Actions	Answer Area
Run the <b>Import-AzurePublishSettingsFile</b> cmdlet.	
Run the <b>Add-AzureAccount</b> cmdlet.	
Run the <b>Set-AzureStorageAccount</b> cmdlet.	
Run the Microsoft Web Platform Installer (Web PI).	
Run the <b>Register-PSSessionConfiguration</b> cmdlet.	
Run the <b>Get-AzurePublishSettingsFile</b> cmdlet.	
Install Microsoft .NET Framework 3.5.	

---

**Answer:**

---

Box 1:

Run the Microsoft Web Platform Installer (Web PI).

Box 2:

Run the **Get-AzurePublishSettingsFile** cmdlet.

Box 3:

Run the **Import-AzurePublishSettingsFile** cmdlet.

Explanation:

Reference:

Step-By-Step: Manage Windows Azure using PowerShell

<http://blogs.technet.com/b/canitpro/archive/2013/11/06/set-by-step-manage-windows-azure-using-powershell.aspx>

## **Question: 7**

You need to implement a solution for DNS replication.

Which cmdlets should you run?

- A. Set-DnsServer and Invoke-DnsServerZoneSign
- B. ConvertTo-DnsServerPrimaryZone and Register-DnsServerDirectoryPartition
- C. UnRegister-DnsServerDirectoryPartition and Add-DnsServerForwarder
- D. Set-DnsServerDnsSecZoneSetting and Invoke-DnsServerZoneSign

## **Answer: C**

Currently DNS zones are replicated to all Domain Controllers, but they should only replicate only to DC1, DC2, and DC3. We can unregister other DNS servers (RODC1) with the help of UnRegister-DnsServerDirectoryPartition cmdlet, which deregisters a Domain Name System (DNS) server from a specified DNS application directory partition.

RODC1 is still used as a DNS server, but does not receive zone replication, but it should still function as a DNS server as all computers need to resolve names by using a local DNS server. We configure RODC1 to forward DNS requests to DC1, DC2 or DC3 with the help of the Add-DnsServerForwarder command.

\* Scenario. Technical Requirement related to DNS:

Ensure that all DNS zone data is encrypted when it is replicated

All computers must be able to resolve names by using a local DNS server

All DNS zones must replicate only to DC1, DC2, and DC3

Reference:

UnRegister-DnsServerDirectoryPartition, Add-DnsServerForwarder

## **Question: 8**

HOTSPOT

You are planning the certificates for Northwind Traders.

You need to identify the certificate configurations required for App1.

How should you configure the certificate request? To answer, select the appropriate options in the answer area.

### **Answer Area**

Certificate common name:

Enhanced key usage:

## Answer Area

Certificate common name:

*.northwindtraders.com
App1.public.northwindtraders.com
Server6.northwindtraders.com

Enhanced key usage:

Client authentication
Lifetime Signing
Platform Certificate
Server authentication

**Answer:**

## Answer Area

Certificate common name:

*.northwindtraders.com
App1.public.northwindtraders.com
Server6.northwindtraders.com

Enhanced key usage:

Client authentication
Lifetime Signing
Platform Certificate
Server authentication

Explanation:

Box 1: App1.public.northwindtraders.com

\* From the scenario:

Users must be able to access App1 from the Internet.

The servers in the perimeter network are accessible from the Internet by using a domain name suffix of public.northwindtraders.com.

Configure a web application proxy on Server6.

Box 2: Server Authentication

Certificates that server programs use to authenticate themselves to clients

\* From the scenario:

Configure a web application proxy on Server6.

Reference:

How CA Certificates Work

[https://technet.microsoft.com/en-us/library/cc737264\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc737264(v=ws.10).aspx)

## Question: 9

HOTSPOT

You need to recommend a solution for communicating to Windows Azure services.

What should you recommend? To answer, select the appropriate options in the answer area.

### Answer Area

Protocol to use on Server4:

Object to create on Server4:

### Answer Area

Protocol to use on Server4:

IKEv2  
PPoE  
PPTP  
SSTP

Object to create on Server4:

A site-to-site interface  
A route to a VPN connection  
A custom route to the BGP routing table  
An entry point to a multi-site deployment

---

**Answer:**

### Answer Area

Protocol to use on Server4:

IKEv2  
PPoE  
PPTP  
SSTP

Object to create on Server4:

A site-to-site interface  
A route to a VPN connection  
A custom route to the BGP routing table  
An entry point to a multi-site deployment

Reference:

Creating a site to site (S2S) VPN to Azure with RRAS, one physical NIC and a NAT gateway

<http://blogs.technet.com/b/diegoviso/archive/2014/10/28/creating-a-site-to-site-s2s-vpn-to-azure-with-rras-and-one-physical-nic.aspx>

---

### Question: 10

HOTSPOT

On Server2, you create a Run As Account named Account1. Account1 is associated to an Active Directory account named VMMIPAM.

You need to implement an IPAM solution.

What should you do? To answer, select the appropriate configuration for each server in the answer area.

### Answer Area

Server2:

Server3:

## Answer Area

Server2:

Create a service.
Create a user role.
Add a network service.
Create a logical network.
Add an infrastructure server.

Server3:

Add VMMIPAM to IPAM Administrators.
Add VMMIPAM to IPAM MSM Administrators.
Add VMMIPAM to IPAM Users and WinRMRemoteWMIUsers__.
Add VMMIPAM to IPAM ASM Administrators and Remote Management Users.
Add VMMIPAM to IPAM IP Audit Administrators and Network Configuration Operators.

**Answer:**

## Answer Area

Server2:

Create a service.
Create a user role.
<b>Add a network service.</b>
Create a logical network.
Add an infrastructure server.

Server3:

Add VMMIPAM to IPAM Administrators.
Add VMMIPAM to IPAM MSM Administrators.
Add VMMIPAM to IPAM Users and WinRMRemoteWMIUsers__.
<b>Add VMMIPAM to IPAM ASM Administrators and Remote Management Users.</b>
Add VMMIPAM to IPAM IP Audit Administrators and Network Configuration Operators.

Explanation:

Box 1: Add a network service

On the VMM server use the Add Network Service Wizard to setup a service, which runs with the newly created VMMIPAM account, and which connects to IPAM server on Server3.

Box 2:

On the IPAM server add the new VMMIPAM account to the IPAM ASM Administrators and to the Remote Management Users groups. This ensures that the Network Service which is run with the VMMIPAM account has the required permissions to access the IPAM server.

Scenario:

Server2 is running System Center 2012 R2 Virtual Machine Manager (VMM) server.

Server3 is running IPAM server.

Reference:

How to Add an IPAM Server in VMM in System Center 2012 R

<https://technet.microsoft.com/en-us/library/Dn249418.aspx>

## Case Study: 5

### Alpine Ski

#### Overview

Alpine Ski House provides vacation travel accommodations. Its main office is in Vancouver. Alpine Ski House also has branch offices in Montreal, Denver, and New York.

An additional sales office is located in Los Angeles. This office has client devices only.

All servers in each office run Windows Server 2012 R2. All client devices in each office run Windows 8.1.

Alpine Ski House plans to acquire another company named Margie's Travel. Margies Travel has an AD DS domain named margiestravel.com.

### Danner and New York

The Denver and New York offices have their own child domain named us.alpineskihouse.com. The domain controllers are displayed in the following table:

Name	Roles	Location	IP address
US-DC01	Domain controller DNS server DHCP server	Denver	10.10.0.10/24
US-DC02	Domain controller DNS server	Denver	10.10.0.11/24
US-DC03	Domain controller DNS server DHCP server	New York	10.20.0.10/24
US-DC04	Domain controller DNS server	New York	10.20.0.11/24

### Vancouver and Montreal

Alpine Ski House has an Active Directory Domain Services (AD DS) domain named aplineskihouse.com for the Vancouver and Montreal offices. The forest and domain functional levels are set to Windows Server 2008. The domain controllers in the domain contain Dynamic Host Configuration Protocol (DHCP) servers and DNS servers. The domain controllers are displayed in the following table:

Name	Roles	Location	IP address
ALP-DC01	Domain controller DNS server DHCP server	Vancouver	172.16.0.10/24
ALP-DC02	Domain controller DNS server	Vancouver	172.16.0.11/24
ALP-DC03	Domain controller DNS server DHCP server	Montreal	192.168.10.10/24
ALP-DC04	Domain controller DNS server	Montreal	192.168.10.11/24

The Vancouver office also has a certification authority (CA) installed on a server named ALP-CA01.

### Business Requirements

#### Growth

An additional branch office is planned in an extremely remote, mountainous location that does not have traditional access to the Internet.

The remote branch office location will use a high-latency, low-bandwidth satellite connection to the Denver and Vancouver offices.

The Los Angeles office will be expanded to include sales and billing staff. The Los Angeles location will not contain IT staff.

## **File Management**

Currently, each office has a dedicated file share that is hosted on a domain controller. The company plans to implement a new file sharing capability to synchronize data between offices and to maximize performance for locating files that are saved in a different branch office. Sales users in the Los Angeles office must also be able to retrieve file data from each branch office.

### **Recovery time objective**

The business requires that the data stored in AD DS must be recovered within an hour. This data includes user accounts, computer accounts, groups, and other objects. Any customized attributes must also be recovered. The current backup solution uses a tape drive, which requires a minimum of two hours between notification and recovery.

### **Office 365**

Alpine Ski House purchased Office 365 Enterprise E3 licenses for all users in the organization.

### **Technical Requirements**

#### **Existing environment**

Users in the Montreal office of Alpine Ski House report slow times to log on to their devices. An administrator determines that users in the Montreal location occasionally authenticate to a domain controller with an IP address of 172.16.0.10/24. All authentication requests must first be attempted in the same location as the client device that is being authenticated.

#### **Growth**

The remote branch office must have a single domain controller named REMOTE-DC01.us.aplineskihouse.com.

The replication between domains must either use best-effort or low-cost replication. After the expansion, authentication must occur locally.

Any server placed in the Los Angeles office must not contain cached passwords.

#### **File management**

Where possible, the new file management solution must be centralized. If supported, the data must be stored in a single location in each branch office.

#### **Acquisition**

After acquiring Margie's Travel, all AD DS objects, including user account passwords, must be migrated to the alpineskihouse.com domain. Alpine Ski House plans to use the Active Directory Migration Tool (ADMT) to complete the migration process.

The password complexity requirements for the margiestravel.com domain are unknown. Users should not be forced to change their passwords after migrating their user accounts. Some computer objects will be renamed during the migration.

### **Office 365**

Alpine Ski House must use Microsoft Azure to facilitate directory synchronization (DirSync) with Office 365. The DirSync utility must be installed on a virtual machine in Microsoft Azure.

---

#### **Question: 1**

You need to perform the directory synchronization with Office 365.

What should you do first?

- A. Set the domain functional level to Windows Server 2012.
- B. Upgrade the Office 365 licenses to Enterprise E4.

- C. Set the forest functional level to Windows Server 2012.
- D. Create a site-to-site VPN.
- E. Install the DirSync utility in the on-premises environment.

---

**Answer: E**

---

**Question: 2**

---

You need to design a solution for the recovery-time objective.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Schedule a task to create a snapshot of the NTDS database before the existing backup job runs.
- B. Enable the KDC support for claims, compound authentication, and Kerberos armoring administrative template policy.
- C. Set the functional level for each domain to Windows Server 2012.
- D. Set the functional level of the forest to Windows Server 2008 R2.
- E. Enable the Active Directory Recycle Bin.

---

**Answer: A, E**

---

**Question: 3**

---

You need to configure the connection between the new remote branch office and the existing branch offices.

What should you create?

- A. SMTP site link
- B. Forest trust
- C. Certification authority
- D. IP subnet

---

**Answer: A**

---

**Question: 4**

---

You need to plan the expansion of the Los Angeles office.

What should you do?

- A. Install a read-only domain controller in Los Angeles.
- B. Install a domain controller in Los Angeles.
- C. Create and apply a filtered attribute set to the Los Angeles site.
- D. Create and apply a Group Policy object to the Los Angeles site.

---

**Answer: D**

---

**Question: 5****HOTSPOT**

You need to design the acquisition strategy for Margie's Travel.

What should you do? To answer, select the appropriate option for each action in the answer area.

**Answer Area**

Action	
Install the Active Directory Migration Tool on server:	<input type="text"/> <ul style="list-style-type: none"> <li>ALP-CA01</li> <li>ALP-DC01</li> <li>ALP-DC02</li> <li>ALP-DC03</li> <li>ALP-DC04</li> </ul>
Specify the following user account option:	<input type="text"/> <ul style="list-style-type: none"> <li>Account is disabled</li> <li>Password never expires</li> <li>User cannot change password</li> <li>Do not require Kerberos preauthentication</li> <li>Store password using reversible encryption</li> <li>User must change password at next logon</li> </ul>

**Answer:****Answer Area**

Action	
Install the Active Directory Migration Tool on server:	<input type="text"/> <ul style="list-style-type: none"> <li>ALP-CA01</li> <li><b>ALP-DC01</b></li> <li>ALP-DC02</li> <li>ALP-DC03</li> <li>ALP-DC04</li> </ul>
Specify the following user account option:	<input type="text"/> <ul style="list-style-type: none"> <li>Account is disabled</li> <li><b>Password never expires</b></li> <li>User cannot change password</li> <li>Do not require Kerberos preauthentication</li> <li>Store password using reversible encryption</li> <li>User must change password at next logon</li> </ul>

**Question: 6****DRAG DROP**

You need to design the file management solution.

What should you do? To answer, drag the appropriate technology to the correct office. Each technology may be used

once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

### Technologies

- BranchCache Hosted Mode
- BranchCache Distributed Mode
- DirectAccess
- Distributed File System Replication

### Answer Area

Office	Technology
New York	Technology
Denver	Technology
Montreal	Technology
Los Angeles	Technology

### Answer:

### Technologies

- BranchCache Hosted Mode
- BranchCache Distributed Mode
- DirectAccess
- Distributed File System Replication

### Answer Area

Office	Technology
New York	BranchCache Hosted Mode
Denver	Distributed File System Replication
Montreal	BranchCache Distributed Mode
Los Angeles	DirectAccess

## Case Study: 6

### Contoso Ltd, Case B

#### Background

#### Overview

Contoso, Ltd., is a software development company. Contoso has a main office in London and two branch offices, one in Madrid and the other in Dublin. The company is in the process of adopting Microsoft Azure to host business critical resources and applications.

Contoso has an Active Directory Domain Services (AD DS) domain named contoso.com. All devices in the three offices are members of the domain. Each office has a dedicated organizational unit (OU) in the root of the domain named London, Madrid, and Dublin, respectively. Each office OU has three child OUs named Computers, Users, and Groups.

The local Administrator account is disabled on all client devices in the domain by using a Group Policy object (GPO) named SecurityConfiguration that is linked to the root of the domain. Contoso's security department also has a GPO named WSUSConfiguration. WSUSConfiguration defines the configuration of Windows Update Services on the Windows Server Update Services (WSUS) server named WSUS1.

You have a GPO named RemoteSales that uses a WMI filter. The GPO prevents users from launching applications that are not approved.

#### DNS Services

Contoso uses a DNS service that is installed on two domain controllers in the main office. The domain controllers are named DO and DC2. Both DO and DC2 run Windows Server 2008 R2. Both domain controllers host Active Directory integrated zones named contoso.com and lab.contoso.com. The zones are configured to allow only secure updates.

## **Research**

Contoso creates a new research department to develop integration between Contoso's software and public cloud services.

## **Finance Department**

Users in the finance department use a client-server application named App1. App1 uses custom Active Directory attributes to store encryption keys. App1 is a business critical application that must be migrated to Windows Azure.

A server named SERVER2 hosts App1. SERVER2 runs Windows Server 2008 R2. The disk configuration for SERVER2 is shown in the following table:

<b>Volume</b>	<b>Drive letter</b>	<b>Capacity</b>	<b>Contents</b>	<b>Free space</b>
System	C:\	120 GB	system files	40%
App	D:\	20 GB	App1	10%
AppData	E:\	1024 GB	App1 data	30%

A server named SERVER1 hosts a database that is used by App1. SERVER1 runs Windows Server 2008 R2 and SQL Server 2008 R2. The disk configuration for SERVER1 is shown in the following table:

<b>Volume</b>	<b>Drive letter</b>	<b>Capacity</b>	<b>Contents</b>	<b>Free space</b>
System	C:\	120 GB	system files	40%
Data	D:\	4096 GB	database files	5%

The Contoso management team plans to increase the use of App1. To accommodate these plans, the size of the datable must be increased

## **Sales Department**

Users in the sales department use laptop computers when they travel. Salespeople use a legacy application named ContosoSales on their laptop computers. Salespeople can use a pool of shared desktop computers in each office.

The ContosoSales app is dependent on a specific registry key that is frequently overwritten by third-party applications. This causes the ContosoSales app to stop working.

## **Business Requirements**

All DNS servers must be placed in a physically secure location.

## **Software development department**

All software developers must migrate their servers and workstations to the DNS domain lab.contoso.com to ensure that frequent changes to DNS do not interfere with the production environment.

## **Finance department**

All servers that host App1 must be migrated to Windows Azure. A new Azure virtual machine (VM) named CL0UD2 must be deployed to Windows Azure.

## **Sales department**

Users in the sales department should not be able to run applications on their laptop computers that are not approved by the security department. Users in the sales department should have no such restrictions while they work on the desktop computers in the office.

## **Technical Requirements**

### **App1 requirements**

You have the following requirements:

- The size of the database for App1 must be increased to 8 TB.
- The encryption keys for App1 should not be replicated to the offices where physical server security is not guaranteed.
- The amount of disk space that is used by Windows Azure must be minimized.

### **Infrastructure requirements**

You have the following requirements:

- The lab.contoso.com DNS domain zone must not be replicated or transferred to DNS servers outside of the London office.
- A new DNS domain zone named research.contoso.com must be deployed for users in the research department.
- The research.contoso.com DNS domain zone must be protected by using DNS Security Extensions {DNSSEC}.
- All computers in the London and Madrid offices must install Windows Updates from the server WSUS1.
- A new domain controller for the contoso.com domain must be deployed in the Madrid office.
- Replication traffic must be minimized when the new domain controllers are deployed.
- New WMI filters must not conflict with existing WMI filters.

---

### **Question: 1**

---

DRAG DROP

You need to configure DNS for the Dublin office.

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.

**Actions**

On DC1, configure a replication scope for lab.contoso.com.

On DC2, change the DNS Zone type for lab.contoso.com to **Stub Zone**.

On DC3, unregister the DomainDnsZones application partition.

On DC1, change the DNS Zone type for lab.contoso.com to **Secondary Zone**.

Install a new domain controller named **DC3**.

On DC1, create a new DNS application partition.

**Answer Area****Answer:****Answer Area**

1 On DC1, create a new DNS application partition.

2 On DC1, configure a replication scope for lab.contoso.com.

3 On DC2, change the DNS Zone type for lab.contoso.com to **Stub Zone**.

**Question: 2**

You need to plan the migration of App1. What should you do?

- A. Install App1 on drive C. Move all of the data that supports App1 to drive D.
- B. Expand the size of drive C Install App1 and all of the data that supports the app on drive C
- C. Install App1 on drive D. Move all of the data that supports App1 to an additional data drive.
- D. Install App1 on drive C. Move all of the data that supports App1 to an additional data drive.

**Answer: C****Question: 3**

HOTSPOT

You need to configure Windows Updates.

How should you complete the relevant Windows PowerShell commands? To answer, select the Windows PowerShell segments in the answer area.

**Answer Area**

**New-GPLink**  
-Name WSUSConfiguration  
-Target

A screenshot of a Windows PowerShell dropdown menu. The menu is open and shows four items: "DC3", "DC=contoso, DC=com", and "OU=Dublin, DC=contoso, DC=com".

-Enforced

A screenshot of a Windows PowerShell dropdown menu. The menu is open and shows two items: "Yes" and "No".

**Set-GPIInheritance**

-Target

A screenshot of a Windows PowerShell dropdown menu. The menu is open and shows four items: "DC3", "DC=contoso, DC=com", and "OU=Dublin, DC=contoso, DC=com".

-IsBlocked

A screenshot of a Windows PowerShell dropdown menu. The menu is open and shows two items: "Yes" and "No".

---

**Answer:**

---

**Answer Area****New-GPLink****-Name WSUSConfiguration****-Target**

DC3  
 DC=contoso, DC=com  
 OU=Dublin, DC=contoso, DC=com

**-Enforced**

Yes  
 No

**Set-GPIInheritance****-Target**

DC3  
 DC=contoso, DC=com  
 OU=Dublin, DC=contoso, DC=com

**-IsBlocked**

Yes  
 No

**Question: 4**

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

**Assertion:**

You must host the DNS zone research.contoso.com on MADSrv1.

**Reason:**

You must host Domain Name System Security Extensions (DNSSEQ zones on Active Directory Domain Services-integrated DNS servers.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: C**

---

---

### **Question: 5**

---

You need To configure the Group Policy for salespeople.

Solution: You create a Group Policy Object (GPO) with an AppLocker policy. You link the GPO to the Computers OU for each location.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

---

### **Question: 6**

---

You need To configure the Group Policy for salespeople.

Solution: You move all shared desktops to a separate organizational unit (OU). You create one Group Policy object (GPO) that has an AppLocker policy rule and enable loopback policy processing within the GPO. You link the GPO to the new OU.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Case Study: 7**

#### **Line-of-business applications**

##### **Business Requirements**

##### **Line-of-business applications**

A line-of-business (LOB) application named App1 is deployed on LA-SVR01 and LA-SVR02.

##### **Backups**

All company data is temporarily backed up by using snapshots, and then archived to long-term media. When possible, metadata and non-critical information must be stored by using AD DS.

##### **Monitoring**

System Center is used as the primary monitoring tool for server and application performance.

The company also plans to monitor core services, such as DNS, DHCP, and AD DS. Any additional monitoring capabilities must be performed by using System Center.

##### **Active Directory**

The company plans to use Active Directory to store personal information for employees. Users in the branch offices must not be able to view the confidential data that is stored for other users.

## **File shares**

The NY-SVR05 server acts as the primary file server in the domain. File shares are replicated to LA-SRV03. Client computers use NY-SRV05 to access file in the file share, BranchCache distributed mode is enabled in each branch office. Each client computer has a 250-GB hard drive that is used by the Local Cache. BranchCache must be able to use up to 10% of the 250-GB hard drive for the local cache.

## **Consolidation**

The company plans to consolidate the amount of servers that are in both data centers. Company management needs to generate a report that describes how consolidation will affect power and cooling costs in the data center.

## **Technical Requirements**

### **Server deployments**

The existing Microsoft Azure environment does not have the ability to expand automatically. The Azure environment must support the ability to deploy additional virtual machines (VMs) automatically. The on-premises deployment environments must deploy only to trusted computers. When possible, System Center must be used to deploy and manage the on-premises and Azure environments. System Center must also be used to migrate existing virtual machines from VMM to Azure.

### **Monitoring**

The DHCP service must be monitored and reported if the service stops or restarts. Additionally, DHCP scope and Network Access Protection (NAP) related events must be monitored.

### **Azure migration**

The company plans to migrate existing services, including System Center management servers, to Azure. To reduce costs, the migration must use the minimum number of Azure VM instances to migrate the services.

### **App1**

App1 uses a DNS application directory partition on LA-DC01 and NY-DC01. App1 uses IPv6 for network connectivity and must resolve single-label names for resources in the woodgrovebank.com DNS zone. GlobalNames zone has been created, but the zone has not been populated with resource records.

### **Active Directory Domain Services**

The company plans to use the Employee-Number user property to store personal identification numbers.

### **File shares**

Each branch office connects to the New York data center to retrieve file shares. BranchCache distributed mode is enabled in each branch office. The cache on each client computer must be a single file.

### **Consolidation reports**

The company requires a report that describes the impact of consolidation. The report must provide the following information:

- An inventory of the existing physical server environment
- Visual charts that show the reduction of physical servers

---

### **Question: 1**

---

You have an IP Address Management (IPAM) server that runs Windows Server 2012 SP1. You need to integrate the IPAM server with System Center Virtual Machine Manager (SCVMM).

Solution: You create a dedicated user account named IPAM\_svc, and add it to the Local Administrators local group on the SO/MM server.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

Reference:

How to integrate IPAM with SCVMM 2012 R2

---

### **Question: 2**

---

A company has offices in multiple geographic locations. The sites have high-latency, low-bandwidth connections. You need to implement a multisite Windows Deployment Services (WDS) topology for deploying standard client device images to all sites.

Solution: At each site, you deploy a local WDS server that runs only the Transport role. You configure local DHCP servers to direct local clients to the local WDS server.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

Reference:

Windows Deployment Services Getting Started Guide for Windows Server 2012

---

### **Question: 3**

---

You need to generate the required report

Which tool should you use?

- A. Microsoft Deployment Toolkit (MDT)
- B. Microsoft Desktop Optimization Pack (MDOP)
- C. Microsoft Assessment and Planning Toolkit (MAP)
- D. Application Compatibility Toolkit (ACT)

---

**Answer: C**

---

Scenario: Consolidation reports

The company requires a report that describes the impact of consolidation. The report must provide the following information:

- An inventory of the existing physical server environment
- Visual charts that show the reduction of physical servers

Reference:

Microsoft Assessment and Planning (MAP) Toolkit for Hyper-V

### Question: 4

#### HOTSPOT

You need to protect the personal data of employees.

What should you do? To answer, select the appropriate options in the answer area.

### Answer Area

User Property	Attributes	Value
roomNumber	searchFlags	0
Employee-Type	systemFlags	32
Employee-Number	systemOnly	64
departmentNumber	attributeSyntax	128

Answer:

User Property	Attributes	Value
roomNumber	searchFlags	0
Employee-Type	systemFlags	32
Employee-Number	systemOnly	64
departmentNumber	attributeSyntax	128

Scenario:

Active Directory

The company plans to use Active Directory to store personal information for employees. Users in the branch offices must not be able to view the confidential data that is stored for other users.

Active Directory Domain Services

The company plans to use the Employee-Number user property to store personal identification numbers.

Reference:

Using the Confidentiality Bit to Hide Data in Active Directory

### Question: 5

#### DRAG DROP

You need to design the DNS zone for App1.

What should you do? To answer, drag the appropriate resource record to the correct DNS se Each resource record may be used once, more than once, or not at all. You may need to drag split bar between panes or scroll to view content.

## **Resource Records**

IPv4 Host (A)
IPv6 Host (AAA)
Alias (CNAME)
Service Location (SRV)
Text (TXT)

## **Answer Area**

DNS Server	Resource Records
LA-DC01	Resource Record
NY-DC01	Resource Record

---

### **Answer:**

Box 1: Alias (CNAME)

Box 2: Service Location (SRV)

Scenario:

- \* A line-of-business (LOB) application named App1 is deployed on LA-SVR01 and LA-SVR02.
- \* App1 uses a DNS application directory partition on LA-DC01 and NY-DC01. App1 uses IPv6 for network connectivity and must resolve single-label names for resources in the woodgrovebank.com DNS zone. GlobalNames zone has been created, but the zone has not been populated with resource records.

---

### **Question: 6**

You need to limit the amount of disk space that is used on the client devices.

Which Windows PowerShell cmdlet or cmdlets should you run?

- A. Add-BCDataCacheExtcnstion
- B. Set-BCDataCacheEntryMaxAge
- C. Disable-BC and Enable-BCLocal
- D. Set-BCCache
- E. Clear-BCCache

---

### **Answer: D**

Scenario: File shares

Each branch office connects to the New York data center to retrieve file shares. BranchCache distributed mode is enabled in each branch office. The cache on each client computer must be a single file.

Reference:

Set-BCCache

---

### **Question: 7**

You need to implement the Microsoft Azure migration plan. What should you do?

- A. On Microsoft Azure, install and configure System Center 2012 R2 Virtual Machine Manager.

- B. On an on-premises server, install and configure System Center 2012 R2 Service Manager.
- C. On an on-premises server, install and configure System Center 2012 R2 App Controller.
- D. On an on-premises server, install and configure Windows Deployment Services.
- E. On Microsoft Azure, install and configure System Center 2012 R2 Orchestrator.

---

### Answer: C

---

\* Scenario: Azure migration

The company plans to migrate existing services, including System Center management servers, to Azure. To reduce costs, the migration must use the minimum number of Azure VM instances to migrate the services.

Reference:

Understanding App Controller 2012

## Case Study: 8

### Parnell Aerospace

#### Overview

Parnell Aerospace designs materials and components that are used for commercial airlines.

Parnell has a main office in Dallas and branch offices in Seattle, Atlanta, and New York. Parnell has an Active Directory Domain Services (AD DS) domain named `parnellaero.com` for the Dallas and Manta offices. The forest and Domain functional levels are set to Windows Server 2008.

#### Domain Controllers

The domain controllers are displayed in the following table:

Name	Role	Location	IP Address
PAR-DC01	Domain controller	Dallas	192.168.100.100
PAR-DC02	Domain controller	Dallas	192.168.100.101
PAR-DC03	Domain controller	Atlanta	172.16.1.1
PAR-DC04	Domain controller	Atlanta	172.16.1.2

The Seattle and New York offices have their own child domain named `sales.parnellaero.com`. The domain controllers are displayed in the following table.

Name	Role	Location	IP Address
SALE-DC01	Domain controller	Seattle	10.100.1.1
SALE-DC02	Domain controller	Seattle	10.100.1.2
SALE-DC03	Domain controller	New York	10.200.1.1
SALE-DC04	Domain controller	New York	10.200.1.2

Parnell also has a number of satellite offices, without domain controllers, that act as both sales and design locations.

Employees have the ability to walk into any office to connect to their respective domain and access the software they need.

All servers in each office run Windows Server 2012 R2 and are 64-bit platforms. Client devices in each office run Windows 7 and Windows 8.1.

#### Expansion

Parnell Aerospace is expanding to Great Britain. Parnell creates the domain `ukparnellaero.com` for the new offices to use.

Parnell creates a new sales office in London,

Parnell also purchases a company in Glasgow named Flight Build that can expand Parnell's research and design division. Flight Build has low security and limited bandwidth. Flight Build has the domain name `flightbuild.com`.

Flight Build has a single domain controller named FB-DC. Flight Build users use an application that must run on the domain controller.

Flight Build's server environment contains a server that runs Windows Server 2012 R2 and has Microsoft SQL Server 2012 installed. Ports 12345, 6789, and 10111 have been assigned for System Center Virtual Machine Manager (SCVMM) connections.

The domain controllers for the two new offices are displayed in the following table:

Name	Role	Location	IP Address
LON-DC01	Domain controller	London	10.30.1.1
LON-DC02	Domain controller	London	10.30.1.2
GLA-DC	Domain controller	Glasgow	10.40.1.1

### **Business Requirements**

#### **Accessing Data Globally**

Employees in any office, including satellite and branch offices, must be able to work securely on internal applications, independent of device, and still access all of the information they need.

At times, a large percentage of user's congregate in the same geography to work: on a specific task and environments need to scale quickly to meet the demands.

#### **Application performance**

In order to allow multiple simultaneous users to access the design application. The design application is published by using SCVMM

#### **Data Conformity**

All data needs to be synchronized between all offices to ensure that all users have the latest information available.

#### **Disaster Preparedness**

In case of natural disaster, Parnell Aerospace must be able to continue work without disruption. Servers in any location must be restored rapidly.

#### **Expansion**

The domain flightbuild.com must be renamed to integrate it into the domain uk.parmellaero.com

Users in the newly acquired Glasgow office report issues with long logon times. Parnell Aerospace must prepare a new domain controller for the logon traffic.

Parnell plans to deploy an additional SCVMM server in the Flight Built environment.

#### **Sales reports**

Parnell Aerospace's sales organization uses a large number of sales reports that are in the Excel format. The reports are very large and accessed often throughout the day. Users report that it takes a long time to open the files, even when they are using the local network.

#### **Technical Requirements**

##### **Mixed environment**

The existing environment contains Windows servers and legacy UNIX servers. All UNIX servers run 32-bit operating systems. A Server named UNIX1 is a Fileserver.

##### **Sales reports**

Sales reports must be saved on an automated storage tier named Sales Reports. All file servers are equipped with both solid-state drives and standard hard-disk drives.

##### **Sales Application**

A sales application in the parneraero.com domain must be accessible to users outside of the network during sales calls.

The application is configured by using automatic triggering of VPN connections.

##### **Design Application**

A design application must allow automatic logon by using VPN when users in the parnellaero.com domain are working from a location outside of the office. Users report the authentication fails.

##### **UK Division Sales**

Sales people in the new UK domain must be able to access a web-based sales application named UKSales that is used in their geography by using any device including hand-held units, smart phones, and laptop computers.

##### **Active Directory**

The Active Directory Recycle Bin must be enabled throughout the forest.

## **Question: 1**

You need to resolve the access issue at the newly acquired office.

What should you do.

- A. Install a domain Controller and configure Universal Group Membership Caching.
- B. Install a domain Controller and add the Global Catalog role.
- C. Install a read-only domain controller.
- D. Install a domain controller and enable BranchCache.

---

**Answer: C**

---

### **Question: 2**

---

HOTSPOT

You need to configure access to legacy systems.

How should you complete the relevant command? To answer, select the appropriate options in the answer area.

Hot Area:

**Answer Area**



---

**Answer:**

---

Answer should be : `mount [-o nolock] \\\\unix1\\\\share1 {unix1|*}`

### **Question: 3**

---

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true: both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

**Assertion:**

You can run the RENDOM command on the GIA-DC domain controller to rename the domain.

**Reason:**

The RENDOM command is installed as part of the Active Directory Domain Services role when you promote a server to the domain controller role. The command allows you to rename the domain.

Evaluate the Assertion and Reason statements and choose the correct answer option.

Both the Assertion and Reason are true. and the Reason is the correct explanation for the Assertion.

Both the Assertion and Reason are true but the Reason is not the correct explanation for the Assertion.

The Assertion is true, but the Reason Is false.

The Assertion is false, but the Reason is true.

Both the Assertion and the Reason are false.

---

**Answer: A**

---

**Question: 4**

---

You need to give Great Britain division access to the UKSales application

What should you set up?

- A. a border Gateway protocol
- B. a multi-tenant client-to-site VPN gateway
- C. a web application proxy
- D. a multi tenant Remote Access VPN gateway

---

**Answer: C**

---

Explanation:

In the section sales department UK states: The sales staff of the new domain for the United Kingdom must comply with any device, including smartphones and laptop, can access a web-based sales application named UKSales for their region. The web-based sales application UKSales is not identical to the sales application is hosted in greenwing.com domain. In the sales application domain greenwing.com is a client-server application. In order to optimize the security of access to the web-based application UKSales, a Webanwendungsproxy (reverse proxy) should be installed and configured.

**Question: 5**

---

HOTSPOT

You need to ensure that all users can launch the destgn application

How should you complete the relevant Windows PowerShell script? To answer,select the appropiate cmdlets in the answer area.

Hot Area:

Answer Area

```
$Tier = Get-SCComputerTier -Service Service1 where ($_.Name -eq "Web Tier 0")
$VMConfig = Add-SCVMHost -ComputerTier $Tier -Name "NewServiceVM01"
$VMConfig | Add-SCService
$VMConfig | Add-SCPXEserver
$VMConfig | New-SCVMConfiguration
-Description "New VM configuration for tier"
$VMHosts = Get-SCVMHost
$HostRatings = @(Get-SCVMHostRating -VMHost $VMHosts -VMConfiguration
$VMConfig | Where {$_.Rating -gt 0} | Sort -Property Rating -Descending)
If ($HostRating.Count -eq 0) {throw "No hosts meet the placement requirements:"}
$VMHost = $HostRating[0].vmhost
Set-SCVMConfiguration -VMConfiguration $VMConfig -VMHost $VMHost
Update-SCVMConfiguration -VMConfiguration $VMConfig
$VM = New-SCCloud
$VM | Add-SCPXEserver
$VM | Add-SCLoadBalancer
$VM | New-SCVirtualMachine
-Name "NewServiceVM01"
-VMConfigurationScaleOut $VMConfig
```

---

**Answer:**

New-SCService  
Add-SCPXEserver

---

**Question: 7**

You need to ensure that users can access sales reports. Which windows PowerShell cmdlet should you run?

- A. set\_FilestorageTier
- B. Get-FileStorageTier
- C. Set-storageTier
- D. Get\_StorageProvider
- E. Clear-FileStorageTier

---

**Answer: A**

---

**Question: 8**

DRAG DROP

You need to configure the replication of user credentials for the Great Britain division.

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.

Select and Place:

**Actions**

**Answer Area**

Add the existing user accounts to the replication list and set the access level to deny.

Launch the Active Directory Trusts and Domains applet by using Domain Admin credentials.

Launch the Active Directory Users and Computers applet by using Domain Admin credentials.

On GLA-DC, configure the LON-DC01 account.

On LON-DC01, Configure the GLA-DC Account.

**Answer:**

It should be:

Launch the active directory users and computers applet by using domain admin credentials

Add the existing users to the replication list and set access level to deny.

On GLA-DC, configure the LON-DC1 account.

**Question: 9**

**DRAG DROP**

You must configure the replication of credentials of the user for the area of Great Britain. What three steps will guide you in order from? (The available actions are shown in the picture. Click the Drawing button and assign the necessary three steps in the proper order at.)

Insert the Password Replication Policy, the existing accounts, and configure the access level with Deny

Use the credentials of the Domain Admins and open the Active Directory Snap-In Domains and Trusts.

Use the credentials of the Domain Admins and open the Active Directory Snap-In Users and Computers.

Configure on EF - DC , the properties of the account of LON - DC-01

Configure on LON - DC-01, the properties of the account of EF - DC .

Insert the Password Replication Policy, the existing accounts , and configure the access level with Allow.

**Answer Area**




**Answer:**

Use the credentials of the Domain Admins and open the Active Directory Snap-In Users and Computers.

Configure on LON - DC-01, the properties of the account of EF - DC .

Insert the Password Replication Policy, the existing accounts , and configure the access level with Allow.

## **Case Study: 9 Mix Questions A**

### **Question: 1**

Your network contains 50 servers that run Windows Server 2003 and 50 servers that run Windows Server 2008.

You plan to implement Windows Server 2012 R2.

You need to create a report that includes the following information:

The servers that run applications and services that can be moved to Windows Server 2012 R2

The servers that have hardware that can run Windows Server 2012 R2

The servers that are suitable to be converted to virtual machines hosted on Hyper-V hosts that run Windows Server 2012 R2

Solution: You install Windows Server 2012 R2 on a new server, and then you run Microsoft Deployment Toolkit (MDT) 2012.

Does this meet the goal?

A. Yes

B.No

---

### **Answer: B**

---

Microsoft Deployment Toolkit (MDT) 2013 allows you to automate the deployment of computers in your organization, but it does not include reporting.

### **Question: 2**

Your network contains 50 servers that run Windows Server 2003 and 50 servers that run Windows Server 2008.

You plan to implement Windows Server 2012 R2.

You need to create a report that includes the following information:

The servers that run applications and services that can be moved to Windows Server 2012 R2

The servers that have hardware that can run Windows Server 2012 R2

The servers that are suitable to be converted to virtual machines hosted on Hyper-V hosts that run Windows Server 2012 R2

Solution: You install Windows Server 2012 R2 on a new server, and then you run the Windows Server Migration Tools.

Does this meet the goal?

A. Yes

B.No

---

### **Answer: B**

---

---

### **Question: 3**

Your network contains an Active Directory domain named contoso.com. The domain contains multiple sites.

You plan to deploy DirectAccess.

The network security policy states that when client computers connect to the corporate network from the Internet, all of the traffic destined for the Internet must be routed through the corporate network.

You need to recommend a solution for the planned DirectAccess deployment that meets the security policy requirement

Solution: You set the ISATAP State to state disabled.

Does this meet the goal?

A. Yes

B.No

---

### **Answer: A**

With NAT64 and DNS64, the DirectAccess server now has the ability to take those client IPv6 packets and spin them down into IPv4 packets, so you can simply leave your internal network all IPv4. So back in the beginning it was standard practice to enable ISATAP globally. Today, because of the known issues, it is recommended not to use ISATAP at all, unless you have a specific reason for needing it

Note: ISATAP defines a method for generating a link-local IPv6 address from an IPv4 address, and a mechanism to perform Neighbor Discovery on top of IPv4.

Reference:

IS ISATAP REQUIRED FOR DIRECTACCESS?

---

### **Question: 4**

Your network contains an Active Directory domain named contoso.com. The domain contains multiple sites.

You plan to deploy DirectAccess.

The network security policy states that when client computers connect to the corporate network from the Internet, all of the traffic destined for the Internet must be routed through the corporate network.

You need to recommend a solution for the planned DirectAccess deployment that meets the security policy requirement.

Solution: You enable split tunneling.

Does this meet the goal?

A. Yes

B.No

---

### **Answer: A**

DirectAccess by default enables split tunneling. All traffic destined to the corpnet is sent over the DA IPsec tunnels, and all traffic destined for the Internet is sent directly to the Internet over the local interface. This prevents DA clients from bringing the corporate Internet connection to its knees.

Is DA split tunneling really a problem? The answer is no.

Why? Because the risks that exist with VPNs, where the machine can act as a router between the Internet and the corporate network is not valid with DirectAccess. IPsec rules on the UAG server require that traffic be from an authenticated source, and all traffic between the DA client and server is protected with IPsec.

Thus, in the scenario where the DA client might be configured as a router, the source of the traffic isn't going to be the

DA client, and authentication will fail – hence preventing the type of routing that VPN admins are concerned about.

Reference:

Why Split Tunneling is Not a Security Issue with DirectAccess

---

### **Question: 5**

Your network contains an Active Directory domain named contoso.com. The domain contains three VLANs. The VLANs are configured as shown in the following table.

VLAN	Contents	Routing enabled to
VLAN 1	Client computers	VLAN 2
VLAN 2	<ul style="list-style-type: none"><li>Application servers</li><li>Domain controllers</li><li>Network Policy Service (NPS) servers</li></ul>	VLAN 1 and the Internet
VLAN 3	Windows Server Update Services (WSUS) server	Nowhere

All client computers run either Windows 7 or Windows 8.

Goal: You need to implement a solution to ensure that only the client computers that have all of the required security updates installed can connect to VLAN 1. The solution must ensure that all other client computers connect to VLAN 3.

Solution: You implement the 802.1x Network Access Protection (NAP) enforcement method.

Does this meet the goal?

- A. Yes
- B.No

---

### **Answer: A**

NAP supports a variety of what we call enforcement methods. In the NAP space, and enforcement method is simply a term that defines the way a machine connects to a network. In NAP, these are DHCP, 802.1x (wired or wireless), VPN, IPsec, or via a Terminal Services Gateway.

---

### **Question: 6**

Your network contains an Active Directory domain named contoso.com. The domain contains three VLANs. The VLANs are configured as shown in the following table.

VLAN ID	Contents	Routing enabled to
1	Client computers	VLAN 2
2	<ul style="list-style-type: none"><li>Application servers</li><li>Domain controllers</li><li>Network Policy Service (NPS) servers</li></ul>	VLAN 1 and the Internet
3	Windows Server Update Services (WSUS) server	Nowhere

All client computers run either Windows 7 or Windows 8.

The corporate security policy states that all of the client computers must have the latest security updates installed.

You need to implement a solution to ensure that only the client computers that have all of the required security updates installed can connect to VLAN 1. The solution must ensure that all other client computers connect to VLAN 3.

Solution: You implement the VPN enforcement method.

Does this meet the goal?

- A. Yes
- B.No

---

**Answer: B**

VPN Enforcement need to be setup in connection with NAP (Network Access Protection).

---

**Question: 7**

Your network contains an Active Directory domain named contoso.com. The domain contains three VLANs. The VLANs are configured as shown in the following table.

VLAN ID	Contents	Routing enabled to
1	Client computers	VLAN 2
2	<ul style="list-style-type: none"><li>• Application servers</li><li>• Domain controllers</li><li>• Network Policy Service (NPS) servers</li></ul>	VLAN 1 and the Internet
3	Windows Server Update Services (WSUS) server	Nowhere

All client computers run either Windows 7 or Windows 8.

The corporate security policy states that all of the client computers must have the latest security updates installed.

You need to implement a solution to ensure that only the client computers that have all of the required security updates installed can connect to VLAN 1. The solution must ensure that all other client computers connect to VLAN 3.

Solution: You implement the DHCP Network Access Protection (NAP) enforcement method.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

Implementing DHCP NAP to Enforce WSUS Updates

---

**Question: 8**

Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the Network Policy Server server role installed.

You configure Server1 as part of a Network Access Protection (NAP) solution that uses the 802.1x enforcement method,

You add a new switch to the network and you configure the switch to use 802.1x authentication.

You need to ensure that only compliant client computers can access network resources through the new switch.

What should you do on Server1?

- A. Add the IP address of each new switch to a remediation server group.
- B. Add the IP address of each new switch to the list of RADIUS clients.
- C. Add the IP address of each new switch to a connection request policy as an Access Client IPv4 Address.
- D. Add the IP address of each new switch to a remote RADIUS server group.

---

**Answer: B**

802.1X and RADIUS-compliant APs (Access Points), when they are deployed in a RADIUS infrastructure with a RADIUS server such as an NPS server, are called RADIUS clients.

---

**Question: 9**

Your network contains an Active Directory domain named contoso.com.

Your company has 100 users in the sales department. Each sales user has a domain-joined laptop computer that runs either Windows 7 or Windows 8. The sales users rarely travel to the company's offices to connect directly to the corporate network.

You need to recommend a solution to ensure that you can manage the sales users' laptop computers when the users are working remotely.

What solution should you include in the recommendation?

- A. Deploy the Remote Access server role on a server on the internal network.
- B. Deploy the Network Policy and Access Services server role on a server on the internal network.
- C. Deploy a Microsoft System Center 2012 Service Manager infrastructure.
- D. Deploy a Microsoft System Center 2012 Operations Manager infrastructure.

---

**Answer: D**

---

Incorrect:

Not A: The Remote Access server role just give access to the remote computers, but you need to MANAGE their computers.

---

### **Question: 10**

---

HOTSPOT

Your network contains an Active Directory domain named contoso.com.

The domain has a certification authority (CA). You create four certificate templates. The templates are configured as shown in the following table:

<b>Template name</b>	<b>Application policy</b>
Template1	Smart card logon
Template2	Client authentication
Template3	Time stamping
Template4	Server authentication

You install the Remote Access server role in the domain.

You need to configure DirectAccess to use one-time password (OTP) authentication.

What should you do? To answer, select the appropriate options in the answer area,

**Answer Area**

Software to deploy to contoso.com:

Certificate template to use for OTP:

**Answer Area**

Software to deploy to contoso.com:   
Network Device Enrollment Service (NDES)  
Network Policy Server (NPS)  
Windows Identity Foundation (WIF) 3.5

Certificate template to use for OTP:   
Template1  
Template2  
Template3  
Template4

---

**Answer:**

---

**Answer Area**

Software to deploy to contoso.com:

Network Device Enrollment Service (NDES)
Network Policy Server (NPS) <b>✓</b>
Windows Identity Foundation (WIF) 3.5

Certificate template to use for OTP:

Template1 <b>✓</b>
Template2
Template3
Template4

---

**Question: 11**

---

**DRAG DROP**

Your company plans to deploy a remote access solution to meet the following requirements:

Ensure that client computers that are connected to the Internet can be managed remotely without requiring that the user log on.

Ensure that client computers that run Windows Vista or earlier can connect remotely.

Ensure that non-domain-joined computers can connect remotely by using TCP port 443.

You need to identify which remote access solutions meet the requirements.

Which solutions should you identify?

To answer, drag the appropriate solution to the correct requirement in the answer area. Each solution may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

---

Solutions	Answer Area
DirectAccess	<p><b>Solution</b> Ensure that client computers that are connected to the Internet can be managed remotely without requiring that the user log on.</p>
L2TP VPN	<p><b>Solution</b> Ensure that client computers that run Windows Vista or earlier can connect remotely.</p>
SSTP VPN	<p><b>Solution</b> Ensure that non-domain-joined computers can connect remotely by using TCP port 443.</p>

---

**Answer:**

---

Box 1: Direct Access

Box 2: L2TP VPN

Box 3: SSTP VPN

Note:

\*Direct is supported in Windows 7 and newer so second answer is not correct it should be L2TP VPN.

\* DirectAccess, introduced in the Windows 7 and Windows Server 2008 R2 operating systems, allows remote users to securely access enterprise shares, web sites, and applications without connecting to a virtual private network (VPN).

\* Both L2TP and IPsec must be supported by both the VPN client and the VPN server. Client support for L2TP is built in to the Windows Vista® and Windows XP remote access clients, and VPN server support for L2TP is built in to members

of the Windows Server® 2008 and Windows Server 2003 family.

\* Secure Socket Tunneling Protocol (SSTP) is a form of VPN tunnel that provides a mechanism to transport PPP or L2TP traffic through an SSL 3.0 channel. SSL provides transport-level security with key-negotiation, encryption and traffic integrity checking. The use of SSL over TCP port 443 allows SSTP to pass through virtually all firewalls and proxy servers.

## Question: 12

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains five servers. The servers are configured as shown in the following table.

Server name	Role
Server1	Domain controller
Server2	Certification authority (CA)
Server3	Network Policy Server (NPS) server
Server4	Health Registration Authority (HRA) server
Server5	Host Credential Authorization Protocol (HCAP) server

You plan to implement Network Access Protection (NAP) with IPSec enforcement on all client computers.

You need to identify on which servers you must perform the configurations for the NAP deployment.

Which servers should you identify? To answer, drag the appropriate servers to the correct actions. Each server may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Servers	Answer Area
Server1	Create health policies: <input type="text"/>
Server2	Configure the NAP enforcement method: <input type="text"/>
Server3	Create remediation server groups: <input type="text"/>
Server4	
Server5	

## Answer:

- Create health policies:  Server3
- Configure the NAP enforcement method:  Server1
- Create remediation server groups:  Server3

Box 1: Server 3 (Network Policy Server)

We use a Network Policy Server, Server3, to configure health policies.

Box 2: Server 1

\* Server1 (Domain Controller)

You can configure NAP clients through Group Policy or local computer policy. This feature is installed automatically on

a domain controller running Windows Server 2008 and Windows Server 2008 R2. This feature can be installed on a member server running Windows Server 2008 or Windows Server 2008 R2. You can use Group Policy to configure NAP settings on NAP clients running Windows Server 2008, Windows Server 2008 R2, Windows Vista, Windows 7, and Windows XP SP3.

**Box 3: Server 3 (Network Policy Server)**

You configure remediation server groups on the Network Policy Server and reference a particular remediation server group as part of the network policy for non-compliant computers

---

**Question: 13**

---

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains a server named Server1 that runs Windows Server 2012. Server1 resides in the perimeter network and has the Remote Access server role installed.

Some users have laptop computers that run Windows 7 and are joined to the domain. Some users work from home by using their home computers. The home computers run either Windows XP, Windows Vista/ Windows 7, or Windows 8.

You need to configure the computers for remote access.

Which three actions should you perform?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Publish the connection files to a web site in the company's extranet.	
Publish a software deployment package by using a Group Policy object (GPO).	
Create a RemoteApp application package.	
Create a Connection Manager Administration Kit (CMAK) package.	
Install the Connection Manager Administration Kit (CMAK).	

---

**Answer:**

---

Actions	Answer Area
	Install the Connection Manager Administration Kit (CMAK).
Publish a software deployment package by using a Group Policy object (GPO).	Create a Connection Manager Administration Kit (CMAK) package.
Create a RemoteApp application package.	Publish the connection files to a web site in the company's extranet.

#### Explanation:

##### Box 1: Installing CMAK

CMAK is an optional component that is not installed by default. You must install CMAK to create connection profiles that your users can install to access remote networks.

Box 2: The Connection Manager Administration Kit (CMAK) is a tool that you can use to customize the remote connection experience for users on your network by creating predefined connections to remote servers and networks. To create and customize a connection for your users, you use the CMAK wizard.

##### Box 3: Distributing your completed connection profile

Running the CMAK wizard produces a connection profile that is stored in an executable file. Running that file on a client computer equips that computer with everything needed to establish the network connection that you designed.

#### Reference:

Connection Manager Administration Kit

### Question: 14

Your network contains an Active Directory domain. All servers run Windows Server 2012 R2.

The domain contains the servers shown in the following table.

Server name	Data type
Server1	A database server that has several instances of Microsoft SQL Server 2012
Server2	A file server that stores user home folders and shared documents
Server3	A Microsoft System Center 2012 R2 Virtual Machine Manager (VMM) library server that hosts virtual hard disks (VHDs)
Server4	A Microsoft Exchange Server 2013 server that has the Mailbox server role and the Client Access server role

You need to recommend which servers will benefit most from implementing data deduplication.

Which servers should you recommend?

- A. Server1 and Server2
- B. Server1 and Server3
- C. Server1 and Server4
- D. Server2 and Server3
- E. Server2 and Server4
- F. Server3 and Server4

---

**Answer: D**

\* Server 2: Data deduplication involves finding and removing duplication within data without compromising its fidelity or integrity. The goal is to store more data in less space by segmenting files into small variable-sized chunks (32–128 KB), identifying duplicate chunks, and maintaining a single copy of each chunk. Redundant copies of the chunk are replaced by a reference to the single copy. The chunks are compressed and then organized into special container files in the System Volume Information folder

\* Server 3: In Windows Server 2012 R2, Data Deduplication can be installed on a scale-out file server and used to optimize live VHDs for VDI workloads.

Reference:

What's New in Data Deduplication in Windows Server

---

**Question: 15**

Your network contains an Active Directory forest named adatum.com. All domain controllers run Windows Server 2008 R2. The functional level of the domain and the forest is Windows Server 2008.

You deploy a new Active Directory forest named contoso.com. All domain controllers run Windows Server 2012 R2. The functional level of the domain and the forest is Windows Server 2012 R2.

You establish a two-way, forest trust between the forests. Both networks contain member servers that run either Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2 or Windows Server 2008.

You plan to use the Active Directory Migration Tool 3.2 (ADMT 3.2) to migrate user accounts from adatum.com to contoso.com. SID history will be used in contoso.com and passwords will be migrated by using a Password Export Server (PES).

You need to recommend which changes must be implemented to support the planned migration.

Which two changes should you recommend? Each correct answer presents part of the solution.

- A. In the contoso.com forest, deploy a domain controller that runs Windows Server 2008 R2.
- B. In the adatum.com forest, upgrade the functional level of the forest and the domain.
- C. In the contoso.com forest, downgrade the functional level of the forest and the domain.
- D. In the adatum.com forest, deploy a domain controller that runs Windows Server 2012 R2.

---

**Answer: A, C**

---

**Question: 16**

Your network contains an Active Directory forest named contoso.com.

You plan to automate the deployment of servers that run Windows Server 2012.

You identify the following requirements for the deployment:

Update the custom images that will be used for the deployment.

Add custom drivers to the images that will be used for the deployment.

Add software packages to the images that will be used for the deployment.

Perform a zero touch bare-metal installation that uses Wake On LAN.

A network consultant recommends using Windows Deployment Services (WDS) and the Windows Assessment and Deployment Kit (Windows ADK) to deploy the servers.

You need to identify which requirements are achieved by using the consultant's recommendations.

Which requirements should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Update the custom images used for the deployment.

- B.Add software packages to the images used for the deployment.
- C.Perform a zero touch bare-metal installation that uses Wake On LAN.
- D.Add custom drivers to the images used for the deployment.

---

**Answer: A, D**

Microsoft Deployment Toolkit 2010

MDT 2010 requires Windows AIK for Windows.

Manage your images, from adding/removing drivers to easily swapping out the operating system you would like to deploy.

Incorrect:

Not C: System Center Configuration Manager (ConfigMgr)

ConfigMgr allows you to push an OSD to the computers of your choice at the time of your choosing due to its built in Wake on LAN (WOL) feature.

---

### **Question: 17**

Your company has a main office and four branch offices. The main office is located in London.

The network contains an Active Directory domain named contoso.com. The network is configured as shown in the exhibit. (Click the Exhibit button.)

Each office contains several servers that run Windows Server 2012.

In each branch office, you plan to deploy an additional 20 servers that will run Windows Server 2012. Some of the servers will have a Server Core installation of Windows Server 2012.

You identify the following requirements for the deployment of the new servers:

Operating system images must be administered centrally.

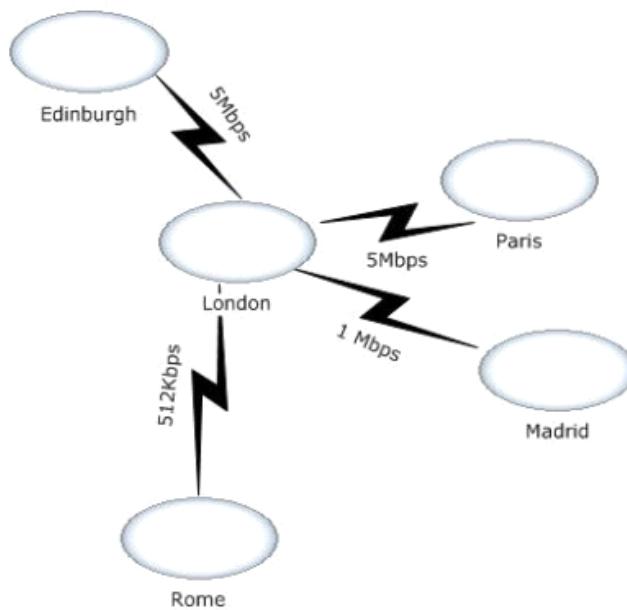
The operating system images must be deployed by using PXE.

The WAN traffic caused by the deployment of each operating system must be minimized.

You need to recommend a solution for the deployment of the new servers.

What should you recommend?

Exhibits



- A. Deploy Windows Deployment Services (WDS) in each office. Replicate the images by using Distributed File System (DFS) Replication,
- B. Deploy Windows Deployment Services (WDS) in the main office only. Replicate the images by using Distributed File System (DFS) Replication.
- C. Deploy Windows Deployment Services (WDS) in each office. Copy the images by using BranchCache.
- D. Deploy Windows Deployment Services (WDS) in the main office only. Copy the images by using BranchCache.

---

### Answer: A

DFS Replication is a replication engine that you can use to replicate images between Windows Deployment Services servers.

Reference:

[Storing and Replicating Images Using DFS](#)

---

### Question: 18

Your network contains an Active Directory forest named contoso.com. The forest is managed by using Microsoft System Center 2012.

Web developers must be able to use a self-service portal to request the deployment of virtual machines based on predefined templates. The requests must be approved by an administrator before the virtual machines are deployed. You need to recommend a solution to deploy the virtual machines.

What should you include in the recommendation?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. A Virtual Machine Manager (VMM) service template, an Operations Manager dashboard, and an Orchestrator

runbook

B.A Service Manager service offering, an Orchestrator runbook, and an Operations Manager dashboard

C.A Virtual Machine Manager (VMM) service template, a Service Manager service offering, and an Orchestrator runbook

D.A Service Manager service offering, an Orchestrator runbook, and Configuration Manager packages

---

### Answer: C

As a practical example, a user could initiate an Orchestrator runbook by requesting a service in a self-service portal. The runbook would then await approval by IT. Once approved, it would then automatically provision the necessary virtual machines through System Center Virtual Machine Manager, deploy the required software via Configuration Manager, arrange backup through System Center Data Protection Manager and integrate monitoring with a third-party system.

Reference:

Microsoft System Center Orchestrator 2012: Lead the System Center Band

---

### Question: 19

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains a server named Server1 that runs Windows Server 2008 R2. Server1 is a file server.

You deploy a new member server named Server2 that runs Windows Server 2012.

You plan to migrate file shares from Server1 to Server2. File share and NTFS permissions are assigned only to domain local groups.

You need to identify which actions are required to perform the migration.

Which five actions should you identify?

To answer, move the five appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
On Server2, register the Windows Server Migration Tools.	
On Server1, install the Windows Server Migration Tools.	
On Server1, register the Windows Server Migration Tools.	
On Server1, run the <b>Send-SmigServerData</b> cmdlet.	
On Server2, run the <b>Receive-SmigServerData</b> cmdlet.	
On Server2, create a deployment folder.	
On Server1, create a deployment folder.	
On Server2, install the Windows Server Migration Tools.	

---

### Answer:

Box 1: On Server2, install the Windows Server Migration Tools.

Box 2: On Server2, create a deployment folder.

Box 3: On Server1, register the Windows Server Migration Tools.

Box 4: On Server2, run the Receive-SmigServerDatacmdlet.

Box 5: On Server1, run the Send-SmigServerDatacmdlet.

Note:

\* Windows Server Migration Tools installation and preparation can be divided into the following stages.

1. (box 1) Installing Windows Server Migration Tools on destination servers that run Windows Server 2012.

2. (Box 2) Creating deployment folders on destination servers that run Windows Server 2012, for copying to source servers.

3.Copying deployment folders from destination servers to source servers.

4.(Box 3) Registering Windows Server Migration Tools on source servers.

\* Registering Windows Server Migration Tools on source computers

Before you can use a technology's Windows PowerShell snap-in for the first time, it must be registered with Windows PowerShell. You can use SmigDeploy.exe to register the Windows Server Migration Tools snap-in on a migration source computer

\* (box 54 Receive-SmigServerData (Receive must be send)

This cmdlet allows a target server to receive shares, folders, files, and associated permissions and share properties that are migrated from a source server. Receive-SmigServerData must be running on the destination server at the same time that the Send-SmigServerDatacmdlet is running on the source server.

\* (box 5) Send-SmigServerData (Send must be after receive)

This cmdletmigrates folders, files, and associated permissions and share properties from the local server to a target server. Send-SmigServerData must be run on the source server at the same time that the Receive-SmigServerDatacmdlet is running on the destination server.

Reference:

Install, Use, and Remove Windows Server Migration Tools

<https://technet.microsoft.com/en-us/library/jj134202.aspx>

---

## **Question: 20**

---

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains a server named Server1 that runs Windows Server 2008. Server1 is configured as an enterprise certification authority (CA).

You back up all of the data on Server1, and then export the private and public keys of the CA.

You plan to replace Server1 with a new member server that was purchased recently.

You need to identify which actions must be performed on the new server to restore the certificate services of Server1.

Which three actions should you identify?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Install the Active Directory Certificate Services server role.	
Run the AD CS Configuration wizard and import the private key.	
Run the AD CS Configuration wizard and import the public key.	
Restore the certificate services registry settings and the certificate services database.	

**Answer:**

Install the Active Directory Certificate Services server role.

Run the AD CS Configuration wizard and import the private key.

Restore the certificate services registry settings and the certificate services database.

Box 1: We will need the Active Directory Certificate Services role to import the key, and later restore the certificate services database.

Box 2: Import the private key with the help of the AD CS Configuration Wizard.

The private key will be needed in the next step when you restore the certificate services registry settings and the certificate services database.

Box 3: Restore the certificate services registry settings and the certificate services database-  
Reference:

Step-By-Step: Migrating The Active Directory Certificate Service From Windows Server 2003 to 2012 R2

<http://blogs.technet.com/b/canitpro/archive/2014/11/12/step-by-step-migrating-the-active-directory-certificate-service-from-windows-server-2003-to-2012-r2.aspx>

**Question: 21**

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure. The domain contains two sites named Site1 and Site2. The sites connect to each other by using a 1-Mbps WAN link.

The sites contain four servers. The servers are configured as shown in the following table.

Server name	Site	Configuration
Server1	Site1	<ul style="list-style-type: none"> <li>• Windows Server 2012</li> <li>• Virtual Machine Manager (VMM)</li> <li>• Windows Deployment Services (WDS)</li> </ul>
Server2	Site1	<ul style="list-style-type: none"> <li>• Windows Server 2008 R2</li> <li>• Virtual Machine Manager (VMM) library</li> </ul>
Server3	Site1	<ul style="list-style-type: none"> <li>• Windows Server 2012</li> <li>• Hyper-V</li> </ul>
Server4	Site2	<ul style="list-style-type: none"> <li>• Windows Server 2012</li> </ul>

In Site2, you plan to deploy 50 Hyper-V hosts.

You need to recommend a solution to deploy the Hyper-V hosts by using VMM. The solution must minimize the

amount of traffic between Site1 and Site2 during deployment.

What should you recommend?

- A. On Server4, install VMM. From the Virtual Machine Manager console, add Server1 as a PXE server and add Server4 as a library server.
- B. On Server4/ install VMM. From the Virtual Machine Manager console, add Server1 as a PXE server and a library server.
- C. On Server4, install WDS. From the Virtual Machine Manager console, add Server4 as a PXE server and a library server.
- D. On Server4, install WDS. From the Virtual Machine Manager console, add Server4 as a PXE server and add Server1 as a library server.

---

**Answer: C**

---

### **Question: 22**

---

Your network contains an Active Directory domain named contoso.com. The physical topology of the network is configured as shown in the exhibit.

Each office contains 500 employees.

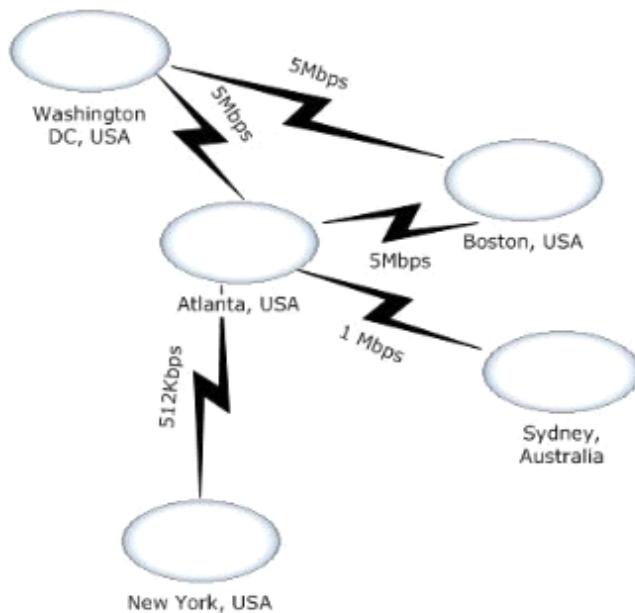
You plan to deploy several domain controllers to each office.

You need to recommend a site topology for the planned deployment.

What should you include in the recommendation?

More than one answer choice may achieve the goal. Select the BEST answer.

Exhibit



- A. Five sites and one site link  
 B.Three sites and three site links  
 C.One site  
 D.Five sites and three site links

---

**Answer: D**

---

Explanation:

Create a site for each LAN, or set of LANs, that are connected by a high speed backbone, and assign the site a name. Connectivity within the site must be reliable and always available.

This would mean 5 sites Site links are transitive, so if site A is connected to site B, and site B is connected to site C, then the KCC assumes that domain controllers in site A can communicate with domain controllers in site C. You only need to create a site link between site A and site C if there is in fact a distinct network connection between those two sites.

This would mean 3 sitelinks

So answer is "Five sites and three site links"

Reference:

Defining Sites and Site Links

<http://technet.microsoft.com/en-us/library/cc960573.aspx>

---

### Question: 23

Your network contains an Active Directory forest. The forest contains a single domain. The forest has five Active

Directory sites. Each site is associated to two subnets.

You add a site named Site6 that contains two domain controllers. Site6 is associated to one subnet.

You need to verify whether replication to the domain controllers in Site6 completes successfully.

Which two possible commands can you use to achieve the goal? Each correct answer presents a complete solution.

- A. Get-ADReplicationSubnet
- B. Get-ADReplicationUpToDateNessVectorTable
- C. repadmin /showattr
- D. Get-ADReplicationSiteLink
- E. repadmin /showrepl

### **Answer: B, E**

B: The Get-ADReplicationUpToDateNessVectorTable cmdlet displays the highest Update Sequence Number (USN) for the specified domain controller(s). This information shows how up-to-date a replica is with its replication partners. During replication, each object that is replicated has USN and if the object is modified, the USN is incremented. The value of the USN for a given object is local to each domain controller where it has replicated and is different on each domain controller.

E: The repadmin /showrepl command helps you understand the replication topology and replication failures. It reports status for each source domain controller from which the destination has an inbound connection object. The status report is categorized by directory partition.

### **Question: 24**

Your company has a main office and four branch offices. The main office is located in London.

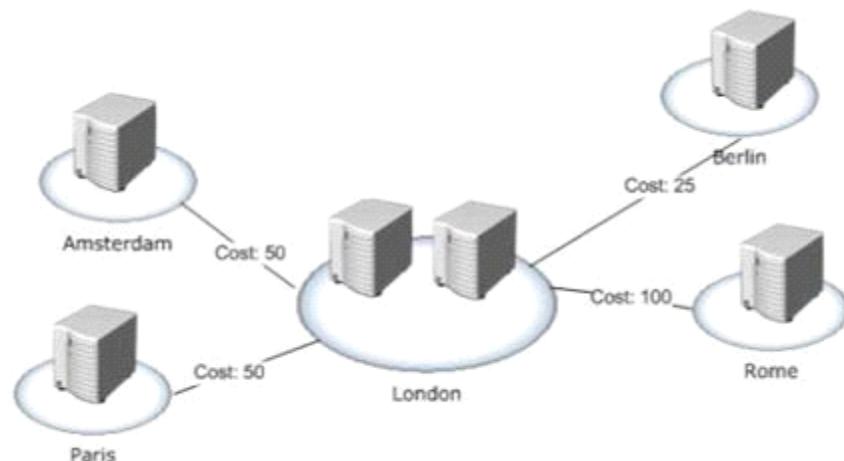
The network contains an Active Directory domain named contoso.com. Each office contains one domain controller that runs Windows Server 2012. The Active Directory site topology is configured as shown in the exhibit. (Click the Exhibit button.)

You discover that when a domain controller in a branch office is offline for maintenance, users in that branch office are authenticated by using the domain controllers in any of the sites.

You need to recommend changes to Active Directory to ensure that when a domain controller in a branch office is offline, the users in that branch office are authenticated by the domain controllers in London.

What should you include in the recommendation?

Exhibit



- A. Modify the DC Locator DNS Records settings.

- B. Disable site link bridging.

- C.Modify the site link costs.
- D.Modify the service location (SRV) records in DNS.

---

**Answer: A**

Explanation:

If local DC (domain controller) is not available, DC Locator service will look for another DC in a different site.

Note: The following sequence describes how the Locator is able to find a domain controller (see step 3 below) :

1. On the client (the computer locating the domain controller), the Locator is initiated as an RPC to the local Net Logon service. The Locator application programming interface (API) (DsGetDcName) is implemented by the Net Logon service.
2. The client collects the information that is needed to select a domain controller and passes the information to the Net Logon service by using the DsGetDcName API.
3. The Net Logon service on the client uses the collected information to look up a domain controller for the specified domain in one of two ways:

For a DNS name, Net Logon queries DNS by using the IP/DNS-compatible Locator — that is, DsGetDcName calls the DnsQuery API to read the Service Resource (SRV) records and A records from DNS, after it appends an appropriate string to the front of the domain name that specifies the SRV record.

Etc.

Reference:

Domain Controller Locator

<https://technet.microsoft.com/en-us/library/cc961830.aspx>

---

### **Question: 25**

Your network contains an Active Directory domain named contoso.com. All servers run Windows Server 2008 R2. All domain controllers are installed on physical servers. The network contains several Hyper-V hosts.

The network contains a Microsoft System Center 2012 infrastructure.

You plan to use domain controller cloning to deploy several domain controllers that will run Windows Server 2012.

You need to recommend which changes must be made to the network infrastructure before you can use domain controller cloning.

What should you recommend?

- A. Upgrade a global catalog server to Windows Server 2012. Deploy Virtual Machine Manager (VMM).
- B.Upgrade a global catalog server to Windows Server 2012. Install the Windows Deployment Services server role on a server that runs Windows Server 2012.
- C.Upgrade the domain controller that has the PDC emulator operations master role to Windows Server 2012. Deploy a Hyper-V host that runs Windows Server 2012.
- D.Upgrade the domain controller that has the infrastructure master operations master role to Windows Server 2012. Install the Windows Deployment Services server role on a server that runs Windows Server 2012.

---

**Answer: C**

We need to deploy Hyper-V host on Windows Server 2012, and there must also be a PDC emulator running Windows Server 2012.

Note: The requirements for domain controller cloning are:

- \* The hypervisor must support VM-GenerationID. Hyper-V running on Windows Server 2012 supports this feature. Other virtualization vendors will have the ability to implement this as well, so check with your vendor to see if it's supported.

- \* The source virtual DC must be running Windows Server 2012.
- \* The PDC emulator role holder must be online and available to the cloned DC and must be running Windows Server 2012.

Reference:

Virtual Domain Controller Cloning in Windows Server 2012

<https://blogs.technet.microsoft.com/askpfeplat/2012/10/01/virtual-domain-controller-cloning-in-windows-server-2012/>

---

### **Question: 26**

Your company has a main office and a branch office.

The network contains an Active Directory domain named contoso.com. The main office contains domain controllers that run Windows Server 2012. The branch office contains a read-only domain controller (RODC) that runs Windows Server 2012.

You need to recommend a solution to control which Active Directory attributes are replicated to the RODC.

What should you include in the recommendation?

- A. The partial attribute set
- B. The filtered attribute set
- C. Application directory partitions
- D. Constrained delegation

---

### **Answer: B**

RODC filtered attribute set

Some applications that use AD DS as a data store might have credential-like data (such as passwords, credentials, or encryption keys) that you do not want to be stored on an RODC in case the RODC is compromised.

For these types of applications, you can dynamically configure a set of attributes in the schema for domain objects that will not replicate to an RODC. This set of attributes is called the RODC filtered attribute set. Attributes that are defined in the RODC filtered attribute set are not allowed to replicate to any RODCs in the forest.

Reference:

AD DS: Read-Only Domain Controllers

[https://technet.microsoft.com/en-us/library/cc732801\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc732801(v=ws.10).aspx)

---

### **Question: 27**

Your network contains an Active Directory domain named contoso.com. All domain controllers run Windows Server 2012 R2. The forest functional level is Windows Server 2012.

Your company plans to deploy an application that will provide a search interface to users in the company. The application will query the global catalog for the Employee-Number attribute.

You need to recommend a solution to ensure that the application can retrieve the Employee-Number value from the global catalog.

What should you include in the recommendation?

- A. the Dsmod command
- B. the Ldifde command
- C. the Enable-ADOptionalFeature cmdlet
- D. the Csvde command

---

**Answer: B**

Ldifde

Creates, modifies, and deletes directory objects. You can also use Ldifde to extend the schema, export Active Directory user and group information to other applications or services, and populate Active Directory Domain Services (AD DS) with data from other directory services.

Ldifde -l <LDAPAttributeList>

Sets the list of attributes to return in the results of an export query. If you do not specify this parameter, the search returns all attributes.

Incorrect:

Not C:

Optional feature: A non-default behavior that modifies the Active Directory state model.

---

### **Question: 28**

Your company has a main office and a branch office.

The network contains an Active Directory domain named contoso.com. The domain contains three domain controllers. The domain controllers are configured as shown in the following table.

<b>Domain controller name</b>	<b>Location</b>	<b>Type</b>
DC1	Main office	Writable domain controller
DC2	Main office	Writable domain controller
RODC1	Branch office	Read-only domain controller (RODC)

The domain contains two global groups. The groups are configured as shown in the following table.

<b>Group name</b>	<b>Description</b>
Helpdesk	Supports users throughout the company.
Branch1Users	Contains users that work in the branch office only.

You need to ensure that the RODC is configured to meet the following requirements:

Cache passwords for all of the members of Branch1Users.

Prevent the caching of passwords for the members of Helpdesk.

What should you do?

- A. Modify the membership of the Denied RODC Password Replication group.
- B. Install the BranchCache feature on RODC1.
- C. Modify the delegation settings of RODC1.
- D. Create a Password Settings object (PSO) for the Helpdesk group.

---

**Answer: A**

Password Replication Policy Allowed and Denied lists

Two new built-in groups are introduced in Windows Server 2008 Active Directory domains to support RODC operations. These are the Allowed RODC Password Replication Group and Denied RODC Password Replication Group. These groups help implement a default Allowed List and Denied List for the RODC Password Replication Policy. By default, the two groups are respectively added to the msDS-RevealOnDemandGroup and msDS-NeverRevealGroup Active Directory attributes.

Reference:

Password Replication Policy

[https://technet.microsoft.com/en-us/library/cc730883\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc730883(v=ws.10).aspx)

### **Question: 29**

Your network contains an Active Directory forest named contoso.com. The forest contains five domains. You need to ensure that the CountryCode attribute is replicated to the global catalog.

What should you do?

- A. Modify the schema partition.
- B. Create and modify an application partition.
- C. Modify the configuration partition.
- D. Modify the domain partitions.

---

### **Answer: A**

After an attributeSchema object is created, marking an additional attribute to replicate to the Global Catalog causes a full replication (also known as a "full sync") of all objects to the Global Catalog.

Reference:

How to Modify Attributes That Replicate to the Global Catalog

<https://support.microsoft.com/en-us/kb/248717>

### **Question: 30**

Your network contains an Active Directory domain named contoso.com. The domain contains three Active Directory sites. The Active Directory sites are configured as shown in the following table.

<b>Site name</b>	<b>Location</b>
Site1	New York
Site2	Vancouver
Site3	Beijing

The sites connect to each other by using the site links shown in the following table.

<b>Site link name</b>	<b>Connected sites</b>
Link1	Site1 and Site2
Link2	Site2 and Site3
Link3	Site1 and Site3

You need to design the Active Directory site topology to meet the following requirements:

Ensure that all replication traffic between Site2 and Site3 replicates through Site1 if a domain controller in Site1 is available.

Ensure that the domain controllers between Site2 and Site3 can replicate if all of the domain controllers in Site1 are unavailable.

What should you do?

- A. Delete Link2.
- B. Disable site link bridging.
- C. Delete Link3.
- D. Create one site link bridge.
- E. Modify the cost of Link2.

---

### **Answer: E**

### **Question: 31**

Your company has three offices. The offices are located in New York, Chicago, and Atlanta.

The network contains an Active Directory domain named contoso.com that has three Active Directory sites named Site1, Site2, and Site3. The New York office is located in Site1. The Chicago office is located in Site2. The Atlanta office is located in Site3. There is a local IT staff to manage the servers in each site. The current domain controllers are configured as shown in the following table.

<b>Domain controller name</b>	<b>Site</b>	<b>Operating system</b>
DC01	Site1	Windows Server 2008 R2
DC02	Site1	Windows Server 2012 R2
DC03	Site2	Windows Server 2012
DC04	Site2	Windows Server 2012 R2
DC05	Site3	Windows Server 2012
DC06	Site3	Windows Server 2012 R2

The company plans to open a fourth office in Montreal that will have a corresponding Active Directory site. Because of budget cuts, a local IT staff will not be established for the Montreal site.

The Montreal site has the following requirements:

Users must be able to authenticate locally.

Users must not have the ability to log on to the domain controllers.

Domain account passwords must not be obtained from servers in the Montreal site.

Network bandwidth between the Montreal site and the other sites must be minimized.

Users in the Montreal office must have access to applications by using Remote Desktop Services (RDS).

You need to recommend a solution for the servers in the Montreal site.

What should you recommend?

- A. Only install a domain controller in the Montreal site that has a Server Core installation of Windows Server 2012.
- B. Install a read-only domain controller (RODC) in the New York site.
- C. Install a read-only domain controller (RODC) in the Montreal site. Install a member server in the New York site to host additional server roles.
- D. Install a domain controller in the Montreal site that has a Server Core installation of Windows Server 2012. Install a member server in the Montreal site to host additional server roles,

### **Answer: C**

A local RODC in the new Montreal site would meet the requirements.

Incorrect:

Not A, not D: A domain controller is not required in the Montreal site.

Not B: We should place a new RODC in the new Montreal site, not in the New York site.

### **Question: 32**

#### **HOTSPOT**

Your network contains an Active Directory forest name fabrikam.com. The forest contains two domains named fabrikam.com and contoso.com. All servers run Windows Server 2012 R2.

The forest contains a DHCP server named Server1 and a DNS server named Server2.

You need to recommend a solution to ensure that any computers that are neither members of contoso.com nor

fabrikam.com receive a DNS suffix of guest.fabrikam.com.

What two commands should you run? To answer, select the appropriate options in the answer area.

#### Answer Area

The screenshot shows five separate boxes representing different command components:

- Box 1:** Contains the cmdlet `Add-DhcpServerv4Policy`.
- Box 2:** Contains the condition `-Name ForeignDevices -Condition OR -Fqdn NE, *.Fabrikam.com, *.contoso.com`.
- Box 3:** Contains the cmdlets `Add-DhcpServerv4OptionDefinition` and `Set-DhcpServerv4DnsSetting`.
- Box 4:** Contains the condition `-Name ForeignDevices -Condition OR -Fqdn EQ, *.Fabrikam.com, *.contoso.com`.
- Box 5:** Contains the cmdlets `-ComputerName Server1.fabrikam.com` and `-ComputerName Server2.fabrikam.com`.
- Box 6:** Contains the condition `-Multivalued $true`.
- Box 7:** Contains the cmdlets `-PolicyName guest.fabrikam.com` and `-PolicyName ForeignDevices`.

#### Answer:

The screenshot shows the same five boxes as the question, but with specific components highlighted in red:

- Box 1:** The entire box is highlighted.
- Box 2:** The condition `-Fqdn NE, *.Fabrikam.com, *.contoso.com` is highlighted.
- Box 3:** The cmdlets `Add-DhcpServerv4OptionDefinition` and `Set-DhcpServerv4DnsSetting` are highlighted.
- Box 4:** The condition `-Fqdn EQ, *.Fabrikam.com, *.contoso.com` is highlighted.
- Box 5:** The cmdlets `-ComputerName Server1.fabrikam.com` and `-ComputerName Server2.fabrikam.com` are highlighted.
- Box 6:** The condition `-Multivalued $true` is highlighted.
- Box 7:** The cmdlets `-PolicyName guest.fabrikam.com` and `-PolicyName ForeignDevices` are highlighted.

Box 1: Add-DhcpServerv4Policy

Box 2: Fqdn NE, \*.Fabrikam.com, \*.contoso.com

Example:

This example creates a server level policy for all foreign clients that are not members of the local domain contoso.com. The policy matches clients that have an FQDN that does not contain the value contoso.com.

Windows PowerShell

```
PS C:\> Add-DhcpServerv4Policy -Name ForeignDevices -Condition OR -Fqdn NE, *.contoso.com
```

Box 3: Set-DhcpServerv4DnsSetting

Box 4: -ComputerName Server2.fabrikam.com

Box 5: -PolicyName ForeignDevices

Example: This example sets DNS update configuration settings for the sever policy ForeignDevices to enable DNS registration of clients under the DNS suffix guestdomain.com. The command specifies the computer, named dhcpserver.contoso.com, that runs the DHCP server service.

Windows

PowerShell

```
PS C:\> Set-DhcpServerv4DnsSetting -ComputerName dhcpserver.contoso.com -DnsSuffix guestdomain.com -PolicyName ForeignDevices
```

Note: Add-DHCPServerv4Policy

The Add-DhcpServerv4Policy cmdlet adds a new policy either at the server level or at the scope level. The policy name must be unique at the level, either server or specific scope, where the policy is added and should have at least one condition as specified by the CircuitId, ClientId, Fqdn, MACAddress, RelayAgent, Remoteld, SubscriberId, UserClass, or VendorClass parameter.

---

### **Question: 33**

Your company has three offices. The offices are located in Montreal, Toronto, and Vancouver.

The network contains two Active Directory forests named contoso.com and adatum.com. The contoso.com forest contains one domain. The adatum.com forest contains two domains. All of the servers in adatum.com are located in the Toronto office. The servers in contoso.com are located in the Montreal and Vancouver offices. All of the servers in both of the forests run Windows Server 2012 R2.

A two-way, forest trusts exists between the forests.

Each office contains DHCP servers and DNS servers.

You are designing an IP Address Management (IPAM) solution to manage the network.

You need to recommend a solution for the placement of IPAM servers to manage all of the DHCP servers and all of the DNS servers in both of the forests. The solution must minimize the number of IPAM servers deployed.

What should you recommend?

- A. One IPAM server in each office
- B. One IPAM server in the Montreal office and one IPAM server in the Toronto office
- C. One IPAM server in the Toronto office
- D. Two IPAM servers in the Toronto office and one IPAM server in the Montreal office
- E. Two IPAM servers in the Toronto office, one IPAM server in the Montreal office, and one IPAM server in the Vancouver office

---

### **Answer: B**

As a minimum solution we need two IPAM Servers, one in each forest, as there are two forests and IPAM does not work across two forests.

Note: There are three general methods to deploy IPAM servers:

Distributed: An IPAM server deployed at every site in an enterprise.

Centralized: One IPAM server in an enterprise.

Hybrid: A central IPAM server deployed with dedicated IPAM servers at each site.

Reference:

IP Address Management (IPAM) Overview

<https://technet.microsoft.com/en-us/library/hh831353.aspx>

---

### **Question: 34**

You have a server named Server1 that runs Windows Server 2012. Server1 has the DNS Server server role installed.

You need to recommend changes to the DNS infrastructure to protect the cache from cache poisoning attacks.

What should you configure on Server1?

- A. DNS cache locking
- B. The global query block list
- C. DNS Security Extensions (DNSSEC)
- D. DNS devolution

---

### **Answer: A**

Cache locking is a new feature available if your DNS server is running Windows Server 2008 R2. When you enable cache locking, the DNS server will not allow cached records to be overwritten for the duration of the time to live (TTL) value. Cache locking provides for enhanced security against cache poisoning attacks.

Reference:

## DNS Cache Locking

[https://technet.microsoft.com/en-us/library/ee683892\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/ee683892(v=ws.10).aspx)

**Question: 35**

## DRAG DROP

Your network contains an Active Directory forest named contoso.com.

Your company merges with another company that has an Active Directory forest named litwareinc.com.

Each forest has one domain.

You establish a two-way forest trust between the forests.

The network contains three servers. The servers are configured as shown in the following table.

Server name	Configuration
dc1.contoso.com	<ul style="list-style-type: none"> <li>Windows Server 2012</li> <li>Domain controller</li> <li>DNS server that has an Active-Directory integrated zone for contoso.com</li> </ul>
dc1.litwareinc.com	<ul style="list-style-type: none"> <li>Windows Server 2012</li> <li>Domain controller</li> <li>DNS server that has an Active-Directory integrated zone for litwareinc.com</li> </ul>
server1.contoso.com	<ul style="list-style-type: none"> <li>Windows Server 2012</li> <li>Member server</li> </ul>

You confirm that the client computers in each forest can resolve the names of the client computers in both forests.

On dc1.litwareinc.com, you create a zone named GlobalNames.

You need to recommend changes in both forests to ensure that the users in both forests can resolve single-label names by using the GlobalNames zone in litwareinc.com.

Which changes should you recommend?

To answer, drag the appropriate configuration to the correct server in the answer area. Each configuration may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Configurations	Answer Area
Add a conditional forwarder.	dc1.contoso.com Configuration
Enable GlobalNames support.	dc1.contoso.com Configuration
Create an alias (CNAME) record for Server1.	dc1.litwareinc.com Configuration
Create a GlobalNames service location (SRV) record.	dc1.litwareinc.com Configuration

---

**Answer:**

---

**Configurations**

Add a conditional forwarder.

Create an alias (CNAME) record for Server1.

**Answer Area**

Server name	Configuration
dc1.contoso.com	<p>Enable GlobalNames support.</p> <p>Create a GlobalNames service location (SRV) record.</p>
dc1.litwareinc.com	Enable GlobalNames support.

Explanation:

Deploying a GlobalNames zone

The specific steps for deploying a GlobalNames zone can vary somewhat, depending on the AD DS topology of your network.

Step 1: Create the GlobalNames zone

Step 2(Box 1, box 3) : Enable GlobalNames zone support

The GlobalNames zone is not available to provide name resolution until GlobalNames zone support is explicitly enabled by using the following command on every authoritative DNS server in the forest:

dnscmd <ServerName> /config /enableglobalnamessupport 1

Step 3: Replicate the GlobalNames zone

Step 4: Populate the GlobalNames zone

Step 5 (box 2) : Publish the location of the GlobalNames zone in other forests

If you want DNS clients in other forests to use the GlobalNames zone for resolving names, add service location (SRV) resource records to the forest-wide DNS application partition, using the service name \_globalnames.\_msdcs and specifying the FQDN of the DNS server that hosts the GlobalNames zone.

Reference:

Deploying a GlobalNames Zone

<http://technet.microsoft.com/en-us/library/cc731744.aspx>

## Question: 36

Your network contains an Active Directory forest named contoso.com. The forest contains a single domain and two sites named Montreal and Vancouver.

Montreal contains an IP Address Management (IPAM) server named Server1 that is used to manage all of the DHCP servers and the DNS servers in the site.

Vancouver contains several DHCP servers and several DNS servers.

In Vancouver, you install the IP Address Management (IPAM) Server feature on a server named Server2.

You need to recommend which configurations must be performed to ensure that the DHCP servers and the DNS servers in Vancouver are managed by Server2.

What should you recommend?

A. Replicate the IPAM database from Server1 to Server2. On Server2, change the manageability status of the DNS servers and the DHCP servers in Vancouver.

B. Replicate the IPAM database from Server1 to Server2. On Server1, change the manageability status of the DNS servers and the DHCP servers in Vancouver.

- C.From Server2, run the Invoke-IpamGpoProvisioning cmdlet On Server2, change the manageability status of the DNS servers and the DHCP servers in Vancouver.
- D.From Server1, run the Invoke-IpamGpoProvisioning cmdlet. On Server1, change the manageability status of the DNS servers and the DHCP servers in Vancouver.

---

**Answer: C**

---

Invoke-IpamGpoProvisioning

Creates and links group policies in the specified domain for provisioning required access settings on the servers managed by the computer running the IPAM server.

Reference:

Invoke-IpamGpoProvisioning

[https://technet.microsoft.com/en-us/library/jj553805\(v=wps.630\).aspx](https://technet.microsoft.com/en-us/library/jj553805(v=wps.630).aspx)

---

**Question: 37**

---

HOTSPOT

You have a domain controller that hosts an Active Directory-integrated zone.

On the domain controller, you run the following cmdlet:

PS C:\> Get-DnsServerScavenging

NoRefreshInterval:2:00:00:00

RefreshInterval:3:00:00:00

ScavengingInterval:4:00:00:00

ScavengingState:True

LastScavengeTime:1/30/2014 9:10:36 AM

Use the drop-down menus to select the answer choice that completes each statement.

---

**Answer Area**

If a client dynamically registers a record in DNS, the client can update the time stamp of the record [answer choice]

If a client dynamically registers a record in DNS and then the client's IP address changes, the client can update the record [answer choice]

**Answer Area**

If a client dynamically registers a record in DNS, the client can update the time stamp of the record [answer choice]

immediately.
only after two days.
only after three days.
only after four days.
only after five days.
only after six days.
only after seven days.

If a client dynamically registers a record in DNS and then the client's IP address changes, the client can update the record [answer choice]

immediately.
only after two days.
only after three days.
only after four days.
only after five days.
only after six days.
only after seven days.

---

**Answer:**

---

**Answer Area**

If a client dynamically registers a record in DNS, the client can update the time stamp of the record [answer choice]

immediately.  
only after two days.  
only after three days.  
only after four days.  
only after five days.  
only after six days.  
only after seven days.

If a client dynamically registers a record in DNS and then the client's IP address changes, the client can update the record [answer choice]

immediately.  
only after two days.  
only after three days.  
only after four days.  
only after five days.  
only after six days.  
only after seven days.

**First answer**

- \* -NoRefreshInterval<TimeSpan>

Specifies a length of time as a TimeSpan object. NoRefreshInterval sets a period of time in which no refreshes are accepted for dynamically updated records. Zones on the server inherit this value automatically.

This value is the interval between the last update of a timestamp for a record and the earliest time when the timestamp can be refreshed. The minimum value is 0. The maximum value is 8760 hours (seven days).

- \* Here it is set to 2 days: NoRefreshInterval:2.00:00:00

**Second answer**

- ScavengingState<Boolean> (In this question it is set to true)

Enables or disables automatic scavenging of stale records. ScavengingState determines whether the DNS scavenging feature is enabled by default on newly created zones. The acceptable values for this parameter are:

- \$False. Disables scavenging. This is the default setting.

- \$True. Enables scavenging

---

**Question: 38**

Your network contains an Active Directory domain named contoso.com.

The domain contains the organization units (OUs) configured as shown in the following table.

OU name	OU contents	Linked Group Policy
OU1	OU2 and OU3	GPO4
OU2	The user accounts of the users in the marketing department	GPO1
OU3	The user accounts of the users in the sales department	GPO2
OU4	The computer accounts of the kiosk computers	GPO3
OU5	The computer accounts of all the other client computers	GPO5

Users and computers at the company change often.

You create a Group Policy object (GPO) named GPO6. GPO6 contains user settings.

You need to ensure that GPO6 applies to users when they log on to the kiosk computers only. The solution must

minimize administrative effort.

What should you do?

- A. Link GPO6 to OU4 and configure loopback processing in GPO6.
- B. Link GPO6 to OU1 and configure WMI filtering on GPO3.
- C. Link GPO6 to OU1 and configure loopback processing in GPO6.
- D. Link GPO6 to OU1 and configure loopback processing in GPO5.

---

**Answer: A**

Group Policy applies to the user or computer in a manner that depends on where both the user and the computer objects are located in Active Directory. However, in some cases, users may need policy applied to them based on the location of the computer object alone. You can use the Group Policy loopback feature to apply Group Policy Objects (GPOs) that depend only on which computer the user logs on to.

---

**Question: 39**

Your network contains an internal network and a perimeter network. The internal network contains an Active Directory forest named contoso.com. The forest contains a Microsoft Exchange Server 2010 organization. All of the domain controllers in contoso.com run Windows Server 2012.

The perimeter network contains an Active Directory forest named litware.com.

You deploy Microsoft Forefront Unified Access Gateway (UAG) to litware.com. All of the domain controllers in litware.com run Windows Server 2012.

Some users connect from outside the network to use Outlook Web App.

You need to ensure that external users can authenticate by using client certificates.

What should you do?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. To the perimeter network, add an Exchange server that has the Client Access server role installed.
- B. Deploy UAG to contoso.com.
- C. Enable Kerberos delegation in litware.com.
- D. Enable Kerberos constrained delegation in litware.com.

---

**Answer: D**

Forefront TMG provides support for Kerberos constrained delegation (often abbreviated as KCD) to enable published Web servers to authenticate users by Kerberos after Forefront TMG verifies their identity by using a non-Kerberos authentication method. When used in this way, Kerberos constrained delegation eliminates the need for requiring users to provide credentials twice.

Reference:

About Kerberos constrained delegation

<https://technet.microsoft.com/en-us/library/cc995228.aspx>

---

**Question: 40**

DRAG DROP

Your network contains an Active Directory forest. The forest contains two domains named contoso.com and fabrikam.com.

You plan to decommission the fabrikam.com domain.

You need to perform the following migration tasks:

Copy user accounts from the fabrikam.com domain to the contoso.com domain.

Move the client computers from fabrikam.com to contoso.com.

The solution must ensure that all of the user profiles are associated to the migrated user accounts.

Which tool should you use to perform each task?

To answer, drag the appropriate tool to the correct migration task in the answer area. Each tool may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Tools	Answer Area	
Active Directory Migration Tool (ADMT)	Tool	Copy user accounts from the fabrikam.com domain to the contoso.com domain.
Microsoft Deployment Toolkit (MDT)	Tool	Move the client computers from fabrikam.com to contoso.com.
User State Migration Tool (USMT)		
Windows Server Migration Tools		

### Answer:

Box 1: Active Directory Migration Tool (ADMT)

Box 2: Active Directory Migration Tool (ADMT)

Note:

- \* You can use ADMT to migrate objects in Active Directory forests. This tool includes wizards that automate migration tasks, such as migrating users, groups, service accounts, computers, and trusts and performing security translation.

- \* You might perform an interforest restructure for business changes, such as mergers or acquisitions or divestitures, in which your organizations have to combine or divide resources. As part of the restructuring process, when you migrate objects between forests both the source and target domain environments exist simultaneously.

- \* Migration objects Domain objects that are moved from the source domain to the target domain during the migration process. Migration objects can be user accounts, service accounts, groups, or computers.

Reference:

Active Directory Migration Tool (ADMT) Guide: Migrating and Restructuring Active Directory Domains

<http://www.microsoft.com/download/en/details.aspx?id=19188>

### Question: 41

#### HOTSPOT

Your network contains an Active Directory forest named contoso.com. The forest contains one domain. All domain controllers run Windows Server 2012. The functional level of the forest and the domain is Windows Server 2012.

The domain contains three domain controllers. The domain controllers are configured as shown in the following table.

Domain controller name	Role
DC1	Schema operations master Domain naming operations master Global catalog server
DC2	Infrastructure operations master
DC3	Relative identifier (RID) operations master PDC emulator operations master

In the forest, you plan to add a new domain controller that runs Windows Server 2012 R2.

You need to prepare the environment before you add the new domain controller.

Which domain controllers must be available to run each command? To answer, select the appropriate domain controllers in the answer area.

#### Answer Area

Adprep /forestprep	<input type="text"/>
Adprep /domainprep	<input type="text"/>
Adprep /rodcprep	<input type="text"/>

#### Answer Area

Adprep /forestprep	<input type="text"/>
	DC1 DC2 DC3
Adprep /domainprep	<input type="text"/>
	DC1 DC2 DC3
Adprep /rodcprep	<input type="text"/>
	DC1 AND DC2 DC1 AND DC3 DC2 AND DC3

**Answer:**

#### Answer Area

Adprep /forestprep	<input type="text"/>
	DC1 DC2 DC3
Adprep /domainprep	<input type="text"/>
	DC1 DC2 DC3
Adprep /rodcprep	<input type="text"/>
	DC1 AND DC2 DC1 AND DC3 DC2 AND DC3

\* adprep /forestprep

Must be run on the schema operations master for the forest (here DC1).

Once for the entire forest

\* adprep /domainprep

Must be run on the infrastructure operations (DC2) master for the domain.

\* adprep /rodcprep

Can be run from any computer. This command performs operations remotely. For the operations to complete successfully, the domain naming operations master (DC1) for the forest and the infrastructure operations master (DC2) for each application directory partition and each domain partition must be accessible.

Reference:

Running Adprep.exe

[https://technet.microsoft.com/en-us/library/dd464018\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/dd464018(v=ws.10).aspx)

---

### **Question: 42**

You are designing an Active Directory forest for a company named Contoso, Ltd. Contoso identifies the following administration requirements for the design:

User account administration and Group Policy administration will be performed by network technicians. The technicians will be added to a group named OUAdmins.

IT staff who are responsible for backing up servers will have user accounts that are members of the Backup Operators group in the domain.

All user accounts will be located in an organizational unit (OU) named AllEmployees.

You run the Delegation of Control Wizard and assign the OUAdmins group full control to all of the objects in the AllEmployeesOU.

After delegating the required permissions, you discover that the user accounts of some of the IT staff have inconsistent permissions on the objects in AllEmployees.

You need to recommend a solution to ensure that the members of OUAdmins can manage all of the objects in AllEmployees.

What should you include in the recommendation?

A. Remove the IT staff user accounts from Backup Operators and place them in a new group. Grant the new group the Backup files and directories user right and the Restore files and directories user right. Enforce permission inheritance on all of the objects in the AllEmployeesOU.

B. Create separate administrator user accounts for the technicians. Enforce permission inheritance on all of the objects in the AllEmployeesOU. Delegate permissions to the new user accounts.

C. Enforce permission inheritance on all of the objects in the AllEmployeesOU. Run the Delegation of Control Wizard.

D. Move the user accounts of the technicians to a separate OU. Enforce permission inheritance on all of the objects in the AllEmployeesOU. Run the Delegation of Control Wizard on the AllEmployeesOU.

---

**Answer: A**

---

---

### **Question: 43**

Your network contains an Active Directory forest named contoso.com. The forest contains one domain.

Your company plans to open a new division named Division1. A group named Division1Admins will administer users and groups for Division1.

You identify the following requirements for Division1:

All Division1 users must have a complex password that is 14 characters.

Division1Admins must be able to manage the user accounts for Division1.

Division1Admins must be able to create groups, and then delete the groups that they create.

Division1Admins must be able to reset user passwords and force a password change at the next logon for all Division1

users.

You need to recommend changes to the forest to support the Division1 requirements.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

A. In the forest create a new organizational unit (OU) named Division1 and delegate permissions for the OU to the Division1Admins group. Move all of the Division1 user accounts to the new OU. Create a fine-grained password policy for the Division1 users.

B. Create a new child domain named division1.contoso.com. Move all of the Division1 user accounts to the new domain. Add the Division1Admin members to the Domain Admins group. Configure the password policy in a Group Policy object (GPO).

C. Create a new forest. Migrate all of the Division1 user objects to the new forest and add the Division1Admins members to the Enterprise Admins group. Configure the password policy in a Group Policy object (GPO).

D. In the forest create a new organizational unit (OU) named Division1 and add Division1Admins to the Managed By attribute of the new OU. Move the Division1 user objects to the new OU. Create a fine-grained password policy for the Division1 users.

---

**Answer: A**

---

#### **Question: 44**

Your company, which is named Contoso, Ltd., has a main office and two branch offices. The main office is located in North America. The branch offices are located in Asia and Europe.

You plan to design an Active Directory forest and domain infrastructure.

You need to recommend an Active Directory design to meet the following requirements:

- \* The contact information of all the users in the Europe office must not be visible to the users in the other offices.
- \* The administrators in each office must be able to control the user settings and the computer settings of the users in their respective office.

The solution must use the least amount of administrative effort.

What should you include in the recommendation?

- A. One forest that contains three domains
- B. Three forests that each contain one domain
- C. Two forests that each contain one domain
- D. One forest that contains one domain

---

**Answer: D**

---

The most basic of all Active Directory structures is the single domain model; this type of domain structure comes with one major advantage over the other models: simplicity. A single security boundary defines the borders of the domain, and all objects are located within that boundary. The establishment of trust relationships between other domains is not necessary, and implementation of technologies such as Group Policies is made easier by the simple structure.

#### **Question: 45**

Your network contains 50 servers that run Windows Server 2003 and 50 servers that run Windows Server 2008.

You plan to implement Windows Server 2012 R2.

You need to create a report that includes the following information:

The servers that run applications and services that can be moved to Windows Server 2012 R2

The servers that have hardware that can run Windows Server 2012 R2

The servers that are suitable to be converted to virtual machines hosted on Hyper-V hosts that run Windows Server 2012 R2

Solution: From an existing server, you run the Microsoft Application Compatibility Toolkit (ACT).

Does this meet the goal?

A. Yes

B.No

---

**Answer: B**

---

ACT is not the correct tool in this scenario.

Note: With the ACT, you can:

Analyze your portfolio of applications, websites, and computers

Evaluate operating system deployments, the impact of operating system updates, and your compatibility with websites

Centrally manage compatibility evaluators and configuration settings

Rationalize and organize applications, websites, and computers

Prioritize application compatibility efforts with filtered reporting

Add and manage issues and solutions for your enterprise-computing environment

Deploy automated mitigations to known compatibility issues

Send and receive compatibility information from the Microsoft Compatibility Exchange

Reference:

Application Compatibility Toolkit (ACT)

[https://msdn.microsoft.com/en-us/library/windows/desktop/dd562082\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/dd562082(v=vs.85).aspx)

---

### **Question: 46**

Your network contains an Active Directory domain named contoso.com. The domain contains multiple sites.

You plan to deploy DirectAccess.

The network security policy states that when client computers connect to the corporate network from the Internet, all of the traffic destined for the Internet must be routed through the corporate network.

You need to recommend a solution for the planned DirectAccess deployment that meets the security policy requirement.

Solution: You enable force tunneling.

Does this meet the goal?

A. Yes

B.No

---

**Answer: A**

---

DirectAccess allows connectivity to organizational network resources without the need for traditional virtual private network (VPN) connections.

DirectAccess allows remote users to securely access internal network file shares, Web sites, and applications without connecting to a virtual private network (VPN). An internal network is also known as a private network or intranet.

DirectAccess establishes bi-directional connectivity with an internal network every time a DirectAccess-enabled

computer connects to the Internet, even before the user logs on. Users never have to think about connecting to the internal network and IT administrators can manage remote computers outside the office, even when the computers are not connected to the VPN.

Reference:

DirectAccess Overview

<https://technet.microsoft.com/en-us/library/dd759144.aspx>

---

### **Question: 47**

Your network contains an Active Directory domain named contoso.com. The domain contains three VLANs. The VLANs are configured as shown in the following table.

VLAN ID	Contents	Routing enabled to
1	Client computers	VLAN 2
2	<ul style="list-style-type: none"><li>• Application servers</li><li>• Domain controllers</li><li>• Network Policy Service (NPS) servers</li></ul>	VLAN 1 and the Internet
3	Windows Server Update Services (WSUS) server	Nowhere

All client computers run either Windows 7 or Windows 8.

The corporate security policy states that all of the client computers must have the latest security updates installed.

You need to implement a solution to ensure that only the client computers that have all of the required security updates installed can connect to VLAN 1. The solution must ensure that all other client computers connect to VLAN 3.

Solution: You implement the IPsec enforcement method.

Does this meet the goal?

A. Yes

B.No

---

**Answer: B**

As VLAN is used we would have to use 802.1x NAP enforcement.

Reference:

Where to Place a Remediation Server

<https://msdn.microsoft.com/en-us/library/dd125342%28v=ws.10%29.aspx>

---

### **Question: 48**

Your network contains an Active Directory forest named contoso.com.

You plan to deploy 200 Hyper-V hosts by using Microsoft System Center 2012 Virtual Machine Manager (VMM) Service Pack 1 (SP1).

You add a PXE server to the fabric.

You need to identify which objects must be added to the VMM library for the planned deployment.

What should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. A host profile
- B. A capability profile
- C. A hardware profile
- D. A generalized image
- E. A service template

---

**Answer: A, D**

---

After installing a PXE server, we build a deployment image from which we will deploy new Hyper-V hosts. That image must be a generalized virtual hard disk (VHD) file. After the image has been created we create a host profile.

Reference:

System Center Virtual Machine Manager: Virtual machine management simplified

<https://technet.microsoft.com/en-us/magazine/jj884468.aspx>

---

### **Question: 49**

---

You plan to deploy multiple servers in a test environment by using Windows Deployment Services (WDS).

You need to identify which network services must be available in the test environment to deploy the servers.

Which network services should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Active Directory Domain Services (AD DS)
- B. DNS
- C. DHCP
- D. WINS
- E. Active Directory Lightweight Directory Services (AD LDS)
- F. Network Policy Server (NPS)

---

**Answer: BC**

---

Prerequisites for installing Windows Deployment Services

- \* (B) DNS. You must have a working Domain Name System (DNS) server on the network before you can run Windows Deployment Services.
- \* (C): DHCP. You must have a working Dynamic Host Configuration Protocol (DHCP) server with an active scope on the network because Windows Deployment Services uses PXE, which relies on DHCP for IP addressing.
- \* NTFS volume.

Incorrect:

Not a: AD DS is not required if the WDS server is configured in Standalone mode. There is no mention of any domain in this scenario, so AD DS is not required for testing WDS.

Reference:

Windows Deployment Services Overview

<http://technet.microsoft.com/en-us/library/hh831764.aspx>

---

### **Question: 50**

---

You have a System Center 2012 R2 Virtual Machine Manager (VMM) infrastructure that manages five Hyper-V hosts. The Hyper-V hosts are not clustered.

You have a virtual machine template that deploys a base image of Windows Server 2012 R2. No role services or features are enabled in the base image.

You need to deploy a virtual machine named VM1 that is based on the virtual machine template. VM1 will be deployed as part of a service. VM1 must have the Web Server (IIS) server role installed. The solution must not require modifications to the virtual machine template or the base image.

What are two possible profile types that achieve the goal? Each correct answer presents a complete solution.

A. Capability  
 B. Application  
 C. Guest OS  
 D. Hardware  
 E. Physical Computer

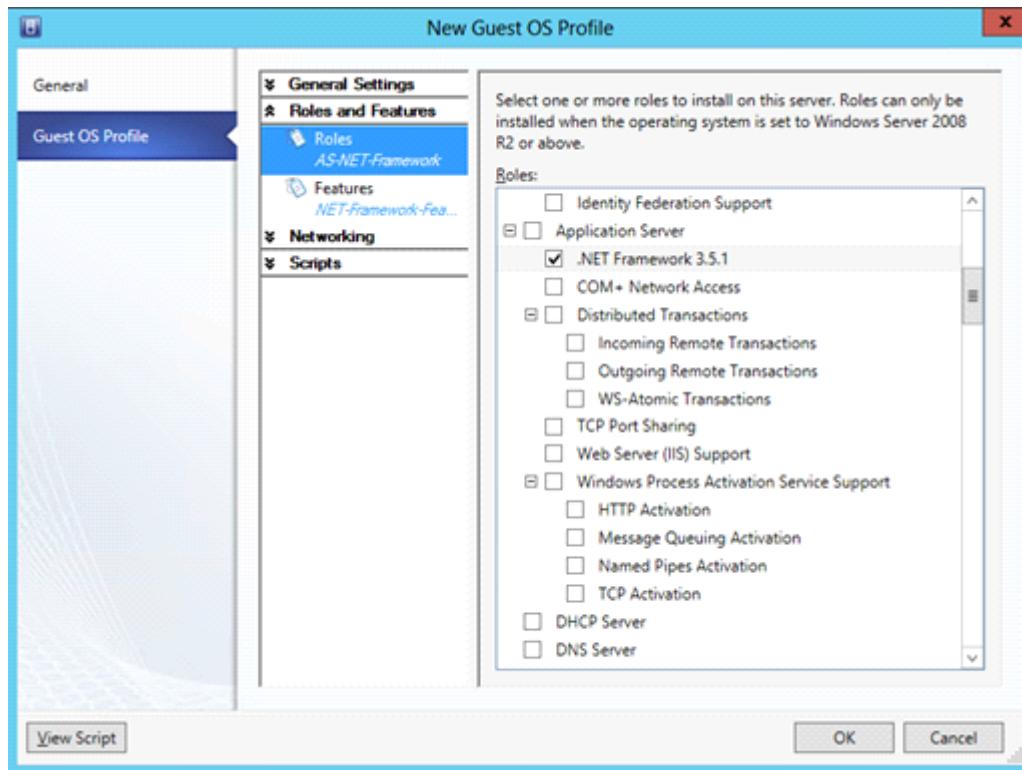
**Answer: B, C**

B: You can only use an application profile when you deploy a virtual machine as part of a service. In this case it would be as part of the IIS service.

C: Guest OS profile

When you define a new Guest OS Profile you specify which Roles and features, such as IIS, which should be included in the profile.

If machines based on this Guest OS Profile are going to need certain .NET framework versions installed, or have IIS installed, I can



Note: In a virtual environment, a guest operating system is the operating system that runs on a virtual machine, in contrast to the host operating system that runs on the physical host computer on which one or more virtual machines are deployed. In Virtual Machine Manager, a guest operating system profile is a collection of operating system settings that can be imported into a virtual machine template to provide a consistent operating system configuration for virtual machines created from that template.

Incorrect:

Not A: Capability profiles are for managing the hypervisors.

Reference:

How to Create an Application Profile in a Service Deployment

<https://technet.microsoft.com/en-us/library/hh427291.aspx>

Reference:

About Guest Operating System Profiles

<https://technet.microsoft.com/en-us/library/bb740889.aspx>

---

### **Question: 51**

Your network contains an Active Directory domain named contoso.com. The domain contains servers that run either Windows Server 2008 R2 or Windows Server 2012.

All client computers on the internal network are joined to the domain. Some users establish VPN connections to the network by using Windows computers that do not belong to the domain.

All client computers receive IP addresses by using DHCP.

You need to recommend a Network Access Protection (NAP) enforcement method to meet the following requirements:

Verify whether the client computers have up-to-date antivirus software.

Provides a warning to users who have virus definitions that are out-of-date.

Ensure that client computers that have out-of-date virus definitions can connect to the network.

Which NAP enforcement method should you recommend?

- A. DHCP
- B. IPSec
- C. VPN
- D. 802.1x

---

**Answer: A**

Explanation:

NAP enforcement for DHCP

DHCP enforcement is deployed with a DHCP Network Access Protection (NAP) enforcement server component, a DHCP enforcement client component, and Network Policy Server (NPS).

Using DHCP enforcement, DHCP servers and NPS can enforce health policy when a computer attempts to lease or renew an IP version 4 (IPv4) address. However, if client computers are configured with a static IP address or are otherwise configured to circumvent the use of DHCP, this enforcement method is not effective.

Note: The NAP health policy server can use a health requirement server to validate the health state of the NAP client or to determine the current version of software or updates that need to be installed on the NAP client.

Reference:

NAP Enforcement for DHCP

[http://technet.microsoft.com/en-us/library/cc733020\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc733020(v=ws.10).aspx)

---

### **Question: 52**

Your company is a hosting provider that provides cloud-based services to multiple customers.

Each customer has its own Active Directory forest located in your company's datacenter.

You plan to provide VPN access to each customer. The VPN solution will use RADIUS for authentication services and accounting services.

You need to recommend a solution to forward authentication and accounting messages from the perimeter network to the Active Directory forest of each customer.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. One RADIUS proxy for each customer and Active Directory Federation Services (AD FS)
- B. A RADIUS server for each customer and one RADIUS proxy
- C. One RADIUS proxy and one Active Directory Lightweight Directory Services (AD LDS) instance for each customer
- D. A RADIUS server for each customer and a RADIUS proxy for each customer

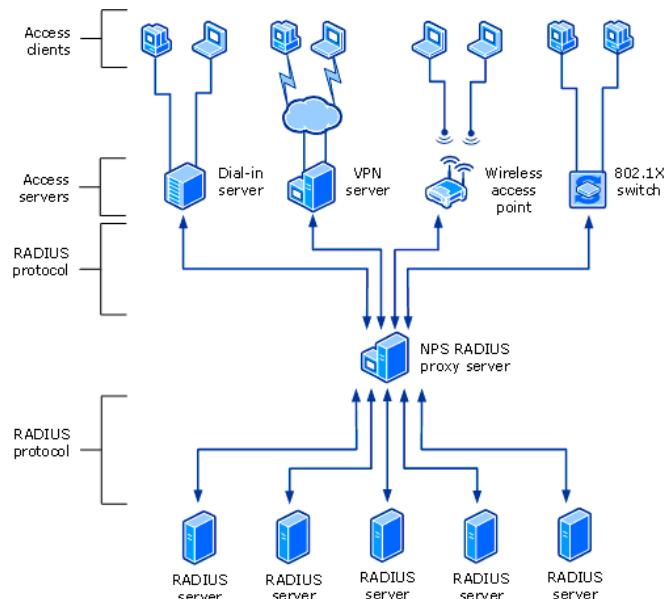
---

**Answer: B**

---

One RADIUS proxy and several RADIUS servers.

You want to provide RADIUS authentication and authorization for outsourced service providers and minimize intranet firewall configuration. An intranet firewall is between your perimeter network (the network between your intranet and the Internet) and intranet. By placing an NPS server on your perimeter network, the firewall between your perimeter network and intranet must allow traffic to flow between the NPS server and multiple domain controllers. By replacing the NPS server with an NPS proxy, the firewall must allow only RADIUS traffic to flow between the NPS proxy and one or multiple NPS servers within your intranet.



Reference:

RADIUS Proxy

<https://msdn.microsoft.com/en-us/library/cc731320.aspx>

---

**Question: 53**

---

HOTSPOT

Your network contains an Active Directory forest named northwindtraders.com.

The client computers in the finance department run either Windows 8.1, Windows 8, or Windows 7. All of the client computers in the marketing department run Windows 8.1.

You need to design a Network Access Protection (NAP) solution for northwindtraders.com that meets the following requirements:

The client computers in the finance department that run Windows 7 must have a firewall enabled and the antivirus software must be up-to-date.

The finance computers that run Windows 8.1 or Windows 8 must have automatic updating enabled and the antivirus software must be up-to-date.

The client computers in the marketing department must have automatic updating enabled and the antivirus software

must be up-to-date.

If a computer fails to meet its requirements, the computers must be provided access to a limited set of resources on the network.

If a computer meets its requirements, the computer must have full access to the network.

What is the minimum number of objects that you should create to meet the requirements? To answer, select the appropriate number for each object type in the answer area.

**Answer Area**

Health policies:

Network policies:

System Health Validator settings:

**Answer Area**

Health policies:   
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10

Network policies:   
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10

System Health Validator settings:   
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10

---

**Answer:**

---

**Answer Area**

Health policies:

0
1
2
3
4
5
6
7
8
9
10

Network policies:

0
1
2
3
4
5
6
7
8
9
10

System Health Validator settings:

0
1
2
3
4
5
6
7
8
9
10

**Explanation:**

Box 1: Health policies: 3

We need three policies:

1. If it passes anti-virus and Firewall
2. If it passes anti-virus and Updates
3. If it fails antivirus, Updates, or Firewall

**Note:**

Health policies define which SHVs are evaluated and how they are used in validating the configuration of computers that attempt to connect to your network. Based on the results of SHV checks, health policies classify client health status.

Box 2: Network policies: 4

1. Allow unrestricted access for Finance department if "First health policy" Compliant & (OS version -ge 6.1 & -lt 6.2)

(windows 7)

2. Allow unrestricted access for Finance department if "Second health policy" Compliant & OS version -ge 6.2
- (windows 8 & 8.1)
3. Allow unrestricted access for Marketing department if "Second health policy" Compliant
4. Else Allow restricted access.

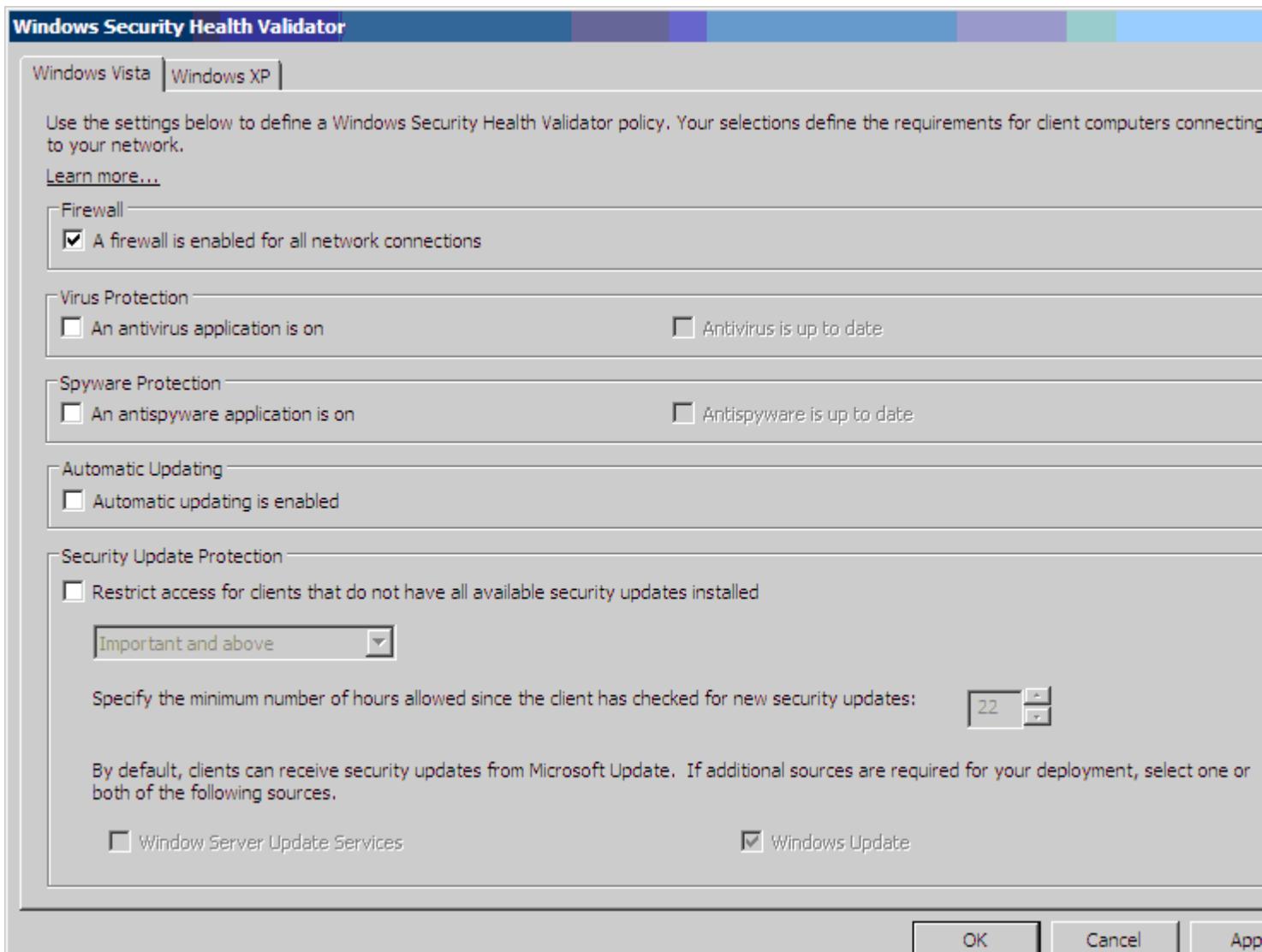
Box 3: System health validator settings: 2

We need two System Health Validator setting:

1. firewall enabled and the antivirus software must be up-to-date (for the Windows 7 clients in finance)
2. automatic updating enabled and the antivirus software must be up-to-date (for the Windows 8.1 or Windows 8 clients in finance, and for clients in marketing)

Note: System health validators (SHVs) define configuration requirements for computers that attempt to connect to your network.

The procedure to configure an SHV is unique to each SHV. Configuration choices for the WSHV are shown the following example.



Reference:

Configuring NPS system health validators and policies

<https://technet.microsoft.com/en-us/library/dd441008.aspx>

Reference:

Configuring NPS network policies

<https://technet.microsoft.com/en-us/library/dd441006.aspx>

---

### **Question: 54**

Your company plans to hire 100 sales representatives who will work remotely.

Each sales representative will be given a laptop that will run Windows 7. A corporate image of Windows 7 will be applied to each laptop.

While the laptops are connected to the corporate network, they will be joined to the domain. The sales representatives will not be local administrators.

Once the laptops are configured, each laptop will be shipped by courier to a sales representative.

The sales representative will use a VPN connection to connect to the corporate network.

You need to recommend a solution to deploy the VPN settings for the sales representatives. The solution must meet the following requirements:

Ensure that the VPN settings are the same for every sales representative.

Ensure that when a user connects to the VPN, an application named App1 starts.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

A. VPN auto triggering

B.The Add-VpnConnection cmdlet

C.The Connection Manager Administration Kit (CMAK)

D.Group Policy preferences

---

### **Answer: C**

We can use CMAK to create a connection that starts the Application App1 when the connection is established. The latter is achieved through the configuring CMAK “Post-Connect” custom action.

Note : Connection Manager is a client network connection tool that allows a user to connect to a remote network, such as an Internet service provider (ISP), or a corporate network protected by a virtual private network (VPN) server.

The Connection Manager Administration Kit (CMAK) is a tool that you can use to customize the remote connection experience for users on your network by creating predefined connections to remote servers and networks. To create and customize a connection for your users, you use the CMAK wizard.

Incorrect:

Not B: The Add-VpnConnection cmdlet would be able to establish a connection, but it could not start the App1 application.

Reference:

Connection Manager Administration Kit

<https://technet.microsoft.com/en-us/library/cc752995.aspx>

---

### **Question: 55**

Your network contains an Active Directory domain.

You plan to implement a remote access solution that will contain three servers that run Windows Server 2012. The servers will be configured as shown in the following table.

Server name	Role service	Location
Server1	Direct Access and VPN (RRAS)	Perimeter network
Server2	Network Policy Server	Internal network
Server3	Network Policy Server	Internal network

Server1 will support up to 200 concurrent VPN connections.

You need to ensure that all VPN connection requests are authenticated and authorized by either Server2 or Server3.

The solution must ensure that the VPN connections can be authenticated if either Server2 or Server3 fails.

What should you do?

- A. On Server1, configure a RADIUS proxy. On Server2 and Server3, add a RADIUS client.
- B. On Server2 and Server3, add a RADIUS client. On Server1, modify the Authentication settings.
- C. On Server1, configure a RADIUS proxy. Add Server2 and Server3 to a failover cluster.
- D. Add Server2 and Server3 to a Network Load Balancing (NLB) cluster. On Server1, modify the Authentication settings.

---

### Answer: B

---

Explanation:

\* A network access server (NAS) is a device that provides some level of access to a larger network. A NAS using a RADIUS infrastructure is also a RADIUS client, sending connection requests and accounting messages to a RADIUS server for authentication, authorization, and accounting.

\* Client computers, such as wireless portable computers and other computers running client operating systems, are not RADIUS clients. RADIUS clients are network access servers—such as wireless access points, 802.1X-capable switches, virtual private network (VPN) servers, and dial-up servers—because they use the RADIUS protocol to communicate with RADIUS servers such as Network Policy Server (NPS) servers.

Reference:

RADIUS Client

<http://technet.microsoft.com/en-us/library/cc754033.aspx>

---

### Question: 56

---

#### HOTSPOT

Your network contains an Active Directory domain named contoso.com. The domain contains four servers. The servers are configured as shown in the following table.

Server name	Role
Server1	Domain controller
Server2	Certification authority (CA)
Server3	Active Directory Federation Services (ADFS) server
Server4	Web server

You plan to provide users with the ability to use Workplace Join for their personal device when they connect to the internal network.

You need to recommend a certificate configuration for the planned deployment.

What should you include in the recommendation? To answer, select the appropriate names in the answer area.

**Answer Area**

Subject name:

Subject Alternative Name:

Subject Alternative Name:

**Answer Area**

Subject name:

Server1.contoso.com  
Server2.contoso.com  
Server3.contoso.com  
Server4.contoso.com

Subject Alternative Name:

Server1.contoso.com  
Server2.contoso.com  
Server3.contoso.com  
Server4.contoso.com

Subject Alternative Name:

\*.contoso.com  
Enterpriseregistration.contoso.com  
Wpad.contoso.com  
msdcs.contoso.com

---

**Answer:**

---

**Answer Area**

Subject name:

Server1.contoso.com  
Server2.contoso.com  
Server3.contoso.com Server3.contoso.com  
Server4.contoso.com

Subject Alternative Name:

Server1.contoso.com  
Server2.contoso.com  
Server3.contoso.com Server3.contoso.com  
Server4.contoso.com

Subject Alternative Name:

\*.contoso.com  
Enterpriseregistration.contoso.com Enterpriseregistration.contoso.com  
Wpad.contoso.com  
msdcs.contoso.com

Box 1, Box 2: Server3.contoso.com

Workplace Join client devices will attempt to discover the Device Registration Server by combining the user account name with a well-known Device Registration server name. This would be the AD FS server name, which is Server3.contoso.com here.

Note: For the Workplace Join client to discover the Device Registration server using a well-known DNS CNAME record, AD FS must be configured with a server SSL certificate that includes the well-known Device Registration server names

Box 3: Enterpriseregistration.contoso.com

You must create a DNS CNAME record that points to the A record associated with your AD FS farm. The CNAME record

must use the well-known prefix EnterpriseRegistration followed by the UPN suffix used by the user accounts at your organization.

Reference:

Configuring Device Registration

<https://technet.microsoft.com/en-us/library/dn614658.aspx>

---

### **Question: 57**

Your network contains an Active Directory domain named contoso.com.

All client computers run either Windows 7 or Windows 8.

Some users work from customer locations, hotels, and remote sites. The remote sites often have firewalls that limit connectivity to the Internet.

You need to recommend a VPN solution for the users.

Which protocol should you include in the recommendation?

- A. PPTP
- B.SSTP
- C.IKEv2
- D.L2TP/IPSec

---

### **Answer: B**

Secure Socket Tunneling Protocol (SSTP) is a form of VPN tunnel that provides a mechanism to transport PPP or L2TP traffic through an SSL 3.0 channel. SSL provides transport-level security with key-negotiation, encryption and traffic integrity checking. The use of SSL over TCP port 443 allows SSTP to pass through virtually all firewalls and proxy servers except for authenticated web proxies.

Reference:

[https://en.wikipedia.org/wiki/Secure\\_Socket\\_Tunneling\\_Protocol](https://en.wikipedia.org/wiki/Secure_Socket_Tunneling_Protocol)

---

### **Question: 58**

Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the DHCP Server server role installed.

All of the client computers that are in a subnet named Subnet1 receive their IP address configurations from Server1.

You plan to add another DHCP server named Server2 to Subnet1.

You need to recommend changes to the DHCP infrastructure to ensure that the client computers continue to receive IP addressing information if a single DHCP server fails.

What should you do?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Create a Network Load Balancing (NLB) cluster.
- B.Configure Failover for the scope.
- C.Create a DHCP failover cluster.
- D.Create a split scope.

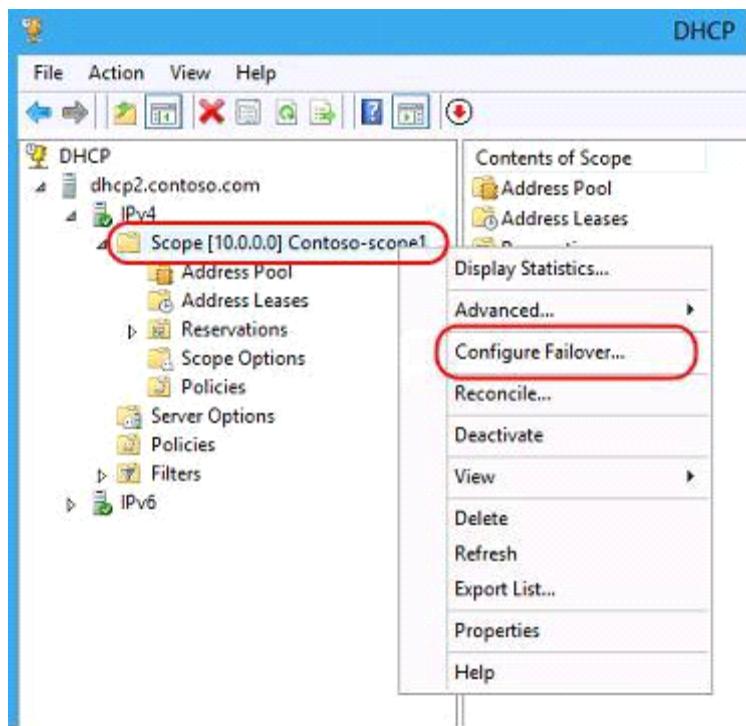
---

### **Answer: B**

Explanation:

One of the great features in Windows Server 2012 R2 is the DHCP failover for Microsoft DHCP scopes. Failover is where the environment suffers an outage of a service which triggers the failover of that service function to a

secondary server or site. The assumption for most failover configurations is that the primary server is completely unavailable.



Reference:

Step-by-Step: Configure DHCP for Failover

<https://technet.microsoft.com/en-us/library/hh831385.aspx>

## Question: 59

DRAG DROP

Your network contains an Active Directory forest named adatum.com. The forest contains a single domain. All servers run Windows Server 2012 R2. All client computers run Windows 8.1.

The DNS zone of adatum.com is Active Directory-integrated.

You need to implement DNSSEC to meet the following requirements:

Ensure that the zone is signed.

Ensure that the zone signing key (ZSK) changes every 30 days.

Ensure that the key signing key (KSK) changes every 365 days.

What should you do? To answer, drag the appropriate cmdlets to the correct requirements. Each cmdlet may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

<b>Cmdlets</b> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Add-DnsServerSigningKey</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Enable-DNServerSigningKeyRollover</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Invoke-DNServerSigningKeyRollover</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Invoke-DnsServerZoneSign</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Step-DNSServerSigningKeyRollover</div>	<b>Answer Area</b> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Ensure that the zone is signed.</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Ensure that the ZSK changes every 30 days.</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;">Ensure that the KSK changes every 365 days.</div>	<b>Cmdlet</b> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;"></div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;"></div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 2px;"></div>
--	---	--

Answer:

**Answer Area**

Ensure that the zone is signed.	<input type="text" value="Invoke-DnsServerZoneSign"/>
Ensure that the ZSK changes every 30 days.	<input type="text" value="Add-DnsServerSigningKey"/>
Ensure that the KSK changes every 365 days.	<input type="text" value="Add-DnsServerSigningKey"/>

**Box 1: Invoke-DnsServerZoneSign**

The `Invoke-DnsServerZoneSign` cmdlet signs a Domain Name System (DNS) server zone.

**Box 2, Box 3: Add-DnsServerSigningKey**

The `Add-DnsServerSigningKey` cmdlet adds a Key Signing Key (KSK) or Zone Signing Key (ZSK) key to a Domain Name System (DNS) signed zone.

The `Add-DnsServerSigningKey -ZoneSignatureValidityPeriod<TimeSpan>`

Specifies the amount of time that signatures that cover all other record sets are valid.

Reference:

`Add-DnsServerSigningKey`

<https://technet.microsoft.com/en-us/library/jj649854.aspx>

**Question: 60**

Your network contains an Active Directory forest that has two domains named contoso.com and europe.contoso.com.

The forest contains five servers. The servers are configured as shown in the following table.

Server name	Location	Configuration	Operating system
DC1	Contoso.com	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DHCP server</li> <li>• DNS server</li> </ul>	Windows Server 2008 R2
DC2	Contoso.com	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DHCP server</li> <li>• DNS server</li> </ul>	Windows Server 2008 R2
DCE1	Europe.contoso.com	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DHCP server</li> <li>• DNS server</li> </ul>	Windows Server 2003 R2
DCE2	Europe.contoso.com	<ul style="list-style-type: none"> <li>• Domain controller</li> <li>• DHCP server</li> <li>• DNS server</li> </ul>	Windows Server 2003 R2
Server1	Contoso.com	File server	Windows Server 2012

You plan to manage the DHCP settings and the DNS settings centrally by using IP Address Management (IPAM).

You need to ensure that you can use IPAM to manage the DHCP and DNS settings in both domains. The solution must use the minimum amount of administrative effort.

What should you do?

- A. Upgrade DCE1 and DCE2 to Windows Server 2012, and then install the IP Address Management (IPAM) Server feature. Run the `Set-IpamConfiguration` cmdlet for each domain.
- B. Upgrade DCE1 and DCE2 to Windows Server 2012, and then install the IP Address Management (IPAM) Server feature. Run the `Invoke-IpamGpoProvisioning` cmdlet for each domain.
- C. Upgrade DC1 and DC2 to Windows Server 2012, and then install the IP Address Management (IPAM) Server feature. Run the `Invoke-IpamGpoProvisioning` cmdlet for each domain.
- D. Upgrade DC1 and DC2 to Windows Server 2012, and then install the IP Address Management (IPAM) Server feature. Run the `Set-IpamConfiguration` cmdlet for each domain.

---

**Answer: B**

\* You can use IPAM to manage DHCP servers running on Windows Server 2008 R2 and above. Here DCE1 and DCE2 are running Windows 2003, so they need to be upgraded to Windows Server 2008 R2 or above.

\* Invoke-IpamGpoProvisioning

Creates and links group policies in the specified domain for provisioning required access settings on the servers managed by the computer running the IP Address Management (IPAM) server.

Incorrect:

Not C: DC1 and DC2 do not need to be upgraded as IPAM can manage DHCP servers running on Windows Server 2008 R2 and above.

Not A, Not D: Set-IpamConfiguration

Sets the configuration for the computer running the IP Address Management (IPAM) server, including the TCP port number over which the computer running the IPAM Remote Server Administration Tools (RSAT) client connects with the computer running the IPAM server.

Reference:

IPAM managed DHCP server requirements

<http://windowsitpro.com/windows-server-2003-end-support/ipam-managed-dhcp-server-requirements>

Upgrade the Windows 2003 Servers.

---

## **Question: 61**

Your network contains a server named Server1 that runs Windows Server 2012. Server1 has the DHCP Server server role installed. The network contains a Virtual Desktop Infrastructure (VDI).

All virtual machines run Windows 8.

You identify the following requirements for allocating IPv4 addresses to client computers:

All virtual desktops must have static IP addresses.

All laptop computers must receive dynamic IP addresses.

All virtual desktops must be prevented from obtaining dynamic address.

You need to recommend a DHCP solution that meets the requirements for allocating IPv4 addresses.

The solution must use the least amount of administrative effort.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

A. Configure DHCP filtering.

B. Configure DHCP policies.

C. Create two physical subnets. Connect the laptop computers to the subnet that contains Server1.

D. Create two physical subnets. Configure 802.1X authentication for each subnet.

---

**Answer: B**

The DHCP Server role in Windows Server 2012 introduces a new feature that allows you to create IPv4 policies that specify custom IP address and option assignments for DHCP clients based on a set of conditions.

The policy based assignment (PBA) feature allows you to group DHCP clients by specific attributes based on fields contained in the DHCP client request packet. PBA enables targeted administration and greater control of the configuration parameters delivered to network devices with DHCP.

Example: In a subnet which has a mix of wired and mobile computers, you might want to assign a shorter, 4 hour lease duration to mobile computers and longer, 4 day lease duration to wired computers.

Incorrect:

not A: DHCP filtering provides security by filtering untrusted DHCP messages. An untrusted message is a message that is received from outside the network or firewall, and that can cause traffic attacks within network.

Reference:

Introduction to DHCP Policies

<https://technet.microsoft.com/en-us/library/dn425039.aspx>

## Question: 62

DRAG DROP

Your network contains an Active Directory forest named corp.contoso.com. All servers run Windows Server 2012.

The network has a perimeter network that contains servers that are accessed from the Internet by using the contoso.com namespace.

The network contains four DNS servers. The servers are configured as shown in the following table.

Server name	Location	Function	DNS zone	Zone type
DC1	Internal network	Domain controller, DNS server	Corp.contoso.com	Active Directory- integrated
DC2	Internal network	Domain controller, DNS server	Corp.contoso.com	Active Directory- integrated
Server1	Perimeter network	DNS server	Contoso.com	Primary
Server2	Perimeter network	DNS server	Contoso.com	Secondary

All of the client computers on the perimeter network use Server1 and Server2 for name resolution.

You plan to add DNS servers to the corp.contoso.com domain.

You need to ensure that the client computers automatically use the additional name servers. The solution must ensure that only computers on the perimeter network can resolve names in the corp.contoso.com domain.

Which DNS configuration should you implement on Server1 and Server2?

To answer, drag the appropriate DNS configuration to the correct location in the answer area. Each DNS configuration may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Configurations	Answer Area
a conditional forwarder	Server1 Configuration
a zone delegation	Server2 Configuration
a stub zone	
a subdomain	

Answer:

**Configurations**

a conditional forwarder

a zone delegation

a stub zone

a subdomain

\* stub zone

A Stub Zones allows an organization to resolve names to a private namespace or speed up name resolution to a public namespace without the use of Conditional Forwarders or Secondary Zones.

DNS Stub Zones in each domain will be configured to forward request for the other organization name space to a DNS server that is authoritative. All other names needing resolved will use the default name resolution method.

Reference:

How to configure a DNS Stub Zone in Windows Server

<http://blogs.interfacett.com/how-to-configure-a-dns-stub-zone-in-windows-server>

**Answer Area**

Server1

a stub zone

Server2

a stub zone

**Question: 63**

Your network contains an Active Directory forest named contoso.com.

You plan to add a new domain named child.contoso.com to the forest.

On the DNS servers in child.contoso.com, you plan to create conditional forwarders that point to the DNS servers in contoso.com.

You need to ensure that the DNS servers in contoso.com can resolve names for the servers in child.contoso.com.

What should you create on the DNS servers in contoso.com?

- A. A zone delegation
- B. A conditional forwarder
- C. A root hint
- D. A trust point

**Answer: A****Understanding Zone Delegation**

Domain Name System (DNS) provides the option of dividing up the namespace into one or more zones, which can then be stored, distributed, and replicated to other DNS servers. When you are deciding whether to divide your DNS namespace to make additional zones, consider the following reasons to use additional zones:

- \* You want to delegate management of part of your DNS namespace to another location or department in your organization.
- \* You want to divide one large zone into smaller zones to distribute traffic loads among multiple servers, improve DNS name resolution performance, or create a more-fault-tolerant DNS environment.
- \* You want to extend the namespace by adding numerous subdomains at once, for example, to accommodate the opening of a new branch or site.

Reference:

Understanding Zone Delegation

<https://technet.microsoft.com/en-us/library/cc771640.aspx>

### Question: 64

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains an IP Address Management (IPAM) server.

You plan to delegate the administration of IPAM as shown in the following table.

Department name	Requirement
Dept1	View IP address tracking information
Dept2	View IP address spaces
Dept3	Create an IP address block

You need to recommend which IPAM security group must be used for each department. The solution must minimize the number of permissions assigned to each group.

What should you recommend?

To answer, drag the appropriate group to the correct department in the answer area. Each group may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Groups	Answer Area
IPAM ASM Administrators	Dept1 Group
IPAM IP Audit Administrators	Dept2 Group
IPAM MSM Administrators	Dept3 Group
IPAM Users	

### Answer:

Box 1:

IPAM IP Audit Administrators

Box 2:

IPAM Users

Box 3:

IPAM ASM Administrators

\* IPAM IP Audit Administrators: Members of this group have IPAM Users privileges and can perform IPAM common management tasks and can view IP address tracking information.

\* IPAM Users: Members of this group can view all information in server discovery, IP address space, and server management. They can view IPAM and DHCP server operational events, but cannot view IP address tracking information.

\* IPAM ASM Administrators: IPAM address space management (ASM) administrators have IPAM Users privileges and can perform IPAM common management tasks and IP address space tasks.

Reference:

Walkthrough: Demonstrate IPAM in Windows Server 2012  
<https://technet.microsoft.com/en-us/library/hh831622.aspx>

---

### **Question: 65**

---

Your company has a main office, ten regional datacenters and 100 branch offices.

You are designing the site topology for an Active Directory forest named contoso.com.

The forest will contain the following servers:

- \* In each regional datacenter and in the main office, a domain controller that runs Windows Server 2012
- \* In each branch office, a file server that runs Windows Server 2012

You have a shared folder that is accessed by using the path \\contoso.com\shares\software. The folder will be replicated to a local file server in each branch office by using Distributed File System (DFS) replication.

You need to recommend an Active Directory site design to meet the following requirements:

- \* Ensure that users in the branch offices will be authenticated by a domain controller in the closest regional datacenter.
- \* Ensure that users automatically connect to the closest file server when they access \\contoso.com\shares\software.

How many Active Directory sites should you recommend?

- A. 1
- B.10
- C.11
- D.111

---

### **Answer: D**

---

One site for the main office, one site for each regional office (10 in total) as users must connect to the closest domain server which is located at the regional office level, and one site for each branch office (100 in total as users must connect to the closest file server which are located at the branch office level. This adds up to 111.

---

### **Question: 66**

---

Your company has two main offices and 10 branch offices. Each office is configured as a separate Active Directory site. The main offices sites are named Site1 and Site2. Each office connects to Site1 and Site2 by using a WAN link. Each site contains a domain controller that runs Windows Server 2008.

You are redesigning the Active Directory infrastructure.

You plan to implement domain controllers that run Windows Server 2012 and decommission all of the domain controllers that run Windows Server 2008.

You need to recommend a placement plan for the Windows Server 2012 domain controllers to meet the following requirements:

Ensure that users can log on to the domain if a domain controller or a WAN link fails.

Minimize the number of domain controllers implemented.

What should you include in the recommendation? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Read-only domain controllers (RODCs) in the branch office sites
- B.A writable domain controller in Site1
- C.A writable domain controller in Site2
- D.Writable domain controllers in the branch office sites

---

**Answer: BC**

Writeable domain controllers in Site1 and Site2 are enough as we should minimize the number of domain controllers.  
Incorrect:

Not A, not D Writeable domain controllers are not needed to authenticate users at the branch offices, as each branch office connects to both Site1 and Site2.

---

**Question: 67**

Your network contains a Hyper-V host named Host1 that runs Windows Server 2012. Host1 contains a virtual machine named DC1. DC1 is a domain controller that runs Windows Server 2012.

You plan to clone DC1.

You need to recommend which steps are required to prepare DC1 to be cloned.

What should you include in the recommendation? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Run dcpromo.exe /adv.
- B. Create a file named Dccloneconfig.xml.
- C. Add DC1 to the Cloneable Domain Controllers group.
- D. Run sysprep.exe /oobe.
- E. Run New-VirtualDiskClone.

---

**Answer: B, C**

Explanation:

B: DCCloneConfig.xml is an XML configuration file that contains all of the settings the cloned DC will take when it boots. This includes network settings, DNS, WINS, AD site name, new DC name and more. This file can be generated in a few different ways.

C: There's a new group in town. It's called Cloneable Domain Controllers and you can find it in the Users container. Membership in this group dictates whether a DC can or cannot be cloned. This group has some permissions set on the domain head that should not be removed. Removing these permissions will cause cloning to fail. Also, as a best practice, DCs shouldn't be added to the group until you plan to clone and DCs should be removed from the group once cloning is complete. Cloned DCs will also end up in the Cloneable Domain Controllers group. Make sure to remove those as well.

Reference:

<http://blogs.technet.com/b/askpfeplat/archive/2012/10/01/virtual-domain-controller-cloning-in-windows-server-2012.aspx>

---

**Question: 68**

**HOTSPOT**

You run the ldifde command and receive the following output:

```
C:\Users\Admin1> ldifde -f Export.ldif -d "CN=Schema,CN=Configuration,DC=contoso,DC=com"
Connecting to "Server01.contoso.com"
Logging in as current user using SSPI
Exporting directory to file Export.ldif
Searching for entries...
Writing out entries.....
1739 entries exported
```

The command completes successfully.

Use the drop-down menus to select the answer choice that completes each statement.

### Answer Area

The Active Directory [answer choice] was exported from the contoso.com domain.

At a minimum, the user who performed the operation is a member of [answer choice]

### Answer Area

The Active Directory [answer choice] was exported from the contoso.com domain.

configuration
default naming context
rootDSE
schema

At a minimum, the user who performed the operation is a member of [answer choice]

Domain Admins.
Domain Users.
Enterprise Admins.
Schema Admins.

---

### Answer:

---

Box 1: Schema

Box 2: Domain Users

Explanation:

Box 1: Schema

The -d parameter sets the distinguished name of the search base for data export. Here the distinguished name is Schema.configuration.contoso.com

Box 2: Domain user

No special permissions are required to export the schema from the source forest, and any domain user can perform this task.

Reference:

Export, Compare, and Synchronize Active Directory Schemas

<https://technet.microsoft.com/en-us/magazine/2009.04.schema.aspx>

---

### Question: 69

A new company registers the domain name of contoso.com. The company has a web presence on the Internet. All Internet resources have names that use a DNS suffix of contoso.com.

A third-party hosts the Internet resources and is responsible for managing the contoso.com DNS zone on the Internet. The zone contains several hundred records.

The company plans to deploy an Active Directory forest.

You need to recommend an Active Directory forest infrastructure to meet the following requirements:

Ensure that users on the internal network can resolve the names of the company's Internet resources.

Minimize the amount of administrative effort associated with the addition of new Internet servers.

What should you recommend?

- A. A forest that contains a single domain named contoso.local
- B. A forest that contains a root domain named contoso.com and another domain named contoso.local
- C. A forest that contains a root domain named contoso.com and another domain named ad.contoso.com
- D. A forest that contains a single domain named contoso.com

---

**Answer: C**

---

Rules for Selecting a Prefix for a Registered DNS Name

Select a prefix that is not likely to become outdated.

Avoid names such as a business line or operating system that might change in the future. Generic names such as corp or ds are recommended.

Incorrect:

not A, not B: Using single label names or unregistered suffixes, such as .local, is not recommended.

Reference:

Selecting the Forest Root Domain

[https://technet.microsoft.com/en-us/library/cc726016\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc726016(v=ws.10).aspx)

---

### **Question: 70**

Your network contains an Active Directory domain named contoso.com. The functional level of the domain and the forest is Windows Server 2008 R2.

All domain controllers run Windows Server 2008 R2.

You plan to deploy a new line-of-business application named App1 that uses claims-based authentication.

You need to recommend changes to the network to ensure that Active Directory can provide claims for App1.

What should you include in the recommendation? (Each correct answer presents part of the solution. Choose all that apply.)

- A. From the properties of the computer accounts of the domain controllers, enable Kerberos constrained delegation.
- B. From the Default Domain Controllers Policy, enable the Support for Dynamic Access Control and Kerberos armoring setting.
- C. Deploy Active Directory Lightweight Directory Services (AD LDS).
- D. Raise the domain functional level to Windows Server 2012.
- E. Add domain controllers that run Windows Server 2012.

---

**Answer: B, E**

---

E: You must perform several steps to enable claims in Server 2012 AD. First, you must upgrade the forest schema to Server 2012. You can do so manually through Adprep, but Microsoft strongly recommends that you add the AD DS role to a new Server 2012 server or upgrade an existing DC to Server 2012.

B: Once AD can support claims, you must enable them through Group Policy:

From the Start screen on a system with AD admin rights, open Group Policy Management and select the Domain Controllers Organizational Unit (OU) in the domain in which you wish to enable claims.

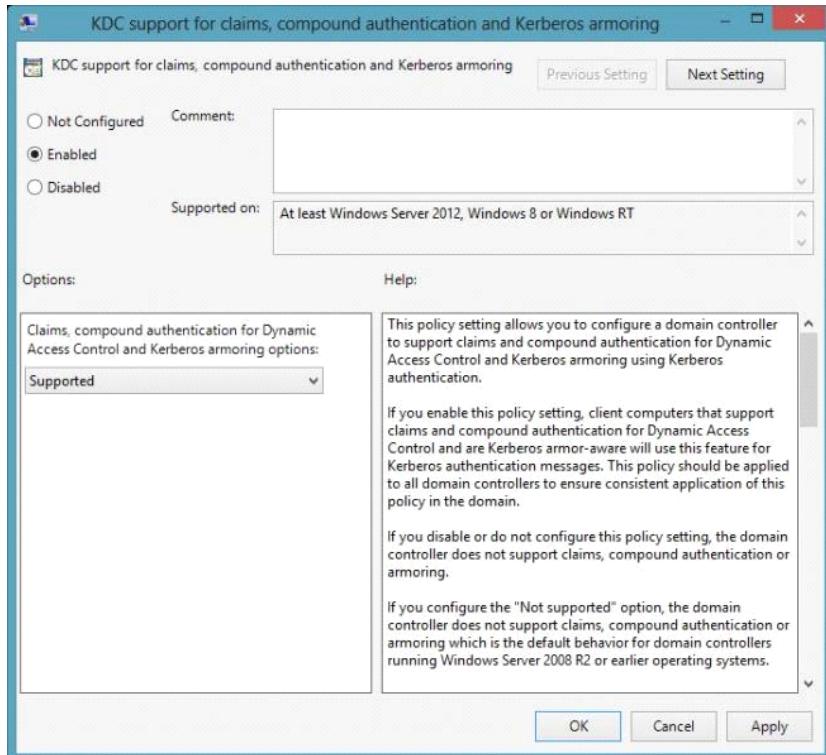
Right-click the Default Domain Controllers Policy and select Edit.

In the Editor window, drill down to Computer Configuration, Policies, Administrative Templates, System, and KDC (Key Distribution Center).

Open KDC support for claims, compound authentication, and Kerberos armoring.

Select the Enabled radio button. Supported will appear under Claims, compound authentication for Dynamic Access

## Control and Kerberos armoring options



### Reference:

Enable Claims Support in Windows Server 2012 Active Directory

<http://windowsitpro.com/windows-server-2012/enable-claims-support-windows-server-2012-active-directory>

## Question: 71

Your company has a main office and 20 branch offices. All of the offices connect to each other by using a WAN link. The network contains an Active Directory forest named contoso.com. The forest contains a domain for each office. The forest root domain contains all of the server resources. Each branch office contains two domain controllers for the branch office domain and one domain controller for the contoso.com domain. Each branch office has a support technician who is responsible for managing the accounts of their respective office only.

You recently updated all of the WAN links to high-speed WAN links.

You need to recommend changes to the Active Directory infrastructure to meet the following requirements:

Reduce the administrative overhead of moving user accounts between the offices.

Ensure that the support technician in each office can manage the user accounts of their respective office.

What should you include in the recommendation? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Create a new child domain named corp.contoso.com. Create a shortcut trust between each child domain and corp.contoso.com.
- B. Create shortcut trusts between each child domain. In the main office, add a domain controller to each branch office domain.
- C. Move all of the user accounts of all the branch offices to the forest root domain. Decommission all of the child domains.
- D. Create a new forest root domain named contoso.local. Move all of the user accounts of all the branch offices to the

new forest root domain. Decommission all of the child domains.

---

**Answer: C**

The most basic of all Active Directory structures is the single domain model; this type of domain structure comes with one major advantage over the other models: simplicity. A single security boundary defines the borders of the domain, and all objects are located within that boundary. The establishment of trust relationships between other domains is not necessary, and implementation of technologies such as Group Policies is made easier by the simple structure.

---

**Question: 72**

You plan to deploy server1.child.contoso.com as a read-only domain controller (RODC).

You run the adprep.exe /rodcprep command on DC3 and receive the following error message:

```
"Adprep could not contact a replica for partition DC=DomainDnsZones,DC=Contoso,DC=com  
Adprep failed the operation on partition DC=DomainDnsZones,DC=Contoso,DC=com Skipping to next partition."
```

```
Adprep could not contact a replica for partition DC=ForestDnsZones,DC=Contoso,DC=com  
Adprep encountered an LDAP error. Error code: 0x0. Server extended error code: 0x0, Server error message: (null).
```

```
Adprep failed the operation on partition DC=ForestDnsZones,DC=Contoso,DC=com Skipping to next partition.
```

```
Adprep completed with errors. Not all partitions are updated."
```

You need to identify what prevents you from successfully running Adprep /rodcprep on DC3.

What should you identify?

- A. The domain functional level of child.contoso.com is set to the wrong level.
- B. DC3 cannot connect to the domain naming master on DC1.
- C. The forest functional level is set to the wrong level.
- D. DC3 cannot connect to the infrastructure master on DC2.

---

**Answer: D**

Adprep could not contact a replica...

This problem occurs when the Adprep /rodcprep command tries to contact the infrastructure master for each application partition in the forest.

Reference:

Error message when you run the "Adprep /rodcprep" command in Windows Server 2008: "Adprep could not contact a replica for partition DC=DomainDnsZones,DC=Contoso,DC=com"

<https://support.microsoft.com/en-us/kb/949257>

---

**Question: 73**

Your network contains an Active Directory domain named contoso.com.

You deploy several servers that have the Remote Desktop Session Host role service installed.

You have two organizational units (OUs). The OUs are configured as shown in the following table.

OU name	Group Policy link	Contents
OU1	GPO1	Sales department user accounts
OU2	GPO2	Computer accounts of the Remote Desktop Session Host (RD Session Host) server

GPO1 contains the Folder Redirection settings for all of the users.

You need to recommend a solution to prevent the sales users' folders from being redirected when the users log on to a Remote Desktop session.

What should you include in the recommendation?

- A. From GPO2, set the loopback processing mode.
- B. From GPO1, set the loopback processing mode.
- C. Configure security filtering for GPO1.
- D. Apply a WMI filter to GPO2.

---

**Answer: A**

Explanation:

Group Policy applies to the user or computer in a manner that depends on where both the user and the computer objects are located in Active Directory. However, in some cases, users may need policy applied to them based on the location of the computer object alone. You can use the Group Policy loopback feature to apply Group Policy Objects (GPOs) that depend only on which computer the user logs on to.

Reference:

Loopback processing of Group Policy

<https://support.microsoft.com/en-us/kb/231287>

---

### **Question: 74**

Your network contains an Active Directory domain named contoso.com. The domain contains an organizational unit (OU) named OU1.

You have a Group Policy object (GPO) named GPO1 that is linked to contoso.com. GPO1 contains custom security settings.

You need to design a Group Policy strategy to meet the following requirements:

The security settings in GPO1 must be applied to all client computers.

Only GPO1 and other GPOs that are linked to OU1 must be applied to the client computers in OU1.

What should you include in the design?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Enable the Block Inheritance option at the domain level. Enable the Enforced option on GPO1.
- B. Enable the Block Inheritance option on OU1. Link GPO1 to OU1.
- C. Enable the Block Inheritance option on OU1. Enable the Enforced option on all of the GPOs linked to OU1.
- D. Enable the Block Inheritance option on OU1. Enable the Enforced option on GPO1.

---

**Answer: D**

\* You can block inheritance for a domain or organizational unit. Blocking inheritance prevents Group Policy objects (GPOs) that are linked to higher sites, domains, or organizational units from being automatically inherited by the child-level.

\* GPO links that are enforced cannot be blocked from the parent container.

---

### **Question: 75**

Your company has a main office. The main office is located in a building that has 10 floors.

A datacenter on the ground floor contains a Windows Server 2012 failover cluster. The failover cluster contains a DHCP server resource named DHCP1. All client computers receive their IP addresses from DHCP1. All client computers are part of the 131.107.0.0/16 IPv4 subnet.

You plan to implement changes to the network subnets to include a separate subnet for each floor of the office building. The subnets will connect by using routers.

You need to recommend changes to the DHCP infrastructure to ensure that all of the client computers can receive their IP configuration by using DHCP.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

A. Install a remote access server on each floor. Configure a DHCP relay agent on each new DHCP server. Create a scope for each subnet on DHCP1.

B. Install a DHCP server on each floor. Create a scope for the local subnet on each new DHCP server. Enable DHCP Failover on each new DHCP server.

C. Configure each router to forward requests for IP addresses to DHCP1. Create a scope for each subnet on DHCP1.

D. Configure each router to forward requests for IP addresses to DHCP1. Create a scope for the 10.0.0.0/16 subnet on DHCP1.

---

**Answer: C**

---

Explanation:

In TCP/IP networking, routers are used to interconnect hardware and software used on different physical network segments called subnets and forward IP packets between each of the subnets. To support and use DHCP service across multiple subnets, routers connecting each subnet should comply with DHCP/ BOOTP relay agent capabilities described in RFC 1542.

Reference:

Support multiple subnets with one DHCP server by configuring DHCP relay agents

<http://technet.microsoft.com/en-us/library/cc771390.aspx>

---

### **Question: 76**

---

You deploy an Active Directory domain named contoso.com to the network. The domain is configured as an Active Directory-integrated zone. All domain controllers run Windows Server 2012 and are DNS servers.

You plan to deploy a child domain named operations.contoso.com.

You need to recommend changes to the DNS infrastructure to ensure that users in the operations department can access the servers in the contoso.com domain.

What should you include in the recommendation?

A. A zone delegation for \_msdcs.contoso.com

B. Changes to the replication scope of contoso.com

C. Changes to the replication scope of \_msdcs.contoso.com

D. Changes to the replication scope of operations.contoso.com

---

**Answer: B**

---

Explanation:

The contoso.com resources must be available from the subdomain operations.contoso.com. The contoso.com replication scope must include operations.contoso.com.

Incorrect:

Not A: Zone delegation relates to which users can handle the administration of a subdomain, but the question is

related to access of servers not of administration of a DNS zone.

Note: Zone delegation is transferring authority for a subdomain to a new zone. Typically, you use zone delegation when a business unit in an organization is large enough to warrant its own subdomain and has the personnel to manage its own DNS server for the subdomain.

Not C: Every Windows domain zone has an \_mcdcs subdomain, which holds all the SRV records for Microsoft-hosted services, such as the global catalog, LDAP, and Kerberos.

### Question: 77

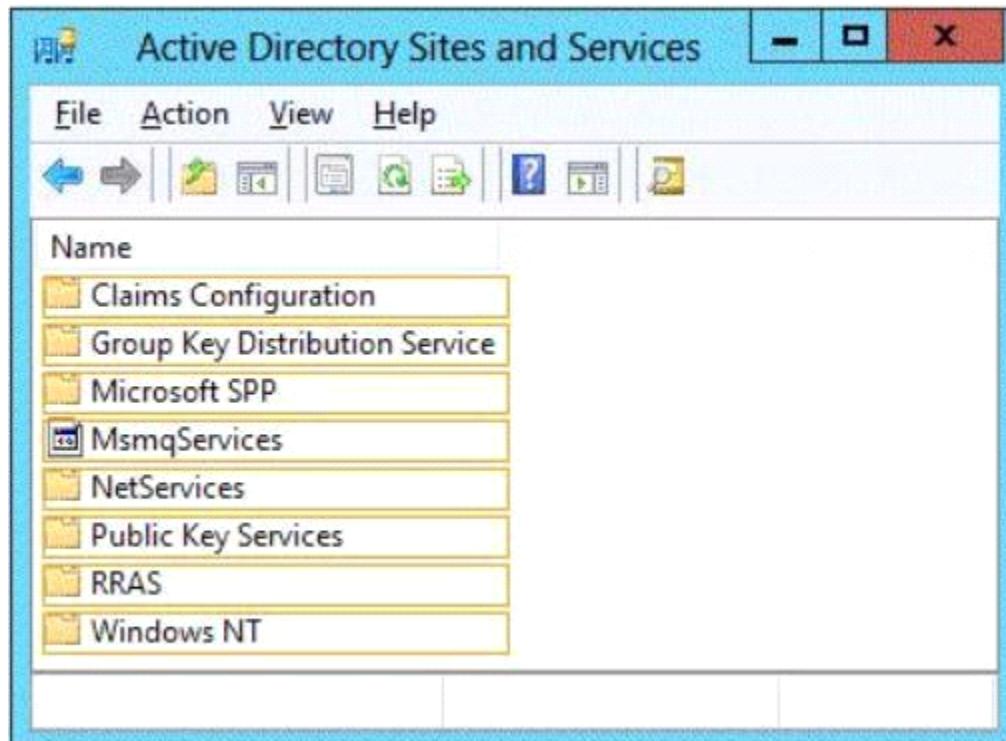
#### HOTSPOT

Your network contains an Active Directory domain named contoso.com. You plan to implement multiple DHCP servers.

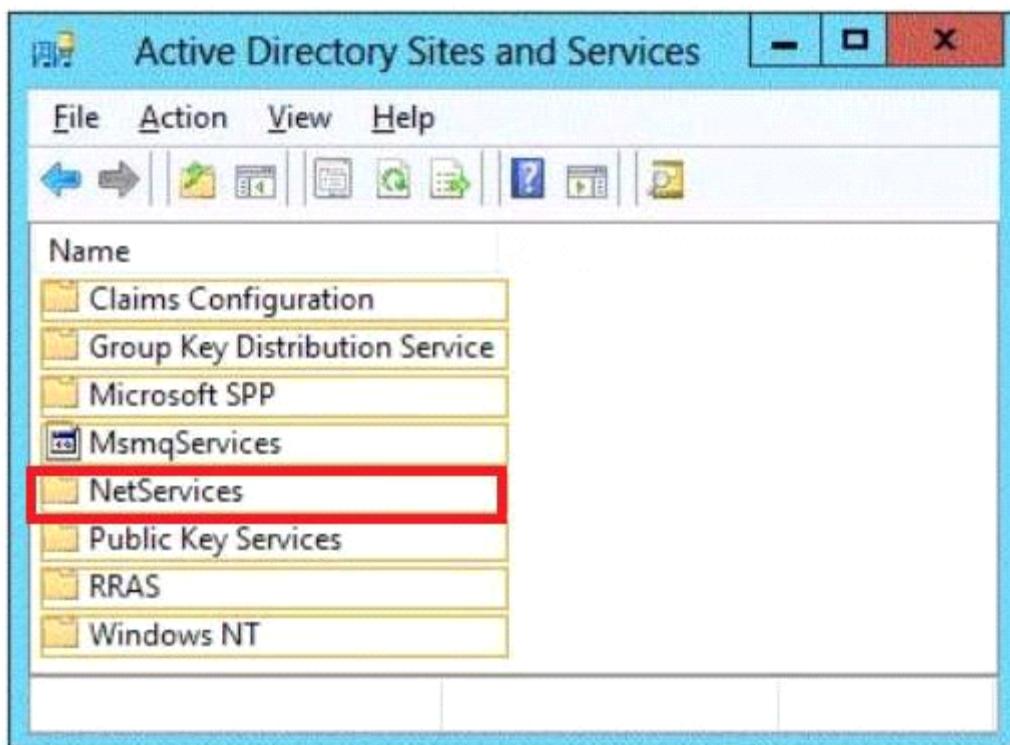
An administrator named Admin1 will authorize the DHCP servers. You need to ensure that Admin1 can authorize the planned DHCP servers.

To which container should you assign Admin1 permissions?

To answer, select the appropriate node in the answer area.



Answer:



#### Explanation:

Authorization of DHCP server can only be performed by a domain user that has permissions to create objects in the Net services container in Active Directory. See how to delegate permissions to do this in active directory.

#### Reference:

<https://blogs.technet.microsoft.com/teamdhcp/2012/08/31/installing-and-configuring-dhcp-role-on-windows-server-2012/>

---

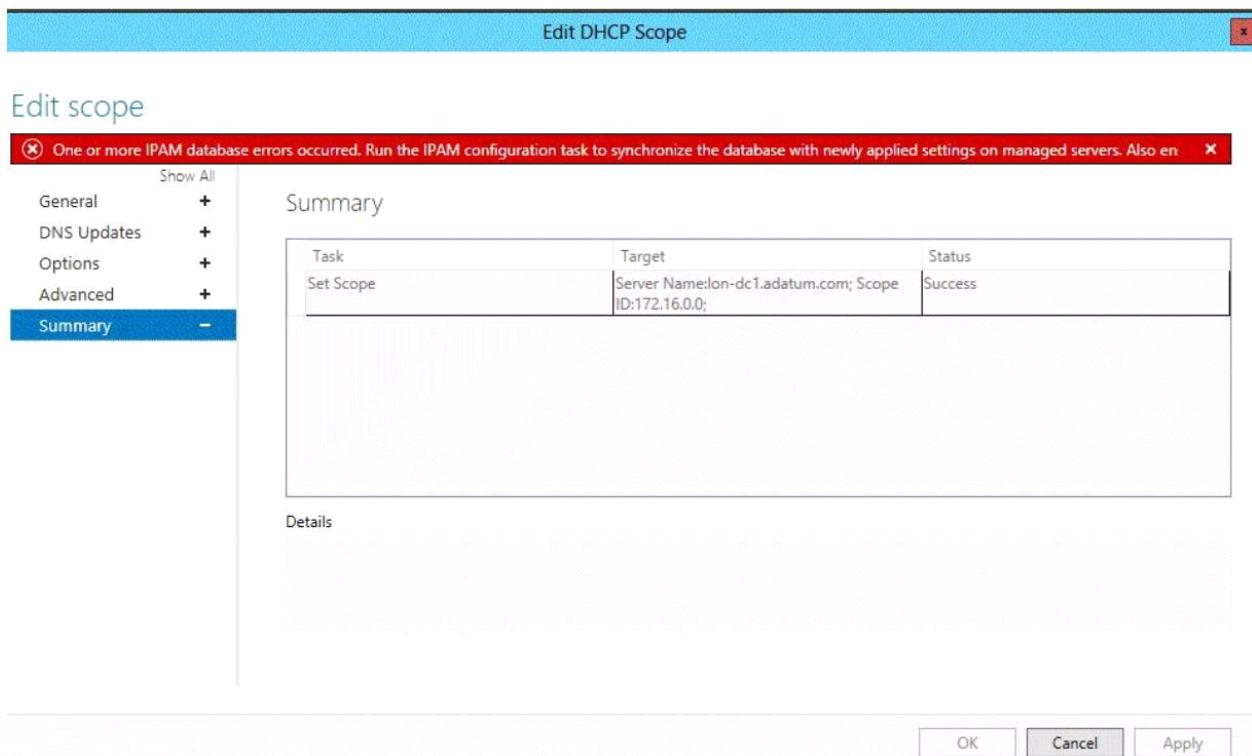
### Question: 78

Your network contains an Active Directory domain named contoso.com. All servers run either Windows Server 2008 R2 or Windows Server 2012.

Your company uses IP Address Management (IPAM) to manage multiple DHCP servers.

A user named User1 is a member of the IPAM Users group and is a member of the local Administrators group on each DHCP server.

When User1 edits a DHCP scope by using IPAM, the user receives the error message shown in the exhibit. (Click the Exhibit button.)



You need to prevent User1 from receiving the error message when editing DHCP scopes by using IPAM. What should you do?

- A. Add User1 to the DHCP Administrators group on each DHCP server.
- B. Add User1 to the IPAM Administrators group.
- C. Run the Set-IpamServerConfig cmdlet.
- D. Run the Invoke-IpamGpoProvisioning cmdlet.

**Answer: B**

**Explanation:**

IPAM Administrators have the privileges to view all IPAM data and perform all IPAM tasks.

**Reference:**

Walkthrough: Demonstrate IPAM in Windows Server 2012

<http://technet.microsoft.com/en-us/library/hh831622.aspx>

### Question: 79

Your network contains an Active Directory domain named contoso.com. The domain contains multiple sites. You plan to deploy DirectAccess.

The network security policy states that when client computers connect to the corporate network from the Internet, all of the traffic destined for the Internet must be routed through the corporate network.

You need to recommend a solution for the planned DirectAccess deployment that meets the security policy requirement.

What should you include in the recommendation?

- A. Set the ISATAP State to state enabled.
- B. Enable split tunneling.
- C. Set the ISATAP State to state disabled.
- D. Enable force tunneling.

---

**Answer: D**

---

**Explanation:**

You can configure DirectAccess clients to send all of their traffic through the tunnels to the DirectAccess server with force tunneling. When force tunneling is configured, DirectAccess clients that detect that they are on the Internet modify their IPv4 default route so that default route IPv4 traffic is not sent. With the exception of local subnet traffic, all traffic sent by the DirectAccess client is IPv6 traffic that goes through tunnels to the DirectAccess server.

---

**Question: 80**

---

Your company has a main office.

The network contains an Active Directory domain named contoso.com. The main office contains a server named Server1 that runs Windows Server 2012. Server1 has the Remote Access server role installed and is configured to accept incoming SSTP-based VPN connections.

All client computers run Windows 7.

The company plans to open a temporary office that will contain a server named Server2 that runs Windows Server 2012 and has the DHCP Server server role installed. The office will also have 50 client computers and an Internet connection.

You need to recommend a solution to provide the users in the temporary office with access to the resources in the main office.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Use the Connection Manager Administration Kit (CMAK) to create a connection package that specifies Server1 as the target for SSTP-based VPN connections. Manually distribute the CMAK package to each client computer in the temporary office.
- B. Install the Remote Access server role on Server2. From Routing and Remote Access on Server2, add a SSTP-based VPN port. From DHCP on Server2, configure the default gateway server option.
- C. Use the Connection Manager Administration Kit (CMAK) to create a connection package that specifies Server1 as the target for SSTP-based VPN connections. Use a Group Policy object (GPO) to distribute the CMAK package to each client computer in the temporary office.
- D. Install the Remote Access server role on Server2. From Routing and Remote Access on Server2, configure a demand-dial interface. From DHCP on Server2, configure the default gateway server option.

---

**Answer: A**

---

**Explanation:**

CMAK is used for simplifying the deployment of VPN client-connection setup. With CMAK we create the VPN profile in executable file format, and then distribute it to the clients.

Note: Connection Manager is a client network connection tool that allows a user to connect to a remote network,

such as an Internet service provider (ISP), or a corporate network protected by a virtual private network (VPN) server.

Incorrect:

Not B: SSTP is not used for site-to-site connections.

Not C: The remote temporary office is not connected to the domain yet, so distribution through a GPO would not work.

Not D: As Server1 is configured with SSTP remote dialing cannot be right.

Reference:

Connection Manager Administration Kit

<https://technet.microsoft.com/en-us/library/cc752995.aspx>

---

## **Question: 81**

---

Your network contains multiple servers that run Windows Server 2012. All client computers run Windows 8.

You need to recommend a centralized solution to download the latest antivirus definitions for Windows Defender.

What should you include in the recommendation?

- A. Microsoft System Center 2012 Endpoint Protection
- B. Network Access Protection (NAP)
- C. Microsoft System Center Essentials
- D. Windows Server Update Services (WSUS)

---

**Answer: D**

---

Explanation:

To use WSUS to deploy Windows Defender definition updates to client computers, follow these steps:

1. Open the WSUS Administrator console, and then click Options at the top of the console.
2. Click Synchronization Options.
3. Under Products and Classifications, click Change under Products.
4. Verify that the Windows Defender check box is selected, and then click OK.
5. Under Products and Classifications, click Change under Update Classifications.
6. Verify that the Definition Updates check box is selected, and then click OK.
7. Optional Update the automatic approval rule. To do this, follow these steps:
  - a. At the top of the console, click Options.
  - b. Click Automatic Approval Options.
  - c. Make sure that the Automatically approve updates for installation by using the following rule check box is selected.
  - d. Under Approve for Installation, click Add/Remove Classification.
  - e. Verify that the Definition Updates check box is selected, and then click OK.
8. At the top of the console, click Options.
9. Click Synchronization Options.
10. On the taskbar on the left, click Synchronize now.
11. At the top of the console, click Updates.
12. Approve any Windows Defender updates that WSUS should deploy.

Reference:

How to use Windows Server Update Services (WSUS) to deploy definition updates to computers that are running Windows Defender

<https://support.microsoft.com/en-us/kb/919772>

### **Question: 82**

---

Your network contains an Active Directory domain named contoso.com. The domain contains three VLANs. The VLANs are configured as shown in the following table.

VLAN ID	Contents	Routing enabled to
1	Client computers	VLAN 2
2	<ul style="list-style-type: none"><li>• Application servers</li><li>• Domain controllers</li><li>• Network Policy Service (NPS) servers</li></ul>	VLAN 1 and the Internet
3	Windows Server Update Services (WSUS) server	Nowhere

All client computers run either Windows 7 or Windows 8.

The corporate security policy states that all of the client computers must have the latest security updates installed. You need to implement a solution to ensure that only the client computers that have all of the required security updates installed can connect to VLAN 1. The solution must ensure that all other client computers connect to VLAN 3. Which Network Access Protection (NAP) enforcement method should you implement?

- A. VPN
- B. DHCP
- C. IPsec
- D. 802.1x

---

### **Answer: D**

---

Explanation:

The most common method of the list is 802.1x for a variety of reasons. First, the industry has been selling 802.1x network authentication for the last 10 years. 1x gained tremendous popularity as wireless networking became prevalent in the late 90's and early 2000's and has been proven to be a viable solution to identifying assets and users on your network. For customers that have invested in 802.1x capable switches and access points, NAP can very easily be implemented to complement what is already in place. The Network Policy Server (NPS) role

Windows Server 2008 has been dramatically improved to make 802.1x policy creation much simpler to do.

Reference:

Network Access Protection Using 802.1x VLAN's or Port ACLs – Which is right for you?

<http://blogs.technet.com/b/wincat/archive/2008/08/19/network-access-protection-using-802-1x-vlan-s-or-port-acls-which-is-right-for-you.aspx>

---

### **Question: 83**

---

You have a server named Server1 that runs Windows Server 2012.

You have a 3-TB database that will be moved to Server1.

Server1 has the following physical disks:

Three 2-TB SATA disks that are attached to a single IDE controller

One 1-TB SATA disk that is attached to a single IDE controller

You need to recommend a solution to ensure that the database can be moved to Server1. The solution must ensure that the database is available if a single disk fails.

What should you include in the recommendation?

- A. Add each disk to a separate storage pool. Create a mirrored virtual disk.
- B. Add two disks to a storage pool. Add the other disk to another storage pool. Create a mirrored virtual disk.
- C. Add all of the disks to a single storage pool, and then create two simple virtual disks.
- D. Add all of the disks to a single storage pool, and then create a parity virtual disk.

---

**Answer: D**

---

Explanation:

A parity virtual disk is similar to a hardware Redundant Array of Inexpensive Disks (RAID5). Data, along with parity information, is striped across multiple physical disks. Parity enables Storage Spaces to continue to service read and write requests even when a drive has failed. A minimum of three physical disks is required for a parity virtual disk. Note that a parity disk cannot be used in a failover cluster.

Reference:

<https://winsvr.wordpress.com/2013/01/22/storage-space-virtual-disk/>

---

### **Question: 84**

---

Your network contains an Active Directory domain named contoso.com. The domain contains 10 sites. The sites are located in different cities and connect to each other by using low-latency WAN links.

In each site, you plan to implement Microsoft System Center 2012 Configuration Manager and to deploy multiple servers.

You need to recommend which Configuration Manager component must be deployed to each site for the planned deployment.

What should you include in the recommendation?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. A management point
- B. A software update point
- C. A distribution group point
- D. A secondary site server that has all of the Configuration Manager roles installed

---

**Answer: C**

---

Explanation:

Distribution point groups provide a logical grouping of distribution points and collections for content distribution.

A Distribution point group is not limited to distribution points from a single site, and can contain one or more distribution points from any site in the hierarchy. When you distribute content to a distribution point group, all distribution points that are members of the distribution point group receive the content.

Reference:

Configuring Distribution Point Groups in Configuration Manager

<https://technet.microsoft.com/en-us/library/hh427335.aspx>

---

### **Question: 85**

---

Your network contains an Active Directory forest named contoso.com. The forest is managed by using Microsoft System Center 2012.

You plan to create virtual machine templates to deploy servers by using the Virtual Machine Manager Self-service Portal (VMMSSP).

To the Virtual Machine Manager (VMM) library, you add a VHD that has a generalized image of Windows Server 2012.

You need to identify which VMM components must be associated with the image.

Which components should you identify? (Each correct answer presents part of the solution.

Choose all that apply.)

- A. A guest OS profile
- B. A hardware profile
- C. A capability profile
- D. A host profile

---

**Answer: A, B**

---

Explanation:

Profiles

VMM provides the following profiles:

- \* (A) Guest operating system profile—A guest operating system profile defines operating system configured settings which will be applied to a virtual machine created from the template. It defines common operating system settings such as the type of operating system, the computer name, administrator password, domain name, product key, and time zone, answer file and run once file.

- \* (B) Hardware profile—A hardware profile defines hardware configuration settings such as CPU, memory, network adapters, a video adapter, a DVD drive, a floppy drive, COM ports, and the priority given the virtual machine when allocating resources on a virtual machine host.

Incorrect:

Not D: VMM also includes host profiles. Host profiles are not used for virtual machine creation.

They are used during the conversion of a bare-metal computer to a Hyper-V host.

Reference:

Creating Profiles and Templates in VMM Overview

<https://technet.microsoft.com/en-us/library/jj860424.aspx>

---

### **Question: 86**

---

Your network contains 50 servers that run Windows Server 2003 and 50 servers that run Windows Server 2008.

You plan to implement Windows Server 2012.

You need to create a report that includes the following information:

The servers that run applications and services that can be moved to Windows Server 2012

The servers that have hardware that can run Windows Server 2012

The servers that are suitable to be converted to virtual machines hosted on Hyper-V hosts that run Windows Server 2012

What should you do?

- A. From an existing server, run the Microsoft Application Compatibility Toolkit (ACT).
- B. Install Windows Server 2012 on a new server, and then run the Windows Server Migration Tools.
- C. Install Windows Server 2012 on a new server, and then run Microsoft Deployment Toolkit (MDT) 2012.
- D. From an existing server, run the Microsoft Assessment and Planning (MAP) Toolkit.

---

**Answer: D**

---

Explanation:

The Microsoft Assessment and Planning Toolkit (MAP) is an agentless, automated, multiproduct planning and assessment tool for quicker and easier desktop, server and cloud migrations. MAP provides detailed readiness assessment reports and executive proposals with extensive hardware and software information, and actionable recommendations to help organizations accelerate their IT infrastructure planning process, and gather more detail on assets that reside within their current environment. MAP also provides server utilization data for Hyper-V server virtualization planning; identifying server placements, and performing virtualization candidate assessments, including ROI analysis for server consolidation with Hyper-V.

The latest version of the MAP Toolkit adds new scenarios to help you plan your IT future while supporting your current business needs. Included scenarios help you to:

Plan your deployment of Windows 8 and Windows Server 2012 with hardware and infrastructure readiness assessments

Assess your environment for Office 2013

Plan your migration to Windows Azure Virtual Machines

Track Lync Enterprise/Plus usage

Size your desktop virtualization needs for both Virtual Desktop Infrastructure (VDI) and session based virtualization using Remote Desktop Services

Ready your information platform for the cloud with SQL Server 2012

Virtualize your existing Linux servers onto Hyper-V

Identify opportunities to lower your virtualization costs with Hyper-V using the VMware migration assessment MAP is just one of the tools provided by the Microsoft Solution Accelerators team. The Microsoft Assessment and Planning Toolkit, Microsoft Deployment Toolkit, and Security Compliance Manager provide tested guidance and automated tools to help organizations plan, securely deploy, and manage new Microsoft technologies—easier, faster, and at less cost. All are freely available, and fully-supported by Microsoft.

Reference:

Microsoft Assessment and Planning Toolkit

<https://msdn.microsoft.com/en-us/library/bb977556.aspx>

---

### **Question: 87**

---

Your network contains an Active Directory forest named contoso.com.

You plan to deploy 200 new physical servers during the next 12 months by using Windows Deployment Services (WDS). You identify four server builds for the 200 servers as shown in the following table.

Build name	Configuration
File Servers	<ul style="list-style-type: none"> <li>• Full Installation of Windows Server 2012</li> <li>• Distributed File System role service</li> </ul>
	<ul style="list-style-type: none"> <li>• Server Core Installation of Windows Server 2012</li> <li>• Web Servers (IIS) server role</li> </ul>
Domain Controllers	<ul style="list-style-type: none"> <li>• Full Installation of Windows Server 2012</li> <li>• DNS Server server role</li> </ul>
Networking Servers	<ul style="list-style-type: none"> <li>• Server Core Installation of Windows Server 2012</li> <li>• DHCP Server server role</li> <li>• WINS Server server role</li> </ul>

You need to recommend the minimum number of images that must be created for the planned deployment.

How many images should you recommend?

- A. 1
- B. 2
- C. 3
- D. 4

---

**Answer: A**

---

Explanation:

Only one image is required. You can convert Core mode Windows Server 2012 to a Full (GUI) Windows Server 2012 with powershell through:

Install-WindowsFeature Server-Gui-Mgmt-Infra,Server-Gui-Shell -Restart

### Question: 88

---

DRAG DROP

Your network contains three servers named Server1, Server2, and Server3 that run Windows Server 2012. Server3 is connected to a disk storage array.

You need to ensure that Server1 can store files on the storage array. The solution must ensure that Server1 can access the storage as a local disk.

What should you configure on each server?

To answer, drag the appropriate configuration to the correct location in the answer area. Each configuration may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Configurations	Answer Area
the iSCSI Initiator Service	Server1 Configuration
the iSCSI Target Server role service	Server3 Configuration
the iNS Server service feature	
the Server for NFS role service	

**Answer:**

Configurations	Answer Area
	Server1 the iSCSI Initiator Service
	Server3 the iSCSI Target Server role service
the iNS Server service feature	
the Server for NFS role service	

**Explanation:**

Box 1: iSCSI Initiator Service

Services that depend on iSCSI devices

Devices that are connected to a computer through Microsoft iSCSI Initiator are presented to the Windows operating system later in the boot process than direct-attached storage. There are applications and services that make assumptions about the timing of the availability of the devices. The Microsoft iSCSI Initiator service and the Service Control Manager in the Windows operating system help these applications and services synchronize with information about the devices and volumes that are hosted on iSCSI targets.

Box 2: iSCSI Target Server role service

With iSCSI Target Server, any computer running Windows Server 2012 can become a storage device.

Step 1: Install iSCSI Target Server and failover clustering

Step 2: Configure the iSCSI initiator

Step 3: Create the high availability iSCSI Target Server role service

Step 4: Configure iSCSI storage provider identity credentials

**Reference:**

iSCSI Target Block Storage, How To

**Question: 89**

Your company has a main office and a branch office. The main office contains 2,000 users. The branch office contains 800 users. Each office contains three IP subnets.

The company plans to deploy an Active Directory forest.

You need to recommend an Active Directory infrastructure to meet the following requirements:

Ensure that the users are authenticated by using a domain controller in their respective office.

Minimize the amount of Active Directory replication traffic between the offices.

Which Active Directory infrastructure should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Two domains and one site
- B. Two domains and two sites
- C. One domain and two sites
- D. One domain and six sites

---

**Answer: B**

---

Explanation:

To minimize the amount of replication traffic, create 2 sites.

To ensure that users are authentication by using a local domain controller, use two domains.

Reference:

Active Directory Replication Traffic

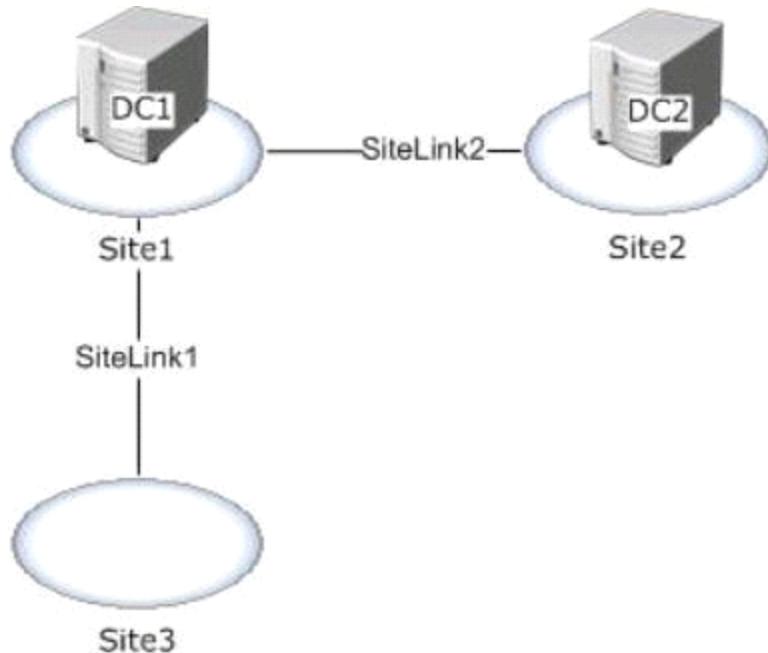
<https://msdn.microsoft.com/en-us/library/bb742457.aspx>

---

### **Question: 90**

---

Your network contains an Active Directory domain named contoso.com. The Active Directory site topology is configured as shown in the exhibit. (Click the Exhibit button.)



DC1 and DC2 run Windows Server 2003 R2. All FSMO roles are located on DC2.

You plan to deploy a read-only domain controller (RODC) to Site3.

You need to recommend changes to the network to support the planned RODC implementation.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. To Site1, add an RODC that runs Windows Server 2012.
- B. Replace DC2 with a domain controller that runs Windows Server 2012.
- C. To Site2, add an RODC that runs Windows Server 2012.
- D. Replace DC1 with a domain controller that runs Windows Server 2012.

---

**Answer: D**

---

Each RODC requires a writable domain controller running Windows Server 2012 for the same domain from which the RODC can directly replicate.

Typically, this requires that a writable domain controller running Windows Server 2012 be placed in the nearest site in the topology.

Reference:

Active Directory Replication Considerations

[https://technet.microsoft.com/en-us/library/cc772065\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc772065(v=ws.10).aspx)

---

### **Question: 91**

---

Your network contains an Active Directory domain named contoso.com.

Your company plans to open a branch office. The branch office will have 10 client computers that run Windows 8 and at least one server that runs Windows Server 2012. The server will host

BranchCache files and manage print queues for the network print devices in the branch office.

You need to recommend a solution to ensure that the users in the branch office can print if the branch office server fails.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Printer pooling
- B. Branch Office Direct Printing
- C. A standby print server
- D. A print server cluster
- E. A secure Web Services on Devices (WSD) printer

---

**Answer: B**

---

Explanation:

Branch Office Direct Printing can reduce Wide Area Network (WAN) usage by printing directly to a print device instead of a server print queue. This feature can be enabled or disabled on a per printer basis and is transparent to the user.

This feature requires a print server running Windows Server 2012 and clients running Windows

8. It is enabled by an administrator using the Print Management Console or Windows PowerShell on the server.

Reference:

Branch Office Direct Printing Overview

<https://technet.microsoft.com/en-us/library/jj134156.aspx>

---

### **Question: 92**

---

Your company has a main office that contains several servers and several users. The main office contains a file server named Server1 that runs Windows Server 2012.

The users access a large report file that is created on Server1 each day.

The company plans to open a new branch office. The branch office will contain only client computers.

You need to implement a solution to reduce the amount of bandwidth used by the client computers in the branch office to download the report each day.

What should you do?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Install the BranchCache for network files role service on Server1. Configure the client computers to use BranchCache in hosted cache mode.
- B. Configure the offline settings of the shared folder that contains the report.
- C. Install the BranchCache for network files role service on Server1. Configure the client computers to use Branchcache in distributed mode.
- D. Enable the Background Intelligent Transfer Service (BITS) feature on Server1 and on each client computer in the branch office. Move the report to a web folder.

---

### **Answer: C**

---

Explanation:

Distributed cache mode. In this mode, branch office client computers download content from the content servers in the main office and then cache the content for other computers in the same branch office.

Distributed cache mode does not require a server computer in the branch office.

Reference:

BranchCache Deployment Guide

[https://technet.microsoft.com/en-us/library/ee649232\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/ee649232(v=ws.10).aspx)

---

### **Question: 93**

---

Your network contains an Active Directory domain named contoso.com. The domain contains four computers that are configured as shown in the following table.

<b>Server name</b>	<b>Hypervisor</b>
Server1	Hyper-V on Windows Server 2012
Server2	Hyper-V on Windows Server 2008 R2
Server3	VMware ESXi 5.0
Client1	Hyper-V on Windows 8

You plan to use domain controller cloning.

You need to identify on which computers you can clone domain controllers that run Windows Server 2012.

Which computers should you identify? (Each correct answer presents part of the solution.

Choose all that apply.)

- A. Server1

- B. Server2
- C. Server3
- D. Client1

---

**Answer: A, D**

---

Explanation:

DC cloning can be done from either Hyper-V on Server 2012 and Hyper-V on Windows 8.

Reference:

<http://www.anotherwindowsblog.com/2013/04/creating-vm-clones-in-microsoft-hyper-v.html>

---

### **Question: 94**

---

Your company has two divisions named Division1 and Division2.

The network contains an Active Directory domain named contoso.com. The domain contains two child domains named division1.contoso.com and division2.contoso.com.

The company sells Division1 to another company.

You need to prevent administrators in contoso.com and division2.contoso.com from gaining administrative access to the resources in division1.contoso.com.

What should you recommend?

- A. Create a new tree in the forest named contoso.secure. Migrate the resources and the accounts in division1.contoso.com to contoso.secure.
- B. On the domain controller accounts in division1.contoso.com, deny the Enterprise Admins group the Allowed to Authenticate permission.
- C. Create a new forest and migrate the resources and the accounts in division1.contoso.com to the new forest.
- D. In division1.contoso.com, remove the Enterprise Admins group from the Domain Admins group and remove the Enterprise Admins group from the access control list (ACL) on the division1.contoso.com domain object.

---

**Answer: C**

---

Reference:

ADMT Guide: Migrating and Restructuring Active Directory Domains

[https://technet.microsoft.com/en-us/library/cc974332\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc974332(v=ws.10).aspx)

---

### **Question: 95**

---

Your network contains an Active Directory domain named contoso.com.

On several organizational units (OUs), an administrator named Admin1 plans to delegate control of custom tasks. You need to ensure that Admin1 can delegate a custom task named Task1 by using the Delegation of Control Wizard.

What should you do?

- A. Add a new class to the Active Directory schema.
- B. Configure a custom MMC console.

- C. Modify the Delegwiz.inf file.
- D. Configure a new authorization store by using Authorization Manager.

---

**Answer: C**

---

Explanation:

To add a task to the Delegation Wizard, you must create a task template by using the following syntax in the Delegwiz.inf file

;

---

[template1]

AppliesToClasses=<comma delimited list of object types to which this template applies; for example, if "organizationalUnit" is in the list, this template will be shown when the Delegation Wizard is invoked on an OU>

Description = "<task description which will appear in the wizard>"

Etc.

Reference:

How to customize the task list in the Delegation Wizard

<http://support.microsoft.com/kb/308404>

---

### **Question: 96**

---

Your network contains an Active Directory forest. The forest contains two Active Directory domains named contoso.com and child.contoso.com. The forest functional level is Windows Server 2003. The functional level of both domains is Windows Server 2008.

The forest contains three domain controllers. The domain controllers are configured as shown in the following table.

<b>Domain controller name</b>	<b>Domain</b>	<b>Operations master role</b>
DC1	Contoso.com	Schema master Domain naming master
DC2	Contoso.com	PDC emulator Infrastructure master RID master
DC3	Child.contoso.com	PDC emulator Infrastructure master RID master

DC1 and DC2 have the DNS Server server role installed and are authoritative for both contoso.com and child.contoso.com.

The child.contoso.com domain contains a server named server1.child.contoso.com that runs Windows Server 2012.

You plan to deploy server1.child.contoso.com as a read-only domain controller (RODC).

You run the adprep.exe /rodcprep command on DC3 and receive the following error message:

"Adprep could not contact a replica for partition DC=DomainDnsZones,DC=Contoso,DC=com  
Adprep failed the operation on partition DC=DomainDnsZones,DC=Contoso,DC=com Skipping to next partition.

Adprep could not contact a replica for partition DC=ForestDnsZones,DC=Contoso,DC=com  
Adprep encountered an LDAP error. Error code: 0x0. Server extended error code: 0x0, Server error message: (null).

Adprep failed the operation on partition DC=ForestDnsZones,DC=Contoso,DC=com Skipping to next partition.

Adprep completed with errors. Not all partitions are updated."

You need to identify what prevents you from successfully running Adprep /rodcprep on DC3.

What should you identify?

- A. The domain functional level of child.contoso.com is set to the wrong level.
- B. DC3 cannot connect to the infrastructure master on DC2.
- C. DC3 cannot connect to the domain naming master on DC1.
- D. The forest functional level is set to the wrong level.

---

**Answer: B**

---

Adprep could not contact a replica...

This problem occurs when the Adprep /rodcprep command tries to contact the infrastructure master for each application partition in the forest.

Reference:

Error message when you run the "Adprep /rodcprep" command in Windows Server 2008: "Adprep could not contact a replica for partition DC=DomainDnsZones,DC=Contoso,DC=com"

<https://support.microsoft.com/en-us/kb/949257>

---

**Question: 97**

---

Your network contains an Active Directory forest named contoso.com. The forest functional level is Windows Server 2012.

The forest contains an Active Directory domain. The domain contains a global security group named GPO\_Admins that is responsible for managing Group Policies in the forest.

A second forest named fabrikam.com contains three domains. The forest functional level is Windows Server 2003.

You need to design a trust infrastructure to ensure that the GPO\_Admins group can create, edit, and link Group Policies in every domain of the fabrikam.com forest.

What should you include in the design?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. A two-way forest trust
- B. A one-way forest trust
- C. Three external trusts
- D. Three shortcut trusts

---

**Answer: B**

---

A one-way trust is a unidirectional authentication path created between two domains. In a one-way trust between Domain A and Domain B, users in Domain A can access resources in Domain B. However, users in Domain B cannot

access resources in Domain A. In this question Domain A would be contoso.com, which has the GPO\_Admins group, and Domain B would be the fabrikam.com domain, to which the GPO\_Admins should have access.

Reference:

How Domain and Forest Trusts Work

[https://technet.microsoft.com/en-us/library/cc773178\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc773178(v=ws.10).aspx)

---

### **Question: 98**

---

Your network contains an Active Directory domain named contoso.com. Client computers run either Windows 7 or Windows 8.

You plan to implement several Group Policy settings that will apply only to laptop computers.

You need to recommend a Group Policy strategy for the planned deployment.

What should you include in the recommendation?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Loopback processing
- B. WMI filtering
- C. Security filtering
- D. Block inheritance

---

### **Answer: B**

---

Explanation:

Group Policy WMI Filter – Laptop or Desktop Hardware

A method to detect hardware as laptop only is to look for the presence of a battery based on the BatteryStatus property of the Win32\_Battery class. By using the Win32\_Battery class, we can search to see if there is a battery present. If the battery status is not equal to zero (BatteryStatus <> 0) then you know that it is a laptop.

Reference:

Group Policy WMI Filter – Laptop or Desktop Hardware

<http://discoposse.com/2012/04/05/group-policy-wmi-filter-laptop-or-desktop-hardware/>

---

### **Question: 99**

---

DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains two domain controllers named DC1 and DC2 that run Windows Server 2008 R2.

You plan to replace the domain controllers with new servers that run Windows Server 2012. The new servers will be named DC3 and DC4.

You need to recommend a strategy to replace DC1 and DC2 with DC3 and DC4. The solution must minimize the amount of disruption to the users.

Which three actions should you recommend?

To answer, move the appropriate three actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Run <b>dcpromo.exe</b> on DC1 and DC2.	
Transfer the operations master roles and create a new global catalog server.	
Run the Active Directory Domain Services Configuration Wizard on DC3 and DC4.	
Install the Active Directory Domain Services server role on DC3 and DC4.	
Run <b>ntdsutil.exe</b> and specify the <i>metadata cleanup</i> parameter.	

**Answer:**

Box 1: Install the Active Directory Domain Services role on DC3 and DC4.

Box 2: Run the AD Services Config Wizard on DC3 and DC4.

Box 3: dcpromo on DC1 and DC2.

\* Step 1-2:

AD DS can be installed in Windows Server 2012 by using the Add Roles Wizard in Server Manager, followed by the Active Directory Domain Services Configuration Wizard, which is new beginning in Windows Server 2012.

\*Step 3: dcpromo

Installs and removes Active Directory Domain Services (AD DS).

In this case we want to remove AD DS from DC1 and DC2.

Reference:

Install Active Directory Domain Services (Level 100)

<https://technet.microsoft.com/en-us/library/hh472162.aspx>

**Question: 100**

Your network contains an Active Directory domain named contoso.com. The domain contains three Active Directory sites. The Active Directory sites are configured as shown in the following table.

Site name	Location
Site1	New York
Site2	Vancouver
Site3	Beijing

The sites connect to each other by using the site links shown in the following table.

Site link name	Connected sites
Link1	Site1 and Site2
Link2	Site2 and Site3
Link3	Site1 and Site3

Site link name Connected sites

You need to design the Active Directory site topology to meet the following requirements:

Ensure that all replication traffic between Site2 and Site3 replicates through Site1 if a domain controller in Site1 is available.

Ensure that the domain controllers between Site2 and Site3 can replicate if all of the domain controllers in Site1 are

unavailable.

What should you do?

- A. Delete Link1.
- B. Delete Link2.
- C. Delete Link3.
- D. Disable site link bridging.
- E. Create one site link bridge.
- F. Modify the cost of Link2.
- G. Create one SMTP site link between Site2 and Site3.
- H. Create one SMTP site link between Site1 and Site3. Create one SMTP site link between Site1 and Site2.

---

### Answer: F

---

The cost setting on a site link object determines the likelihood that replication occurs over a particular route between two site. Replication routes with the lowest cumulative cost are preferred.

Incorrect:

Not B: If we delete Link2 we would not be able to use this redundant link if another link goes down.

Reference:

Configure the Site Link Cost to Establish a Priority for Replication Routing

[https://technet.microsoft.com/en-us/library/cc794882\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc794882(v=ws.10).aspx)

---

### Question: 101

---

Your company has a main office and a branch office.

The network contains an Active Directory domain named contoso.com. The domain contains three domain controllers. The domain controllers are configured as shown in the following table.

Domain controller name	Location	Type
DC1	Main office	Writable domain controller
DC2	Main office	Writable domain controller
RODC1	Branch office	Read-only domain controller (RODC)

The domain contains two global groups. The groups are configured as shown in the following table.

Group name	Description
Helpdesk	Supports users throughout the company.
Branch1Users	Contains users that work in the branch office only.

You need to ensure that the RODC is configured to meet the following requirements:

Cache passwords for all of the members of Branch1Users.

Prevent the caching of passwords for the members of Helpdesk.

What should you do?

- A. Modify the password replication policy of RODC1.
- B. Modify the delegation settings of RODC1.

- C. Modify the membership of the Allowed RODC Password Replication group.
- D. Modify the membership of the Denied RODC Password Replication group.
- E. Modify the delegation settings of DC1 and DC2.
- F. Install the BranchCache feature on RODC1.
- G. Create a Password Settings object (PSO) for the Helpdesk group.
- H. Create a Password Settings object (PSO) for the Branch1Users group.

---

**Answer: A**

---

The Password Replication Policy acts as an access control list (ACL). It determines if an RODC should be permitted to cache a password. After the RODC receives an authenticated user or computer logon request, it refers to the Password Replication Policy to determine if the password for the account should be cached.

Reference:

Password Replication Policy

[https://technet.microsoft.com/en-us/library/cc730883\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc730883(v=ws.10).aspx)

---

**Question: 102**

---

A company has a line-of-business application named App1 that runs on an internal IIS server. App1 uses a SQL Server 2008 database that is hosted on the same server. You move the database to a dedicated SQL Server named SQL1. Users report that they can no longer access the application by using their domain credentials. You need to ensure that users can access App1.

Solution: You configure App1 and SQL1 to use NTLM authentication. Then you restart the IIS and SQL Server services. Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

We would need to map the Windows Identity to a SQL Server database as well.

Note: NTLM authentication is also known as integrated Windows authentication. If your application runs on a Windows-based intranet, you might be able to use Windows integrated authentication for database access. Integrated security uses the current Windows identity established on the operating system thread to access the SQL Server database. You can then map the Windows identity to a SQL Server database and permissions.

Reference:

How to: Access SQL Server Using Windows Integrated Security

[https://msdn.microsoft.com/en-us/library/bsz5788z\(v=vs.100\).aspx](https://msdn.microsoft.com/en-us/library/bsz5788z(v=vs.100).aspx)

---

**Question: 103**

---

A company has a line-of-business application named App1 that runs on an internal IIS server. App1 uses a SQL Server 2008 database that is hosted on the same server. You move the database to a dedicated SQL Server named SQL1. Users report that they can no longer access the application by using their domain credentials.

You need to ensure that users can access App1.

Solution: You configure Kerberos-constrained delegation and then run the following command from an administrative command prompt:

```
setspn-a MSSQLsvc/SQLI:1433 <domain>\<sql_service>
```

Does this meet the goal?

A. Yes

B. No

---

### Answer: A

---

For a default instance of SQL Server, listening on port 1433, the service principal name (SPN) format is as follows:

MSSQLSvc/serverxyz.your\_domain.com:1433

MSSQLSvc/serverxyz:1433

Kerberos allows the use of delegation where the frontend service (for ex. Web App) can connect to a remote backend service (for ex. SQL Server) using the identity of the windows user who was authenticated to the frontend service. The user can authenticate to the frontend service using Kerberos and then the frontend service can authenticate using Kerberos to a backend service using the identity of the user.

Reference:

SQL Server Kerberos and SPN Field Guide

<http://blogs.msdn.com/b/sqlupdates/archive/2014/12/05/sql-server-kerberos-and-spn-quick-reference.aspx>

---

### Question: 104

---

You plan to simplify the organizational unit (OU) structure for a company. You must consolidate all member servers in the domain to a single OU named MemberServers.

You need to apply Group Policy settings for servers that meet the following criteria:

Server operating systems: Windows Server 2012

Server hardware platform: 64-bit

Server memory: less than 16 GB of RAM

Solution: You create a WMI filter action that includes the following query:

```
select * from Win32_OperatingSystem where Version like  
"6.2%" and ProductType="1" and OSArchitecture = "64-bit" where  
Win32_PhysicalMemory > 16000000000
```

Does this meet the goal?

A. Yes

B. No

---

### Answer: B

---

The line Win32\_PhysicalMemory > 16000000000 means that the server memory must be larger than 16 GB. The VMI-filter should include the line Win32\_PhysicalMemory < 16000000000.

Note: The other criteria were OK:

Win32\_operatingsystem version number 6.2 indicates that it is either Windows 8 or Windows Server 2012.  
Win32\_operatingsystem ProductType 3 indicates that it is an Server Operating system, but not a domain controller.  
OSArchitecture ="64-bit" is also OK: the server hardware platform should be 64-bit.

Reference:

Updated List of OS Version Queries for WMI Filters

<http://www.nogeekleftbehind.com/2013/09/10/updated-list-of-os-version-queries-for-wmi-filters/>

---

## Question: 105

---

You plan to simplify the organizational unit (OU) structure for a company. You must consolidate all member servers in the domain to a single OU named MemberServers.

You must apply Group Policy settings for servers that meet the following criteria:

Server operating systems: Windows Server 2012

Server hardware platform: 64-bit

Server memory: less than 16 GB of RAM

Solution: You create a WMI filter action that includes the following query:

```
select * from Win32_OperatingSystem where Version like  
"6.2%" and ProductType="3" and not OSArchitecture = "64-  
bit" WHERE Win32_PhysicalMemory < 16000000000
```

Does this meet the goal?

A. Yes

B. No

---

## Answer: B

---

Version and ProductType are both OK, see note below, but not OSArchitecture ="64-bit" is wrong. The not should be removed.

Note: Win32\_operatingsystem version number 6.2 indicates that it is either Windows 8 or Windows Server 2012.

Win32\_operatingsystem ProductType 3 indicates that it is an Server Operating system, but not a domain controller.

Reference:

Updated List of OS Version Queries for WMI Filters

<http://www.nogeekleftbehind.com/2013/09/10/updated-list-of-os-version-queries-for-wmi-filters/>

---

## Question: 106

---

A company has offices in multiple geographic locations. The sites have high-latency, low-bandwidth connections. You need to implement a multisite Windows Deployment Services (WDS) topology for deploying standard client device images to all sites.

Solution: At each site, you create a multicast deployment. You pre-stage the client images that you plan to deploy and point them to the local WDS server.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

One of the advantages of pre-staging clients is the ability for multiple Windows Deployment Services servers to service the same network segment. You can do this by restricting the server to answer only a particular set of clients.

Reference:

Prestaging Client Computers

[https://technet.microsoft.com/en-us/library/cc770832\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc770832(v=ws.10).aspx)

---

### **Question: 107**

---

A company has offices in multiple geographic locations. The sites have high-latency, low-bandwidth connections. You need to implement a multisite Windows Deployment Services (WDS) topology for deploying standard client device images to all sites.

Solution: At each site, you install a WDS Server. You apply the same configuration settings to each WDS Server. You configure Distributed File Server Replication (DFSR) to synchronize install images.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

DFS Replication is compatible with Remote Installation Services (RIS) and WDS.

Reference:

DFS Replication: Frequently Asked Questions (FAQ)

[https://technet.microsoft.com/en-us/library/cc773238\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc773238(v=ws.10).aspx)

---

### **Question: 108**

---

A company has a single-forest and single Active Directory Domain Services domain named contoso.com. The company has offices in multiple geographic locations and manages all computing devices from a network operations center located at a main office.

You deploy physical servers and user devices by using a Windows Deployment Services (WDS) server named WDS1, and a server that runs System Center 2012 Virtual Machine Manager SP1 named VMM1.

Every three months you update the standard deployment images and push the update images to all client devices in the organization. You use multicast deployments for the servers and client devices at the remote offices. To automate the deployment process, you create an Auto-Cast multicast transmission and pre-stage client devices.

You need to ensure that client devices continue the deployment process after the first reboot and do not restart the installation.

What should you do?

- C A. Run the following Windows PowerShell command:

**Set-WdsClient -DeviceName -PxePromptPolicy OptIn**

- C B. Run the following Windows PowerShell command:

**New-WdsClient -DeviceID -PxePromptPolicy OptIn**

- C C. Run the following command at an administrative command prompt:

**wdsutil /set-server /server:WDS1 /AllowN12ForNewClients:No**

- C D. Run the following command at an administrative command prompt:

**wdsutil /set-server /wdsunattend /policy:enabled**

- A. Option A
- B. Option B
- C. Option C
- D. Option D

---

**Answer: B**

---

The Set-WdsClient cmdlet modifies a pre-staged client device.

The parameter -PxePromptPolicy<PxePromptPolicy> specifies the prompt policy for this computer to boot in PXE. The acceptable values for this parameter are:

- Adopt
- NoPrompt
- OptIn
- OptOut

Wdsclient PxePromptPolicy

Incorrect:

Not B: The New-WdsClient cmdlet creates a pre-staged client, but here the pre-staged clients have already been created.

Not C: The computer must be configured to continue the boot process without user interaction (for example, by pressing F12).

The AllowN12ForNewClients option is regarding if the user must press F12. If we set this option to No, they user would be required to press the F12 key.

---

### Question: 109

---

This question consists of two statements: One is named Assertion and the other Is named Reason. Both of these statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two

statements.

Assertion:

DHCP failover clustering provides load balancing when you use multiple DHCP servers to distribute IP addresses to the network clients. Clients can renew their IP leases even if some of the DHCP servers become unavailable. DHCP failover clustering supports stateless and stateful IPv4 and IPv6 IP addresses, as well as DHCP policies and filtering.

Reason:

The cluster health monitoring mechanism ensures the fault tolerance of the DHCP service and all configured DHCP settings. It also protects the DHCP database from failures and corruptions.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: E**

---

\* The assertion is false.

DHCP failover cluster does not provide load balancing. It places the DHCP server in a cluster with an additional server configured with the DHCP service that assumes the load if the primary DHCP server fails.

\* The reason is false.

The cluster health monitoring mechanism is known as the cluster heartbeat. The heartbeat detects if a cluster node is down, but it does not help in protecting the DHCP database.

---

### Question: 110

---

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true; both false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

You plan to migrate users between two Active Directory Domain Services domains in different forests.

You run the following command from an administrative command prompt:

**Netdom trust**  
**<TrustingDomainName> /domain:<TrustedDomainName> /quarantine:No**  
**/usero:<domainadministrator> /passwordo:<domainadminpwd>**

Assertion:

Users will have uninterrupted access to the resources in the source domain during the migration.

Reason:

The Netdom command configures a two-way trust between the source and target domains to ensure that users can access both environments for the entire length of the migration phase.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but The Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: C**

---

The assertion is true as the /quarantine:No option is used any SID for authorization data that netdom trust returns during authentication is accepted.

The reason is false as the /twoWay parameter is not used. The /twoWay parameter is to establish a two-way trust relationship rather than a one-way trust relationship.

Note: The Netdom trust command establishes, verifies, or resets a trust relationship between domains.

Reference:

Netdom trust

<https://technet.microsoft.com/en-us/library/cc835085.aspx>

---

**Question: 111**

---

A company has a single-forest and single Active Directory Domain Services (AD DS) domain named Fabrikam.com that runs Windows 2012 Server. The AD DS forest functional level and the domain functional level are both set to Windows 2008 R2. You use IP Address Management (IPAM) as the IP management solution. You have two DHCP Servers named DHCP1 and DHCP2, and one IPAM server named IPAM1.

The company plans to acquire a company named Contoso, Ltd., which has a single-forest and single-domain AD DS named contoso.com. The forest functional level and domain functional level of Contoso.com is set to Windows 2008. All servers at Contoso run Windows Server 2008. The IP management solution at Contoso is based on a single DHCP server named SERVER3.

<b>Server name</b>	<b>Operating System</b>	<b>Total Disk Space</b>
DHCP1	Windows 2012	30 GB
DCHP2	Windows 2012	30 GB
IPAM1	Windows 2012	30 GB
SERVER3	Windows 2008	30 GB

The total number of users in both companies will be 5000.

You have the following requirements:

The solution must be able to allocate up to three IP addresses per user.

All IP address leases must be renewed every two days.

You need to ensure that the corresponding servers will have enough capacity to store six years of IP utilization data and eight months of event catalog data.

What should you recommend?

- A. Add at least 20 GB of storage to the IPAM server.
- B. Migrate Contoso.com to Fabrikam.com.
- C. Establish a forest trust between Contoso.com and Fabrikam.com.
- D. Upgrade SERVER3 to Windows Server 2012.

---

**Answer: D**

You can use IPAM to manage DHCP servers running on Windows Server 2008 R2 and above. Here Server3 is running Windows 2008 however, so it needs to be upgraded.

Reference:

IPAM managed DHCP server requirements

<http://windowsitpro.com/windows-server-2003-end-support/ipam-managed-dhcp-server-requirements>

---

### **Question: 112**

You manage a server infrastructure for a software development company. There are 30 physical servers distributed across 4 subnets, and one Microsoft Hyper-V cluster that can run up to 100 virtual machines (VMs). You configure the servers to receive the IP address from a DHCP server named SERVER1 that runs Microsoft Windows Server 2012 R2. You assign a 30-day duration to all DHCP leases.

Developers create VMs in the environment to test new software. They may create VMs several times each week.

Developers report that some new VMs cannot acquire IP address. You observe that the DHCP scope is full and delete non-existent devices manually. All physical servers must keep their current DHCP lease configuration.

You need to ensure that the DHCP lease duration for VMs is 8 hours.

What should you configure?

- A. 4 server-level Allow filters
- B. 1 server-level DHCP policy
- C. 1 scope-level DHCP policy
- D. 4 scope-level exclusion ranges

---

**Answer: B**

We should use a server level DHCP policy as they apply to all DHCP clients.

Note: Policies can apply at the server level or the scope level. Server level policies are processed for all DHCP client requests received by the server. Scope level policies are processed only for DHCP client requests that apply to a specific scope.

Reference:

Introduction to DHCP Policies

<https://technet.microsoft.com/en-us/library/dn425039.aspx>

---

### **Question: 113**

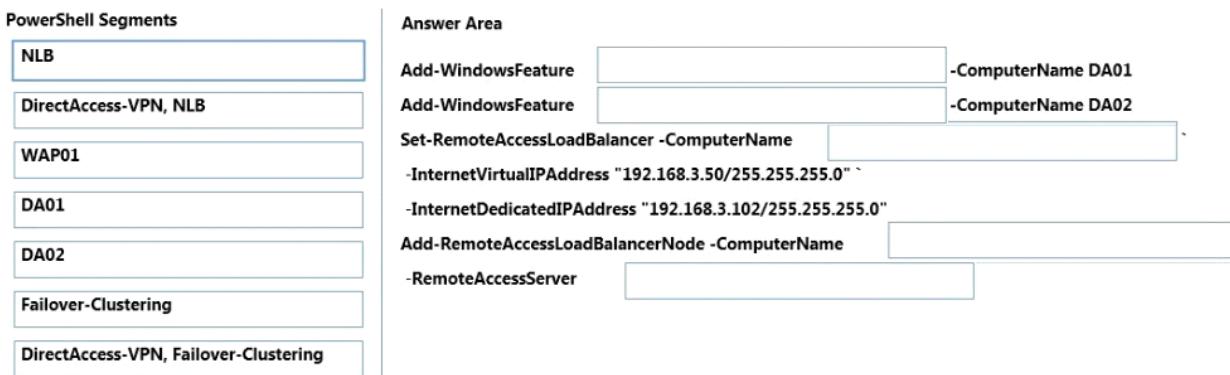
DRAG DROP

You manage a server named DA01 that has the DirectAccess feature configured. You deploy a new server named DA02. Both servers run Microsoft Windows Server 2012 R2.

You need to configure a Direct Access load-balanced cluster named WAP01 that contains servers DA01 and DA02.

How should you complete the relevant Windows PowerShell commands? To answer, drag the appropriate Windows PowerShell segment to the correct locations. Each Windows PowerShell segment may be used once, more than once,

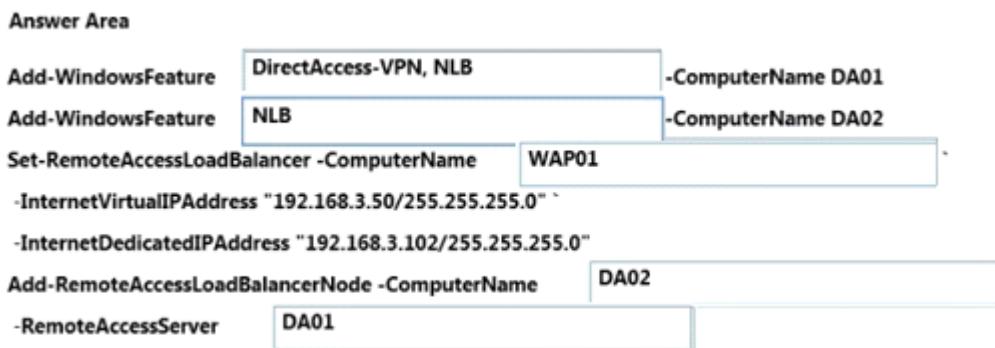
or not at all. You may need to drag the split bar between panes or scroll to view content.




---

### Answer:

---



#### Explanation:

Box 1: Add-WindowsFeature –Name DirectAccess-VPN, NLB

We set up DA01 for Directaccess-VPN and for Network load balancing.

Box 2: NLB

DA02 will be a node in the cluster so it needs NLB

Box 3: WAP01

Set up the cluster named WAP01.

Box 4: DA02

Box 5: DA01

DA02 is a node in the cluster, while DA01 is the DirectAccess server.

We add the DA02 server to the load balanced cluster as node. The Add-RemoteAccessLoadBalancerNode cmdlet adds a server to the load balanced cluster. The server is added to the cluster to which the server on which the cmdlet is run, or to the server specified in the ComputerName parameter.

The –RemoteAccessServerParameter specifies a remote access server which should be added to the cluster. In this case DA01.

#### Reference:

Add-RemoteAccessLoadBalancerNode

<https://technet.microsoft.com/en-us/library/hh918413.aspx>

---

### Question: 114

You are the administrator for a large company. You plan to implement servers in the environment that do not use local hard drives.

You need to recommend a supported storage solution.

Which technology should you recommend?

- A. Clustered NAS
- B. Cloud storage
- C. USB flash drive
- D. iSCSISAN

---

**Answer: A**

---

Clustered NAS is typically defined as a concurrent multi-node access to and servicing of data. This is usually accomplished by implementing some kind of distributed or clustered file system that allows any node to serve data regardless of where it's located or who actually owns it.

Reference:

Clustered NAS is typically defined as a concurrent multi-node access to and servicing of data. This is usually accomplished by implementing some kind of distributed or clustered file system that allows any node to serve data regardless of where it's located or who actually owns it.

---

**Question: 115**

---

DRAG DROP

You manage an Active Directory Domain Services forest that contains a root domain named contoso.com and a child domain named branch.contoso.com. You have three servers named SRV01, SRV02, and SRV03. All servers run Windows Server 2012 R2. SRV01 and SRV02 are domain controllers for the domain contoso.com. SRV03 is the domain controller for branch.contoso.com. User accounts and resources exist in both domains. All resources in branch.contoso.com are physically located in a remote branch office.

The remote branch office must be configured as Read-Only Domain Controller (RODC). The solution must minimize the impact on users and the number of servers deployed in the branch office.

You need to configure the environment.

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.

<b>Actions</b>
Uninstall Active Directory Domain Services from SRV03.
Install a new server named SRV04 as a member of branch.contoso.com
Use the Active Directory Migration Tool (ADMT) to migrate all resources from branch.contoso.com to contoso.com
Use lddif2.exe to export all resources from branch.contoso.com. Then import the resources to contoso.com
Install an RODC on SRV03
Promote SRV04 to RODC

**Answer Area**

---

**Answer:**

---

**Answer Area**

Use Ldifde.exe to export all resources from branch.contoso.com. Then import the resources to contoso.com

Uninstall Active Directory Domain Services from SRV03.

Install an RODC on SRV03

**Explanation:**

Box 1: We export all resources from the branch office, and import them into the main domain.

Ldifde creates, modifies, and deletes directory objects. You can also use Ldifde to extend the schema, export Active Directory user and group information to other applications or services, and populate Active Directory Domain Services (AD DS) with data from other directory services.

Box 2: We decommission the domain controller SRV03

Box 3: And make it a RODC instead.

Incorrect:

We should not use an additional server SRV04.

Reference:

Ldifde

<https://technet.microsoft.com/en-us/library/cc731033.aspx>

---

**Question: 116**

You have a virtual machine (VM) named VM-APP1 that hosts critical application named APP1. The VM has the following VHDX virtual disks:

Name	Size	Format	Purpose
Disk1	100 GB	NTFS	System Disk
Disk2	2 TB	NTFS	Application Data

Both VHDX virtual disks are located on LUN1 of a Storage Area Network.

Every time you perform Storage Live Migration for VM-APP1, it takes a few hours.

You need to ensure that the storage supports Offloaded Data Transfer (ODX), and that ODX is enabled.

Which two Windows PowerShell commands should you run? Each correct answer presents part of the solution.

- A. Set-ItemProperty HKLM:\system\currentcontrolset\control\filesystem -Name "FilterSupportedFeaturesMode" – Value 0
- B. Set-StorageSubSystem –InputObject (Get-StorageSubSystem) –ThrottleLimit 0
- C. Get-ItemProperty HKLM:\system\currentcontrolset\services\<FilterName> -Name "SupportedFeatures"
- D. Set-ItemProperty HKLM:\system\currentcontrolset\control\filesystem –Name "FilterSupportedFeaturesMode" – Value1

---

**Answer: AC**

C: To use ODX, validate all the file system filter drivers on all servers that are hosting the storage support ODX.

To validate the opt-in status of file system filter drivers, use the type the following command for each filter driver:

Get-ItemProperty hkLM:\system\currentcontrolset\services\<FilterName> -Name "SupportedFeatures"

A: To enable ODX support, type the following command:

Set-ItemProperty hkLM:\system\currentcontrolset\control\filesystem -Name "FilterSupportedFeaturesMode" -Value 0

Reference:

Deploy Windows Offloaded Data Transfers

<https://technet.microsoft.com/en-us/library/jj200627.aspx>

## **Question: 117**

**DRAG DROP**

You manage a server named WAP01 that has the Web Application Proxy feature deployed. You deploy a web application named WebApp1 to a server named WEB01. WAP01 and WEB01 both run Microsoft Windows Server 2012 R2 and are members of the Active Directory Domain Services (AD DS) domain named corp.contoso.com.

You have the following requirements:

WebApp1 must be available internally at URL <https://webappl.corp.contoso.com> by using Kerberos authentication.

WebApp1 must be available externally at URL <https://webappl.contoso.net> by using Active Directory Federation Services (AD FS) authentication.

You need to configure computer accounts.

How should you complete the relevant Windows PowerShell commands? To answer, drag the appropriate Windows PowerShell segment to the correct location. Each Windows PowerShell segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

<b>PowerShell Segments</b>	<b>Answer Area</b>
WEB01	Set-ADComputer [ ]
<a href="http://webapp1.corp.contoso.com">http://webapp1.corp.contoso.com</a>	-Add @{servicePrincipalName "=" [ ] "}"
WAP01	Set-ADComputer [ ]
<a href="http://webapp1.corp.contoso.com">http://webapp1.corp.contoso.com</a>	-Add @{"msDS-AllowedToDelegateTo "=" [ ] "}"
<a href="http://webapp1.contoso.net">http://webapp1.contoso.net</a>	
<a href="http://webapp1.contoso.net">http://webapp1.contoso.net</a>	
<a href="https://webappl.contoso.net">https://webappl.contoso.net</a>	

---

## **Answer:**

Box 1: WEB01

Box 2: <https://webappl.contoso.net>,

Box 3: WAP01

Box 4: WEB01

Explanation:

Box 1: WEB01

The Set-ADComputer cmdlet modifies the properties of an Active Directory computer object. The computer is Web01 which hosts the web application

Box 2: <https://webappl.corp.contoso.com>

The ServicePrincipalNames specifies the service principal names for the account. This parameter sets the ServicePrincipalNames property of the account. We set it to the URL of the service.

Box 3: WAP01

Box 4: WEB01

We now set up Kerberos delegation for the WAP01 application through the WEB01 server.

Reference:

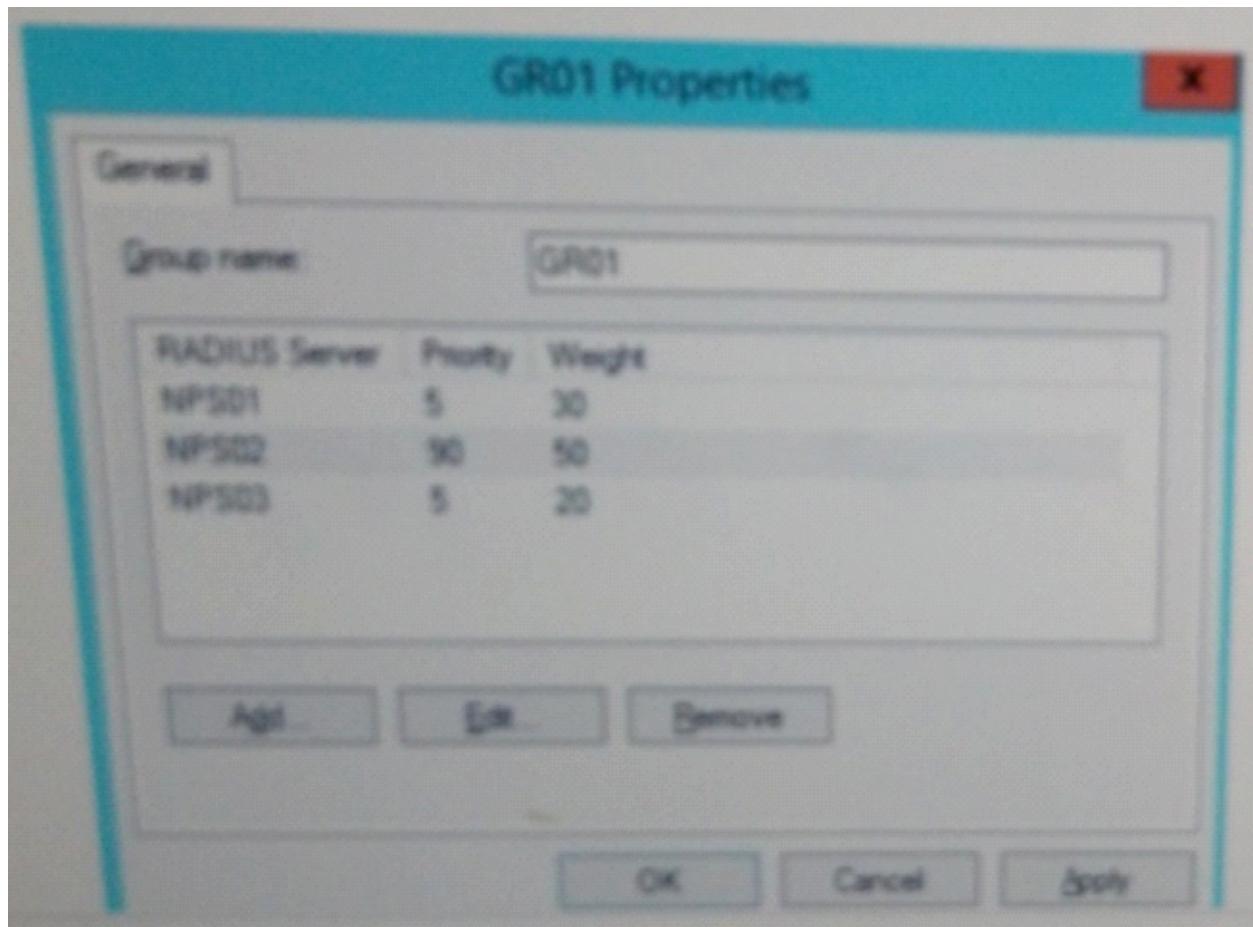
Set-ADComputer Kerberos

<https://technet.microsoft.com/en-us/library/ee617263.aspx>

### Question: 118

DRAG DROP

You manage a Network Policy Server (NPS) infrastructure that contains four servers named NPSPRX01, NPS01, NPS02, and NPS03. All servers run Microsoft Windows Server 2012 R2. NPSPRX01 is configured as an NPS proxy. NPS01, NPS02, and NPS03 are members of a remote RADIUS server group named GR01. GR01 is configured as shown below:



You need to ensure that authentication requests are identified even when a server is unavailable.

If a given server is unavailable, which percentage of authentication requests will another server manage? To answer, drag the appropriate value to the correct scenario. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Actions      Answer Area**

10%
0%
50%
90%
5%
95%

Scenario	Percentage
Percentage of authentication request that NPS01 services if NPS03 is unavailable	<input type="text"/> Percent
Percentage of authentication request that NPS02 services if NPS03 is unavailable	<input type="text"/> Percent
Percentage of authentication request that NPS03 services if NPS03 is unavailable	<input type="text"/> Percent
Percentage of authentication request that NPS04 services if NPS03 is unavailable	<input type="text"/> Percent

**Answer:**

Box 1: 95%

Box 2: 5%

Box 3: 0%

Box 4: 0%

Note:

\* From the exhibit we have:

NPS01: weight 30, priority: 5

NPS02: weight 50, priority: 90

NPS03: weight 20, priority: 5

Box 3: If NPS03 is unavailable it cannot handle any requests.

Box 4: NPS04 is not mentioned in this question.

\* Priority. Priority specifies the order of importance of the RADIUS server to the NPS proxy server. Priority level must be assigned a value that is an integer, such as 1, 2, or 3. The lower the number, the higher priority the NPS proxy gives to the RADIUS server. For example, if the RADIUS server is assigned the highest priority of 1, the NPS proxy sends connection requests to the RADIUS server first; if servers with priority 1 are not available, NPS then sends connection requests to RADIUS servers with priority 2, and so on. You can assign the same priority to multiple RADIUS servers, and then use the Weight setting to load balance between them.

\* Weight. NPS uses this Weight setting to determine how many connection requests to send to each group member when the group members have the same priority level. Weight setting must be assigned a value between 1 and 100, and the value represents a percentage of 100 percent. For example, if the remote RADIUS server group contains two members that both have a priority level of 1 and a weight rating of 50, the NPS proxy forwards 50 percent of the connection requests to each RADIUS server.

Reference:

Load Balancing with NPS Proxy

[https://technet.microsoft.com/en-us/library/dd197433\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/dd197433(v=ws.10).aspx)**Question: 119**

A company has offices in multiple geographic locations. The sites have high-latency, low-bandwidth connections. You need to implement a multiple Windows Deployment Server (WDS) topology for deploying standard client device images to all sites.

Solution: You install four WDS servers and configure them as load-balanced cluster

Does this meet you goal?

- A. Yes  
B. No

---

**Answer: B**

---

### **Question: 120**

---

Your company has a main office and a branch office.

The main office and Two The branch office

main office contains 25000 users.

The branch office contains 1800 users in each

Each office contains two IP subnets.

The company plans to deploy an Active Directory forest.

You need to recommend an Active Directory infrastructure to meet the following requirements:

(Remeber these two requirement need help wat & how mny domain site they need)

- Ensure that the users are authenticated by using a domain controller in their respective office.
- Minimize the amount of Active Directory replication traffic between the offices.

Select the BEST answer.

- A. Three domains and one site  
B. Two domains and one sites  
C. One domain and three sites  
D. Three domain and Three sites

---

**Answer: D**

---

### **Question: 121**

---

**Assertion:**

A company is implementing smart cards to authenticate users. Users must be able to self-provision their smart cards by using the One-Time Password (OTP) feature.

**Reason:**

You must configure a RADIUS server with software distribution tokens and ensure that communication ports are open, a shared secret has been created, user accounts corresponding to Active Directory Domain Services have been created on the RADIUS server, and the

Remote Access server has been configured as a RADIUS authentication agent before you can configure he OTP support.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: E.**

---

### **Question: 122**

---

Your network contains two servers named DHCP1 and DHCP2 that run Windows Server 2012 and have the DHCP Server server role installed. You need to design a highly available DHCP deployment to meet the following requirements.

- . Deploy stateless DHCPv6 subnets.
  - . Provide IPv6 options to clients on multiple subnets.
  - . Allow clients to renew existing IPv6 addresses if a single server is unavailable.
  - . Minimize administrative effort.
- What should you include in the design?

- A. Configure both servers to provide identical option configuration.
- B. Add DHCP1 and DHCP2 to a failover cluster. Configure the DHCP for high availability.
- C. From DHCP1, configure DHCP Failover in Hot Standby Mode.
- D. From DHCP1, configure DHCP Failover in Load Balance Mode.

---

**Answer: A**

---

### **Question: 123**

---

Your network contains an Active Directory domain named adatum.com. Your company plans to open a new branch office named Branch1. You identify the following requirements for Branch1:

All Branch1 users must have a password that is a minimum of 14 characters. All other domain users must have a password that is a minimum of 12 characters.

A group named Group1 must be able to reset user passwords for users in Branch1.

You need to recommend changes to the domain to support the Branch1 requirements.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Create a new organizational unit (OU) named BranchOU and add Group1 to the Managed By attribute of BranchOU. Move the Branch1 user objects to the new OU. Create a fine-grained password policy for the Branch1 users.
- B. Create a new forest. Migrate all of the Branch1 user objects to the new forest and add the Group1 members to the Enterprise Admins group. Configure the password policy in a Group Policy object (GPO).

- C. Create a new organizational unit (OU) named BranchOU. Delegate the permissions for BranchOU to Group1. Move all of the Branch1 user accounts to the new OU. Create a fine-grained password policy for the Branch1 users.
- D. Create a new child domain. Move all of the Branch1 user accounts to the new domain. Add the Group1 members to the Domain Admins group. Configure the password policy in a Group Policy object (GPO).

---

**Answer: C**

---

### Question: 124

---

Your network contains one Active Directory domain named adatum.com.

An administrator plans to delegate control of custom tasks on several organizational units (OUs).

You need to ensure that the custom tasks appear in the list of tasks that can be delegated from the Delegation of Control Wizard.

What should you do?

- A. Configures custom MMC console.
- B. Add a new class to the Active Directory schema.
- C. Configure a new authorization store by using Authorization Manager.
- D. Modify the Delegwiz.inf file.

---

**Answer: D**

---

### Question: 125

---

DRAG DROP

You have an Active Directory domain named adatum.com. The domain contains a server named Server 1 that runs Windows Server 2012 and has the Remote Access server role installed. Client computers run either Windows XP or Windows 8.

Your company has defined requirements for three departments as shown in the table.

Group name	Configuration	Remote access requirement
Sales	Workgroup members that run Windows 8	Ensure that the computers can remotely access the internal network by using TCP port 443.
Research	Domain members that run Windows 8	Ensure that the computers can be managed remotely across the Internet.
Finance	Domain computers that run Windows XP	Ensure that the computers can remotely access the internal network.

You need to identify which remote access solution should be assigned for each group.

Which solutions should you identify for each group?

To answer, drag the appropriate solution to the correct requirement in the answer area. Each solution may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.



---

**Answer:**

---

Sales: SSTP VPN

Research: DirectAccess.

Finance: PPTP VPN

---

**Question: 126**

---

Two modes of operation are available when deploying WDS.

Which of the following are not included in those modes? (Choose two.)

- A. Deployment
- B. Image Response
- C. Transport
- D. Capture

---

**Answer: BD**

---

---

**Question: 127**

---

You have an active directory domain named adatum.com. The domain contains a Hyper-V host named Host1 that runs windows server 2012. Hyper1 contains a virtual machine named VM1. VM1 is a domain controller that runs Windows Server 2012.

You plan to clone VM1.

You need to recommend which steps are required to prepare VM1 to be cloned.

What should you include in the recommendation? (Each correct answer presents part of the solution. Choose all that apply.)

Add VM1 to the Cloneable Domain Controllers group.

Run New-ADDCloneConfigFile.

Run sysprep.exe /

A. Add VM1 to the Cloneable Domain Controllers group.

B. Run New-ADDCloneConfigFile.

C. Run sysprep.exe /oobe

D. Run New-VirtualDiskClone.

E. Run Get-ADDCCloningExcludedApplicationList.

---

**Answer: ABE**

---

**Question: 128**

You have a server named DNS1 that runs Windows Server 2012. DNS1 has the DNS server role installed.

You need to recommend changes to the DNS I to prevent several names from being registered in DNS.

What should you configure on DNS1?

- A. DNS devolution
- B. DNS cache locking
- C. DNS Security Extensions (DNSSEC)
- D. The global query block list.

---

**Answer: D**

---

**Question: 129**

Your network contains an Active Directory forest that has three domains. All domain controllers run Windows Server 2012.

You need to recommend a solution to control which attributes are replicated to global catalog servers in the forest.

What should you include in the recommendation?

- A. constrained delegation.
- B. the partial attribute set.
- C. application directory partitions.
- D. the filtered attribute set.

---

**Answer: B**

---

**Question: 130**

**DRAG DROP**

Your network contains an Active Directoy domain named adatum.com. The domain contains a server named RAS1 that runs Windows Server 2012 and has the Remote Access Server role installed. RAS1 resides I the perimeter network.

Some remote users have domain-joined computers and some remote users are in a workgroup. Remote users have computers that run either Windows XP or Windows 8.

You need to configure the client computers for remote access.

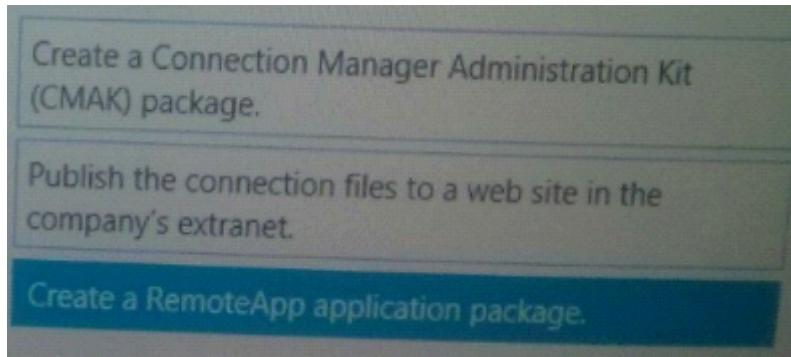
Which three actions should perform? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Install the Connection Manager Administration Kit (CMAK)
Publish a software deployment package by using a Group Policy object (GPO)
Create a RemoteApp application package.
Create a Connection Manager Administration Kit (CMAK) package.
Publish the connection files to a web site in the company's extranet.


---

**Answer:**

---

**Case Study: 10****Contoso, Ltd Case C****Overview**

Contoso, Ltd., is a recruiting and staffing company that has offices throughout North America. The company has a main office and six branch offices. The main office is located in Miami. The branch offices are located in New York, Seattle, Los Angeles, Montreal, Toronto, and Vancouver.

**Existing Environment****Network Infrastructure**

The network contains one Active Directory domain named contoso.com.

The main office has the following servers:

- One file server that maintains multiples shares
- Two domain controllers configured as DNS servers
- One Windows Server Update Services (WSUS) server
- Two DHCP servers that each have a scope for all of the subnets
- Two servers that have Failover Clustering configured and are used as virtualization hosts
- One server that has Microsoft SQL Server 2012 installed and maintains a customer relationship management (CRM) database

Each branch office has the following servers:

- One domain controller configured as a DNS server
- One DHCP server that has a single scope for its respective office

Each office has a single subnet. The network speed of the local area network (LAN) is 1 gigabit per second. All of the offices have a high-speed connection to the Internet. The offices connect to each other by using

VPN appliances.

### **Current Issues**

Users report that it can take a long time to download files from network shares in the main office.

A root cause analysis identifies that network traffic peaks when the users experience this issue.

### **Requirements**

#### **Planned Changes**

The company plans to implement the following changes:

- Replace all of the domain controllers with new servers that run Windows Server 2012.
- Upgrade the CRM application to use a web-based application that connects to the current CRM database. The web application will store session data in the memory of each web server.
- Initially, deploy two front-end web servers to two virtual machines. Additional virtual web servers will be deployed in the future.
- Monitor the availability of the CRM application and create alerts when the overall availability is less than 99 percent.
- Implement Microsoft System Center 2012 to manage the new environment.

### **Business Requirements**

The company identifies the following business requirements:

- Minimize hardware costs and software costs whenever possible.
- Minimize the amount of network traffic over the VPN whenever possible.
- Ensure that the users in the branch offices can access files currently on the main office file server if an Internet link fails.

### **Technical Requirements**

The company identifies the following technical requirements:

- Provide a highly available DHCP solution.
- Maintain a central database that contains the security events from all of the servers. The database must be encrypted.
- Ensure that an administrator in the main office can manage the approval of Windows updates and updates to third-party applications for all of the users.
- Ensure that all of the domain controllers have the ReliableTimeSource registry value in HKEY\_LOCAL\_MACHINE \SYSTEM\CurrentControlSet\Services\W32Time\Parameters set to 1, even if an administrator changes that value manually.

### **Virtualization Requirements**

The company identifies the following virtualization requirements:

- Minimize the number of permissions and privileges assigned to users.
- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.
- Ensure that a diagram view of the virtualization environment can be generated dynamically.
- Minimize the amount of administrative effort required to manage the virtualization environment.
- Prevent the failure of a front-end web server from affecting the availability of the CRM application.
- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.
- Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.

- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.

---

### **Question: 1**

You need to recommend a solution that manages the security events. The solution must meet the technical requirements.

Which configuration should you include in the recommendation?

- A. Object access auditing by using a Group Policy object (GPO)
- B. Event rules by using System Center 2012 Operations Manager
- C. Event forwarding by using Event Viewer
- D. Audit Collection Services (ACS) by using System Center 2012

---

**Answer: D**

---

### **Question: 2**

You are planning the delegation for the virtualization environment. The delegation must meet the virtualization requirements.

Which user role profile should you select for Group2?

- A. Administrators
- B. Read-Only Administrator
- C. Self-Service User
- D. Delegated Administrator

---

**Answer: A**

---

### **Question: 3**

You need to recommend a solution that resolves the current file server issue. The solution must meet the business requirements.

What should you include in the recommendation?

- A. BranchCache in hosted cache mode
- B. BranchCache in distributed cache mode
- C. A storage pool
- D. Distributed File System (DFS)

---

**Answer: D**

---

### **Question: 4**

You need to recommend a solution for managing updates. The solution must meet the technical requirements.

What should you include in the recommendation?

- A. A System Center 2012 Configuration Manager management point in the main office and a WSUS downstream server in each office
- B. A System Center 2012 Configuration Manager software update point in the main office and a System Center 2012 Configuration Manager distribution point in each office
- C. A System Center 2012 Configuration Manager management point in the main office and a System Center 2012 Configuration Manager distribution point in each office
- D. A WSUS upstream server in the main office and a WSUS downstream server in each office

---

**Answer: B**

---

### **Question: 5**

---

You are planning the deployment of System Center 2012 Virtual Machine Manager (VMM).

You need to identify which additional System Center 2012 product is required to meet the virtualization requirements.

What should you include in the recommendation?

- A. App Controller
- B. Operations Manager
- C. Configuration Manager
- D. Service Manager

---

**Answer: B**

---

### **Question: 6**

---

You need to recommend a solution that meets the technical requirements for DHCP.

What should you include in the recommendation for each office?

- A. DHCP failover
- B. Network Load Balancing (NLB)
- C. DHCP server policies
- D. IP Address Management (IPAM)

---

**Answer: A**

---

### **Question: 7**

---

You need to create a virtual machine template for the web servers used by the CRM application.

The solution must meet the virtualization requirements.

What should you use?

- A. An .iso image

- B. A virtual machine
- C. A Windows PowerShell script
- D. A virtual hard disk (VHD)

**Answer: D**

Explanation:

Business Requirements	Technical Requirements	Virtualization Requirements	All
The company identifies the following virtualization requirements: <ul style="list-style-type: none"><li>- Minimize the number of permissions and privileges assigned to users.</li><li>- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.</li><li>- Ensure that a diagram view of the virtualization environment can be generated dynamically.</li><li>- <b>Minimize the amount of administrative effort required to manage the virtualization environment.</b></li><li>- Prevent the failure of a front-end web server from affecting the availability of the CRM application.</li><li>- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.</li><li>- <b>Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.</b></li><li>- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.</li></ul>			
A Virtual Machine Manager template provides a standardized group of hardware and software settings that can be used repeatedly to create new virtual machines configured with those settings. In Library view in the Administrator Console, you can use the <b>New template</b> action to open the New Template Wizard used to create a virtual machine template.			

Although you can use a number of methods to create a template, you cannot create a template that does not include an operating system. Virtual Machine Manager supports the use of either Windows Server 2003 or Windows 2000 Server. If you want to **create a virtual machine with a blank virtual hard disk on which you install an operating system later**, you must use the New Virtual Machine Wizard rather than the New Template Wizard that is described in this topic. For more information about using the New Virtual Machine Wizard, see [Creating Virtual Machines](#).

Reference:

<http://technet.microsoft.com/en-us/library/bb740838.aspx>

## Question: 8

You need to recommend a solution for updating the virtualization hosts. The solution must meet the visualization requirements.

What should you include in the recommendation?

- A. Cluster-Aware Updating
- B. WSUS
- C. System Center Updates Publisher 2011
- D. System Center 2012 Configuration Manager

**Answer: A**

Explanation:

Business Requirements	Technical Requirements	Virtualization Requirements	All
The company identifies the following virtualization requirements:			
<ul style="list-style-type: none"> <li>- Minimize the number of permissions and privileges assigned to users.</li> <li>- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.</li> <li>- Ensure that a diagram view of the virtualization environment can be generated dynamically.</li> <li>- Minimize the amount of administrative effort required to manage the virtualization environment.</li> <li>- Prevent the failure of a front-end web server from affecting the availability of the CRM application.</li> <li>- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.</li> <li>- Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.</li> <li>- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.</li> </ul>			
<b>Cluster-Aware Updating Overview</b>			
2 out of 2 rated this helpful · Rate this topic			
Published: February 29, 2012			
Updated: August 15, 2012			
Applies To: Windows Server 2012			
<p>This topic provides an overview of Cluster-Aware Updating (CAU), a new feature for failover clusters in Windows Server 2012 that automates the software updating process on clustered servers while maintaining availability. It describes scenarios and applications for using CAU, and provides links to content that details how to integrate CAU into other IT automation and management processes.</p>			
Reference:			
<a href="http://technet.microsoft.com/en-us/magazine/ee677580.aspx">http://technet.microsoft.com/en-us/magazine/ee677580.aspx</a>			

## Question: 9

You need to ensure that Group1 can perform the required tasks. The solution must meet the visualization requirements.

What should you create?

- A. A collection
- B. A host group
- C. An organizational unit (OU)
- D. A site

**Answer: B**

Explanation:

Business Requirements	Technical Requirements	Virtualization Requirements	All
The company identifies the following virtualization requirements:			
<ul style="list-style-type: none"> <li>- Minimize the number of permissions and privileges assigned to users.</li> <li>- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.</li> <li>- Ensure that a diagram view of the virtualization environment can be generated dynamically.</li> <li>- Minimize the amount of administrative effort required to manage the virtualization environment.</li> <li>- Prevent the failure of a front-end web server from affecting the availability of the CRM application.</li> <li>- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.</li> <li>- Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.</li> <li>- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.</li> </ul>			

Applies To: System Center 2012 - Virtual Machine Manager, System Center 2012 SP1 - Virtual Machine Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

The procedures in this section describe how to create a host group structure in System Center 2012 – Virtual Machine Manager (VMM), and how to configure host group properties. You can use host groups to group virtual machine hosts in meaningful ways, often based on physical site location and resource allocation. When you design a host group structure, consider the following:

Reference:

<http://technet.microsoft.com/en-us/library/gg610645.aspx>.

## **Question: 10**

You need to recommend an automated remediation solution for the ReliableTimeSource registry value. The solution must meet the technical requirements.

What should you include in the recommendation?

- A. A System Center 2012 Configuration Manager configuration baseline.
- B. A System Center 2012 Operations Manager performance counter rule.
- C. A System Center 2012 Configuration Manager maintenance task.
- D. A System Center 2012 Operations Manager event rule.

---

**Answer: A**

---

Explanation:

Business Requirements	Technical Requirements	Virtualization Requirements	All
-----------------------	------------------------	-----------------------------	-----

The company identifies the following technical requirements:

- Provide a highly available DHCP solution.
- Maintain a central database that contains the security events from all of the servers. The database must be encrypted.
- Ensure that an administrator in the main office can manage the approval of Windows updates and updates to third-party applications for all of the users.
- Ensure that all of the domain controllers have the ReliableTimeSource registry value in HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters set to 1, even if an administrator changes that value manually.

- View configuration baselines that have been deployed to the client, initiate compliance evaluation, and view compliance reports.

Reference:

<http://technet.microsoft.com/en-US/library/gg682106.aspx>

## **Question: 11**

You need to create a service template for the web servers used by the CRM application.

What should you include in the service template?

- A. A VIP template
- B. A host profile
- C. Guest OS profile
- D. A capability profile

**Answer: A****Explanation:**

Overview	Existing Environment Network Infrastructure	Current Issues	Planned Changes
The company plans to implement the following changes:			
<ul style="list-style-type: none"> <li>- Replace all of the domain controllers with new servers that run Windows Server 2012.</li> <li>- Upgrade the CRM application to use a web-based application that connects to the current CRM database.</li> <li>The web application will store session data in the memory of each web server.</li> <li>Initially, deploy two front-end web servers to two virtual machines. Additional virtual web servers will be deployed in the future.</li> <li><b>Monitor the availability of the CRM application and create alerts when the overall availability is less than 99 percent.</b></li> <li>Implement Microsoft System Center 2012 to manage the new environment.</li> </ul>			
Business Requirements	Technical Requirements	Virtualization Requirements	All

The company identifies the following virtualization requirements:

- Minimize the number of permissions and privileges assigned to users.
- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.
- Ensure that a diagram view of the virtualization environment can be generated dynamically.
- Minimize the amount of administrative effort required to manage the virtualization environment.
- Prevent the failure of a front-end web server from affecting the availability of the CRM application.
- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.
- Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.**
- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.

Updated: September 10, 2012

Applies To: System Center 2012 - Virtual Machine Manager, System Center 2012 SP1 - Virtual Machine Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

You can use the following procedure to create a virtual IP (VIP) template for a hardware load balancer. A virtual IP template contains load balancer-related configuration settings for a specific type of network traffic. For example, you could create a template that specifies the load balancing behavior for HTTPS traffic on a specific load balancer manufacturer and model. These templates represent the best practices from a load balancer configuration standpoint.

**Note**

For information about how to create a virtual IP template for Microsoft Network Load Balancing (NLB), see [How to Create VIP Templates for Network Load Balancing \(NLB\) in VMM](#).

Reference:

<http://technet.microsoft.com/library/gg610569.aspx>

**Question: 12**

You need to recommend a solution for deploying the web servers for the CRM application.

The solution must meet the visualization requirements.

What should you include in the recommendation?

- A. Network Load Balancing (NLB) without affinity
- B. Failover Clustering with one active node
- C. Failover Clustering with two active nodes
- D. Network Load Balancing (NLB) with client affinity

**Answer: D**

**Explanation:**

Business Requirements	Technical Requirements	Virtualization Requirements	All
-----------------------	------------------------	-----------------------------	-----

The company identifies the following virtualization requirements:

- Minimize the number of permissions and privileges assigned to users.
- Ensure that the members of a group named Group2 can add a WSUS server to the fabric.
- Ensure that a diagram view of the virtualization environment can be generated dynamically.
- Minimize the amount of administrative effort required to manage the virtualization environment.
- Prevent the failure of a front-end web server from affecting the availability of the CRM application.
- Ensure that the members of a group named Group1 can create new virtual machines in the Los Angeles office only.
- Only create virtual machine templates by using objects that already exist in the System Center 2012 Virtual Machine Manager (VMM) library.
- On the failover cluster in the main office, apply limited distribution release (LDR) updates to the virtualization hosts without disrupting the virtual machines hosted on the virtualization hosts.

**Reference:**

<http://technet.microsoft.com/library/hh831698>

---

### **Question: 148**

---

You need to deploy the dedicated storage servers to support the new web application servers.

What should you do?

- A. Install Windows Storage Server 2012 R2 Standard on STORAGE1 and STORAGE2. Use STORAGE1 and STORAGE2 as iSCSI target servers.
- B. Install Windows Storage Server 2012 R2 Standard on STORAGE1 and STORAGE2. Use STORAGE1 and STORAGE2 as scale-out file servers.
- C. Install Windows Storage Server 2012 R2 Workgroup on STORAGE1 and STORAGE2. Use STORAGE1 and STORAGE2 as scale-out file servers.
- D. Install Windows Storage Server 2012 R2 Workgroup on STORAGE1 and STORAGE2. Use STORAGE1 and STORAGE2 as iSCSI target servers.

---

**Answer: C**

---

### **Case Study: 11**

#### **Proseware Inc B**

##### **General Overview**

Proseware Inc., is a manufacturing company that has 4,000 employees.

Proseware works with a trading partner named Fabrikam, Inc.

##### **Physical Locations**

Proseware has a main office and two branch offices. The main office is located in London. The branch offices are located in Madrid and Berlin. Proseware has a sales department based in the London office and a research department based in the Berlin office.

The offices connect to each other by using a WAN link. Each office connects directly to the Internet.

Proseware rents space at a hosting company. All offices have a dedicated WAN link to the hosting company. Web servers that are accessible from the Internet are located at the hosting company.

##### **Active Directory**

The Proseware network contains an Active Directory forest named proseware.com. The forest contains a single domain. The forest functional level is Windows Server 2012.

Each office contains three domain controllers. An Active Directory site is configured for each office. System state backups are performed every day on the domain controllers by using System Center 2012 R2 Data Protection Manager (DPM).

### **Virtualization**

Proseware has Hyper-V hosts that run Windows Server 2012 R2. Each Hyper-V host manages eight to ten virtual machines. The Hyper-V hosts are configured as shown in the following table.

<b>Server name</b>	<b>Location</b>
HyperV1	London
HyperV2	London
HyperV3	Madrid
HyperV4	Madrid
HyperV5	Berlin
HyperV6	Berlin
HyperV7	Hosting company
HyperV8	Hosting company
VDI1	London
VDI2	London

All of the Hyper-V hosts store virtual machines on direct-attached storage (DAS).

### **Servers**

All servers run Windows Server 2012 R2. All of the servers are virtualized, except for the Hyper-V hosts. VDI1 and VDI2 use locally attached storage to host virtual hard disk (VHD) files. The VHDs use the .vhdx format.

A line-of-business application named SalesApp is used by the sales department and runs on a server named APP1. APP1 is hosted on HyperV2.

A server named CA1 has the Active Directory Certificate Services server role installed and is configured as an enterprise root certification authority (CA) named ProsewareCA.

Ten load-balanced web servers hosted on HyperV7 and HyperV8 run the Internet-facing web site that takes orders from Internet customers.

System Center 2012 R2 Operations Manager is used to monitor the health of the servers on the network.

All of the servers are members of the proseware.com domain, except for the servers located in the perimeter network.

### **Client Computers**

All client computers run either Windows 8.1 or Windows 7. Some of the users in the London office connect to pooled virtual desktops hosted on VDI1 and VDI2.

### **Problem Statements**

Proseware identifies the following issues on the network:

Virtualization administrators report that the load on the Hyper-V hosts is inconsistent. The virtualization administrators also report that administrators fail to account for host utilization when creating new virtual machines.

Users in the sales department report that they experience issues when they attempt to access SalesApp from any other network than the one in the London office.

Sometimes, configuration changes are not duplicated properly across the web servers, resulting in customer

ordering issues. Web servers are regularly changed.

Demand for virtual desktops is increasing. Administrators report that storage space is becoming an issue as they want to add more virtual machines.

In the past, some personally identifiable information (PII) was exposed when paper shredding procedures were not followed.

## **Requirements**

### **Planned Changes**

Proseware plans to implement the following changes on the network:

- Implement a backup solution for Active Directory.
- Relocate the sales department to the Madrid office.
- Implement System Center 2012 R2 components, as required.
- Protect email attachments sent to Fabrikam that contain PII data so that the attachments cannot be printed.
- Implement System Center 2012 R2 Virtual Machine Manager (VMM) to manage the virtual machine infrastructure. Proseware does not plan to use private clouds in the near future.
- Deploy a new Hyper-V host named RESEARCH1 to the Berlin office. RESEARCH1 will be financed by the research department. All of the virtual machines deployed to RESEARCH1 will use VMM templates.

### **Technical Requirements**

Proseware identifies the following virtualization requirements:

- The increased demand for virtual desktops must be met.
- Once System Center is deployed, all of the Hyper-V hosts must be managed by using VMM.
- If any of the Hyper-V hosts exceeds a set number of virtual machines, an administrator must be notified by email.
- Network administrators in each location must be responsible for managing the Hyper-V hosts in their respective location. The management of the hosts must be performed by using VMM.
- The network technicians in each office must be able to create virtual machines in their respective office. The network technicians must be prevented from modifying the host server settings.
- New virtual machines must be deployed to RESEARCH1 only if the virtual machine template used to create the machine has a value specified for a custom property named CostCenter' that matches Research'.

The web site configurations must be identical on all web servers.

### **Security Requirements**

Proseware identifies the following security requirements:

- All email messages sent to and from Fabrikam must be encrypted by using digital certificates issued to users by the respective CA of their company. No other certificates must be trusted between the organizations.
- Microsoft Word documents attached to email messages sent from Proseware to Fabrikam must be protected.
- Privileges must be minimized, whenever possible.

---

### **Question: 1**

---

**HOTSPOT**

You need to recommend a design that meets the technical requirements for managing the Hyper-V hosts by using VMM.

What should you recommend? To answer, select the appropriate options in the answer area.

**Answer Area**

Minimum number of host groups in the London office:  

Minimum number of host groups in the Madrid office:  

User roles required to administer the Hyper-V hosts in each office:  

**Answer Area**

Minimum number of host groups in the London office:  

0
1
2
3
4
5

Minimum number of host groups in the Madrid office:  

0
1
2
3
4
5

User roles required to administer the Hyper-V hosts in each office:  

Application Administrator
Fabric Administrator
Read-Only Administrator
Tenant Administrator

---

**Answer:**

---

**Answer Area**

Minimum number of host groups in the London office:

0
1
2
3
4
5

Minimum number of host groups in the Madrid office:

0
1
2
3
4
5

User roles required to administer the Hyper-V hosts in each office:

Application Administrator
Fabric Administrator
Read-Only Administrator
Tenant Administrator

**Question: 2****DRAG DROP**

You need to recommend a monitoring solution for Proseware.

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

Actions	Answer Area
Configure a notification subscription.	
Configure an availability monitor.	
From the Virtual Machine Manager console, configure Operations Manager integration.	
From the Operations Manager console, configure VMM integration.	
Install the Operations Manager console on the VMM server.	
Install the Virtual Machine Manager console on the Operations Manager server.	

Box 1:

**Answer:**

Install the Operations Manager console on the VMM server.

Box 2:

From the Virtual Machine Manager console, configure Operations Manager integration.

Box 3:

Configure a notification subscription.

### **Question: 3**

You need to recommend changes to the virtual desktop infrastructure (VDI) environment.

What should you recommend?

- A. Implement Hyper-V replication between VDI1 and VDI2.
- B. Create new VDI virtual machines that are Generation 2 virtual machines.
- C. Convert the existing VHDS to .vhdx format.
- D. Move the VHDS to a Cluster Shared Volume (CSV) and implement Data Deduplication on the CSV.

---

**Answer: D**

---

### **Question: 4**

You need to recommend changes to the existing environment to meet the web server requirement.

Which two actions should you recommend? Each correct answer presents part of the solution.

- A. On one web server, run the Start-DSCConfiguration cmdlet. Create and run a configuration script.
- B. On all of the web servers, install the Windows PowerShell Web Access feature, and then run the Set-DscLocalConfigurationManager cmdlet.
- C. On all of the web servers, configure the Local Configuration Manager settings, and then run the Set-DscLocalConfigurationManager cmdlet.
- D. On one web server, install the Windows PowerShell Desired State Configuration (DSC) feature. Create and run a configuration script.

---

**Answer: C, D**

---

### **Question: 5**

You are evaluating the use of VMM to migrate APP1 for the sales users. You need to identify the effects of the migration.

What should you identify?

- A. The VHDS and the virtual machine configuration files will move. The sales users' access to APP1 will be interrupted.
- B. The VHDS will move but the virtual machine configuration files will remain in the original location. The sales users will continue to have uninterrupted access to APP1.

- C. The virtual machine configuration files will move but the VHDs will remain in the original location. The sales users' access to APP1 will be interrupted.
- D. The VHDs and the virtual machine configuration files will move. The sales users will continue to have uninterrupted access to APP1.

---

**Answer: D**

---

### **Question: 6**

---

You need to recommend changes to the existing environment to meet the PII requirement.  
What should you recommend?

- A. In the Default Domain Policy, configure auto-enrollment for the S/MIME certificates from ProsewareCA.
- B. Create an AD RMS cluster in Proseware, and then provision the user accounts in Proseware for the Fabrikam users.
- C. Configure Active Directory Federation Services (AD FS) in Fabrikam, and then install a web application proxy in Proseware.
- D. In the Default Domain Policy, configure auto-enrollment for the S/MIME certificates from FabrikamCA.

---

**Answer: B**

---

### **Question: 7**

---

You need to ensure that RESEARCH1 only contains the required virtual machines.  
What should you do?

- A. Create an availability set.
- B. Create a custom placement rule.
- C. Set RESEARCH1 as a possible owner.
- D. Set RESEARCH1 as a preferred owner.

---

**Answer: B**

---

### **Question: 8**

---

You need to recommend changes to the existing environment to meet the email requirement.  
What should you recommend?

- A. Implement a two-way forest trust that has selective authentication.
- B. Implement qualified subordination.
- C. Deploy the FabrikamCA root certificate to all of the client computers.
- D. Deploy a user certificate from FabrikamCA to all of the users.

---

**Answer: B**

---

---

### **Question: 9**

---

You need to implement a solution for the email attachments.

Both organizations exchange root CA certificates and install the certificates in the relevant stores.

You duplicate the Enrollment Agent certificate template and generate a certificate based on the new template.

Which additional two actions should you perform? Each correct answer presents part of the solution.

- A. Request cross-certification authority certificates.
- B. Create Capolicy.inf files.
- C. Request subordinate CA certificates.
- D. Create Policy.inf files.

---

**Answer: A, D**

---

### **Case Study: 12**

#### **Northwind Traders B**

##### **Overview**

Northwind Traders is an IT services and hosting provider.

Northwind Traders has two main data centers in North America. The data centers are located in the same city. The data centers connect to each other by using high-bandwidth, low-latency WAN links. Each data center connects directly to the Internet.

Northwind Traders also has a remote office in Asia that connects to both of the North American data centers by using a WAN link. The Asian office has 30 multipurpose servers.

Each North American data center contains two separate network segments. One network segment is used to host the internal servers of Northwind Traders. The other network segment is used for the hosted customer environments.

##### **Existing Environment**

##### **Active Directory**

The network contains an Active Directory forest named northwindtraders.com. The forest contains a single domain. All servers run Windows Server 2012 R2.

##### **Server Environment**

The network has the following technologies deployed:

- Service Provider Foundation
- Windows Azure Pack for Windows Server
- System Center 2012 R2 Virtual Machine Manager (VMM)
- An Active Directory Rights Management Services (AD RMS) cluster
- An Active Directory Certificate Services (AD CS) enterprise certification authority (CA)

All newly deployed servers will include the following components:

- Dual 10-GbE Remote Direct Memory Access (RDMA)-capable network adapters
- Dual 1-GbE network adapters
- 128 GB of RAM

##### **Requirements**

## Business Goals

Northwind Traders will provide hosting services to two customers named Customer1 and Customer2. The network of each customer is configured as shown in the following table.

Infrastructure component	Customer1	Customer2
System Center 2012 R2 Virtual Machine Manager (VMM)	Yes	No
System Center 2012 R2 App Controller	Yes	No
Active Directory Certificate Services (AD CS)	No	No
Active Directory Rights Management Services (AD RMS)	Yes	Yes

## Planned Changes

Northwind Traders plans to implement the following changes:

- Deploy System Center 2012 R2 Operations Manager.
- Deploy Windows Server 2012 R2 iSCSI and SMB-based storage.
- Implement Hyper-V Recovery Manager to protect virtual machines.
- Deploy a certificate revocation list (CRL) distribution point (CDP) on the internal network.
- For Customer 1, install server authentication certificates issued by the CA of Northwind Traders on the virtual machine in the hosting networks.

## General Requirements

Northwind Traders identifies the following requirements:

- Storage traffic must use dedicated adapters.
- All storage and network traffic must be load balanced.
- The amount of network traffic between the internal network and the hosting network must be minimized.
- The publication of CRLs to CDPs must be automatic.
- Each customer must use dedicated Hyper-V hosts.
- Administrative effort must be minimized, whenever possible.
- All servers and networks must be monitored by using Operations Manager.
- Anonymous access to internal file shares from the hosting network must be prohibited.
- All Hyper-V hosts must use Cluster Shared Volume (CSV) shared storage to host virtual machines.
- All Hyper-V storage and network traffic must remain available if single network adapter fails.
- The Hyper-V hosts connected to the SMB-based storage must be able to make use of the RDMA technology.
- The number of servers and ports in the hosting environment to which the customer has access must be minimized.

## Customer1 Requirements

Northwind Traders identifies the following requirements for Customer1:

- Customer1 must use SMB-based storage exclusively.
- Customer1 must use App Controller to manage hosted virtual machines.
- The virtual machines of Customer1 must be recoverable if a single data center fails.
- Customer1 must be able to delegate self-service roles in its hosted environment to its users.

- Customer1 must be able to check for the revocation of certificates issued by the CA of Northwind Traders.
- The users of Customer1 must be able to obtain use licenses for documents protected by the AD RMS of Northwind Traders.
- Certificates issued to the virtual machines of Customer1 that reside on the hosted networks must be renewed automatically.

### **Customer2 Requirements**

Northwind Traders identifies the following requirements for Customer2:

- Customer2 must use iSCSI-based storage exclusively.
- All of the virtual machines of Customer2 must be migrated by using a SAN transfer.
- None of the metadata from the virtual machines of Customer2 must be stored in Windows Azure.
- The network configuration of the Hyper-V hosts for Customer2 must be controlled by using logical switches.
- The only VMM network port profiles and classifications allowed by Customer2 must be low-bandwidth, medium-bandwidth, or high-bandwidth.
- The users at Northwind Traders must be able to obtain use licenses for documents protected by the AD RMS cluster of Customer2. Customer2 plans to decommission its AD RMS cluster during the next year.

### **Question: 1**

#### **HOTSPOT**

You need to recommend changes to allow Customer1 to delegate permissions in its hosting environment to its users. Where should you recommend performing each task? To answer, select the appropriate location for each task in the answer area.

#### **Answer Area**

Create a tenant and a stamp:

Create a Tenant Administrator user role:

Create an Application Administrator (Self-Service User) user role:

Create an association between the tenant and the self-service user role:

### Answer Area

Create a tenant and a stamp:

Service Provider Foundation VMM
------------------------------------

Create a Tenant Administrator user role:

Service Provider Foundation VMM
------------------------------------

Create an Application Administrator (Self-Service User) user role:

Service Provider Foundation VMM
------------------------------------

Create an association between the tenant and the self-service user role:

Service Provider Foundation VMM
------------------------------------

**Answer:**

### Answer Area

Create a tenant and a stamp:

Service Provider Foundation VMM
------------------------------------

Create a Tenant Administrator user role:

Service Provider Foundation VMM
------------------------------------

Create an Application Administrator (Self-Service User) user role:

Service Provider Foundation VMM
------------------------------------

Create an association between the tenant and the self-service user role:

Service Provider Foundation VMM
------------------------------------

### Question: 2

#### HOTSPOT

You need to recommend a solution that meets the AD RMS requirements of Customer1 and Customer2.

Which actions should you recommend performing for each customer? To answer, select the appropriate customer for each action in the answer area.

**Answer Area**

Configure a trusted publishing domain on the AD RMS cluster of Northwind Traders:

Configure a trusted user domain on the AD RMS cluster of Northwind Traders:

Modify the DNS record of the AD RMS cluster of the customer:

Allow communication to the AD RMS licensing cluster of Northwind Traders:

**Answer Area**

Configure a trusted publishing domain on the AD RMS cluster of Northwind Traders:

Customer1
Customer2

Configure a trusted user domain on the AD RMS cluster of Northwind Traders:

Customer1
Customer2

Modify the DNS record of the AD RMS cluster of the customer:

Customer1
Customer2

Allow communication to the AD RMS licensing cluster of Northwind Traders:

Customer1
Customer2

---

**Answer:**

---

**Answer Area**

Configure a trusted publishing domain on the AD RMS cluster of Northwind Traders:

Customer1
Customer2

Configure a trusted user domain on the AD RMS cluster of Northwind Traders:

Customer1
Customer2

Modify the DNS record of the AD RMS cluster of the customer:

Customer1
Customer2

Allow communication to the AD RMS licensing cluster of Northwind Traders:

Customer1
Customer2

---

**Question: 3**

You need to recommend a monitoring solution for Northwind Traders.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Three Operations Manager management servers and two Operations Manager gateway servers
- B. One Operations Manager management server
- C. Two Operations Manager management servers and three Operations Manager gateway servers
- D. Five Operations Manager management servers

---

**Answer: C**

---

**Question: 4**

---

You plan to implement a solution that meets the certificate requirements of Customer1. You need to identify which role services must be deployed to the hosting environment.

Which two role services should you identify? Each correct answer presents part of the solution.

- A. Certification Authority Web Enrollment
- B. Online Responder
- C. Certificate Enrollment Policy Web Service
- D. Certificate Enrollment Web Service

---

**Answer: C, D**

---

**Question: 5**

---

DRAG DROP

You need to prepare for the migration of virtual machines across the Hyper-V hosts of Customer2.

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.

<b>Actions</b>	<b>Answer Area</b>
Install the iSCSI Target Server role service on the Hyper-V hosts.	
From the Virtual Machine Manager console, add iSCSI arrays to the Hyper-V hosts.	
Install the Multipath I/O (MPIO) feature on the Hyper-V hosts.	
From the Virtual Machine Manager console, add disks to the Hyper-V hosts.	
From the Virtual Machine Manager console, assign a stored virtual machine path to the cloud of Customer2.	

---

Answer:

Actions	Answer Area
Install the iSCSI Target Server role service on the Hyper-V hosts.	From the Virtual Machine Manager console, add iSCSI arrays to the Hyper-V hosts.
	From the Virtual Machine Manager console, add disks to the Hyper-V hosts.
	Install the Multipath I/O (MPIO) feature on the Hyper-V hosts.
From the Virtual Machine Manager console, assign a stored virtual machine path to the cloud of Customer2.	

<http://blogs.technet.com/b/keithmayer/archive/2013/03/12/speaking-iscsi-with-windows-server-2012-and-hyper-v.aspx>

---

### Question: 6

#### HOTSPOT

You need to recommend a network configuration for the newly deployed Hyper-V hosts used by Customer1.

On which network adapter should you recommend performing each configuration? To answer, select the appropriate network adapter for each configuration in the answer area.

#### Answer Area

Create a team:

Create a virtual switch and virtual network adapters:

Assign IP addresses to the physical adapters:

Assign IP addresses to virtual adapters:

### Answer Area

Create a team:

1-GbE network adapters
10-GbE network adapters

Create a virtual switch and virtual network adapters:

1-GbE network adapters
10-GbE network adapters

Assign IP addresses to the physical adapters:

1-GbE network adapters
10-GbE network adapters

Assign IP addresses to virtual adapters:

1-GbE network adapters
10-GbE network adapters

---

**Answer:**

---

### Answer Area

Create a team:

1-GbE network adapters
10-GbE network adapters

Create a virtual switch and virtual network adapters:

1-GbE network adapters
10-GbE network adapters

Assign IP addresses to the physical adapters:

1-GbE network adapters
10-GbE network adapters

Assign IP addresses to virtual adapters:

1-GbE network adapters
10-GbE network adapters

---

### Question: 7

---

#### HOTSPOT

You need to recommend which setting must be applied to the virtualization infrastructure of Northwind Traders to minimize the impact of multiple virtual machines starting concurrently.

What command should you recommend running? To answer, select the appropriate options in the answer area.

### Answer Area

(  ).  =

**Answer Area**

(	).	=
<input type="button" value="Get-Cluster"/>	<input type="button" value="BlockCacheSize"/>	<input type="button" value="0"/>
<input type="button" value="Get-VMHost"/>	<input type="button" value="ClusSvcRegroupOpeningTimeout"/>	<input type="button" value="8192"/>
<input type="button" value="Set-ClusterParameter"/>	<input type="button" value="ClusterGroupWaitDelay"/>	<input type="button" value="\$false"/>
<input type="button" value="Set-VMHost"/>	<input type="button" value="HangRecoveryAction"/>	<input type="button" value="\$true"/>

**Answer:****Answer Area**

(	).	=
<input type="button" value="Get-Cluster"/>	<input type="button" value="BlockCacheSize"/>	<input type="button" value="0"/>
<input type="button" value="Get-VMHost"/>	<input type="button" value="ClusSvcRegroupOpeningTimeout"/>	<input type="button" value="8192"/>
<input type="button" value="Set-ClusterParameter"/>	<input type="button" value="ClusterGroupWaitDelay"/>	<input type="button" value="\$false"/>
<input type="button" value="Set-VMHost"/>	<input type="button" value="HangRecoveryAction"/>	<input type="button" value="\$true"/>

**Question: 8**

DRAG DROP

You need to prepare the required Hyper-V virtual network components for Customer2.

Which four objects should you create and configure in sequence? To answer, move the appropriate objects from the list of objects to the answer area and arrange them in the correct order.

Objects	Answer Area
a network site	
an uplink port profile	
a logical network	
a logical switch	
a virtual port profile	

**Answer:**

Box 1:

Box 2:

Box 3:

Box 4:

a logical switch

### Question: 9

DRAG DROP

You need to implement a Hyper-V Recovery Manager solution in the hosting environment of Northwind Traders. Which four 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.

Actions	Answer Area
From the Windows Azure Management Portal, upload a .cer file.	
On the VMM server, download and install the Hyper-V Recovery Manager Provider.	
From the Virtual Machine Manager console, select the <b>Synchronize cloud data with the vault</b> option.	
From the Windows Azure Management Portal, create a Hyper-V Recovery Manager vault.	
From the Virtual Machine Manager console, enable the <b>Send configuration data about this cloud to the Windows Azure Hyper-V Recovery Manager</b> option.	

### Answer:

Box 1:

From the Windows Azure Management Portal, create a Hyper-V Recovery Manager vault.

Box 2:

From the Windows Azure Management Portal, upload a .cer file.

Box 3:

On the VMM server, download and install the Hyper-V Recovery Manager Provider.

Box 4:

From the Virtual Machine Manager console, select the **Synchronize cloud data with the vault** option.

### Question: 10

#### HOTSPOT

You need to recommend a configuration for the CA extensions of Northwind Traders that meets the certificate revocation requirement of Customer1.

What should you recommend? To answer, select the appropriate prefix of the target location for the each extension settings in the answer area.

#### Answer Area

Publish CRLs to this location:

Include in the CDP extension of issued certificates:

#### Answer Area

Publish CRLs to this location:

▼

file://  
http://  
https://

Include in the CDP extension of issued certificates:

▼

file://  
http://  
https://

---

#### Answer:

---

#### Answer Area

Publish CRLs to this location:   
file://  
http://  
https://

Include in the CDP extension of issued certificates:

▼  
file://  
http://  
https://

### Case Study: 13

#### A. Datum Corporation

##### Overview

A. Datum Corporation is an accounting company.

The company has a main office and two branch offices. The main office is located in Miami. The branch offices are located in New York and Seattle.

##### Existing Environment

##### Network Infrastructure

The network contains an Active Directory domain named adatum.com. All servers run Windows Server 2008 R2. The main office has the following servers and client computers:

- Two domain controllers configured as DNS servers and DHCP servers

- One file server that has multiples shares
- One thousand client computers that run Windows 7

Each branch office has the following servers and client computers:

- One domain controller configured as a DNS server and a DHCP server
- Five hundred to 800 client computers that run Windows XP

Each office has multiple subnets. The network speed of the local area network (LAN) is 1 gigabit per second. The offices connect to each other by using a WAN link. The main office is connected to the Internet.

### **Current Issues**

The WAN link between the Miami office and the Seattle office is a low bandwidth link with high latency. The link will not be replaced for another year.

### **Requirements**

#### **Application Requirements**

The company is developing an application named App1. App1 is a multi-tier application that will be sold as a service to customers.

Each instance of App1 is comprised of the following three tiers:

- A web front end
- A middle tier that uses Windows Communication Foundation (WCF)
- A Microsoft SQL Server 2008 R2 database on the back end

Each tier will be hosted on one or more virtual machines. Multiple tiers cannot coexist on the same virtual machine.

When customers purchase App1, they can select from one of the following service levels:

- Standard: Uses a single instance of each virtual machine required by App1. If a virtual machine becomes unresponsive, the virtual machine must be restarted.
- Enterprise: Uses multiple instances of each virtual machine required by App1 to provide high-availability and fault tolerance.

All virtual hard disk (VHD) files for App1 will be stored in a file share. The VHDs must be available if a server fails.

You plan to deploy an application named App2. App2 is comprised of the following two tiers:

- A web front end
- A dedicated SQL Server 2008 R2 database on the back end

App2 will be hosted on a set of virtual machines in a Hyper-V cluster in the Miami office. The virtual machines will use dynamic IP addresses. A copy of the App2 virtual machines will be maintained in the Seattle office.

App2 will be used by users from a partner company named Trey Research. Trey Research has a single Active Directory domain named treyresearch.com. Treyresearch.com contains a server that has the Active Directory Federation Services server role and all of the Active Directory Federation Services (AD FS) role services installed.

### **Planned Changes**

A. Datum plans to implement the following changes:

- Replace all of the servers with new servers that run Windows Server 2012.
- Implement a private cloud by using Microsoft System Center 2012 to host instances of App1.
- In the Miami office, deploy four new Hyper-V hosts to the perimeter network.
- In the Miami office, deploy two new Hyper-V hosts to the local network.

- In the Seattle office, deploy two new Hyper-V hosts.
- In the Miami office, implement a System Center 2012 Configuration Manager primary site that has all of the system roles installed.
- Implement a public key infrastructure (PKI).

### **Notification Requirements**

A. Datum identifies the following notification requirements:

- Help desk tickets must be created and assigned automatically when an instance of App1 becomes unresponsive.
- Customers who select the Enterprise service level must receive an email notification each time a help desk ticket for their instance of App1 is opened or closed.

### **Technical Requirements**

A. Datum identifies the following technical requirements:

- Minimize costs whenever possible.
- Minimize the amount of WAN traffic
- Minimize the amount of administrative effort whenever possible.
- Provide the fastest possible failover for the virtual machines hosting App2.
- Ensure that administrators can view a consolidated report about the software updates in all of the offices.
- Ensure that administrators in the Miami office can approve updates for the client computers in all of the offices.

### **Security Requirements**

A. Datum identifies the following security requirements:

- An offline root certification authority (CA) must be configured.
- Client computers must be issued certificates by a server in their local office.
- Changes to the CA configuration settings and the CA security settings must be logged.
- Client computers must be able to renew certificates automatically over the Internet.
- The number of permissions and privileges assigned to users must be minimized whenever possible.
- Users from a group named Group1 must be able to create new instances of App1 in the private cloud.
- Client computers must be issued new certificates when the computers are connected to the local network only.
- The virtual machines used to host App2 must use BitLocker Drive Encryption (BitLocker).
- Users from Trey Research must be able to access App2 by using their credentials from [treyresearch.com](http://treyresearch.com).

---

### **Question: 1**

---

You need to recommend a solution that meets the security requirements for Group1.

To which System Center 2012 Virtual Machine Manager (VMM) group should you assign Group1?

- A. Delegated Administrator
- B. Administrators

- C. Self-Service User
- D. Read-Only Administrator

---

**Answer: C**

---

### **Question: 2**

---

You need to recommend which Certificate Services role service must be deployed to the perimeter network. The solution must meet the security requirements.

Which Certificate Services role services should you recommend?

- A. Online Responder and Network Device Enrollment Service
- B. Online Responder and Certificate Enrollment Web Service
- C. Certificate Enrollment Web Service and Certificate Enrollment Policy Web Service
- D. Certificate Enrollment Policy Web Service and Certification Authority Web Enrollment

---

**Answer: C**

---

### **Question: 3**

---

You need to recommend a storage solution for the App1 VHDs. The solution must minimize downtime if a Hyper-V host fails.

What should you include in the recommendation?

- A. Distributed File System (DFS) Replication
- B. A clustered file server of the File Server for scale-out application data type
- C. A clustered file server of the File Server for general use type
- D. A Distributed File System (DFS) namespace

---

**Answer: B**

---

### **Question: 4**

---

You need to recommend a solution that meets the notification requirements.

Which System Center 2012 components should you include in the recommendation?

- A. Service Manager, Orchestrator and App Controller
- B. Configuration Manager, Service Manager and Orchestrator
- C. App Controller, Configuration Manager and Operations Manager
- D. Operations Manager, Service Manager and Orchestrator

---

**Answer: D**

---

### **Question: 5**

---

You are evaluating the deployment of a multi-site Hyper-V failover cluster in the Miami office and the Seattle office to host App2.

You need to identify which changes must be made to support the use of the multi-site cluster.

Which changes should you identify?

- A. Configure all of the virtual machines to use dynamic memory. Implement Distributed File System (DFS) Replication and store the virtual machine files in a replicated folder.
- B. Implement Distributed File System (DFS) Replication and store the virtual machine files in a replicated folder. Upgrade the WAN link between the Miami and Seattle offices.
- C. Purchase a storage solution that replicates the virtual machines. Configure all of the virtual machines to use dynamic memory.
- D. Upgrade the WAN link between the Miami and Seattle offices. Purchase a storage solution that replicates the virtual machines.

---

**Answer: C**

---

### **Question: 6**

---

You need to recommend a solution to maintain a copy of App2. The solution must meet the application requirements and must minimize additional hardware purchases.

What should you include in the recommendation?

- A. Single-site Failover Clustering
- B. Hyper-V replicas
- C. Multi-site Failover Clustering
- D. Distributed File System (DFS) Replication

---

**Answer: B**

---

### **Question: 7**

---

You need to recommend which type of clustered file server and which type of file share must be used in the Hyper-V cluster that hosts App2. The solution must meet the technical requirements and the security requirements.

Solution: You recommend a scale-out file server that uses an SMB share.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

### **Question: 8**

---

You need to recommend which type of clustered file server and which type of file share must be used in the Hyper-V cluster that hosts App2. The solution must meet the technical requirements and the security requirements.

Solution: You recommend a scale-out file server that uses an NFS share.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Question: 9**

---

In adatum.com, you install and configure a server that has the Active Directory Federation Services server role and all of the AD FS role services installed.

You need to recommend which AD FS configurations must be performed in adatum.com to meet the security requirements.

Which configurations should you recommend before creating a trust policy?

- A. Export the server authentication certificate and provide the certificate to Trey Research. Import the token-signing certificate from Trey Research.
- B. Export the server authentication certificate and provide the certificate to Trey Research. Import the server authentication certificate from Trey Research.
- C. Export the token-signing certificate and provide the certificate to Trey Research. Import the server authentication certificate from Trey Research.
- D. Export the token-signing certificate and provide the certificate to Trey Research. Import the token-signing certificate from Trey Research.

---

**Answer: B**

---

Explanation:

Planned Changes	Notification Requirements	Technical Requirements	Security Requirements
A. Datum identifies the following security requirements:			
<ul style="list-style-type: none"><li>- An offline root certification authority (CA) must be configured.</li><li>- Client computers must be issued certificates by a server in their local office.</li><li>- Changes to the CA configuration settings and the CA security settings must be logged.</li><li>- Client computers must be able to renew certificates automatically over the Internet.</li><li>- The number of permissions and privileges assigned to users must be minimized whenever possible.</li><li>- Users from a group named Group1 must be able to create new instances of App1 in the private cloud.</li><li>- Client computers must be issued new certificates when the computers are connected to the local network only.</li><li>- The virtual machines used to host App2 must use BitLocker Drive Encryption (BitLocker).</li><li>- Users from Trey Research must be able to access App2 by using their credentials from <a href="http://treyresearch.com">treyresearch.com</a>.</li></ul>			

The company is developing an application named App1. App1 is a multi-tier application that will be sold as a service to customers. Each instance of App1 is comprised of the following three tiers:

- A web front end
- A middle tier that uses Windows Communication Foundation (WCF)
- A Microsoft SQL Server 2008 R2 database on the back end Each tier will be hosted on one or more virtual machines. Multiple-tiers cannot coexist on the same virtual machine.

When customers purchase App1, they can select from one of the following service levels:

- Standard: Uses a single instance of each virtual machine required by App1. If a virtual machine becomes unresponsive, the virtual machine must be restarted.
- Enterprise: Uses multiple instances of each virtual machine required by App1 to provide high-availability and fault tolerance.

All virtual hard disk (VHD) files for App1 will be stored in a file share. The VHDs must be available if a server fails.

You plan to deploy an application named App2. App2 is comprised of the following two tiers:

- A web front end
- A dedicated SQL Server 2008 R2 database on the back end App2 will be hosted on a set of virtual machines in a Hyper-V cluster in the Miami office. The virtual machines will use dynamic IP addresses. A copy of the App2 virtual machines will be maintained in the Seattle office.

App2 will be used by users from a partner company named Trey Research. Trey Research has a single Active Directory domain named [treyresearch.com](#). [Treyresearch.com contains a server that has the Active Directory Federation Services server role and all of the Active Directory Federation Services \(AD FS\) role services installed.](#)

Updated: May 5, 2010

Applies To: Active Directory Federation Services (AD FS) 2.0

Every federation server in an Active Directory Federation Services (AD FS) 2.0 farm must have access to the private key of the server authentication certificate. If you are implementing a server farm of federation servers or Web servers, you must have a single authentication certificate. This certificate must be issued by an enterprise certification authority (CA), and it must have an exportable private key. The private key of the server authentication certificate must be exportable so that it can be made available to all the servers in the farm.

This same concept is true of federation server proxy farms in the sense that all federation server proxies in a farm must share the private key portion of the same server authentication certificate.

Reference:

[http://technet.microsoft.com/en-us/library/dd807097\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/dd807097(v=ws.10).aspx)

## Question: 10

You need to recommend which type of clustered file server and which type of file share must be used in the Hyper-V cluster that hosts App2.

The solution must meet the technical requirements and the security requirements.

What should you recommend?

- A. A scale-out file server that uses an NFS share
- B. A file server that uses an SMB share
- C. A scale-out file server that uses an SMB share
- D. A file server that uses an NFS share

Answer: C

Explanation:

Planned Changes	Notification Requirements	Technical Requirements	Security Requirements
-----------------	---------------------------	------------------------	-----------------------

A. Datum identifies the following technical requirements:

- Minimize costs whenever possible.
- Minimize the amount of WAN traffic.
- Minimize the amount of administrative effort whenever possible.
- Provide the fastest possible failover for the virtual machines hosting App2.
- Ensure that administrators can view a consolidated report about the software updates in all of the offices.
- Ensure that administrators in the Miami office can approve updates for the client computers in all of the offices.

Applies To: Windows Server 2012

In Windows Server 2012, the following clustered file servers are available:

- **Scale-Out File Server for application data (Scale-Out File Server)** This clustered file server is introduced in Windows Server 2012 and lets you store server application data, such as Hyper-V virtual machine files, on file shares, and obtain a similar level of reliability, availability, manageability, and high performance that you would expect from a storage area network. All file shares are online on all nodes simultaneously. File shares associated with this type of clustered file server are called scale-out file shares. This is sometimes referred to as active-active.
- **File Server for general use** This is the continuation of the clustered file server that has been supported in Windows Server since the introduction of Failover Clustering. This type of clustered file server, and thus all the shares associated with the clustered file server, is online on one node at a time. This is sometimes referred to as active-passive or dual-active. File shares associated with this type of clustered file server are called clustered file shares.

Reference:

<http://technet.microsoft.com/en-us/library/hh831349.aspx>

## Question: 11

You are configuring the Certification Authority role service. From the Certification Authority console, you enable logging. You need to ensure that configuration changes to the certification authority (CA) are logged.

Which audit policy should you configure?

- A. Audit policy change
- B. Audit privilege use
- C. Audit system events
- D. Audit object access

**Answer: D**

Explanation:

Planned Changes	Notification Requirements	Technical Requirements	Security Requirements
A. Datum identifies the following security requirements:			
<ul style="list-style-type: none"> <li>- An offline root certification authority (CA) must be configured.</li> <li>- Client computers must be issued certificates by a server in their local office.</li> <li>- Changes to the CA configuration settings and the CA security settings must be logged.</li> <li>- Client computers must be able to renew certificates automatically over the Internet.</li> <li>- The number of permissions and privileges assigned to users must be minimized whenever possible.</li> <li>- Users from a group named Group1 must be able to create new instances of App1 in the private cloud.</li> <li>- Client computers must be issued new certificates when the computers are connected to the local network only.</li> <li>- The virtual machines used to host App2 must use BitLocker Drive Encryption (BitLocker).</li> <li>- Users from Trey Research must be able to access App2 by using their credentials from <a href="http://treyresearch.com">treyresearch.com</a>.</li> </ul>			

## How to enable Certification Authority Auditing on Windows Server

By default, the Auditing function is not enabled on the CA server. After the auditing is enabled, all the events will be logged in the "Security log". To enable the auditing, I need to modify the following settings:

1. On the CA server, log in as Administrator.
2. Launch "Certification Authority".
3. Right-click the name of the CA, select "Properties".
4. Select "Auditing" tab.
5. Check the events which you want to audit.



6. Click "OK".
7. Launch "Local Group Policy Editor".
8. Expand "Computer Configuration > Windows Settings > Security Settings > Local Policies > Audit Policy".
9. Double-click "Audit object access".
10. Check "Success" and "Failure".

Reference:

<http://terrytlslau.tls1.cc/2012/05/how-to-enable-certification-authority.html>

## Question: 12

You have a service template to deploy Appl. You are evaluating the use of Network Load Balancing (NLB) for the front-end servers used by Appl.

You need to recommend which component must be added to the service template.

What should you recommend?

- A. Guest OS profile
- B. A host profile
- C. A capability profile
- D. A VIP template

Answer: D

Explanation:

The company is developing an application named App1. App1 is a multi-tier application that will be sold as a service to customers.

Each instance of App1 is comprised of the following three tiers:

- A web front end
- A middle tier that uses Windows Communication Foundation (WCF)
- A Microsoft SQL Server 2008 R2 database on the back end Each tier will be hosted on one or more virtual machines. Multiple-tiers cannot coexist on the same virtual machine.

When customers purchase App1, they can select from one of the following service levels:

- Standard: Uses a single instance of each virtual machine required by App1. If a virtual machine becomes unresponsive, the virtual machine must be restarted.
- Enterprise: Uses multiple instances of each virtual machine required by App1 to provide high-availability and fault tolerance.

All virtual hard disk (VHD) files for App1 will be stored in a file share. The VHDs must be available if a server fails.

You plan to deploy an application named App2. App2 is comprised of the following two tiers:

- A web front end
- A dedicated SQL Server 2008 R2 database on the back end App2 will be hosted on a set of virtual machines in a Hyper-V cluster in the Miami office. The virtual machines will use dynamic IP addresses. A copy of the App2 virtual machines will be maintained in the Seattle office.

App2 will be used by users from a partner company named Trey Research. Trey Research has a single Active Directory domain named [treyresearch.com](http://treyresearch.com). Treyresearch.com contains a server that has the Active Directory Federation Services server role and all of the Active Directory Federation Services (AD FS) role services installed.

Updated: September 10, 2012

Applies To: System Center 2012 - Virtual Machine Manager, System Center 2012 SP1 - Virtual Machine Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

You can use the following procedure to create a virtual IP (VIP) template for a hardware load balancer. A virtual IP template contains load balancer-related configuration settings for a specific type of network traffic. For example, you could create a template that specifies the load balancing behavior for HTTPS traffic on a specific load balancer manufacturer and model. These templates represent the best practices from a load balancer configuration standpoint.

#### Note

For information about how to create a virtual IP template for Microsoft Network Load Balancing (NLB), see [How to Create VIP Templates for Network Load Balancing \(NLB\) in VMM](#).

Reference:

<http://technet.microsoft.com/library/gg610569.aspx>

## Question: 13

You need to recommend a software update solution that meets the technical requirements.

What should you recommend deploying to each branch office?

- A. An endpoint protection point
- B. A distribution point
- C. A management point
- D. An enrollment proxy point

**Answer: B**

Explanation:

A. Datum identifies the following technical requirements:

- Minimize costs whenever possible.
- Minimize the amount of WAN traffic.
- Minimize the amount of administrative effort whenever possible.
- Provide the fastest possible failover for the virtual machines hosting App2.
- Ensure that administrators can view a consolidated report about the software updates in all of the offices.
- Ensure that administrators in the Miami office can approve updates for the client computers in all of the offices.

Updated: November 1, 2012

Applies To: System Center 2012 Configuration Manager, System Center 2012 Configuration Manager SP1

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

Content management in System Center 2012 Configuration Manager provides the tools for you to manage content files for applications, packages, software updates, and operating system deployment. Configuration Manager uses distribution points to store files required for software to run on client computers. These distribution points function as distribution centers for the content files and let users download and run the software. Clients must have access to at least one distribution point from which they can download the files.

Reference:

<http://technet.microsoft.com/en-us/library/gg712321.aspx>

## Case Study: 14

### Contoso Ltd Case D

#### Background

#### Overview

Contoso, Ltd., is a software development company. The company has a main office in Seattle and branch offices that are located in Los Angeles and New Delhi. Contoso's sales staff are all located in the Los Angeles office. Contoso's software developers are all located in the New Delhi office.

#### Current Environment

The network for the Seattle office contains:

- 2 domain controllers with integrated DNS
- 200 Windows workstations
- 14-node Hyper-V cluster
- 1 file server with multiple shares
- 1 Active Directory Rights Management Services (AD RMS) cluster

The network for the Los Angeles office contains:

- 2 domain controllers with integrated DNS
- 100 Windows workstations
- 1 file server with multiple shares

The network for the New Delhi office contains:

- 2 domain controllers with integrated DNS
- 300 Windows workstations
- 10 Hyper-V servers that host 100 development virtual machines (VMs)
- 50 production virtual machines that are hosted in Azure

All the Contoso offices connect to each other by using VPN links, and each office is connected to the Internet.

Contoso has a single Active Directory Domain Services (AD DS) domain named contoso.com. Contoso.com has a configured certification authority (CA). Contoso currently leverages System Center Virtual Machine Manager 2012 R2 to manage its virtual environment servers.

Contoso uses an application named HRApp1 for its human resources (HR) department. HR users report that the application stops responding and must be restarted before they can continue their work.

### **Fabrikam, Inc.**

Contoso has recently acquired Fabrikam, Inc. Fabrikam has a single office that is located in Seattle. Fabrikam has a single AD DS domain named fabrikam.com.

The network for Fabrikam contains:

- 2 domain controllers with Active Directory-integrated DNS
- 150 Windows workstations
- 5 Hyper-V servers
- 1 file server with multiple shares

A two-way trust exists between Contoso.com and Fabrikam.com.

### **Business Requirements**

#### **Consolidation**

Contoso must complete the consolidation of the Contoso and Fabrikam networks. The consolidation of the two networks must:

- Minimize all hardware and software costs.
- Minimize WAN traffic.
- Enable the users by providing self-service whenever possible.

#### **Security**

Contoso requires that all Windows client devices must be encrypted with BitLocker by using the Trusted Platform.

The CA for the domain contoso.com must be designated as the resource forest. The domain fabrikam.com must leverage certificates that are issued by the domain contoso.com.

### **Other Information**

#### **HRApp1**

- Each time HRApp1 stops responding and is restarted, an incident must be created and associated with the existing problem ticket.

#### **Development environment**

You have the following requirements:

- Developers must be able to manage their own VM checkpoints.
- You must implement a disaster recovery strategy for development virtual machines.

#### **Technical Requirements**

##### **Windows System Updates**

You have the following system update requirements:

- Consolidate reporting of all software updates in all offices.
- Software updates must be applied to all Windows devices.
- Ensure the ability to report on update compliance.

#### **Monitoring**

You have the following monitoring requirements:

- Each time HRApp1 shows performance problems, ensure that a ticket is created.

- When performance problems are resolved, ensure that the ticket closes automatically.

## **Security**

You have the following security requirements:

- Ensure that all documents are protected.
- Ensure that contoso.com domain users get use licenses for RMS-protected documents from the domain contoso.com.
- Ensure that fabrikam.com domain users get use licenses for RMS-protected documents from the domain contoso.com.

---

### **Question: 1**

---

You need to ensure that the developers can manage their own virtual machines.

Solution: You perform the following actions:

In Virtual Machine Manager, you create a new user role named DevUsers that uses the Application Administrator profile.

You grant Checkpoint permissions to the DevUsers role.

You distribute the Self-Service Portal URL to the developers.

Does this meet the goal?

A. Yes

B. No

---

**Answer: B**

---

---

### **Question: 2**

---

You need to ensure that the developers can manage their own virtual machines.

Solution: You perform the following tasks:

In Virtual Machine Manager, you create a new user role named DevUsers that uses the Application Administrator profile.

You add the virtual machines to the DevUsers role.

You grant Checkpoint permissions to the DevUsers role.

You install and configure App Controller.

You distribute the App Controller console URL to the developers.

Does this meet the goal?

A. Yes

B. No

---

**Answer: A**

---

---

### **Question: 3**

---

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these

statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

**Assertion:**

You must implement Azure site recovery between the New Delhi and Seattle offices to meet the backup requirements.

**Reason:**

Azure site recovery allows replication and failover of virtual machines on host servers that are located in the Virtual Machine Manager cloud.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: B**

---

**Question: 4**

---

**DRAG DROP**

You need to implement the network Unlock feature to meet the BitLocker requirements.

In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

**Actions**

Create the Network Unlock certificate.

Deploy the private key and certificate to the Windows Deployment Server.

Configure a Group Policy in contoso.com for Network Unlock.

Install Windows Deployment Services on a new server in the contoso.com domain.

**Answer Area**



---

**Answer:**

---

### **Answer Area**

- 1** Install Windows Deployment Services on a new server in the contoso.com domain.
- 2** Create the Network Unlock certificate.
- 3** Deploy the private key and certificate to the Windows Deployment Server.
- 4** Configure a Group Policy in contoso.com for Network Unlock.

---

### **Question: 5**

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

**Assertion:**

You must implement a Windows Server Gateway in the Seattle office.

**Reason:**

A Windows Server Gateway will prevent users from saving documents outside of the Seattle location.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: C**

---

### **Question: 6**

You need to design a solution that meets all of the software update requirements.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Implement System Center Service Manager.
- B. Deploy a configuration baseline to all devices.
- C. Implement System Center Operations Manager.
- D. Implement System Center Configuration Manager.

---

**Answer: B, C**

---

**Question: 7**

DRAG DROP

You need to configure Active Directory Rights Management Services (AD RMS).

What should you do? To answer, drag the appropriate domain or option to the correct location.

Each domain or option may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Domains and Domain Options**

fabrikam.com
trusted publishing domain
contoso.com
trusted user domain

**Answer Area**

Action	Domain
Deploy an AD RMS cluster to:	Domain or Domain Option
Configure <input type="text"/> Domain or Domain Option as a <input type="text"/> Domain or Domain Option for the domain: <input type="text"/>	Domain or Domain Option

---

**Answer:**

---

**Answer Area**

Action	Domain
Deploy an AD RMS cluster to:	contoso.com
Configure <input type="text"/> fabrikam.com as a <input type="text"/> trusted publishing domain for the domain: <input type="text"/>	fabrikam.com

**Question: 8**

You need to design a solution that meets the monitoring requirements.

What should you do?

- A. In Operations Manager, create an override for the HR application monitor that will close any open HR application performance tickets in Service Manager.
- B. In Service Manager, create a queue that will open a new ticket or close any existing HR application performance ticket when the performance alert has been resolved in Operations Manager.
- C. In Service Manager, create a workflow that will open a new ticket or close any existing HR application performance ticket when the performance alert has been resolved in Operations Manager.
- D. In Service Manager, create an alert routing rule in the Operations Manager Alert connector that creates a new incident when the HR application produces a performance alert.

---

**Answer: C**

---

\* Scenario: You have the following monitoring requirements:

Each time HRApp1 shows performance problems, ensure that a ticket is created.

When performance problems are resolved, ensure that the ticket closes automatically.

\* In System Center 2012 – Service Manager, a workflow is a sequence of activities that automate a business process.

Workflows can, for example, update incidents when various changes occur.

Reference:

Configuring Workflows in System Center 2012 - Service Manager

<https://technet.microsoft.com/en-us/library/hh495667.aspx>

## **Case Study: 15**

### **Contoso Ltd Case E**

#### **Background**

#### **Overview**

Contoso, Ltd., is a manufacturing company. The company has offices in Chicago and Seattle. Each office contains two data centers. All of the data centers and sites for the company have network connectivity to each other. The company uses a single Active Directory Domain Services (AD DS) domain.

Contoso is growing rapidly and needs to expand its computer infrastructure.

#### **Current Environment Chicago Office**

The Chicago office contains a primary data center and a backup data center. A Hyper-V cluster named Cluster1.contoso.com resides in the primary data center. The cluster has a multiple network path configured. The cluster includes two unused SQL Server virtual machines (VMs) named SQL-SERVER1 and SQL-SERVER2. The cluster also includes a Hyper-V Host group named Chi-Primary.

Cluster1.contoso.com contains the following servers:

- CHI1-HVNODE1.contoso.com
- CHI1-HVNODE2.contoso.com
- CHI1-HVNODE3.contoso.com
- CHI1-HVNODE4.contoso.com

The backup data center for the Chicago office is located on a Hyper-V cluster named Cluster2.contoso.com. The cluster has a single network path configured. The cluster includes a Hyper-V Host group named Chi-Backup.

Cluster2.contoso.com contains the following servers:

- CHI2-HVNODE1.contoso.com
- CHI2-HVNODE2.contoso.com
- CHI2-HVNODE3.contoso.com
- CHI2-HVNODE4.contoso.com

In addition, the Chicago office contains two standalone Hyper-V servers named CHI-HVSERVER1.contoso.com and CHI-HVSERVER2.contoso.com.

There are also four newly built servers:

- CHI-SERVER1.contoso.com
- CHI-SERVER2.contoso.com
- CHI-SERVER3.contoso.com

- CHI-SERVER4.contoso.com

All the servers in the Chicago office run Windows Server 2012. Any future servers that are deployed in the Chicago office must also run Windows Server 2012.

All servers in the Chicago office use the subnet 10.20.xx.

### **Current Environment Seattle Office**

The Seattle office contains a primary data center and a backup data center. The primary data center is located on a Hyper-V cluster named Cluster3.contoso.com. The cluster has a multiple network path configured. The cluster includes two unused SQL Server virtual machines named SQL-SERVER3 and SQL-SERVERS. The cluster includes a Hyper-V Host group named Sea-Primary.

Cluster3.contoso.com contains the following servers:

- SEA3-HVNODE1.contoso.com
- SEA3-HVNODE2.contoso.com
- SEA3-HVNODE3.contoso.com
- SEA3-HVNODE4.contoso.com

The backup data center for the Seattle office is located on a Hyper-V cluster named Cluster4.contoso.com. The cluster has a single network path configured. The cluster includes a Hyper-V Host group named Sea-Backup.

Cluster4.contoso.com contains the following servers:

- SEA4-HVNODE1.contoso.com
- SEA4-HVNODE2.contoso.com
- SEA4-HVNODE3.contoso.com
- SEA4-HVNODE4.contoso.com

In addition, the Seattle office contains two standalone Hyper-V servers named SEA-HVSERVER1.contoso.com and SEA-HVSERVER2.contoso.com.

There are also four newly built servers:

- SEA-SERVER1.contoso.com
- SEA-SERVER2.contoso.com
- SEA-SERVER3.contoso.com
- SEA-SERVER4.contoso.com

All servers in the Seattle office run Windows Server 2012 R2. Any future servers that are deployed in the Seattle office must also run Windows Server 2012 R2.

All servers in the Seattle office use the subnet 10.10.x.x.

### **Business Requirements**

#### **Apps**

Contoso plans to deploy new applications to make its departments more efficient.

#### **App1**

Contoso must create a new application named App1 for the human resources (HR) department. The infrastructure for App1 must reside in a virtual environment and the data files for App1 must reside on a single shared disk. In addition, the infrastructure for App1 must meet the following requirements:

- maximize data protection
- withstand the loss of a single guest virtual machine
- withstand the loss of a single physical server

To support App1, Contoso must deploy a new cluster named App1cluster.contoso.com. The cluster has the following requirements:

- It must span multiple sites.
- It must support dynamic quorums.
- It must prevent failures caused by a 50% split.

## **App2**

Contoso must create a new application named App2. To support App2, Contoso must deploy a new SQL Server cluster. The cluster must not be part of the domain.

The server deployment team that will install the cluster has limited permissions. The server deployment team does not have the ability to create objects in Active Directory.

### **Virtualization and Storage**

#### **New VMs**

Any new VMs that are deployed to the Hyper-V cluster in Cluster3.contoso.com have the following requirements:

- New SQL Server VMs must be deployed only to odd-numbered servers in the cluster.
- All other new VM guests must be deployed to any available server in the cluster.

#### **New VDE**

The company needs a highly available file share cluster for a new Virtual Desktop Environment (VDE). It has the following requirements:

- The file share cluster must withstand the loss of a single server.
- The file share cluster must withstand the loss of a single network path.
- The file share cluster must use the least amount of disk space.

#### **New virtualized SQL Server cluster**

Contoso must create a new application for manufacturing. The company needs a new virtualized SQL Server cluster named VM-SQLcluster1.contoso.com. It has the following requirements:

- The cluster must use a shared virtual hard disk.
- The cluster must have two nodes named VM-SQL-NODE1.contoso.com and VM-SQL-NODE2.contoso.com.

#### **Highly available storage solution**

The company is deploying new hardware that will replace the existing Hyper-V clusters. The new file share cluster must have a highly available storage solution for a Hyper-V environment. It has the following requirements:

- The new file share cluster must support guest VM clusters.
- The storage cannot reside on any of the physical Hyper-V hosts.

---

#### **Question: 1**

---

You need to implement a new highly available storage solution for the Hyper-V environment. Which servers should you include in the scale-out file cluster?

- A. CHI-SERVER1 and CHI-SERVER2
- B. SEA3-HVNODE1 and SEA3-HVNODE2
- C. SEA-SERVER1 and SEA-SERVER2

D. CHI1-HVNODE1 and CHI1-HVNODE2

---

**Answer: C**

---

**Question: 2**

---

DRAG DROP

You need to implement VM-SQLcluster1.contoso.com.

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.

**Actions**

Enable Quality of Service for the disk.

On Cluster1, use the Failover Cluster Manager to add a SCSI controller to VM-SQL-NODE1.contoso.com.

Create a VHDX virtual hard drive.

Create a VHD virtual hard drive.

On Cluster3, use the Failover Cluster Manager to add a SCSI controller to SQL-SERVER3.

Enable virtual hard disk sharing.

**Answer Area**




---

**Answer:**

---

**Answer Area**

On Cluster3, use the Failover Cluster Manager to add a SCSI controller to SQL-SERVER3.

Create a VHDX virtual hard drive.

Enable virtual hard disk sharing.

**Question: 3**

---

HOTSPOT

You need to deploy the new SQL cluster for App2.

How should you complete the relevant Windows PowerShell command? To answer, select the appropriate Windows PowerShell segment from each list in the answer area.

**Answer Area**

New-cluster`

Cluster1.contoso.com`  
Cluster5.contoso.com`

-node CHI-SERVER1, CHI-SERVER2`  
-node SEA-SERVER1, SEA-SERVER2`

-StaticAddress 10.20.1.100`  
-StaticAddress 10.10.1.100`

-NoStorage`  
-IgnoreNetwork 10.0.0.0/8`

-AdministrativeAccessPoint DNS  
-AdministrativeAccessPoint ActiveDirectoryAndDNS  
-AdministrativeAccessPoint none  
◀ ▶

---

**Answer:**

---

**Answer Area**

New-cluster`

Cluster1.contoso.com`  
Cluster5.contoso.com`

-node CHI-SERVER1, CHI-SERVER2`  
-node SEA-SERVER1, SEA-SERVER2`

-StaticAddress 10.20.1.100`  
-StaticAddress 10.10.1.100`

-NoStorage`  
-IgnoreNetwork 10.0.0.0/8`

-AdministrativeAccessPoint DNS  
-AdministrativeAccessPoint ActiveDirectoryAndDNS  
-AdministrativeAccessPoint none  
◀ ▶

**Question: 4****HOTSPOT**

You need to implement the file share for the new virtual desktop environment.

How should you configure the implementation? To answer, select the appropriate option from each list in the answer area.

**Answer Area**

Requirement	Option
Data center	<ul style="list-style-type: none"> <li>Chicago</li> <li>Seattle</li> </ul>
Site	<ul style="list-style-type: none"> <li>Site1</li> <li>Site2</li> <li>Site3</li> <li>Site4</li> </ul>
Storage type	<ul style="list-style-type: none"> <li>Storage Spaces</li> <li>data deduplication</li> <li>iSCSI target block storage</li> <li>Distributed File System replication</li> </ul>

**Answer:**

This should be Seattle, Site3, and Data Dedupe. VDI has heavy caching of temporary memory that can be mitigated a lot using the new data dedupe for CSV in 2012 R2. Chicago again is on 2012 and not R2.

**Question: 5****HOTSPOT**

You need to implement App1.

How should you configure the locations? To answer, select the appropriate option from each list in the answer area.

**Answer Area**

Virtual machine location	App1 data LUN location
<ul style="list-style-type: none"> <li>Cluster1</li> <li>Cluster3</li> <li>CHI-HVSERVER1</li> <li>SEA-HVSERVER1</li> </ul>	<ul style="list-style-type: none"> <li>Use virtual Fibre Channel on guest virtual machines.</li> <li>Use iSCSI on guest virtual machines.</li> <li>Use Cluster Shared Volumes on the Hyper-V host.</li> <li>Use local storage on the C: drive of the Hyper-V host.</li> </ul>

---

**Answer:**

This should be Cluster3 and use CSV on the Hyper-V Host.

App1 must support dynamic quorum which is a 2012R2 feature. Cluster1 is again 2012.

---

**Question: 6**

You need to enable virtual machine network health detection on all supported clusters.

What should you do?

- A. On the virtual machine settings page for Cluster4, select the Protect network checkbox for each virtual machine on the cluster.
- B. On the virtual machine settings page for Cluster1, select the Protect network checkbox for each virtual machine on the cluster.
- C. On each guest virtual machine in Cluster4, configure protected access for the network interface card.
- D. On each guest virtual machine in Cluster3, configure protected access for the network interface card.
- E. On the virtual machine settings page for Cluster3, select the Protect network checkbox for each virtual machine on the cluster.
- F. On each guest virtual machine in Cluster1, configure protected access for the network interface card.

---

**Answer: E**

Protected network option is available on the VM settings page for the cluster, not on each VM. Also Protected Network is a 2012R2 feature. Cluster1 is all 2012. And, Cluster4 is 2012R2, but only has a single network. The only option left is E with Cluster3.

---

**Question: 7**

DRAG DROP

You need to implement Windows Network Load Balancing (NLB).

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.

Actions	Answer Area
Start NLB Manager on DETROOTCA, and create the new NLB cluster.	
Start NLB Manager on CHICRL01, and add CHICRL01 to the NLB cluster.	
Create an entry in DNS for the NLB cluster using the name detcrl01.contoso.com.	
Create an entry in DNS for the NLB cluster using the name crl.contoso.com.	
Start NLB Manager on DETCRL01, and create a new NLB cluster.	
Start NLB Manager on DETCRL01, and add the domain crl.contoso.com to the NLB cluster.	

---

**Answer:**

---

Start NLB Manager on DETCRL01, and create a new NLB cluster.

Start NLB Manager on CHICRL01, and add CHICRL01 to the NLB cluster.

Create an entry in DNS for the NLB cluster using the name  
crl.contoso.com.

**Question: 8**

DRAG DROP

You need to configure access to the Certificate Revocation Lists (CRLs).

How should you configure the access? To answer, drag the appropriate protocol or servers to the correct network type. Each protocol or server may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Protocols and Servers**

HTTP

HTTPS

DETROOTCA

DETCA01 and CHICA01

DETCRL01 and CHICRL01

**Answer Area**

Network type	Protocol	Server or servers
Internet	Protocol or Server	Protocol or Server
Internal network	Protocol or Server	Protocol or Server

- 
- 
- 
- 

---

**Answer:**

---

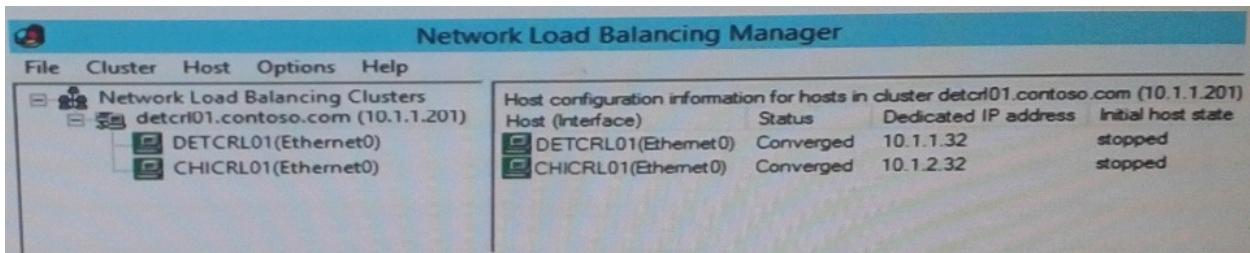
First line: Protocol: HTTP, Server or servers: DETCA01 and CHICA01

Second line: Protocol: HTTP, Server or servers: DETCA01 and CHICA01

**Question: 9**

HOTSPOT

You plan to configure Windows Network Load Balancing (NLB) for a company. You display following Network Load Balancing Manager window:



Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

### Answer Area

What is the health state of the NLB cluster?

Healthy State
Warning State
Error State

the NLB cluster configured correctly According to the requirements?

Yes, the cluster is correctly configured.
No, the name of the cluster is incorrect.
No, the wrong servers are in the cluster.

DETCRL01 and CHICRL01 are rebooted, will e NLB cluster start automatically and be 'ailable?

Yes, the NLB cluster will start automatically and be available.
No, the NLB cluster nodes will need to be started manually after a reboot.
No, the NLB cluster nodes will need to be resumed after a reboot.

---

### Answer:

---

Box 1: Healthy State

Box 2: Yes, the cluster is correctly configured.

Box 3: Yes, the NLB cluster will start automatically and be available.

---

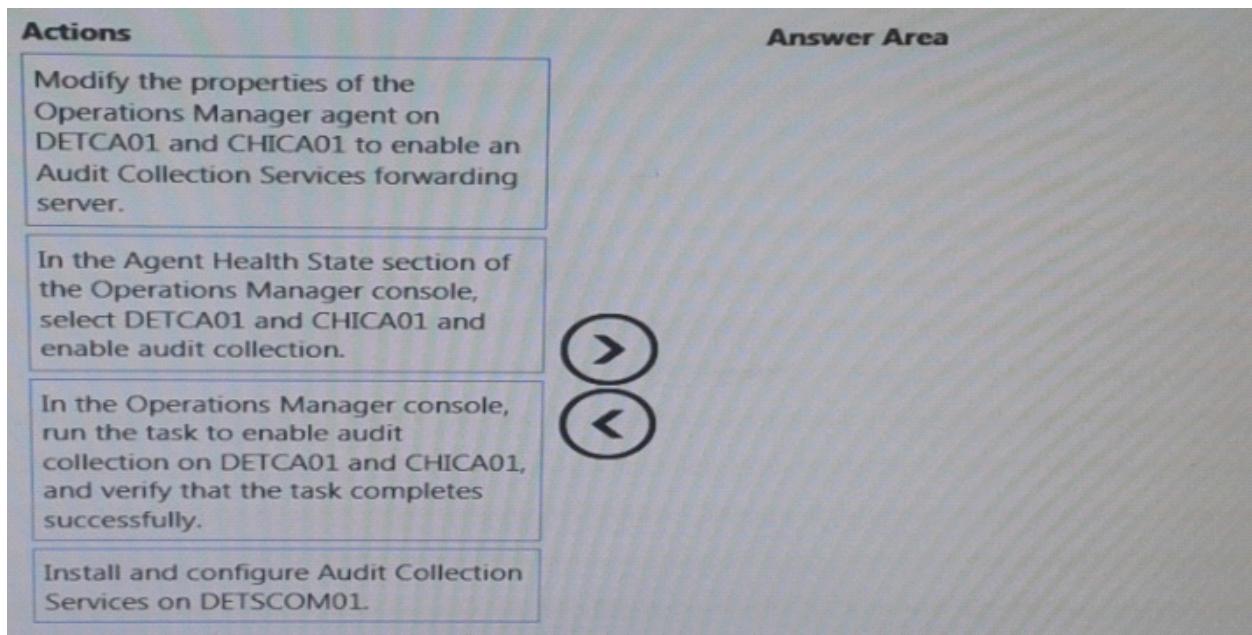
### Question: 10

---

DRAG DROP

You need to collect the required security logs.

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.

**Answer:**

Box 1: Install and configure Audit Collection Services on DETSCOM01.

Box 2: Modify the properties of the Operations Manager agent on DETCA01 and CHICA01 to enable an Audit Collection Services forwarding server.

Box 3: In the Agent Health State section of the Operations Manager console, select DETCA01 and CHICA01 and enable audit collection.

**Explanation:**

**Note:**

\* Audit collection services (Box 1)

In System Center 2012 – Operations Manager, Audit Collection Services (ACS) provides a means to collect records generated by an audit policy and store them in a centralized database.

ACS requires the following components: ACS Forwarders, ACS Collector, ACS Database

\* ACS Forwarders (box 2)

The service that runs on ACS forwarders is included in the Operations Manager agent. By default, this service is installed but not enabled when the Operations Manager agent is installed. You can enable this service for multiple agent computers at the same time using the Enable Audit Collection task.

\* (box 3) Enable audit collection

After you install the ACS collector and database you can then remotely enable this service on multiple agents through the Operations Manager console by running the Enable Audit Collection task.

To enable audit collection on Operations Manager agents (see step 5 below)

Log on to the computer with an account that is a member of the Operations Manager Administrators role. This account must also have the rights of a local administrator on each agent computer that you want to enable as an ACS forwarder.

In the Operations console, click Monitoring.

In the navigation pane, expand Operations Manager, expand Agent Details, and then click Agent Health State. This view has two panes, and the actions in this procedure are performed in the right pane.

In the details pane, click all agents that you want to enable as ACS forwarders. You can make multiple selections by pressing CTRL or SHIFT.

In the Actions pane, under Health Service Tasks, click Enable Audit Collection to open the Run Task - Enable Audit Collection dialog box.

Etc.

Reference:

Collecting Security Events Using Audit Collection Services in Operations Manager; How to Enable Audit Collection Services (ACS) Forwarders

---

### **Question: 11**

You need to prepare the environment for App1.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Install a new cluster for App1 at the Seattle data center.
- B. Install a new cluster for App1 at the Chicago data center.
- C. Run the following Windows PowerShell cmdlet for each node in the backup data center site:  
Set NodeWeight=1
- D. Run the following Windows PowerShell cmdlet for each node in the backup data center site:  
Set LowerQuorumPriorityNodeID=1

---

**Answer: AD**

---

---

### **Question: 12**

You need to deploy the new SQL Server virtual machines.

What should you do?

- A. On the specified cluster nodes in the primary data center in Chicago, select the Host is available for placement check box.
- B. On the specified cluster nodes in the primary data center in Chicago, run the following Windows PowerShell command:  
Set-SCVMHost –AvailableForPlacement
- C. On Sea-Primary, run the following Windows PowerShell cmdlet for the specific nodes:  
Run Add-Sccustomplacementrule
- D. On Chi-Primary, configure placement rules for the specified nodes.

---

**Answer: C**

---

\* Scenario: The Seattle office contains a primary data center and a backup data center. The primary data center is located on a Hyper-V cluster named Cluster3.contoso.com.

Any new VMs that are deployed to the Hyper-V cluster in Cluster3.contoso.com have the following requirements:

New SQL Server VMs must be deployed only to odd-numbered servers in the cluster.

\* The Add-SCCustomPlacementRule cmdlet adds a custom placement rule to the placement configuration for a host group.

---

### **Question: 13**

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

**Assertion:**

You must install and configure Network Device Enrollment Services (NDES) on CHICA01.

**Reason:**

NDES allows non-domain joined devices to obtain a Certificate Revocation List from an Active Directory-integrated certification authority, and then validate whether a certificate is valid.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: D**

---

The Network Device Enrollment Service (NDES) allows software on routers and other network devices running without domain credentials to obtain certificates based on the Simple Certificate Enrollment Protocol (SCEP).

**Reference:**

Network Device Enrollment Service Guidance

<https://technet.microsoft.com/en-us/library/hh831498.aspx>

---

**Question: 14**

---

You need to deploy the new SQL Server virtual machines.

What should you do?

- A. On the specified cluster nodes in the primary data center in Seattle, run the following Windows PowerShell command:  
Set-SCVMHost -AvailableForPlacement
- B. On the specified cluster nodes in the primary data center in Chicago, select the Host is available for placement check box.
- C. On Chi-Primary, run the following Windows PowerShell cmdlet for the specified nodes:  
Add-Sccustomplacementrule
- D. On Sea-Primary, configure placement rules for the specified nodes.

---

**Answer: C**

---

\* Scenario: A Hyper-V cluster named Cluster1.contoso.com includes two unused SQL Server virtual machines (VMs)

named SQL-SERVER1 and SQL-SERVER2. The cluster also includes a Hyper-V Host group named Chi-Primary.

\* The Add-SCCustomPlacementRule adds a custom placement rule to the placement configuration for a host group.

Reference:

Add-SCCustomPlacementRule

<https://technet.microsoft.com/en-us/library/hh801560.aspx>

## **Case Study: 16**

### **Contoso, Ltd Case F**

#### **Overview**

Contoso, Ltd., is a manufacturing company that makes several different components that are used in automobile production. Contoso has a main office in Detroit, a distribution center in Chicago, and branch offices in Dallas, Atlanta, and San Diego.

The contoso.com forest and domain functional level are Windows Server 2008 R2. All servers run Windows Server 2012 R2, and all client workstations run Windows 7 or Windows 8. Contoso uses System Center 2012 Operations Manager and Audit Collection Services (ACS) to monitor the environment. There is no certification authority (CA) in the environment.

#### **Current Environment**

The contoso.com domain contains the servers as shown in the following table:

Server name	Server role	Server location
DETDC01	Domain controller	Detroit
DETDC02	Domain controller	Detroit
CHIDC01	Domain controller	Chicago
DETSCOM01	System Center Operations Manager	Detroit

Contoso sales staff travel within the United States and connect to a VPN by using mobile devices to access the corporate network. Sales users authenticate to the VPN by using their Active Directory usernames and passwords. The VPN solution also supports certification-based authentication.

Contoso uses an inventory system that requires manually counting products and entering that count into a database. Contoso purchases new inventory software that supports wireless handheld scanners and several wireless handheld scanners. The wireless handheld scanners run a third party operating system that supports the Network Device Enrollment Service (NDES).

#### **Business Requirements**

#### **Security**

The wireless handheld scanners must use certification-based authentication to access the wireless network.

Sales users who use mobile devices must use certification-based authentication to access the VPN. When sales users leave the company, Contoso administrators must be able to disable their VPN access by revoking their certificates.

## **Monitoring**

All servers must be monitored by using System Center 2012 Operating Manager. In addition to monitoring the Windows operating system, you must collect security logs from the CA servers by using ACS, and monitor the services that run on the CA and Certificate Revocation List (CRL) servers, such as certification authority and web services.

## **Technical Requirements**

### **CA Hierarchy**

Contoso requires a two-tier CA hierarchy. The CA hierarchy must include a stand-alone offline root and two Active Directory-integrated issuing CAs: one for issuing certificates to domain-joined devices, and one for issuing certificates to non-domain-joined devices by using the NDES. CRLs must be published to two web servers: one in Detroit and one in Chicago.

Contoso has servers that run Windows Server 2012 R2 to use for the CA hierarchy. The servers are described in the following table:

Server name	Server role	Server location
DETROOTCA	Offline root CA	Detroit
DETCA01	Issuing CA for domain-joined devices	Detroit
CHICA01	Issuing CA for non-domain-joined devices	Chicago
DETCRL01	Web server	Detroit
CHICRL01	Web server	Chicago

The IT security department must have the necessary permissions to manage the CA and CRL servers. A domain group named Corp-IT Security must be used for this purpose. The IT security department users are not domain admins.

### **Fault Tolerance**

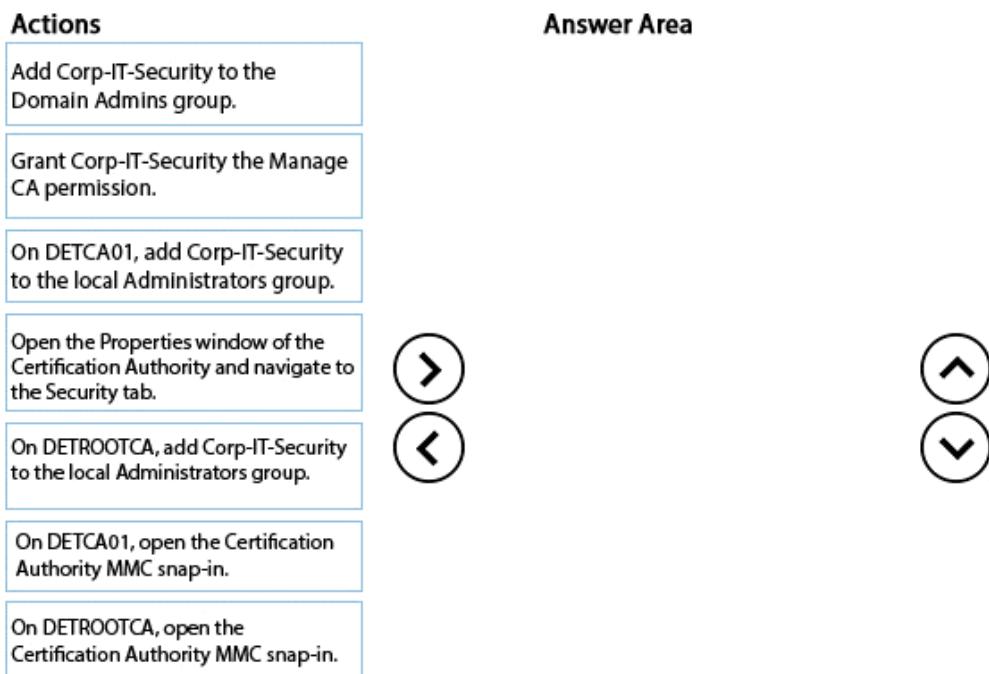
The servers that host the CRL must be part of a Windows Network Load Balancing (NLB) cluster. The CRL must be available to users in all locations by using the hostname `crl.contoso.com`, even if one of the underlying web servers is offline.

**Question: 1**

DRAG DROP

You need to delegate permissions for DETCA01.

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.

**Answer:**

Box 1:

On DETCA01, add Corp-IT-Security to the local Administrators group.

Box 2:

On DETCA01, open the Certification Authority MMC snap-in.

Box 3:

Grant Corp-IT-Security the Manage CA permission.

Reference:

Implement Role-Based Administration

<https://technet.microsoft.com/en-us/library/cc732590.aspx>

**Question: 2**

You need to automatically restart the appropriate web service on DETCRL01 and CHICRL01 if the web service is stopped.

Solution: You create a diagnostic task in SCOM and configure it to start the Server service.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

Explanation:

It is not the Server service that needs to be restarted. The Internet Information Services (IIS) World Wide Web Publishing Service (W3SVC), which manages the HTTP protocol and HTTP performance counters, needs to be restarted.

Reference:

IIS World Wide Web Publishing Service (W3SVC)

[https://technet.microsoft.com/en-us/library/cc734944\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc734944(v=ws.10).aspx)

---

### **Question: 3**

---

You need to automatically restart the appropriate web service on DETCRL01 and CHICRL01 if the web service is stopped.

Solution: You create a recovery task in SCOM and configure it to start the World Wide Web publishing service.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

Explanation:

The Internet Information Services (IIS) World Wide Web Publishing Service (W3SVC), sometimes referred to as the WWW Service, manages the HTTP protocol and HTTP performance counters.

The following is a list of the managed entities that are included in this managed entity:

\* IIS Web Site

An Internet Information Services (IIS) Web site is a unique collection of Web pages and Web applications that is hosted on an IIS Web server. Web sites have bindings that consist of a port number, an IP address, and an optional host name or names.

\* Active Server Pages (ASP)

Active Server Pages (ASP)

Reference:

IIS World Wide Web Publishing Service (W3SVC)

[https://technet.microsoft.com/en-us/library/cc734944\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc734944(v=ws.10).aspx)

---

### **Question: 4**

---

You plan to allow users to run internal applications from outside the company's network. You have a Windows Server 2012 R2 that has the Active Directory Federation Services (AD FS) role installed. You must secure on-premises resources by using multi-factor authentication (MFA). You need to design a solution to enforce different access levels for users with personal Windows 8.1 or iOS 8 devices.

Solution: You install a local instance of MFA Server. You connect the instance to the Microsoft Azure MFA provider, and then run the following Windows PowerShell cmdlet.

Enable-AdfsDeviceRegistration

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

Explanation:

We must install AD FS Adapter, not register a host for the Device Registration Service.

Note: The Enable-AdfsDeviceRegistration cmdlet configures a server in an Active Directory Federation Services (AD FS) farm to host the Device Registration Service.

Reference:

Using Multi-Factor Authentication with Windows Server 2012 R2 AD FS

<https://msdn.microsoft.com/en-us/library/azure/dn807157.aspx>

---

### **Question: 5**

---

An organization uses an Active Directory Rights Management Services (AD RMS) cluster named RMS1 to protect content for a project. You uninstall AD RMS when the project is complete. You need to ensure that the protected content is still available after AD RMS is uninstalled.

Solution: You enable the decommissioning service by using the AD RMS management console. You grant all users the Read & Execute permission to the decommission pipeline.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

Explanation:

The proper procedure is:

Inform your users that you are decommissioning the AD RMS installation and advise them to connect to the cluster to save their content without AD RMS protection. Alternatively, you could delegate a trusted person to decrypt all rights-protected content by temporarily adding that person to the AD RMS super users group.

After you believe that all of the content is unprotected and saved, you should export the server licensor certificate, and then uninstall AD RMS from the server.

---

### **Question: 6**

---

Your network contains an Active Directory domain named contoso.com.

You currently have an intranet web site that is hosted by two Web servers named Web1 and Web2. Web1 and Web2 run Windows Server 2012.

Users use the name intranet.contoso.com to request the web site and use DNS round robin.

You plan to implement the Network Load Balancing (NLB) feature on Web1 and Web2.

You need to recommend changes to the DNS records for the planned implementation.

What should you recommend?

- A. Delete one of the host (A) records named Intranet. Modify the remaining host (A) record named Intranet.
- B. Delete both host (A) records named Intranet. Create a pointer (PTR) record for each Web server.
- C. Create a new host (A) record named Intranet. Remove both host (A) records for Web1 and Web2.

D. Create a service locator (SRV) record. Map the SRV record to Intranet.

---

**Answer: A**

---

Reference:

How to Configure Network Load Balancing for Configuration Manager Site Systems

<https://technet.microsoft.com/en-us/library/bb633031.aspx>

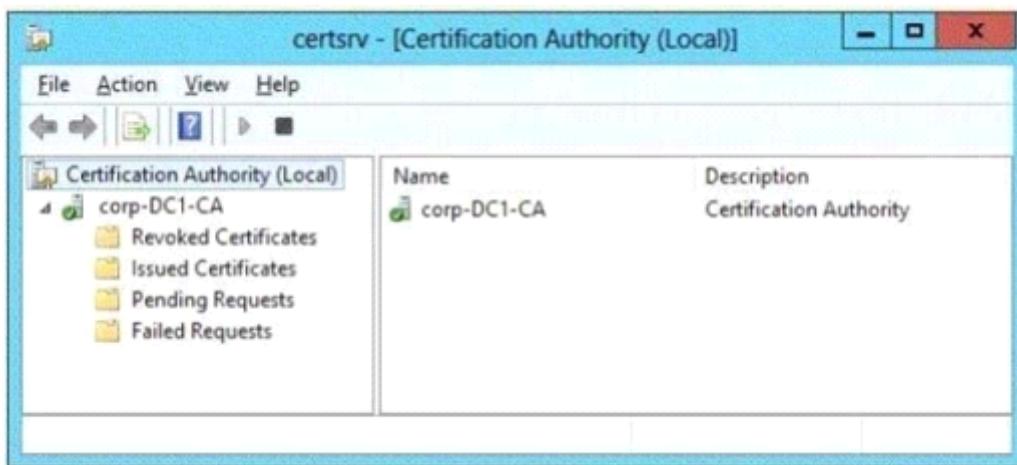
---

### Question: 7

---

Your network contains an Active Directory domain named contoso.com. The network contains two servers named Server1 and Server2.

You deploy Active Directory Certificate Services (AD CS). The certification authority (CA) is configured as shown in the exhibit. (Click the Exhibit button).



You need to ensure that you can issue certificates based on certificate templates.

What should you do?

- A. Configure Server2 as a standalone subordinate CA.
- B. On Server1, install the Network Device Enrollment service role service.
- C. Configure Server2 as an enterprise subordinate CA.
- D. On Server1, run the Add-CATemplate cmdlet.

---

**Answer: D**

---

Explanation:

The Add-CATemplate cmdlet adds a certificate template to the CA for issuing. Certificate templates allow for the customization of a certificate that can be issued by the CA.

Example: Adds a CA template with the template display name Basic EFS and the template name EFS.

Windows PowerShell

C:\PS>Add-CATemplate -Name EFS

---

### Question: 8

---

Your network contains an Active Directory domain named contoso.com.

Your company has an enterprise root certification authority (CA) named CA1.

You plan to deploy Active Directory Federation Services (AD FS) to a server named Server1.

The company purchases a Microsoft Office 365 subscription.

You plan to register the company's SMTP domain for Office 365 and to configure single sign-on for all users.

You need to identify which certificate is required for the planned deployment.

Which certificate should you identify?

- A. a server authentication certificate that is issued by a trusted third-party root CA and that contains the subject name server1.contoso.com
- B. a self-signed server authentication certificate for server1.contoso.com
- C. a server authentication certificate that is issued by a trusted third-party root CA and that contains the subject name Server1
- D. a server authentication certificate that is issued by CA1 and that contains the subject name Server1

---

### Answer: A

---

**Explanation:**

#### Prepare Your Server and Install ADFS

You can install ADFS on a domain controller or another server. You'll first need to configure a few prerequisites. The following steps assume you're installing to Windows Server 2008 R2.

Using Server Manager, install the IIS role and the Microsoft .NET Framework. Then purchase and install a server-authentication certificate from a public certificate authority. Make sure you match the certificate's subject name with the Fully Qualified Domain Name of the server. Launch IIS Manager and import that certificate to the default Web site.

**Reference:**

Geek of All Trades: Office 365 SSO: A Simplified Installation Guide

<https://technet.microsoft.com/en-us/magazine/jj631606.aspx>

---

### Question: 9

---

Your network contains an Active Directory domain named contoso.com. All servers run Windows Server 2012 R2. The network contains a System Center 2012 R2 Data Protection Manager (DPM) deployment.

The domain contains six servers. The servers are configured as shown in the following table.

Server name	Role	Node in cluster
Server1	Domain controller	<i>Not applicable</i>
Server2	Domain controller	<i>Not applicable</i>
Server3	Microsoft SQL Server	Cluster1
Server4	Microsoft SQL Server	Cluster1
Server5	<i>Not applicable</i>	Cluster2
Server6	<i>Not applicable</i>	Cluster2

You install System Center 2012 R2 Virtual Machine Manager (VMM) on the nodes in Cluster2.

You configure VMM to use a database in Cluster1. Server5 is the first node in the cluster.

You need to back up the VMM encryption key.

What should you back up?

- A. a system state backup of Server2
- B. a full system backup of Server6
- C. a system state backup of Server5
- D. a full system backup of Server3

---

**Answer: A**

---

Explanation:

Encryption keys in Active Directory Domain Services: If distributed key management (DKM) is configured, then you are storing VMM-related encryption keys in Active Directory Domain Services (AD DS). To back up these keys, back up Active Directory on a regular basis.

Reference:

Back Up and Restore Virtual Machine Manager

[https://technet.microsoft.com/en-us/library/dn768227.aspx#BKMK\\_b\\_misc](https://technet.microsoft.com/en-us/library/dn768227.aspx#BKMK_b_misc)

---

### **Question: 10**

---

This question consists of two statements: One is named Assertion and the other is named Reason. Both of these statements may be true; both may be false; or one may be true, while the other may be false.

To answer this question, you must first evaluate whether each statement is true on its own. If both statements are true, then you must evaluate whether the Reason (the second statement) correctly explains the Assertion (the first statement). You will then select the answer from the list of answer choices that matches your evaluation of the two statements.

Assertion:

You can manage VMware ESX hosts and virtual machines by using a System Center Virtual Machine Manager (SCVMM) server.

Reason:

SCVMM automatically imports ESX hosts and virtual machines when you add the corresponding VMware vCenter to the SCVMM server.

Evaluate the Assertion and Reason statements and choose the correct answer option.

- A. Both the Assertion and Reason are true, and the Reason is the correct explanation for the Assertion.
- B. Both the Assertion and Reason are true, but the Reason is not the correct explanation for the Assertion.
- C. The Assertion is true, but the Reason is false.
- D. The Assertion is false, but the Reason is true.
- E. Both the Assertion and the Reason are false.

---

**Answer: C**

---

Explanation:

\* Assertion: true

Virtual Machine Manager (VMM) enables you to deploy and manage virtual machines and services across multiple hypervisor platforms, including VMware ESX and ESXi hosts.

\* Reason: False

When you add a vCenter Server, VMM no longer imports, merges and synchronizes the VMware tree structure with VMM. Instead, after you add a vCenter Server, you can add selected ESX servers and hosts to any VMM host group. Therefore, there are fewer issues with synchronization.

Reference:

Managing VMware ESX Hosts in VMM Overview

<https://technet.microsoft.com/en-us/library/gg610683.aspx>

---

### **Question: 11**

---

You administer an Active Directory Domain Services environment. There are no certification authorities (CAs) in the

environment.

You plan to implement a two-tier CA hierarchy with an offline root CA.

You need to ensure that the issuing CA is not used to create additional subordinate CAs.

What should you do?

A. In the CAPolicy.inf file for the issuing CA, enter the following constraint:

PathLength=1

B. In the CAPolicy.inf file for the root CA, enter the following constraint:

PathLength=1

C. In the CAPolicy.inf file for the root CA, enter the following constraint:

PathLength=2

D. In the CAPolicy.inf file for the issuing CA, enter the following constraint:

PathLength=2

---

## Answer: B

---

**Explanation:**

You can use the CAPolicy.inf file to define the PathLength constraint in the Basic Constraints extension of the root CA certificate. Setting the PathLength basic constraint allows you to limit the path length of the CA hierarchy by specifying how many tiers of subordinate CAs can exist beneath the root. A PathLength of 1 means there can be at most one tier of CAs beneath the root. These subordinate CAs will have a PathLength basic constraint of 0, which means that they cannot issue any subordinate CA certificates.

**Reference:**

Windows Server 2008 R2 CAPolicy.inf Syntax

<http://blogs.technet.com/b/askds/archive/2009/10/15/windows-server-2008-r2-capolicy-inf-syntax.aspx>

---

## Question: 12

---

You have a small Hyper-V cluster built on two hosts that run Windows Server 2012 R2 Hyper-V. You manage the virtual infrastructure by using System Center Virtual Machine Manager 2012.

Distributed Key Management is not installed. You have the following servers in the environment:

Server name	Role
DC1	Active Directory Domain Services domain controller
HYPERV1	Hyper-V host with 40 virtual machines
HYPERV2	Hyper-V host with 25 virtual machines
SQL1	SQL Server 2012 database
DPM1	Data Protection Manager (DPM) server
VMM1	Virtual Machine Manager (VMM) 2012
FILESERVER1	File server, shared folders
FILESERVER2	File server, VMM Library Server

You have the following requirements:

You must back up virtual machines at the host level.

You must be able to back up virtual machines that are configured for live migration.

You must be able to restore the entire VMM infrastructure.

You need to design and implement the backup plan.  
What should you do?

A. Run the following Windows PowerShell command:

Get-VM VMM1 | Checkpoint-VM-SnapshotName "VMM backup"

B. Run the following Windows PowerShell command:

Set-DPMGlobalProperty-DPMServerName DPM1-KnownVMMservers VMM1

C. Configure System State Backup for DCL.

D. Configure backup for all disk volumes on FILESERVER1

---

**Answer: B**

---

**Explanation:**

DPM can protect Hyper-V virtual machines V during live migration.

Connect servers—Run the Set-DPMGlobalProperty PowerShell command to connect all the servers that are running Hyper-V to all the DPM servers. The cmdlet accepts multiple DPM server names.

Set-DPMGlobalProperty -dpmservername <dpmservername> -knownvmmservers <vmmservername>

**Reference:**

Set up protection for live migration

<https://technet.microsoft.com/en-us/library/jj656643.aspx>

---

### Question: 13

Your network contains an Active Directory domain named contoso.com. The domain contains four servers on a test network. The servers are configured as shown in the following table.

Server name	Role
Server1	Hyper-V
Server2	File and Storage Services
Server3	File and Storage Services
Server4	File and Storage Services

Server1 uses the storage shown in the following table.

Drive name	Type
C	Locally attached IDE disk
D	Locally attached SCSI disk
E	Tiered storage space from locally attached SCSI and SSD drives

You perform the following tasks:

On Server2, you create an advanced SMB share named Share2A and an applications SMB share named Share2B.

On Server3, you create an advanced SMB share named Share3.

On Server4, you create an applications SMB share named Share4.

You add Server3 and Server4 to a new failover cluster named Clus1.

On Clus1, you configure the File Server for general use role, you create a quick SMB share named Share5A, and then you create an applications SMB share named Share5B.

You plan to create a failover cluster of two virtual machines hosted on Server1. The clustered virtual machines will use shared .vhdx files.

You need to recommend a location to store the shared .vhdx files.

Where should you recommend placing the virtual hard disk (VHD)?

- A. \Clus1\Share5A
- B. \Server2\Share2A
- C. \Server4\Share4
- D. the D drive on Server1

---

**Answer: C**

Cluster1 is configured as a file share for general use and quick smb share. You can't place shared vhdx disks on quick smb, and it's not recommended to store Hyper-V stuff on general use file shares.

---

### **Question: 14**

A company has data centers in Seattle and New York. A high-speed link connects the data centers. Each data center runs a virtualization infrastructure that uses Hyper-V Server 2012 and Hyper-V Server 2012 R2. Administrative users from the Seattle and New York offices are members of Active Directory Domain Services groups named SeattleAdmins and NewYorkAdmins, respectively.

You deploy one System Center Virtual Machine Manager (SCVMM) in the Seattle data center. You create two private clouds named SeattleCloud and NewYorkCloud in the Seattle and New York data centers, respectively.

You have the following requirements:

Administrators from each data center must be able to manage the virtual machines and services from their location by using a web portal.

Administrators must not apply new resource quotas or change resource quotas.

You must manage public clouds by using the existing SCVMM server.

You must use the minimum permissions required to perform the administrative tasks.

You need to configure the environment.

What should you do?

- A. For both the Seattle and New York admin groups, create a User Role and assign it to the Application Administrator profile. Add the Seattle and New York private clouds to the corresponding User Role.
- B. For both the Seattle and New York admin groups, create a User Role and assign it to the Tenant Administrator profile. Add the Seattle and New York private clouds to the corresponding User Role.
- C. Add both SeattleAdmins and NewYorkAdmins to the Local Administrators group of each Hyper-V host in Seattle and New York, respectively.
- D. Add both SeattleAdmins and NewYorkAdmins to the Local Administrators group of the SCVMM server.

---

**Answer: A**

Explanation:

Members of the Application Administrator (Self-Service User) role can create, deploy, and manage their own virtual machines and services by using the VMM console or a Web portal.

---

### **Question: 15**

Your network contains an Active Directory domain named contoso.com. You currently have an intranet web site that is hosted by two Web servers named Web1 and Web2. Web1 and Web2 run Windows Server 2012. Users use the name intranet.contoso.com to request the web site and use DNS round robin.

You plan to implement the Network Load Balancing (NLB) feature on Web1 and Web2.

You need to recommend changes to the DNS records for the planned implementation.

What should you recommend?

- A. Create one alias (CNAME) record named Intranet. Map the CNAME record to Intranet.
- B. Delete both host (A) records named Intranet. Create a pointer (PTR) record for each Web server.
- C. Create a new host (A) record named Intranet. Remove both host (A) records for Web1 and Web2.
- D. Delete one of the host (A) records named Intranet. Modify the remaining host (A) record named Intranet.

---

**Answer: C**

---

## **Case Study: 17**

### **Mix Questions B**

---

#### **Question: 1**

---

Your network contains two servers named Server1 and Server2 that run Windows Server 2012. Server1 and Server2 have the Hyper-V server role installed and are part of a host group named Group1 in Microsoft System Center 2012 Virtual Machine Manager (VMM).

Server1 and Server2 have identical hardware, software, and settings.

You configure VMM to migrate virtual machines if the CPU utilization on a host exceeds 65 percent. The current load on the servers is shown following table.

<b>Server</b>	<b>Virtual machine</b>	<b>CPU utilization</b>
Server1	VM1	20 percent
Server1	VM2	20 percent
Server1	VM3	15 percent
Server2	VM4	15 percent
Server2	VM5	15 percent
Server2	VM6	15 percent
Server2	VM7	15 percent

You start a new virtual machine on Server2 named VM8. VM8 has a CPU utilization of 20 percent.

You discover that none of the virtual machines hosted on Server2 are migrated to Server1.

You need to ensure that the virtual machines hosted on Server2 are migrated to Server1.

What should you modify from the Dynamic Optimization configuration?

- A. The Host Reserve threshold
- B. The Power Optimization threshold
- C. The Aggressiveness level
- D. The Dynamic Optimization threshold

---

**Answer: C**

---

---

#### **Question: 2**

---

Your network contains an Active Directory domain. The domain contains 10 file servers. The file servers connect to a Fibre Channel SAN. You plan to implement 20 Hyper-V hosts in a failover cluster.

The Hyper-V hosts will not have host bus adapters (HBAs).

You need to recommend a solution for the planned implementation that meets the following requirements:

The virtual machines must support live migration.

The virtual hard disks (VHDs) must be stored on the file servers.

Which two technologies achieve the goal? Each correct answer presents a complete solution.

- A. Cluster Shared Volume (CSV)
- B. An NFS share
- C. Storage pools
- D. SMB 3.0 shares

---

**Answer: C, D**

---

### **Question: 3**

Your network contains two data centers named DataCenter1 and DataCenter2. The two data centers are connected by using a low-latency high-speed WAN link.

Each data center contains multiple Hyper-V hosts that run Windows Server 2012. All servers connect to a Storage Area Network (SAN) in their local data center.

You plan to implement 20 virtual machines that will be hosted on the Hyper-V hosts.

You need to recommend a hosting solution for the virtual machines.

The solution must meet the following requirements:

Virtual machines must be available automatically on the network if a single Hyper-V host fails.

Virtual machines must be available automatically on the network if a single data center fails.

What should you recommend?

- A. One failover cluster in DataCenter1 and Hyper-V replicas to DataCenter2
- B. One failover cluster in DataCenter2 and one DFS Replication group in DataCenter1
- C. One failover cluster that spans both data centers and SAN replication between the data centers
- D. One failover cluster and one Distributed File System (DFS) Replication group in each data center

---

**Answer: C**

---

### **Question: 4**

You have a Hyper-V host named Hyper1 that has Windows Server 2012 installed. Hyper1 hosts 20 virtual machines.

Hyper1 has one physical network adapter.

You need to implement a networking solution that evenly distributes the available bandwidth on Hyper1 to all of the virtual machines.

What should you modify?

- A. The settings of the virtual switch
- B. The settings of the virtual network adapter
- C. The Quality of Service (QoS) Packet Scheduler settings of the physical network adapter
- D. The settings of the legacy network adapter

---

**Answer: A**

---

### **Question: 5**

**HOTSPOT**

You plan to implement a virtualization solution to host 10 virtual machines. All of the virtual machines will be hosted

on servers that run Windows Server 2012.

You need to identify which servers must be deployed for the planned virtualization solution.

The solution must meet the following requirements:

- Minimize the number of servers.
- Ensure that live migration can be used between the hosts.

Which servers should you identify?

To answer, select the appropriate servers in the answer area.

**Answer Area**

Option 1

**Server name      Windows components**

Server1      Hyper-V server role

Server2      Hyper-V server role

Option 2

**Server name      Windows Components**

Server1      Hyper-V server role, Failover Clustering feature

Server2      Hyper-V server role, Failover Clustering feature

Server3      Hyper-V server role

Option 3

**Server name      Windows components**

Server1      Hyper-V server role

Server2      Hyper-V server role

Server3      File Server role service

Server4      Network Load Balancing feature

Option 4

**Server name      Windows components**

Server1      Hyper-V server role, Failover Clustering feature

Server2      Hyper-V server role, Failover Clustering feature

Server3      iSCSI Target Server role service

**Answer:**



**Answer Area**

Option 1

**Server name      Windows components**

Server1      Hyper-V server role

Server2      Hyper-V server role

Option 2

**Server name      Windows Components**

Server1      Hyper-V server role, Failover Clustering feature

Server2      Hyper-V server role, Failover Clustering feature

Server3      Hyper-V server role

Option 3

**Server name      Windows components**

Server1      Hyper-V server role

Server2      Hyper-V server role

Server3      File Server role service

Server4      Network Load Balancing feature

Option 4

**Server name      Windows components**

Server1      Hyper-V server role, Failover Clustering feature

Server2      Hyper-V server role, Failover Clustering feature

Server3      iSCSI Target Server role service

**Explanation:**

Just two server with Hyper-V installed is enough to perform a Live Migration. (Minimize the number of servers)

---

### **Question: 6**

Your network contains a Hyper-V cluster named Cluster1.  
You install Microsoft System Center 2012 Virtual Machine Manager (VMM).  
You create a user account for another administrator named User1.  
You plan to provide User1 with the ability to manage only the virtual machines that User1 creates.  
You need to identify what must be created before you delegate the required permissions.  
What should you identify?

- A. A service template
- B. A Delegated Administrator
- C. A cloud
- D. A host group

---

**Answer: D**

---

### **Question: 7**

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.  
You deploy a second System Center 2012 infrastructure in a test environment.  
You create a service template named Template1 in both System Center 2012 infrastructures.  
For self-service users, you create a service offering for Template1. The users create 20 instances of Template1.  
You modify Template1 in the test environment. You export the service template to a file named Template1.xml.  
You need to ensure that the changes to Template1 can be applied to the existing instances in the production environment.  
What should you do when you import the template?

- A. Overwrite the current service template.
- B. Change the name of the service template.
- C. Create a new service template.
- D. Change the release number of the service template.

---

**Answer: D**

---

### **Question: 8**

Your network contains an Active Directory domain named contoso.com. The domain contains four servers on a test network. The servers are configured as shown in the following table.

<b>Server name</b>	<b>Role</b>
Server1	Hyper-V
Server2	File and Storage Services
Server3	File and Storage Services
Server4	File and Storage Services

Server1 uses the storage shown in the following table.

Drive name	Type
C	Locally attached IDE disk
D	Locally attached SCSI disk
E	Tiered storage space from locally attached SCSI and SSD drives

You perform the following tasks:

On Server2, you create an advanced SMB share named Share2A and an applications SMB share named Share2B.

On Server3, you create an advanced SMB share named Share3.

On Server4, you create an applications SMB share named Share4.

You add Server3 and Server4 to a new failover cluster named Clus1.

On Clus1, you configure the File Server for general use role, you create a quick SMB share named Share5A, and then you create an applications SMB share named Share5B.

You plan to create a failover cluster of two virtual machines hosted on Server1. The clustered virtual machines will use shared .vhdx files.

You need to recommend a location to store the shared .vhdx files.

Where should you recommend placing the virtual hard disk (VHD)?

- A. \\Server3\Share3
- B. \\Server2\Share2B
- C. \\Clus1\Share5B
- D. \\Server4\Share4

---

**Answer: C**

---

### Question: 9

---

Your network contains an Active Directory domain named contoso.com. All servers run Windows Server 2012 R2. The network contains a System Center 2012 R2 Data Protection Manager (DPM) deployment.

The domain contains six servers. The servers are configured as shown in the following table.

Server name	Role	Node in cluster
Server1	Domain controller	<i>Not applicable</i>
Server2	Domain controller	<i>Not applicable</i>
Server3	Microsoft SQL Server	Cluster1
Server4	Microsoft SQL Server	Cluster1
Server5	<i>Not applicable</i>	Cluster2
Server6	<i>Not applicable</i>	Cluster2

You install System Center 2012 R2 Virtual Machine Manager (VMM) on the nodes in Cluster2.

You configure VMM to use a database in Cluster1. Server5 is the first node in the cluster.

You need to back up the VMM encryption key.

What should you back up?

- A. A full system backup of Server1
- B. A full system backup of Server3
- C. A backup of the Windows\DigitalLocker folder on Server5
- D. A backup of the Windows\DigitalLocker folder on Server1

---

**Answer: A**

---

**Question: 10**

You have a Windows Server 2012 R2 failover cluster that contains four nodes. The cluster has Dynamic Optimization enabled. You deploy three highly available virtual machines to the cluster by using System Center 2012 R2 Virtual Machine Manager (VMM).

You need to prevent Dynamic Optimization from placing any of the three virtual machines in the same node. What should you do?

- A. From the Virtual Machine Manager console, modify the Compatibility settings in the Hardware Configuration properties of the virtual machines.
- B. Set the Priority property of the virtual machine cluster role.
- C. From the Virtual Machine Manager console, modify the Servicing Windows settings of the virtual machines.
- D. From the Virtual Machine Manager console, modify the Availability settings in the Hardware Configuration properties of the virtual machines.

---

**Answer: D**

---

**Question: 11**

Your network contains an Active Directory domain named contoso.com.

You currently have an intranet web site that is hosted by two Web servers named Web1 and Web2. Web1 and Web2 run Windows Server 2012.

Users use the name intranet.contoso.com to request the web site and use DNS round robin.

You plan to implement the Network Load Balancing (NLB) feature on Web1 and Web2.

You need to recommend changes to the DNS records for the planned implementation.

What should you recommend?

- A. Create a service locator (SRV) record. Map the SRV record to Intranet.
- B. Delete both host (A) records named Intranet. Create a pointer (PTR) record for each Web server.
- C. Remove both host (A) records named Intranet. Create a new host (A) record named Intranet.
- D. Delete both host (A) records named Intranet. Create two new alias (CNAME) records named Intranet. Map each CNAME record to a Web server name.

---

**Answer: C**

---

**Question: 12**

Your company has a main office and a branch office.

You plan to implement a failover cluster named Cluster1 to host an application named App1. The data of App1 will replicate to all of the nodes in Cluster1.

Cluster1 will contain two servers. The servers will be configured as shown in the following table.

Server name	Office
Server1	Main
Server2	Main

The cluster nodes will not use shared storage.

The branch office contains two file servers named Server3 and Server4.

You need to ensure that App1 fails over automatically to another server if a single node in Cluster1 fails.

What should you do?

More than one answer choice may achieve the goal. Select the BEST answer.

A. Add Server3 as a node in Cluster1.

B. Add Server1, Server2, and Server3 to a Network Load Balancing (NLB) cluster.

C. Add Server3 and Server4 to a new failover cluster named Cluster2. Install App1 on Cluster2.

D. Add Server3 as a file share witness for Cluster1.

---

**Answer: D**

---

### Question: 13

---

#### DRAG DROP

Your network contains servers that run Windows Server 2012. The network contains two servers named Server1 and Server2 that are connected to a SAS storage device. The device only supports two connected computers.

Server1 has the iSCSI Target Server role service installed. Ten application servers use their iSCSI Initiator to connect to virtual disks in the SAS storage device via iSCSI targets on Server1.

Currently, Server2 is used only to run backup software.

You install the iSCSI Target Server role service on Server2.

You need to ensure that the iSCSI targets are available if Server1 fails.

Which five actions should you perform?

To answer, move the five appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Add the iSCSI Target Server cluster role.	
Create a cluster.	
Install the Failover Clustering feature.	
Install the Network Load Balancing (NLB) feature.	
Reconfigure the iSCSI Initiator settings.	
Install the DFS Replication role service.	
Create iSCSI targets.	

---

**Answer:**

---

Actions	Answer Area
	Install the Failover Clustering feature.
Install the DFS Replication role service.	Create a cluster.
	Add the iSCSI Target Server cluster role.
Install the Network Load Balancing (NLB) feature.	Create iSCSI targets.
	Reconfigure the iSCSI Initiator settings.

Reference:

<http://blogs.msdn.com/b/clustering/archive/2012/05/01/10299698.aspx>

### Question: 14

DRAG DROP

Your network contains multiple servers that run Windows Server 2012.

You plan to implement three virtual disks. The virtual disks will be configured as shown in the following table.

Virtual disk name	Configuration
VD1	Two-way mirror
VD2	Parity
VD3	Three-way mirror

You need to identify the minimum number of physical disks required for each virtual disk.

How many disks should you identify?

To answer, drag the appropriate number of disks to the correct virtual disk in the answer area. Each number of disks may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Number of Disks	Answer Area
two disks	VD1      Number of disks
three disks	VD2      Number of disks
four disks	VD3      Number of disks
five disks	

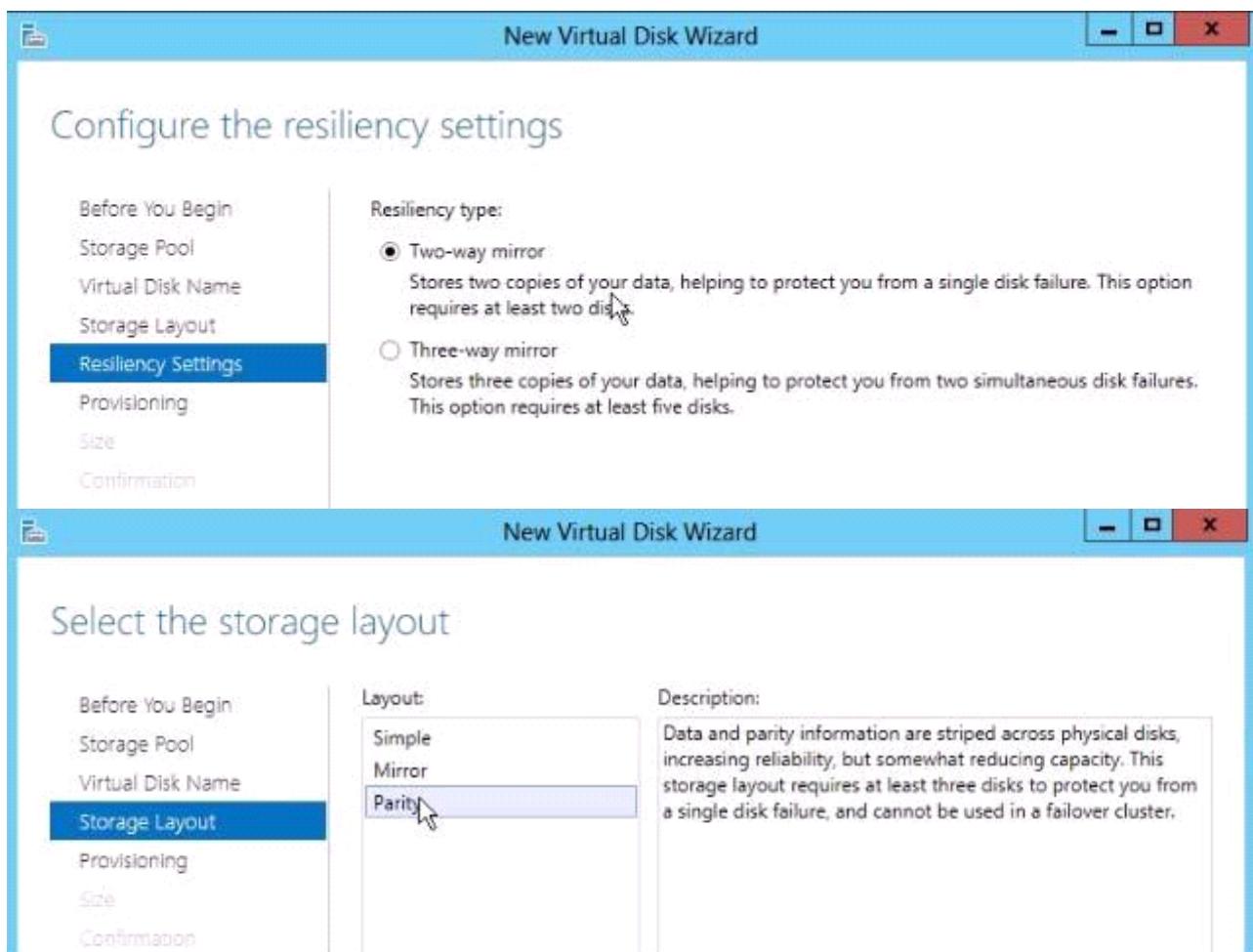
Answer:

Number of Disks	Answer Area
two disks	VD1      two disks
three disks	VD2      three disks
four disks	VD3      five disks
five disks	

Explanation:

<http://technet.microsoft.com/es-es/library/jj822938.aspx>

They are not talking about Clusters, a single server only, so a standalone server.



## Question: 15

Your Active Directory currently contains five virtualized domain controllers that run Windows Server 2012 R2. The system state of each domain controller is backed up daily. The backups are shipped to a remote location weekly. Your company recently implemented a disaster recovery site that contains several servers. The servers run Windows Server 2012 R2 and have the Hyper-V server role installed. The disaster recovery site has a high-speed WAN link to the main office.

You need to create an Active Directory recovery plan that meets the following requirements:

Restores the Active Directory if a catastrophe prevents all access to the main office.

Minimizes data loss.

What should you include in the plan?

- A. Hyper-V replicas
- B. Live migration
- C. Virtual machine checkpoints
- D. System state restores

---

**Answer: A**

---

## Question: 16

Your network contains an Active Directory domain named contoso.com. The domain contains several domain controllers. The domain controllers run either Windows Server 2012 or Windows Server 2008 R2.

The domain functional level is Windows Server 2008 R2. The forest functional level is Windows Server 2008.

The corporate compliance policy states that all items deleted from Active Directory must be recoverable from a Recycle Bin.

You need to recommend changes to the current environment to meet the compliance policy.

Which changes should you recommend? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Raise the forest functional level to Windows Server 2008 R2.
- B. Run the Enable-ADOptionalFeature cmdlet.
- C. Run the New-ADObject cmdlet.
- D. Run the Set-Server cmdlet
- E. Raise the domain functional level to Windows Server 2012.

---

**Answer: A, B**

---

**Explanation:**

You can enable Active Directory Recycle Bin only if the forest functional level of your environment is set to Windows Server 2008 R2.

**B: Enabling Active Directory Recycle Bin**

After the forest functional level of your environment is set to Windows Server 2008 R2, you can enable Active Directory Recycle Bin by using the following methods:

- / Enable-ADOptionalFeature Active Directory module cmdlet (This is the recommended method.)
- / Ldp.exe

Note: By default, Active Directory Recycle Bin in Windows Server 2008 R2 is disabled.

**Reference:**

Enable Active Directory Recycle Bin

---

### **Question: 17**

---

Your network contains 500 client computers that run Windows 7 and a custom application named App1. App1 uses data stored in a shared folder.

You have a failover cluster named Cluster1 that contains two servers named Server1 and Server2.

Server1 and Server2 run Windows Server 2012 and are connected to an iSCSI Storage Area Network (SAN).

You plan to move the shared folder to Cluster1.

You need to recommend which cluster resource must be created to ensure that the shared folder can be accessed from Cluster1.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. The Generic Application cluster role
- B. The DFS Namespace Server cluster role
- C. The clustered File Server role of the File Server for general use type
- D. The clustered File Server role of the File Server for scale-out application data type

---

**Answer: C**

---

---

### **Question: 18**

---

HOTSPOT

Your company has four offices. The offices are located in Montreal, Seattle, New York, and Miami. Users access all of the web-based resources by using web proxy servers. The IP addresses of the web proxies at each office are configured as shown in the following table.

Office	Web proxy IP
Montreal	10.10.1.2
	10.10.1.3
	10.10.1.4
Seattle	10.10.2.2
	10.10.2.3
	10.10.2.4
New York	10.10.3.2
	10.10.3.3
	10.10.3.4
Miami	10.10.4.2
	10.10.4.3
	10.10.4.4

The connections to the web proxies are balanced by using round-robin DNS.

The company plans to deploy a new application. The new application has a farm of front-end web servers that connect to a back-end application server. When a session to a web server is established, the web server stores data until the session closes. Once the session closes, the data is sent to the application server.

You need to ensure that the incoming sessions to the web server farm are distributed among the web servers. The solution must ensure that if a web server fails, the users are NOT directed to the failed server.

How should you configure the port rule? To answer, select the appropriate options in the answer area.

### Answer Area

Filtering mode:

Affinity:

### Answer Area

Filtering mode:   
 Disable this port range  
 Multiple host  
 Single host

Affinity:   
 Network  
 None  
 Single

Answer:

---

**Answer Area**

Filtering mode:

Disable this port range
<input checked="" type="radio"/> Multiple host
Single host

Affinity:

<input checked="" type="radio"/> Network
None
Single

**Question: 19****HOTSPOT**

Your network contains an Active Directory domain named contoso.com. The domain contains a Network Load Balancing (NLB) cluster named Cluster1 that contains four nodes. Cluster1 hosts a web application named App1. The session state information of App1 is stored in a Microsoft SQL Server 2012 database.

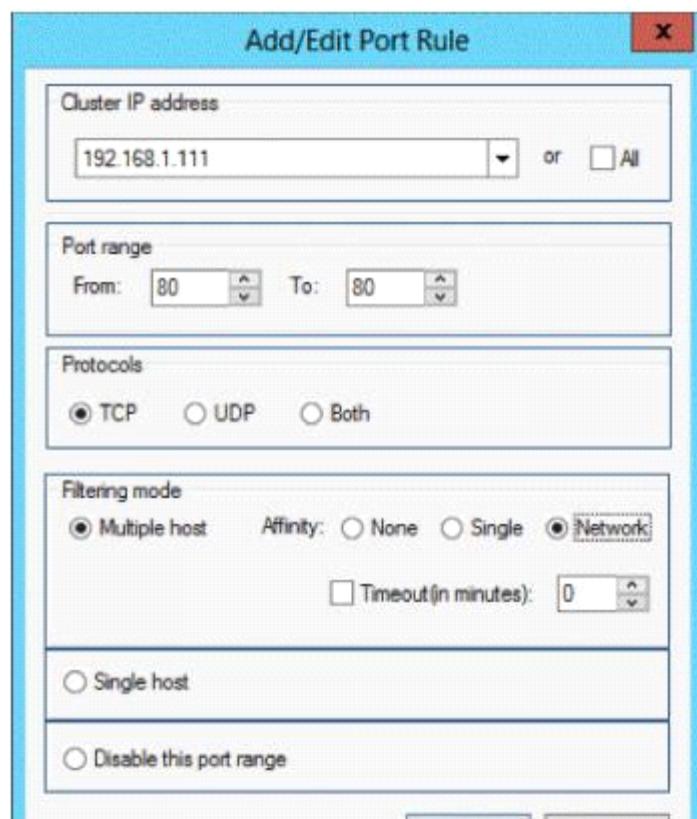
The network contains four subnets.

You discover that all of the users from a subnet named Subnet1 always connect to the same NLB node.

You need to ensure that all of the users from each of the subnets connect equally across all of the nodes in Cluster1.

What should you modify from the port settings?

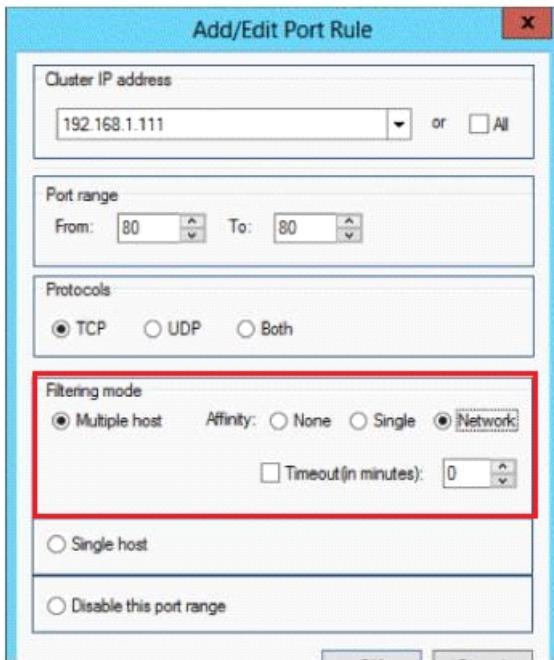
To answer, select the appropriate setting in the answer area.




---

**Answer:**

---

**Question: 20**

Your network contains five servers that run Windows Server 2012 R2.

You install the Hyper-V server role on the servers. You create an external virtual network switch on each server.

You plan to deploy five virtual machines to each Hyper-V server. Each virtual machine will have a virtual network adapter that is connected to the external virtual network switch and that has a VLAN identifier of 1.

Each virtual machine will run Windows Server 2012 R2. All of the virtual machines will run the identical web application.

You plan to install the Network Load Balancing (NLB) feature on each virtual machine and join each virtual machine to an NLB cluster. The cluster will be configured to use unicast only.

You need to ensure that the NLB feature can distribute connections across all of the virtual machines.

**Solution:** From the properties of each virtual machine, you enable MAC address spoofing for the existing virtual network adapter.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

**Question: 21**

Your network contains five servers that run Windows Server 2012 R2.

You install the Hyper-V server role on the servers. You create an external virtual network switch on each server.

You plan to deploy five virtual machines to each Hyper-V server. Each virtual machine will have a virtual network adapter that is connected to the external virtual network switch and that has a VLAN identifier of 1.

Each virtual machine will run Windows Server 2012 R2. All of the virtual machines will run the identical web application.

You plan to install the Network Load Balancing (NLB) feature on each virtual machine and join each virtual machine to an NLB cluster. The cluster will be configured to use unicast only.

You need to ensure that the NLB feature can distribute connections across all of the virtual machines.

**Solution:** On each Hyper-V server, you create a new external virtual network switch. From the properties of each

virtual machine, you add a second virtual network adapter and connect the new virtual network adapters to the new external virtual network switches.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Question: 22**

Your network contains five servers that run Windows Server 2012 R2.

You install the Hyper-V server role on the servers. You create an external virtual network switch on each server.

You plan to deploy five virtual machines to each Hyper-V server. Each virtual machine will have a virtual network adapter that is connected to the external virtual network switch and that has a VLAN identifier of 1.

Each virtual machine will run Windows Server 2012 R2. All of the virtual machines will run the identical web application.

You plan to install the Network Load Balancing (NLB) feature on each virtual machine and join each virtual machine to an NLB cluster. The cluster will be configured to use unicast only.

You need to ensure that the NLB feature can distribute connections across all of the virtual machines.

Solution: On each Hyper-V server, you create a new private virtual network switch. From the properties of each virtual machine, you add a second virtual network adapter and connect the new virtual network adapters to the new private virtual network switches.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Question: 23**

Your network contains five servers that run Windows Server 2012 R2.

You install the Hyper-V server role on the servers. You create an external virtual network switch on each server.

You plan to deploy five virtual machines to each Hyper-V server. Each virtual machine will have a virtual network adapter that is connected to the external virtual network switch and that has a VLAN identifier of 1.

Each virtual machine will run Windows Server 2012 R2. All of the virtual machines will run the identical web application.

You plan to install the Network Load Balancing (NLB) feature on each virtual machine and join each virtual machine to an NLB cluster. The cluster will be configured to use unicast only.

You need to ensure that the NLB feature can distribute connections across all of the virtual machines.

Solution: From the properties of each virtual machine, you add a second virtual network adapter. You connect the new virtual network adapters to the external virtual network switch and configure the new virtual network adapters to use a VLAN identifier of 2.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

**Question: 24**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

<b>Virtual machine name</b>	<b>Roles and software</b>
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Configuration Manager, you create a Collection and a Desired Configuration Management baseline.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

---

**Question: 25**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

Virtual machine name	Roles and software
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Virtual Machine Manager (VMM), you modify the properties of the service template.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### Question: 26

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

Virtual machine name	Roles and software
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Operations Manager, you create a Distributed Application and a Service Level Tracking object.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

**Question: 27**

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

<b>Virtual machine name</b>	<b>Roles and software</b>
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Operations Manager, you create a Distributed Application and a Monitor Override.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

**Question: 28**

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You need to issue a certificate to users to meet the following requirements:

Ensure that the users can encrypt files by using Encrypting File System (EFS).

Ensure that all of the users reenroll for their certificate every six months.

Solution: You create a copy of the User certificate template, and then you modify the extensions of the copy.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

**Question: 29**

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You need to issue a certificate to users to meet the following requirements:

Ensure that the users can encrypt files by using Encrypting File System (EFS).

Ensure that all of the users reenroll for their certificate every six months.

Solution: From the properties of the Basic EFS template, you assign the Allow - Enroll permission to the Authenticated Users group.

Does this meet the goal?

A. Yes

B. No

---

**Answer: B**

---

### **Question: 30**

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You need to issue a certificate to users to meet the following requirements:

Ensure that the users can encrypt files by using Encrypting File System (EFS).

Ensure that all of the users reenroll for their certificate every six months.

Solution: You create a copy of the Basic EFS certificate template, and then you modify the validity period of the copy.

Does this meet the goal?

A. Yes

B. No

---

**Answer: A**

---

### **Question: 31**

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You need to issue a certificate to users to meet the following requirements:

Ensure that the users can encrypt files by using Encrypting File System (EFS).

Ensure that all of the users reenroll for their certificate every six months.

Solution: From the properties of the User certificate template, you assign the Allow - Enroll permission to the Authenticated Users group.

Does this meet the goal?

A. Yes

B. No

---

**Answer: B**

---

### **Question: 32**

Your network contains an Active Directory forest named contoso.com. The forest contains multiple servers that run Windows Server 2012. The network contains 1,000 client computers that run Windows 7. Two hundred remote users have laptop computers and only work from home.

The network does not provide remote access to users.

You need to recommend a monitoring solution to meet the following requirements:

Generate a list of updates that are applied successfully to all computers.  
Minimize the amount of bandwidth used to download updates.  
An administrator must approve the installation of an update on any client computer.  
What should you include in the recommendation? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Microsoft Asset Inventory Service (AIS)
- B. Windows InTune
- C. Windows Server Update Services (WSUS)
- D. Active Directory Federation Services (AD FS)
- E. Microsoft System Center 2012 Service Manager

---

**Answer: A, B, C**

---

### **Question: 33**

---

Your network contains a Microsoft System Center 2012 infrastructure.  
You use Virtual Machine Manager (VMM) to manage 20 Hyper-V hosts.  
You deploy a Windows Server Update Services (WSUS) server.  
You need to automate the remediation of non-compliant Hyper-V hosts. The solution must minimize the amount of time that virtual machines are unavailable.  
What should you do first?

- A. Configure the Hyper-V hosts to download Windows updates from the WSUS server by using a Group Policy object (GPO).
- B. Install the WSUS Administration console on the VMM server, and then add the WSUS server to the fabric.
- C. Install the Virtual Machine Manager console on the WSUS server, and then add the WSUS server to the fabric.
- D. Configure the Hyper-V hosts to download Windows updates from the VMM server by using a Group Policy object (GPO).

---

**Answer: B**

---

### **Question: 34**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a System Center 2012 R2 Virtual Machine Manager (VMM) deployment.  
The domain contains 20 Hyper-V hosts that run Windows Server 2012 R2. Currently, the computer accounts of all of the Hyper-V hosts are in organizational unit (OU) named Virtualization.  
You plan to create two private clouds by using VMM named Cloud1 and Cloud2. The virtual machines for Cloud1 will be hosted on two Hyper-V hosts named Server1 and Server2. The virtual machines for Cloud2 will be hosted on two Hyper-V hosts named Server3 and Server4.  
You need to recommend an administrative model for Cloud1 and Cloud2.  
Which technology best achieves the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Two sites and two Application Administrator (Self-Service User) user roles
- B. Two host groups and two Application Administrator (Self-Service User) user roles
- C. Two OUs and two Application Administrator (Self-Service User) user roles
- D. Two logical units and two Tenant Administrator user roles

---

**Answer: B**

---

**Question: 35**

Your network contains an internal network and a perimeter network. The internal network contains an Active Directory domain named contoso.com. All client computers in the perimeter network are part of a workgroup. The internal network contains a Microsoft System Center 2012 infrastructure.

You plan to implement an update infrastructure to update the following:

Windows Server 2012  
System Center 2012  
Windows Server 2003  
Microsoft SQL Server 2012  
Third-party virtualization hosts  
Microsoft SharePoint Server 2010

Another administrator recommends implementing a single WSUS server to manage all of the updates. You need to identify which updates can be applied by using the recommended deployment of WSUS.

What should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. SQL Server 2012
- B. System Center 2012
- C. SharePoint Server 2010
- D. Windows Server 2012
- E. Third-party virtualization hosts
- F. Windows Server 2003

---

**Answer: B, C, D, E**

---

**Question: 36**

Your company has three offices. The offices are located in Seattle, London, and Tokyo.

The network contains an Active Directory domain named northwindtraders.com. Each office is configured as an Active Directory site.

System Center 2012 R2 Operations Manager is deployed to the domain. The servers in all three sites are monitored by using Operations Manager.

The company has a web site for its customers. The web site requires users to sign-in.

You need to recommend a solution to monitor the web site.

The solution must meet the following requirements:

Monitor the availability of the web site from locations in North America, Europe, Asia, and Australia.

Monitor multi-step requests to the web site.

Use a central console for monitoring.

What should you include in the recommendation?

- A. Import the System Center Global Services Monitoring Management Pack and add the Web Application Availability Monitoring monitoring type.
- B. Add the Web Application Transaction monitoring type and configure watcher nodes.
- C. Add the TCP Port monitoring type and configure watcher nodes.
- D. Import the System Center Global Services Monitor Management Pack and add the Visual Studio Web Test Monitoring monitoring type.

---

**Answer: D**

---

### **Question: 37**

---

Your network contains an Active Directory domain named contoso.com.

You plan to implement Microsoft System Center 2012.

You need to identify which solution automates the membership of security groups for contoso.com. The solution must use workflows that provide administrators with the ability to approve the addition of members to the security groups. Which System Center 2012 roles should you identify?

- A. Configuration Manager and Orchestrator
- B. Service Manager and Virtual Machine Manager (VMM)
- C. Orchestrator and Service Manager
- D. Operations Manager and Orchestrator

---

**Answer: C**

---

---

### **Question: 38**

---

Your network contains an Active Directory domain named contoso.com.

The corporate security policy states that when new user accounts, computer accounts, and contacts are added to an organizational unit (OU) named Secure, the addition must be audited.

You need to recommend an auditing solution to meet the security policy.

What should you include in the recommendation? (Each answer presents part of the solution. Choose all that apply.)

- A. From the Default Domain Controllers Policy, enable the Audit directory services setting.
- B. Create a new Group Policy object (GPO) that is linked to the Secure OU, and then modify the Audit directory services setting.
- C. From the Secure OU, modify the Auditing settings.
- D. From the Default Domain Controllers Policy, enable the Audit object access setting.
- E. From the Secure OU, modify the Permissions settings.
- F. Create a new Group Policy object (GPO) that is linked to the Secure OU, and then modify the Audit object access setting.

---

**Answer: A, B**

---

---

### **Question: 39**

---

You have a System Center 2012 R2 Configuration Manager deployment.

All users have client computers that run Windows 8.1. The users log on to their client computers as standard users.

An application named App1 is deployed to the client computers by using System Center.

You need to recommend a solution to validate a registry key used by App1. If the registry key has an incorrect value, the value must be changed. The registry key must be validated every day. The solution must generate a report on non-compliant computers.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Group Policy preferences
- B. A desired configuration baseline
- C. The Windows PowerShell Desired State Configuration (DSC) feature
- D. The Microsoft Baseline Security Analyzer (MBSA)

---

**Answer: B**

---

**Question: 40**

---

Your network contains 20 servers that run Windows Server 2012. The servers have the Hyper-V server role installed. You plan to deploy a management solution.

You need to recommend which Microsoft System Center 2012 roles must be deployed to meet the following requirements:

An administrator must be notified when an incident occurs, such as a serious error in the event log, on a Hyper-V host, or on a virtual machine.

An administrator must be able to assign an incident to a specific administrator for resolution.

An incident that remains unresolved for more than 10 hours must be escalated automatically to another administrator.

Administrators must be able to generate reports that contain the details of incidents and escalations.

Which System Center 2012 roles should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Operations Manager and Orchestrator
- B. Operations Manager and Service Manager
- C. Configuration Manager and Service Manager
- D. Service Manager and Virtual Machine Manager (VMM)

---

**Answer: B**

---

**Question: 41**

---

Your company has a main office and a branch office. Each office contains several hundred computers that run Windows 2012.

You plan to deploy two Windows Server Update Services (WSUS) servers. The WSUS servers will be configured as shown in the following table.

<b>Server name</b>	<b>Office</b>
Server1	Main
Server2	Branch

You need to implement the WSUS infrastructure to meet the following requirements:

All updates must be approved from a server in the main office.

All client computers must connect to a WSUS server in their local office.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Deploy a Group Policy object (GPO) that has the update location set to Server1.
- B. On Server2, configure WSUS in Replica mode.
- C. On Server1, configure WSUS in Replica mode.
- D. On Server2, configure WSUS in Autonomous mode.
- E. Deploy a Group Policy object (GPO) that has the update location set to Server2.
- F. On Server1, configure WSUS in Autonomous mode.

---

**Answer: A, B, E, F**

---

## **Question: 42**

Your company has a human resources department, a finance department, a sales department and an R&D department.

The company audits the access of documents that contain department-specific sensitive information.

You are planning an administrative model for the departments to meet the following requirements:

Provide R&D managers with the ability to back up all the files of their department only.

Provide finance managers with the ability to view the audit logs for the files of their department only.

Provide human resources managers with the ability to view the audit logs for the files of their department only.

Provide sales managers with the ability to modify the permissions on all the shared folders of their department only.

You need to identify the minimum amount of file servers required on the network to meet the requirements of each department.

How many file servers should you identify?

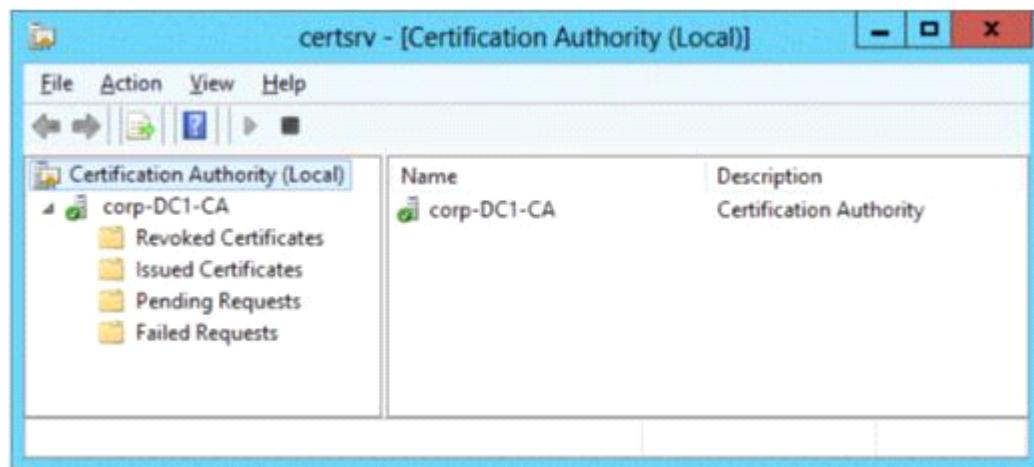
- A. 1
- B. 2
- C. 3
- D. 4

**Answer: C**

## **Question: 43**

Your network contains an Active Directory domain named contoso.com. The network contains two servers named Server1 and Server2.

You deploy Active Directory Certificate Services (AD CS). The certification authority (CA) is configured as shown in the exhibit. (Click the Exhibit button.)



You need to ensure that you can issue certificates based on certificate templates.

What should you do?

- A. On Server1, install the Network Device Enrollment Service role service.
- B. Configure Server2 as a standalone subordinate CA.
- C. On Server1, uninstall, and then reinstall AD CS.
- D. On Server1, run the Add-CertificateEnrollmentPolicyServer cmdlet.

**Answer: C**

**Explanation:**

In a typical CA infrastructure the Stand-alone CAs are primarily intended to be used as Trusted Offline RootCAs in a CA hierarchy or when extranets and the Internet are involved. In a stand-alone CA Certificate templates are not used. An enterprise CA uses certificate types, which are based on a certificate template.

---

**Question: 44**

---

Your network contains an Active Directory forest named contoso.com.

Your company works with a partner company that has an Active Directory forest named fabrikam.com. Both forests contain domain controllers that run only Windows Server 2012 R2.

The certification authority (CA) infrastructure of both companies is configured as shown in the following table.

<b>Forest</b>	<b>Server name</b>	<b>Role</b>
Contoso.com	Server1	Issuing enterprise root CA
Fabrikam.com	Server2	Offline root CA
Fabrikam.com	Server3	Enterprise issuing CA

You need to recommend a certificate solution that meets the following requirements:

Server authentication certificates issued from fabrikam.com must be trusted automatically by the computers in contoso.com.

The computers in contoso.com must not trust automatically any other type of certificates issued from the CA hierarchy in fabrikam.com.

What should you include in the recommendation?

- A. Deploy a Group Policy object (GPO) that defines intermediate CAs. Import a certificate that has an application policy object identifier (OID) of CA Encryption Certificate.
- B. Deploy a Group Policy object (GPO) that defines an enterprise trust. Import a certificate that has an application policy object identifier (OID) of Microsoft Trust List Signing.
- C. Deploy a Group Policy object (GPO) that defines an enterprise trust. Import a certificate that has an application policy object identifier (OID) of CA Encryption Certificate.
- D. Deploy a Group Policy object (GPO) that defines intermediate CAs. Import a certificate that has an application policy object identifier (OID) of Microsoft Trust List Signing.

---

**Answer: B**

---

---

**Question: 45**

---

Your network contains an Active Directory domain named contoso.com.

Your company has an enterprise root certification authority (CA) named CA1.

You plan to deploy Active Directory Federation Services (AD FS) to a server named Server1.

The company purchases a Microsoft Office 365 subscription.

You plan to register the company's SMTP domain for Office 365 and to configure single sign-on for all users.

You need to identify which certificate or certificates are required for the planned deployment.

Which certificate or certificates should you identify? (Each correct answer presents a complete solution. Choose all that apply.)

- A. a server authentication certificate that is issued by a trusted third-party root CA and that contains the subject name server1.contoso.com
- B. a server authentication certificate that is issued by CA1 and that contains the subject name Server1
- C. a server authentication certificate that is issued by a trusted third-party root CA and that contains the subject name Server1

- D. a server authentication certificate that is issued by CA1 and that contains the subject name server1.contoso.com  
E. self-signed server authentication certificates for server1.contoso.com

---

**Answer: D, E**

---

### **Question: 46**

---

Your network contains five Active Directory forests.

You plan to protect the resources in one of the forests by using Active Directory Rights Management Services (AD RMS).

Users in all of the forests will access the protected resources.

You need to identify the minimum number of AD RMS clusters required for the planned deployment.

What should you identify?

- A. Five root clusters
- B. Five licensing clusters
- C. One licensing cluster and five root clusters
- D. One root cluster and five licensing clusters

---

**Answer: A**

---

### **Question: 47**

---

#### **DRAG DROP**

Your network contains an Active Directory domain named contoso.com. The domain contains two domain controllers named DC1 and DC2. The domain contains a server named Server1.

Server1 is a certification authority (CA). All servers run Windows Server 2012 R2.

You plan to deploy BitLocker Drive Encryption (BitLocker) to all client computers. The unique identifier for your organization is set to Contoso.

You need to ensure that you can recover the BitLocker encrypted data by using a BitLocker data recovery agent. You must be able to perform the recovery from any administrative computer.

Which four 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.

Actions	Answer Area
Request the new certificate and export the certificate as a .pfx file.	
Deploy the data recovery agent by using a Group Policy object (GPO).	
Install BitLocker on Server1.	
Copy the Basic EFS certificate template, modify the new template, and then publish the new template.	
Request the new certificate and export the certificate as a .cer file.	
Install BitLocker on a domain controller.	

---

**Answer:**

Box 1:

Install BitLocker on a domain controller.

Box 2:

Copy the Basic EFS certificate template, modify the new template, and then publish the new template.

Box 3:

Request the new certificate and export the certificate as a .cer file.

Box 4:

Deploy the data recovery agent by using a Group Policy object (GPO).

---

### **Question: 48**

Your network contains an Active Directory domain named contoso.com. The network contains a perimeter network. The perimeter network and the internal network are separated by a firewall.

On the perimeter network, you deploy a server named Server1 that runs Windows Server 2012.

You deploy Active Directory Certificate Services (AD CS).

Each user is issued a smart card.

Users report that when they work remotely, they are unable to renew their smart card certificate.

You need to recommend a solution to ensure that the users can renew their smart card certificate from the Internet.

What should you recommend implementing on Server1?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. The Certificate Enrollment Policy Web Service role service and the Certificate Enrollment Web Service role service
- B. The Active Directory Federation Services server role
- C. An additional certification authority (CA) and the Online Responder role service
- D. The Certification Authority Web Enrollment role service and the Online Responder role service

---

**Answer: A**

---

### **Question: 49**

Your network contains an Active Directory domain named contoso.com.

You plan to deploy an Active Directory Federation Services (AD FS) farm that will contain eight federation servers.

You need to identify which technology or technologies must be deployed on the network before you install the federation servers.

Which technology or technologies should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Network Load Balancing (NLB)
- B. Microsoft Forefront Identity Manager (FIM) 2010
- C. The Windows Internal Database feature
- D. Microsoft SQL Server 2012
- E. The Windows Identity Foundation 3.5 feature

---

**Answer: A, D**

**Explanation:**

Best practices for deploying a federation server farm. We recommend the following best practices for deploying a federation server in a production environment:

- \* (A) Use NLB or some other form of clustering to allocate a single IP address for many federation server computers.
- \* (D) If the AD FS configuration database will be stored in an SQL database, avoid editing the SQL database from multiple federation servers at the same time.
- \* If you will be deploying multiple federation servers at the same time or you know that you will be adding more servers to the farm over time, consider creating a server image of an existing federation server in the farm and then installing from that image when you need to create additional federation servers quickly.
- \* Reserve a static IP address for each federation server in the farm and, depending on your Domain Name System (DNS) configuration, insert an exclusion for each IP address in Dynamic Host Configuration Protocol (DHCP). Microsoft NLB technology requires that each server that participates in the NLB cluster be assigned a static IP address.

**Reference:**

When to Create a Federation Server Farm

---

### Question: 50

---

**HOTSPOT**

You plan to deploy a certification authority (CA) infrastructure that contains the following servers:

An offline standalone root CA named CA1

An enterprise subordinate CA named CA2

On all of the computers, you import the root CA certificate from CA1 to the Trusted Root Certification Authorities Certificates store.

You need to ensure that CA2 can issue certificates for the CA hierarchy.

What should you do? To answer, select the appropriate options in the answer area.

**Answer Area**

Modify the certificate revocation list (CRL) settings and the Authority Information Access (AIA) settings:

Create the subordinate certificate request:

Issue a certificate and export the certificate to a .p7b file:

Install the CA certificate:

**Answer Area**

Modify the certificate revocation list (CRL) settings and the Authority Information Access (AIA) settings:

CA1
CA2

Create the subordinate certificate request:

CA1
CA2

Issue a certificate and export the certificate to a .p7b file:

CA1
CA2

Install the CA certificate:

CA1
CA2

**Answer:****Answer Area**

Modify the certificate revocation list (CRL) settings and the Authority Information Access (AIA) settings:

CA1
CA2

Create the subordinate certificate request:

CA1
CA2

Issue a certificate and export the certificate to a .p7b file:

CA1
CA2

Install the CA certificate:

CA1
CA2

**Question: 51**

Your network contains an Active Directory domain named contoso.com.

You deploy Active Directory Certificate Services (AD CS).

Your company, which is named Contoso, Ltd., has a partner company named Fabrikam, Inc. Fabrikam also deploys AD CS.

Contoso and Fabrikam plan to exchange signed and encrypted email messages.

You need to ensure that the client computers in both Contoso and Fabrikam trust each other's email certificates. The solution must prevent other certificates from being trusted and minimize administrative effort.

What should you do?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Implement an online responder in each company.
- B. Exchange the root certification authority (CA) certificates of both companies, and then deploy the certificates to the Enterprise Trust store by using Group Policy objects (GPOs).
- C. Implement cross-certification in each company.
- D. Exchange the root certification authority (CA) certificates of both companies, and then deploy the certificates to the Trusted Root Certification Authorities store by using Group Policy objects (GPOs).

**Answer: C**

**Question: 52**

Your network contains a Hyper-V host named Host1. Host1 hosts 25 virtual machines. All of the virtual machines are configured to start automatically when Host1 restarts. You discover that some of the virtual machines fail to start automatically when Host1 restarts and require an administrator to start them manually. You need to modify the settings of the virtual machines to ensure that they automatically restart when Host1 restarts. Which settings should you modify?

- A. Maximum RAM
- B. Minimum RAM
- C. Memory weight
- D. Startup RAM

**Answer: D****Question: 53****HOTSPOT**

Your network contains five physical servers. The servers are configured as shown in the following table.

<b>Server name</b>	<b>Role</b>
DC1	Domain controller DHCP server DNS server
SQL1	Microsoft SQL Server 2012 database server
DPM1	Microsoft System Center 2012 R2 Data Protection Manager (DPM)
Server1	Microsoft System Center 2012 R2 Virtual Machine Manager (VMM) management server
Server2	Microsoft System Center 2012 R2 Virtual Machine Manager (VMM) library server

All servers run Windows Server 2012 R2.

During the setup of VMM, you configure distributed key management.

You need to ensure that the entire VMM infrastructure can be restored.

What should you include in the backup plan? To answer, select the appropriate server to back up for each backup content type in the answer.

**Answer Area**

System state:

VMM databases:

All disk volumes:

**Answer Area**

System state:

DC1  
Server1  
Server2  
SQL1

VMM databases:

DC1  
Server1  
Server2  
SQL1

All disk volumes:

DC1  
Server1  
Server2  
SQL1

**Answer:****Answer Area**

System state:

**DC1**  
Server1  
Server2  
SQL1

VMM databases:

DC1  
Server1  
**Server2**  
**SQL1**

All disk volumes:

DC1  
Server1  
**Server2**  
SQL1

**Question: 54**

Your network contains four clusters. The clusters are configured as shown in the following table.

Server name	Nodes	Platform
Cluster1	Five nodes	VMware ESX 4.0
Cluster2	Ten nodes	Citrix XenServer
Cluster3	Six nodes	Hyper-V
Cluster4	Three nodes	Hyper-V

You manage all of the clusters by using Microsoft System Center 2012 Virtual Machine Manager (VMM). You plan to implement Dynamic Optimization for the virtual machines.

You need to recommend a configuration for the planned implementation.

What should you recommend?

- A. Dynamic Optimization on Cluster2 and Cluster4 only  
Virtual machines that are balanced across the clusters

- B. Dynamic Optimization on Cluster1 and Cluster2 only  
Virtual machines that are balanced across the nodes in the clusters
- C. Dynamic Optimization on all of the clusters  
Virtual machines that are balanced across the nodes in the clusters
- D. Dynamic Optimization on all of the clusters  
Virtual machines that are balanced across the clusters

---

**Answer: C**

---

### **Question: 55**

---

Your network contains a Microsoft System Center 2012 Virtual Machine Manager (VMM) server named Server1. You use Server1 to manage 20 Hyper-V hosts. The network also contains five Citrix XenServer virtualization hosts. You need to recommend which installation is required to manage the XenServer servers from Server1. What should you recommend installing?

- A. The Citrix XenServer - Microsoft System Center Integration Pack on the Citrix XenServer hosts
- B. The Citrix XenServer - Microsoft System Center Integration Pack on Server1
- C. Citrix Essentials for Hyper-V on Server1
- D. Citrix Essentials for Hyper-V on the Citrix XenServer hosts

---

**Answer: A**

---

### **Question: 56**

---

#### **HOTSPOT**

Your network contains an Active Directory domain named contoso.com. All servers run Windows Server 2012 R2. System Center 2012 R2 Virtual Machine Manager (VMM) is deployed to the domain.

In VMM, you create a host group named HostGroup1. You add a 16-node Hyper-V failover cluster to HostGroup1. From Windows PowerShell, you run the following commands:

```

PS C:\> $HostGroup = Get-SCVMHostGroup "HostGroup1"
PS C:\> $DoConfig = Get-SCDynamicOptimizationConfiguration -VMHostGroup $HostGroup
PS C:\> $PORange = Get-SCPowersOptimizationRange -DynamicOptimizationConfiguration $DoConfig
PS C:\> $DoConfig | ft Automatic,Aggressiveness,FrequencyMinutes,EnablePowerOptimization,Name,ReadOnly,ConnectedHostGroup

    Automatic Aggressiveness FrequencyMinutes EnablePowerOptimization Name ReadOnly ConnectedHostGroup
    -----
    True      5          10        False      HostGroup1      False      All Hosts\...
    -----
```

```

PS C:\> Get-SCHostReserve -VMHostGroup $HostGroup | ft CPUReserveOff,CPUPlacementLevel,CPUStartOptimizationLevel,MemoryReserveOff,MemoryReserveMode,MemoryPlacementLevel,MemoryStartOptimizationLevel

CPUReserveOff CPUPlacementLevel CPUStartOptimizationLevel MemoryReserveMode MemoryPlacementLevel MemoryStartOptimizationLevel
    -----
    False      50        40        False      Megabyte     6144      4096
    -----
```

```

PS C:\> $PORange | ft DayOfWeek,BeginHour,EndHour,Name,ObjectType
```

Use the drop-down menus to select the answer choice that completes each statement.

## Answer Area

If node utilization is 5 percent on Tuesday, the node will [answer choice]

5

The hosts will [answer choice]

### **Answer Area**

If node utilization is 5 percent on Tuesday, the node will [answer choice]

remain on.  
be turned off.  
be put into drain mode.

The hosts will [answer choice]

never be considered for optimization.  
only be considered for optimization if the memory is less than 4,096 MB.  
only be considered for optimization if the memory is less than 6,144 MB.

## **Answer:**

### Answer Area

If node utilization is 5 percent on Tuesday, the node will [answer choice]

**remain on.**  
be turned off.  
be put into drain mode

The hosts will [answer choice]

never be considered for optimization.  
only be considered for optimization if the memory is less than 4 096 MB  
only be considered for optimization if the memory is less than 4 374 MB

## Question: 57

**DRAG DROP**

Your network contains an Active Directory domain named contoso.com. The domain contains multiple servers that are configured as Hyper-V hosts.

You plan to implement four virtual machines. The virtual machines will be configured as shown in the following table.

<b>Virtual machine name</b>	<b>Configuration</b>
VM1	Will host several shared folders that are accessed by users on the network.
VM2	Will be migrated to a host on the public cloud by using live migration.
VM3	Will run processes that must only be able to connect to shared resources on other virtual machines on the local Hyper-V host.
VM4	Will run processes that must only be able to connect to shared resources on the local Hyper-V host.

You need to identify which network must be added to each virtual machine.

Which network types should you identify?

To answer, drag the appropriate Network Type to the correct virtual machine in the answer area. Each Network Type may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Network Types	Answer Area
Private	VM1      Network
Internal	VM2      Network
External	VM3      Network
	VM4      Network

---

**Answer:**

---

Network Types	Answer Area
Private	
External	
VM1	External
VM2	External
VM3	Private
VM4	Internal

**Explanation:**

<http://blogs.technet.com/b/jhoward/archive/2008/06/17/hyper-v-what-are-the-uses-for-different-types-of-virtual-networks.aspx>

An external network, which provides communication between a virtual machine and a physical network by creating an association to a physical network adapter on the virtualization server.

An internal network, which provides communication between the virtualization server and virtual machines.

A private network, which provides communication between virtual machines only.

#### Reference:

<http://technet.microsoft.com/en-us/library/cc732470%28v=WS.10%29.aspx>

## Question: 58

Your network contains multiple servers that run Windows Server 2012.

The network contains a Storage Area Network (SAN) that only supports Fibre Channel connections.

You have two failover clusters. The failover clusters are configured as shown in the following table.

Failover cluster name	Role	Members
Cluster1	File Services	Two nodes
Cluster2	Hyper-V hosting	Six nodes

Only the members of Cluster1 can connect to the SAN.

You plan to implement 15 highly available virtual machines on Cluster2. All of the virtual machines will be stored in a single shared folder.

You need to ensure that the VHD files of the virtual machines can be stored on the SAN.

What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. From a node in Cluster2, create a Virtual Fibre Channel SAN.
  - B. From a node in Cluster1, create a Virtual Fibre Channel SAN.
  - C. From Cluster1, add the iSCSI Target Server cluster role.
  - D. From Cluster1, configure the clustered File Server role of the File Server for scale-out application data type.

**Answer: A, D**

## Question: 59

## DRAG DROP

You are planning to set up a proof-of-concept network virtualization environment. The environment will contain three servers. The servers will be configured as shown in the following table.

Server name	Role
Server1	System Center 2012 R2 Virtual Machine Manager (VMM)
Server2	Hyper-V host
Server3	File server

You need to enable network connectivity between the virtual machines and Server3.

Which four 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.

Actions	Answer Area
Add an infrastructure server.	
Deploy Microsoft Forefront Unified Access Gateway (UAG).	
Add an additional Hyper-V host.	
Configure ISATAP transition technology.	
Deploy Windows Server Gateway.	
Configure Teredo transition technology.	
Add a network service.	
Enable network address translation (NAT).	

### Answer:

Box 1:

Add an additional Hyper-V host.

Box 2:

Add a network service.

Box 3:

Deploy Windows Server Gateway.

Box 4:

Enable network address translation (NAT).

### Question: 60

#### DRAG DROP

Your network contains two servers named Server1 and Server2 that run Windows Server 2012. Server1 and Server2 have the Hyper-V server role installed and are members of a failover cluster.

The network contains a Storage Area Network (SAN) that has a LUN named LUN1. LUN1 is connected to a 12-TB disk on the SAN.

You plan to host three new virtual machines on the failover cluster. Each virtual machine will store up to 4 TB of data on a single disk. The virtual machines will be backed up from the hosts by using the Volume Shadow Copy Service (VSS).

You need to ensure that Server1 and Server2 can store the new virtual machines on the SAN.

Which three actions should you perform?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Configure each virtual machine to use a VHDX disk.	
Create a Fibre Channel adapter on each virtual machine.	
Configure Server1 and Server2 to connect to LUN1.	
Create a Cluster Shared Volume (CSV).	
Configure each virtual machine to use a pass-through disk.	
Configure each virtual machine to use a VHD disk.	
Create a Virtual Fibre Channel SAN on Server1 and Server2.	

### Answer:

- 1) Configure Server1 and Server2 to connect to LUN1
- 2) Create a Cluster Shared Volume (CSV)
- 3) Configure each virtual machine to use a VHDX disk.

Explanation:

Updated: February 29, 2012

Applies To: Windows Server 2012

As enterprise workloads for virtual environments grow in size and in performance demands, virtual hard disk (VHD) formats need to accommodate them. Hyper-V in Windows Server 2012 introduces a new version of the VHD format called VHDX, which is designed to handle current and future workloads.

VHDX has a much larger storage capacity than the older VHD format. It also provides data corruption protection during power failures and optimizes structural alignments of dynamic and differencing disks to prevent performance degradation on new, large-sector physical disks.

<http://technet.microsoft.com/en-us/library/hh831446.aspx>

### Question: 61

Your network contains a data center named DataCenter1 that contains multiple servers. The servers are configured as Hyper-V hosts.

Your company deploys a disaster recovery site. The disaster recovery site has a dedicated connection to DataCenter1. The network is connected to the disaster recovery site by using a dedicated link.

DataCenter1 contains 10 business critical virtual machines that run a line-of-business application named App1. You need to recommend a business continuity solution to ensure that users can connect to App1 within two hours if DataCenter1 fails.

What should you include in the recommendation?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. From Microsoft System Center 2012 Virtual Machine Manager (VMM), implement live migration on the virtual machines.
- B. From Hyper-V Manager, implement Hyper-V replicas.
- C. From Microsoft System Center 2012 Data Protection Manager, implement a protection group.
- D. From Hyper-V Manager, create snapshots of the virtual machines.

---

**Answer: B**

---

**Question: 62**

Your network contains an Active Directory domain named contoso.com.

You plan to implement Network Load Balancing (NLB).

You need to identify which network services and applications can be load balanced by using NLB.

Which services and applications should you identify?

- A. Microsoft SQL Server 2012 Reporting Services
- B. A failover cluster
- C. A DHCP server
- D. A Microsoft Exchange Server 2010 Mailbox server
- E. A file server
- F. A Microsoft SharePoint Server 2010 front-end Web server

---

**Answer: A, F**

---

**Question: 63**

**HOTSPOT**

You have a System Center 2012 R2 Virtual Machine Manager (VMM) deployment.

You implement Hyper-V Recovery Manager for the deployment.

You create two new clouds named Cloud1 and Cloud2. Metadata for both clouds is uploaded to Windows Azure.

You need to ensure that the virtual machines in Cloud1 are protected by using replicas in Cloud2.

Where should you perform each action? To answer, select the appropriate tool for each action in the answer area.

**Answer Area**

Configure the cloud protection settings:

Create a recovery plan:

Enable protection for individual virtual machines:

Map virtual machine networks:

**Answer Area**

Configure the cloud protection settings:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Create a recovery plan:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Enable protection for individual virtual machines:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Map virtual machine networks:

The Virtual Machine Manager console  
The Windows Azure Management Portal

**Answer:****Answer Area**

Configure the cloud protection settings:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Create a recovery plan:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Enable protection for individual virtual machines:

The Virtual Machine Manager console  
The Windows Azure Management Portal

Map virtual machine networks:

The Virtual Machine Manager console  
The Windows Azure Management Portal

**Question: 64****DRAG DROP**

You have a failover cluster named Cluster1 that contains four Hyper-V hosts. Cluster1 hosts 20 virtual machines.  
You deploy a new failover cluster named Cluster2.

You plan to replicate the virtual machines from Cluster1 to Cluster2.

You need to recommend which actions must be performed on Cluster2 for the planned deployment.

Which three actions should you recommend?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Install the Hyper-V server role.	
Deploy Microsoft System Center 2012 Virtual Machine Manager (VMM).	
Create replicas of the virtual machines.	
Create a snapshot of each virtual machine.	
Install the Hyper-V Replica Broker cluster role.	

---

**Answer:**

---

Box 1: Install the Hyper-V server role

Box 2: Install the Hyper-V Replica Broker cluster role.

Box 3: Create replicas of the virtual machines.

Note:

\* Windows Server 2012 Hyper-V Role introduces a new capability, Hyper-V Replica, as a built-in replication mechanism at a virtual machine (VM) level. Hyper-V Replica can asynchronously replicate a selected VM running at a primary site to a designated replica site across LAN/WAN.

\*Step 1: Prepare to Deploy Hyper-V Replica

1.1. Make basic planning decisions

1.2. Install the Hyper-V server role

1.3. Configure the firewall

1.4. Configure Hyper-V Replica Broker

Step2: Step 2: Enable Replication

2.1 Configure the Replica server

2.2. Configure a Replica server that is part of a failover cluster (optional)

2.3 Enable replication for virtual machines

Each virtual machine that is to be replicated must be enabled for replication.

2.4 Configure primary server to receive replication

Reference:

Deploy Hyper-V Replica

---

**Question: 65**

Your network contains an Active Directory domain named contoso.com. The domain contains multiple servers that run Windows Server 2012. All client computers run Windows 7.

The network contains two data centers.

You plan to deploy one file server to each data center.

You need to recommend a solution to provide redundancy for shared folders if a single data center fails.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. A Distributed File System (DFS) namespace and DFS Replication
- B. Cluster Shared Volumes (CSVs)
- C. The clustered File Server role of the File Server for general use type
- D. The clustered File Server role of the File Server scale-out application data type

---

**Answer: A**

---

---

**Question: 66**

You have a Windows Server 2012 R2 failover cluster that contains four nodes. Each node has four network adapters. The network adapters on each node are configured as shown in the following table.

Network adapter name	Cluster network	Link speed
NIC1	ClusterNetwork1	1 Gbps
NIC2	ClusterNetwork2	1 Gbps
NIC3	ClusterNetwork3	1 Gbps
NIC4	ClusterNetwork4	10 Gbps

NIC4 supports Remote Direct Memory Access (RDMA) and Receive Side Scaling (RSS). The cluster networks are configured as shown in the following table.

Cluster network name	Metric	Role
ClusterNetwork1	39984	1
ClusterNetwork2	39983	1
ClusterNetwork3	79984	3
ClusterNetwork4	79840	3

You need to ensure that ClusterNetwork4 is used for Cluster Shared Volume (CSV) redirected traffic.

What should you do?

- A. Set the metric of ClusterNetwork4 to 90,000 and disable SMB Multichannel.
- B. On each server, replace NIC4 with a 1-Gbps network adapter.
- C. Set the metric of ClusterNetwork4 to 30,000 and disable SMB Multichannel.
- D. On each server, enable RDMA on NIC4.

---

**Answer: C**

---

## Question: 67

---

### DRAG DROP

Your network contains an Active Directory domain named contoso.com. The domain contains four servers named Server1, Server2, Server3 and Server4 that run Windows Server 2012.

Server1 and Server2 are configured as file servers and are part of a failover cluster named Cluster1. Server3 and Server4 have Microsoft SQL Server 2012 installed and are part of a failover cluster named Cluster2.

You add a disk named Disk1 to the nodes in Cluster1. Disk1 will be used to store the data files and log files used by SQL Server 2012.

You need to configure the environment so that access to Disk1 remains available when a node on Cluster1 fails over or fails back.

Which three actions should you perform?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
From Failover Cluster Manager, configure the clustered File Server role of the File Server for scale-out application data type on Cluster2.	
From Failover Cluster Manager, add Disk1 to Cluster Shared Volumes (CSVs).	
From Cluster-Aware Updating, add Server1 and Server2.	
From Failover Cluster Manager, configure the clustered File Server role of the File Server for scale-out application data type on Cluster1.	
From Failover Cluster Manager, add Disk1 to Cluster1.	
From Failover Cluster Manager, add Disk1 to Cluster2.	
Actions	Answer Area
From Failover Cluster Manager, configure the clustered File Server role of the File Server for scale-out application data type on Cluster2.	From Failover Cluster Manager, add Disk1 to Cluster1.
From Cluster-Aware Updating, add Server1 and Server2.	From Failover Cluster Manager, add Disk1 to Cluster Shared Volumes (CSVs).
From Failover Cluster Manager, add Disk1 to Cluster2.	From Failover Cluster Manager, configure the clustered File Server role of the File Server for scale-out application data type on Cluster1.

### Question: 68

#### DRAG DROP

Your network contains two servers named Server1 and Server2 that run Windows Server 2012. Server1 has the iSCSI Target Server role service installed and is configured to have five iSCSI virtual disks. You install the Multipath I/O (MPIO) feature on Server2.

From the MPIO snap-in, you add support for iSCSI devices.

You need to ensure that Server2 can connect to the five iSCSI disks. The solution must ensure that Server2 uses MPIO to access the disks.

Which three actions should you perform?

To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
On Server1, add the initiator ID of Server2.	
On Server2, from the iSCSI Initiator Properties, run Quick Connect.	
On Server1, from the iSCSI Initiator Properties, click <b>Connect</b> , and then select <b>Enable multi-path</b> .	
On Server2, install the iSCSI Target Server role service.	
On Server2, from the iSCSI Initiator Properties, click <b>Connect</b> , and then select <b>Enable multi-path</b> .	

### Answer:

Actions	Answer Area
	On Server1, add the initiator ID of Server2.
	On Server2, from the iSCSI Initiator Properties, run Quick Connect.
On Server1, from the iSCSI Initiator Properties, click <b>Connect</b> , and then select <b>Enable multi-path</b> .	
On Server2, install the iSCSI Target Server role service.	On Server2, from the iSCSI Initiator Properties, click <b>Connect</b> , and then select <b>Enable multi-path</b> .

### Question: 69

Your network contains an Active Directory Rights Management Services (AD RMS) cluster named Cluster1.

You plan to change Cluster1 to a new AD RMS cluster named Cluster2.

You need to ensure that all users retrieve the location of the AD RMS templates from Cluster2.

What should you do?

- A. Modify the Service Connection Point (SCP).
- B. Modify the exclusion policies.
- C. Modify the templates file location of the rights policy templates.
- D. Create an alias (CNAME) record named Cluster1.contoso.com that points to Cluster2.

### Answer: A

### Question: 70

Your network contains an Active Directory domain named contoso.com. The network contains a server named Server1 that runs Windows Server 2012. Server1 has the Active Directory Certificate Services server role installed. Server1 is configured as an offline standalone root certification authority (CA).

You install the Active Directory Certificate Services server role on Server2 and configure the server as an enterprise subordinate CA.

You need to ensure that the certificate issued to Server2 is valid for 10 years.

What should you do first?

- A. Modify the subordinate CA certificate template.
- B. Modify the registry on Server2.
- C. Modify the registry on Server1.
- D. Modify the CAPolicy.inf file on Server2.
- E. Modify the CAPolicy.inf file on Server1.

---

**Answer: C**

---

### **Question: 71**

---

Your company has an office in New York.

Many users connect to the office from home by using the Internet.

You deploy an Active Directory Certificate Services (AD CS) infrastructure that contains an enterprise certification authority (CA) named CA1. CA1 is only available from hosts on the internal network.

You need to ensure that the certificate revocation list (CRL) is available to all of the users.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Create a scheduled task that copies the CRL files to a Web server.
- B. Run the Install-ADCSWebEnrollment cmdlet.
- C. Run the Install-EnrollmentPolicyWebService cmdlet.
- D. Deploy a Web server that is accessible from the Internet and the internal network.
- E. Modify the location of the Authority Information Access (AIA).
- F. Modify the location of the CRL distribution point (CDP).

---

**Answer: D, F**

---

**Explanation:**

CRLs will be located on Web servers which are Internet facing.

CRLs will be accessed using the HTTP retrieval protocol.

CRLs will be accessed using an external URL of <http://dp1.pki.contoso.com/pki>

F: To successfully authenticate an Internet Protocol over Secure Hypertext Transfer Protocol (IP-HTTPS)-based connection, DirectAccess clients must be able to check for certificate revocation of the secure sockets layer (SSL) certificate submitted by the DirectAccess server. To successfully perform intranet detection, DirectAccess clients must be able to check for certificate revocation of the SSL certificate submitted by the network location server. This procedure describes how to do the following:

Create a Web-based certificate revocation list (CRL) distribution point using Internet Information Services (IIS)

Configure permissions on the CRL distribution shared folder

Publish the CRL in the CRL distribution shared folder

**Reference:**

Configure a CRL Distribution Point for Certificates

**Question: 72****HOTSPOT**

Your network contains an Active Directory forest named contoso.com. All servers run Windows Server 2012 R2. The forest contains two servers.

The servers are configured as shown in the following table.

<b>Server name</b>	<b>Role</b>
Server1	Active Directory Federation Services (AD FS)
Server2	Web application proxy

You prepare the forest to support Workplace Join and you enable the Device Registration Service (DRS) on Server1.

You need to ensure that Workplace Join meets the following requirements:

Application access must be based on device claims.

Users who attempt to join their device to the workplace through Server2 must be prevented from locking out their Active Directory account due to invalid credentials.

Which cmdlet should you run to achieve each requirement? To answer, select the cmdlet for each requirement in the answer area.

**Answer Area**

Application access must be based on device claims:

Users who attempt to join their device to the workplace through Server2 must be prevented from locking out their Active Directory account due to invalid credentials:

**Answer Area**

Application access must be based on device claims:

- Set-AdfsClaimsProviderTrust
- Set-AdfsGlobalAuthenticationPolicy
- Set-AdfsProperties
- Set-AdfsRelyingPartyTrust

Users who attempt to join their device to the workplace through Server2 must be prevented from locking out their Active Directory account due to invalid credentials:

- Set-AdfsClaimsProviderTrust
- Set-AdfsGlobalAuthenticationPolicy
- Set-AdfsProperties
- Set-AdfsRelyingPartyTrust

**Answer:****Answer Area**

Application access must be based on device claims:

- Set-AdfsClaimsProviderTrust
- Set-AdfsGlobalAuthenticationPolicy**
- Set-AdfsProperties
- Set-AdfsRelyingPartyTrust

Users who attempt to join their device to the workplace through Server2 must be prevented from locking out their Active Directory account due to invalid credentials:

- Set-AdfsClaimsProviderTrust
- Set-AdfsGlobalAuthenticationPolicy
- Set-AdfsProperties**
- Set-AdfsRelyingPartyTrust

---

### **Question: 73**

Your network contains the following roles and applications:

Microsoft SQL Server 2012  
Distributed File System (DFS) Replication  
Active Directory Domain Services (AD DS)  
Active Directory Rights Management Services (AD RMS)

Active Directory Lightweight Directory Services (AD LDS)  
You plan to deploy Active Directory Federation Services (AD FS).

You need to identify which deployed services or applications can be used as attribute stores for the planned AD FS deployment.

What should you identify? (Each correct answer presents a complete solution. Choose all that apply.)

- A. DFS
- B. AD RMS
- C. Microsoft SQL Server 2012
- D. AD LDS
- E. AD DS

---

**Answer: C, D, E**

---

### **Question: 74**

Your company has 10,000 users located in 25 different sites.

All servers run Windows Server 2012. All client computers run either Windows 7 or Windows 8.

You need to recommend a solution to provide self-service password reset for all of the users.

What should you include in the recommendation?

- A. The Microsoft System Center 2012 Service Manager Self-Service Portal and Microsoft System Center 2012 Orchestrator runbooks
- B. Microsoft System Center 2012 Operations Manager management packs and Microsoft System Center 2012 Configuration Manager collections
- C. The Microsoft System Center 2012 Service Manager Self-Service Portal and Microsoft System Center 2012 Operation Manager management packs
- D. Microsoft System Center 2012 App Controller and Microsoft System Center 2012 Orchestrator runbooks

---

**Answer: A**

---

### **Question: 75**

Your network contains an Active Directory domain named contoso.com. The domain contains 200 servers that run either Windows Server 2012 R2, Windows Server 2012, or Windows Server 2008 R2. The servers run the following enterprise applications:

Microsoft Exchange Server 2013  
Microsoft SQL Server 2014

System Center 2012 R2 Operations Manager is deployed to the domain. Operations Manager monitors all of the servers in the domain. Audit Collection Services (ACS) is installed.

You need to recommend a monitoring strategy for the domain that meets the following requirements:

A group of administrators must be notified when an error is written to the System log on the servers that run Exchange Server 2013.

A group of administrators must be notified when a specific event is written to The Application log on the servers that run SQL Server 2014.

What is the best approach to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

- A. From Operations Manager, enable audit collection.
- B. From Operations Manager, implement two monitors.
- C. From Computer Management, implement one event subscription.
- D. From Operations Manager, implement two rules.

---

**Answer: D**

---

### **Question: 76**

---

Your company has three main offices named Main1, Main2, and Main3.

The network contains an Active Directory domain named contoso.com.

Each office contains a help desk group.

You plan to deploy Microsoft System Center 2012 Configuration Manager to meet the following requirements:

The members of the Domain Admins group must be able to manage all of the Configuration Manager settings.

The help desk groups must be able to manage only the client computers in their respective office by using Configuration Manager.

You need to recommend a Configuration Manager infrastructure to meet the requirements.

Which infrastructure should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Three sites that contain one collection for each office
- B. One site that contains one collection
- C. Three sites that each contain one collection
- D. One site that contains a collection for each office

---

**Answer: D**

---

### **Question: 77**

---

Your network contains the following:

20 Hyper-V hosts

100 virtual machines

2,000 client computers

You need to recommend an update infrastructure design to meet the following requirements:

Deploy updates to all of the virtual machines and the client computers from a single console.

Generate reports that contain a list of the applied updates.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. One Windows Server Update Services (WSUS) server integrated with Microsoft System Center 2012 Configuration Manager and a second WSUS server that is integrated with Microsoft System Center 2012 Virtual Machine Manager (VMM)
- B. One Windows Server Update Services (WSUS) server integrated with Microsoft System Center 2012 Virtual Machine Manager (VMM)
- C. One Windows Server Update Services (WSUS) server integrated with Microsoft System Center 2012 Configuration Manager, a second WSUS server integrated with Microsoft System Center 2012 Virtual Machine Manager (VMM), and

a third standalone WSUS server.

D. One Windows Server Update Services (WSUS) server integrated with Microsoft System Center 2012 Configuration Manager and Microsoft System Center 2012 Virtual Machine Manager (VMM)

---

**Answer: D**

---

### **Question: 78**

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

All client computers have a custom application named App1 installed. App1 generates an Event ID 42 every time the application runs out of memory.

Users report that when App1 runs out of memory, their client computer runs slowly until they manually restart App1. You need to recommend a solution that automatically restarts App1 when the application runs out of memory. The solution must use the least amount of administrative effort.

What should you include in the recommendation?

- A. From Configurations Manager, create a desired configuration management baseline.
- B. From Windows System Resource Manager, create a resource allocation policy.
- C. From Event Viewer, attach a task to the event.
- D. From Operations Manager, create an alert.

---

**Answer: D**

---

### **Question: 79**

Your company has a human resources department and a finance department.

You are planning an administrative model for both departments to meet the following requirements:

Provide human resources managers with the ability to view the audit logs for the files of their department.

Ensure that only domain administrators can view the audit logs for the files of the finance department.

You need to recommend a solution for the deployment of file servers for both departments.

What should you recommend?

More than one answer choice may achieve the goal. Select the BEST answer.

- A. Deploy one file server. Add the human resources managers to the local Administrators group.
- B. Deploy one file server. Add the human resources managers to the local Event Log Readers group.
- C. Deploy two file servers. Add the human resources managers to the local Administrators group on one of the servers.
- D. Deploy two file servers. Add the human resources managers to the local Event Log Readers group on one of the servers.

---

**Answer: D**

---

### **Question: 80**

You have a small Hyper-V cluster built on two hosts that run Windows Server 2012 R2 Hyper-V. You manage the virtual infrastructure by using System Center Virtual Machine Manager 2012.

Distributed Key Management is not installed. You have the following servers in the environment:

Server name	Role
DC1	Active Directory Domain Services domain controller
HYPERV1	Hyper-V host with 40 virtual machines
HYPERV2	Hyper-V host with 25 virtual machines
SQL1	SQL Server 2012 database
DPM1	Data Protection Manager (DPM) server
VMM1	Virtual Machine Manager (VMM) 2012
FILESERVER1	File server, shared folders
FILESERVER2	File server, VMM Library Server

You have the following requirements:

You must back up virtual machines at the host level.

You must be able to back up virtual machines that are configured for live migration.

You must be able to restore the entire VMM infrastructure.

You need to design and implement the backup plan.

What should you do?

A. Run the following Windows PowerShell command:

Checkpoint-VM -Name DPM1 -ComputerName SQL1

B. Install the DPM console on VMM1

C. Configure backup for all disk volumes on FILESERVER1.

D. Install the VMM console on DPM1.

---

**Answer: A**

---

### Question: 81

---

You administer a group of servers that run Windows Server 2012 R2.

You must install all updates. You must report on compliance with the update policy on a monthly basis.

You need to configure updates and compliance reporting for new devices.

What should you do?

A. Deploy the Microsoft Baseline Security Analyzer. Scan the servers and specify the /apply switch.

B. In Configuration Manager, deploy a new Desired Configuration Management baseline that includes all required updates.

C. Configure a new group policy to install updates monthly. Deploy the group policy to all servers.

D. In Operations Manager, create an override that enables the software updates management pack. Apply the new override to the servers.

---

**Answer: C**

---

### Question: 82

---

You are an Active Directory administrator for Contoso, Ltd. You have a properly configured certification authority (CA)

in the contoso.com Active Directory Domain Services (AD DS) domain. Contoso employees authenticate to the VPN by using a user certificate issued by the CA.

Contoso acquires a company named Litware, Inc., and establishes a forest trust between contoso.com and litwareinc.com. No CA currently exists in the litwareinc.com AD DS domain. Litware employees do not have user accounts in contoso.com and will continue to use their litwareinc.com user accounts.

Litware employees must be able to access Contoso's VPN and must authenticate by using a user certificate that is issued by Contoso's CA.

You need to configure cross-forest certificate enrollment for Litware users.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Grant the litwareinc.com AD DS Domain Computers group permissions to enroll for the VPN template on the Contoso CA.
- B. Copy the VPN certificate template from contoso.com to litwareinc.com.
- C. Add Contoso's root CA certificate as a trusted root certificate to the Trusted Root Certification Authority in litware.com.
- D. Configure clients in litwareinc.com to use a Certificate Policy server URI that contains the location of Contoso's CA.

---

**Answer: CD**

---

### **Question: 83**

---

A company has data centers in Seattle and New York. A high-speed link connects the data centers. Each data center runs a virtualization infrastructure that uses Hyper-V Server 2012 and Hyper-V Server 2012 R2. Administrative users from the Seattle and New York offices are members of Active Directory Domain Services groups named SeattleAdmins and NewYorkAdmins, respectively.

You deploy one System Center Virtual Machine Manager (SCVMM) in the Seattle data center. You create two private clouds named SeattleCloud and NewYorkCloud in the Seattle and New York data centers, respectively.

You have the following requirements:

Administrators from each data center must be able to manage the virtual machines and services from their location by using a web portal.

Administrators must not apply new resource quotas or change resource quotas.

You must manage public clouds by using the existing SCVMM server.

You must use the minimum permissions required to perform the administrative tasks.

You need to configure the environment.

What should you do?

- A. For both the Seattle and New York admin groups, create a User Role and assign it to the Application Administrator profile. Add the Seattle and New York private clouds to the corresponding User Role.
- B. For both the Seattle and New York admin groups, create a User Role and assign it to the Delegated Administrator profile. Add the Seattle and New York private clouds to the corresponding User Role.
- C. For both the Seattle and New York admin groups, create a User Role and assign it to the Tenant Administrator profile. Add the Seattle and New York private clouds to the corresponding User Role.
- D. Add both SeattleAdmins and NewYorkAdmins to the Local Administrators group of each Hyper-V host in Seattle and New York, respectively.

---

**Answer: B**

---

### **Question: 84**

---

You administer an Active Directory Domain Services forest that includes an Active Directory Federation Services (AD

FS) server and Azure Active Directory. The fully qualified domain name of the AD FS server is adfs.contoso.com. You must implement single sign-on (SSO) for a cloud application that is hosted in Azure. All domain users must be able to use SSO to access the application.

You need to configure SSO for the application.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Use the Azure Active Directory Synchronization tool to configure user synchronization.
- B. Use the AD FS Configuration wizard to specify the domain and administrator for the Azure Active Directory service.
- C. Create a trust between AD FS and Azure Active Directory.
- D. In the Azure management portal, activate directory synchronization.

---

**Answer: A, B**

---

### **Question: 85**

---

You manage a Hyper-V 2012 cluster by using System Center Virtual Machine Manager 2012 SP1. You need to ensure high availability for business-critical virtual machines (VMs) that host business-critical SQL Server databases.

Solution: You set the memory-weight threshold value to High for each business-critical VM. Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Question: 86**

---

You manage a Hyper-V 2012 cluster by using System Center Virtual Machine Manager 2012 SP1. You need to ensure high availability for business-critical virtual machines (VMs) that host business-critical SQL Server databases.

Solution: You configure preferred and possible owners for each business-critical VM.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### **Question: 87**

---

You plan to allow users to run internal applications from outside the company's network. You have a Windows Server 2012 R2 that has the Active Directory Federation Services (AD FS) role installed. You must secure on-premises resources by using multi-factor authentication (MFA). You need to design a solution to enforce different access levels for users with personal Windows 8.1 or iOS 8 devices.

Solution: You migrate the AD FS server to Microsoft Azure and connect it to the internal Active Directory instance on the network. Then, you use the Workplace Join process to configure access for personal devices to the on-premises resources.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

**Question: 88**

---

You plan to allow users to run internal applications from outside the company's network. You have a Windows Server 2012 R2 that has the Active Directory Federation Services (AD FS) role installed. You must secure on-premises resources by using multi-factor authentication (MFA). You need to design a solution to enforce different access levels for users with personal Windows 8.1 or iOS 8 devices.

Solution: You install a local instance of the MFA Server. You connect the instance to the Microsoft Azure MFA provider and then you use Microsoft Intune to manage personal devices.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

**Question: 89**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

<b>Virtual machine name</b>	<b>Roles and software</b>
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Configuration Manager, you create a Collection and a Desired Configuration Management baseline.  
Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

**Question: 90**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System

Center 2012 infrastructure.

You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

Virtual machine name	Roles and software
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

Solution: From Operations Manager, you create a Distributed Application and a Monitor Override.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

### Question: 91

---

An organization uses an Active Directory Rights Management Services (AD RMS) cluster named RMS1 to protect content for a project. You uninstall AD RMS when the project is complete. You need to ensure that the protected content is still available after AD RMS is uninstalled.

Solution: You run the following Windows PowerShell command:

```
Set-ItemProperty -Path <protected content>:\ -Name IsDecommissioned -Value $true –EnableDecommission
```

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

### Question: 92

---

An organization uses an Active Directory Rights Management Services (AD RMS) cluster named RMS1 to protect content for a project. You uninstall AD RMS when the project is complete. You need to ensure that the protected content is still available after AD RMS is uninstalled.

Solution: You add the backup service account to the SuperUsers group and back up the protected content. Then, you restore the content to a file server and apply the required NTFS permissions to the files.

Does this meet the goal?

- A. Yes

B. No

---

**Answer: B**

---

**Question: 93**

---

DRAG DROP

You use the entire System Center suite. You integrate Service Manager with Operations Manager, Virtual Machine Manager, Orchestrator, and Active Directory. You perform all remediation by using Orchestrator runbooks. An application experiences performance problems on a periodic basis.

You have the following requirements:

A new incident must be opened when System Center Operations Manager (SCOM) detects a performance problem.

The incident must be closed when the performance problem is resolved.

The incident must be associated with the HR performance problem in Service Manager.

You need to configure the environment.

**Actions**

In Operations Manager, create a new monitoring rule that creates an alert.

In Service Manager, create a Business Service for the application, and associate it with the existing problem.

In Service Manager, create a new incident template with a relationship to the existing problem.

In Service Manager, create a new SCOM Alert connector.

**Answer Area**

---

**Answer:**

---

**Answer Area**

1 In Service Manager, create a Business Service for the application, and associate it with the existing problem.

2 In Service Manager, create a new SCOM Alert connector.

3 In Service Manager, create a new incident template with a relationship to the existing problem.

**Question: 94**

---

You install the Service Manager Self-Service Portal on a server named CONTOSOSSP1.

Users report that they receive access denied messages when they try to connect to the portal. You must grant users the minimum required permissions.

You need to ensure that all users in the Contoso domain can access the Service Manager Self-Service Portal.

What should you do?

A. In Active Directory, create a new group named PortalUsers. Add the PortalUsers group to the Contoso\Domain

- Users group, and then add the group to the local users group on CONTOSOSSP1.
- B. Using the account that you used to install the Self-Service portal, grant the Contoso\Domain Users group Read permissions to the portal.
- C. In Service Manager, create a new user role named PortalUsers. Grant the PortalUsers role rights to all catalog items, and then add the Contoso\Domain Users Active Directory Domain Services group to the PortalUsers role.
- D. Using the account that you used to install the Self-Service portal, grant the Contoso\Domain Users group Contribute permissions to the portal.

---

**Answer: D**

---

### Question: 95

---

DRAG DROP

You are planning to set up a proof-of-concept network virtualization environment.

The environment will contain three servers. The servers will be configured as shown in the following table.

Server name	Role
Server1	System Center 2012 R2 Virtual Machine Manager (VMM)
Server2	Hyper-V host
Server3	File server

VMM will be used to manage the virtualization environment.

Server2 runs three virtual machines. All of the virtual machines are configured to use network virtualization.

You need to enable network connectivity between the virtual machines and Server3.

Which four 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.

Actions	Answer Area
Add an infrastructure server.	
Enable network address translation (NAT).	
Configure Teredo transition technology.	
Deploy Windows Server Gateway.	
Configure ISATAP transition technology.	
Add an additional Hyper-V host.	
Deploy Microsoft Forefront Unified Access Gateway (UAG).	
Add a network service.	

---

**Answer:**

---

**Answer Area**

- 1 Add an additional Hyper-V host.
- 2 Deploy Windows Server Gateway.
- 3 Add a network service.
- 4 Enable network address translation (NAT).

**Question: 96**

DRAG DROP

You need to ensure that all new production Hyper-V virtual machines can be deployed correctly.

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.

**Actions**

Create a new logical network.

Select the **All Hosts** check box,  
and insert a VLAN with an ID of  
**30**.

Add an uplink port profile.

Create a new logical switch.

Select the **All Hosts** check box,  
and insert a VLAN with an ID of  
**20**.

Select the **All Hosts** check box,  
and insert a VLAN with an ID of  
**40**.

Add a network site.

**Answer Area****Answer:****Answer Area**

- 1 Create a new logical network.
- 2 Create a new logical switch.
- 3 Add an uplink port profile.

**Question: 97**

You need to deploy the virtual network for the development servers.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Associate VLAN ID 40 with the new logical network.
- B. On HV-Cluster1, create a new logical network that uses a single connected network.
- C. Associate VLAN ID 20 with the new logical network.
- D. On HV-Cluster1, create a new logical network that uses private VLAN networks.
- E. On HV-Cluster2, create a new logical network that uses a single connected network.
- F. On HV-Cluster2, create a new logical network that uses private VLAN networks.

---

**Answer: A, B**

---

### **Question: 98**

---

You need to configure migration for HV-CLUSTER1. What should you do?

- A. Use live migration between HV-Cluster1 and HV-Cluster3.
- B. Configure a Hyper-V replica between HV-Cluster1 and HV-Cluster3.
- C. Configure a Hyper-V replica between HV-Cluster1 and HV-Cluster4.
- D. Use live migration between HV-Cluster1 and HV-Cluster4.

---

**Answer: C**

---

### **Question: 99**

---

DRAG DROP

You need to configure the environment to support App1.

Which four 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.

**Actions****Answer Area**

Connect to APP1-SRV1.contoso.com and select **Interface1**.

Select a priority of 1 in host parameters, and then add the cluster IP address and subnet mask.

Select multicast for cluster operation mode.

Connect to APP1-SRV1.contoso.com and select **Interface2**.

Add APP1-SRV2.contoso.com to the cluster.

Select unicast for cluster operation mode.

**Answer:****Answer Area**

- 1 Connect to APP1-SRV1.contoso.com and select **Interface1**.
- 2 Connect to APP1-SRV1.contoso.com and select **Interface2**.
- 3 Select unicast for cluster operation mode.
- 4 Add APP1-SRV2.contoso.com to the cluster.

**Question: 100****HOTSPOT**

You need to create a script to deploy DFS replication.

Which Windows PowerShell commands should you add to the script? To answer, select the appropriate Windows PowerShell commands in each list in the answer area.

```
New-DfsReplicationGroup -GroupName "RG-HR" | New-DfsReplicatedFolder  
-FolderName "HR Data"
```

```
New-DfsReplicatedFolder -GroupName "RG-HR" -FolderName "HR Data" |  
New-DfsReplicationGroup -GroupName "RG-HR"
```

```
Add-DfsrMember -GroupName "RG-HR" -ComputerName "DAL-FS1","DAL-FS2"  
Add-DfsrMember -GroupName "RG-HR" -ComputerName "SERVER1","SERVER2"
```

```
Add-DfsrConnection -GroupName "RG-HR" -SourceComputerName "DAL-FS1"  
-DestinationComputerName "DAL-FS2"
```

```
Add-DfsrConnection -GroupName "RG-HR" -SourceComputerName "SERVER1"  
-DestinationComputerName "SERVER2"
```

```
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"DAL-FS1" -DestinationComputerName "DAL-FS2"
```

```
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"DAL-FS1" -DestinationComputerName "DAL-FS2"
```

```
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"SERVER1" -DestinationComputerName "SERVER2"
```

```
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"SERVER1" -DestinationComputerName "SERVER2"
```

---

**Answer:**

---

```
New-DfsReplicationGroup -GroupName "RG-HR" | New-DfsReplicatedFolder  
-FolderName "HR Data"

New-DfsReplicatedFolder -GroupName "RG-HR" -FolderName "HR Data" |  
New-DfsReplicationGroup -GroupName "RG-HR"

Add-DfsrMember -GroupName "RG-HR" -ComputerName "DAL-FS1","DAL-FS2"  
Add-DfsrMember -GroupName "RG-HR" -ComputerName "SERVER1","SERVER2"

Add-DfsrConnection -GroupName "RG-HR" -SourceComputerName "DAL-FS1"  
-DestinationComputerName "DAL-FS2"

Add-DfsrConnection -GroupName "RG-HR" -SourceComputerName "SERVER1"  
-DestinationComputerName "SERVER2"

Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"DAL-FS1" -DestinationComputerName "DAL-FS2"  
  
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"DAL-FS1" -DestinationComputerName "DAL-FS2" .  
  
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"SERVER1" -DestinationComputerName "SERVER2"  
  
Set-DfsrConnectionSchedule -GroupName "RG-HR" -SourceComputerName  
"SERVER1" -DestinationComputerName "SERVER2"
```

### **Question: 101**

You need to change the HR application server environment. What should you do?

- A. Use Microsoft Virtual Machine Converter 3.0 to convert DAL-APPERVER2.
- B. Use Virtual Machine Manager to convert DAL-APPERVER2.
- C. Use Microsoft Virtual Machine Converter 3.0 to convert DAL-APPERVER1.
- D. Use Virtual Machine Manager to convert DAL-APPERVER1.

---

**Answer: C**

---

### **Question: 102**

You need to ensure that the developers can manage their own virtual machines.

Solution: You perform the following actions:

In Virtual Machine Manager, you create a new user role named DevUsers that uses the Application Administrator profile.

You create and publish a request offering that allows the DevUsers role to create checkpoints.

You grant Checkpoint permissions to the DevUsers role.

You distribute the Self-Service Portal to the developers.  
Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

**Explanation:**

**Virtual Machine Manager Self-Service Portal**

The VMM Self-Service Portal is an optional, Web-based component that a VMM administrator can install and configure to allow users to create and manage their own virtual machines within a controlled environment on a limited group of virtual machine hosts. The VMM administrator creates self-service user roles which determine the scope of the users' actions on their own virtual machines.

To create, operate, and manage virtual machines, self-service users use the Virtual Machine Manager Self-Service Portal. The administrator determines which host groups self-service users can create virtual machines on. When a self-service user creates a virtual machine, the virtual machine is automatically placed on the most suitable host in the host group based on host ratings.

**Reference:**

**Overview of Virtual Machine Manager**

<https://technet.microsoft.com/en-us/library/cc764267.aspx>

---

### **Question: 103**

---

Your network contains two clusters. The clusters are configured as shown in the following table.

<b>Cluster name</b>	<b>Resource</b>	<b>Node</b>
Cluster1	Hyper-V	3
Cluster2	Distributed File System (DFS)	5

All of the servers in both of the clusters run Windows Server 2012. You need to plan the application of Windows updates to the nodes in the cluster.

What should you include in the plan? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Cluster-Aware Updating (CAU) self-updating and downloaded updates from Windows Server Update Services (WSUS)
- B. Microsoft System Center 2012 Service Manager integrated with Windows Server Update Service (WSUS)
- C. A manual application of Windows updates on all of the cluster node
- D. Microsoft System Center 2012 Configuration Manager integrated with Windows Server Update Service (WSUS)

---

**Answer: A**

---

---

### **Question: 104**

---

Your network contains an Active Directory domain named contoso.com. The network contains a server named Server1 that has the Hyper-V server role installed. Server1 hosts a virtual machine named VM1.

You deploy a new standalone server named Server2. You install the Hyper-V server role on Server2. Another administrator named Admin1 plans to create a replica of VM1 on Server2. You need to ensure that Admin1 can configure Server2 to receive a replica of VM1.

To which group should you add Admin1?

- A. Server Operators
- B. Domain Admins
- C. Hyper-V Administrators
- D. Replicator

---

**Answer: C**

### **Question: 105**

---

Your network contains an Active Directory domain named contoso.com. The domain contains 20 servers that run Windows Server 2012. The domain contains a Microsoft System Center 2012 infrastructure. A web application named WebApp1 is installed on the 20 servers. You plan to deploy a custom registry key for WebApp1 on the 20 servers. You need to deploy the registry key to the 20 servers. The solution must ensure that you can verify whether the registry key was applied successfully to the servers. What should you do? More than one answer choice may achieve the goal. Select the BEST answer.

- A. From Operations Manager, create a monitor.
- B. From the Group Policy Management console, create a Group Policy object (GPO).
- C. From Configuration Manager, create a Compliance Settings.
- D. From Orchestrator Runbook Designer, create a runbook.

---

**Answer: C**

Explanation:

#### **Introduction to Compliance Settings in Configuration Manager**

2 out of 3 rated this helpful - Rate this topic

Updated: August 1, 2012

Applies To: System Center 2012 Configuration Manager, System Center 2012 Configuration Manager SP1

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

**Compliance settings** in System Center 2012 Configuration Manager provides a unified interface and user experience that lets you manage the configuration and compliance of servers, laptops, desktop computers, and mobile devices in your organization. **Compliance settings** contains tools to help you to assess the compliance of users and client devices with regard to a number of configurations, such as whether the correct Windows operating system versions are installed and configured appropriately, whether all required applications are installed and configured correctly, whether optional applications are configured appropriately, and whether prohibited applications are installed. Additionally, you can check for compliance with software updates, security settings, and mobile devices. Configuration item settings of the type WMI, registry, script, and all mobile device settings in Configuration Manager let you automatically remediate noncompliant settings when they are found.

Compliance is evaluated by defining a configuration baseline that contains the configuration items that you want to evaluate and settings and rules that describe the level of compliance you require. You can import this configuration data from the web in Microsoft System Center Configuration Manager Configuration Packs as best practices that are defined by Microsoft and other vendors, defined in Configuration Manager, and defined externally, and that you then import into Configuration Manager. Or, an administrative user can create new configuration items and configuration baselines.

Reference:

<http://technet.microsoft.com/en-us/library/gg682139.aspx>

### **Question: 106**

---

Your network contains five servers that run Windows Server 2012. You install the Hyper-V server role on the servers.

You create an external virtual network switch on each server.

You plan to deploy five virtual machines to each Hyper-V server. Each virtual machine will have a virtual network adapter that is connected to the external virtual network switch and that has a VLAN identifier of 1.

Each virtual machine will run Windows Server 2012. All of the virtual machines will run the identical web application.

You plan to install the Network Load Balancing (NLB) feature on each virtual machine and join each virtual machine to an NLB cluster. The cluster will be configured to use unicast only.

You need to ensure that the NLB feature can distribute connections across all of the virtual machines.

What should you do?

- A. From the properties of each virtual machine, add a second virtual network adapter. Connect the new virtual network adapters to the external virtual network switch. Configure the new virtual network adapters to use a VLAN identifier of 2.
- B. On each Hyper-V server, create a new private virtual network switch. From the properties of each virtual machine, add a second virtual network adapter. Connect the new virtual network adapters to the new private virtual network switches.
- C. On each Hyper-V server, create a new external virtual network switch. From the properties of each virtual machine, add a second virtual network adapter. Connect the new virtual network adapters to the new external virtual network switches.
- D. From the properties of each virtual machine, enable MAC address spoofing for the existing virtual network adapter.

---

**Answer: D**

---

Explanation:

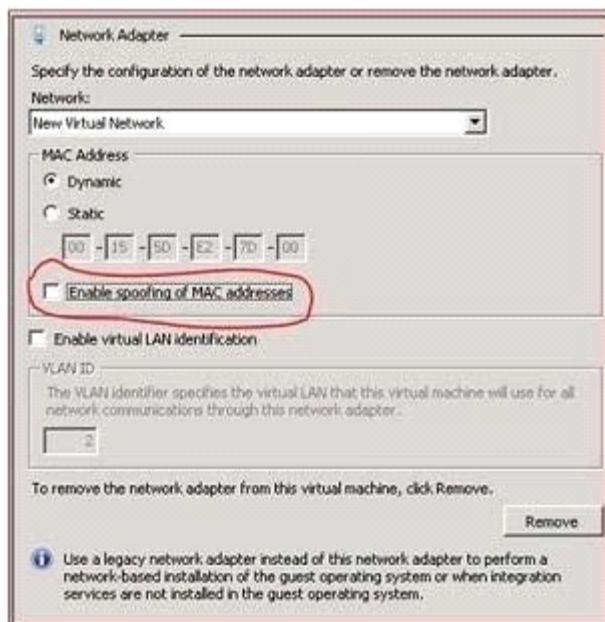
MAC spoofing

The changing of the assigned MAC address may allow the bypassing of access control lists on servers or routers, either hiding a computer on a network or allowing it to impersonate another network device.

A user may wish to legitimately spoof the MAC address of a previous hardware device in order to reacquire connectivity after hardware failure.

addresses. Therefore, if a malicious VM starts sending out packets with a MAC address owned by another machine, it causes the switch to re-learn. This in turn can cause DoS (Denial of Service) attacks, and the potential for the malicious virtual machine to see packets which weren't destined for it. Hence, in our security recommendations, we state that as a security best practice, you should consider (in Hyper-V v1 at least) placing virtual machines of a similar security integrity level on the same virtual switch and not share the switch with virtual machines of a different security integrity level.

In Windows Server 2008 R2, we introduced several changes in the switch to make it smarter. Each virtual switch port has a new property (exposed in our WMI model as AllowMacSpoofing) which is off by default. We also expose this property in the settings page for a virtual machine. Note that to see this setting, you must be using the UI from Windows Server 2008 R2 or RSAT in Windows 7 Client.



When the checkbox is not checked (i.e. the port is in "secure" mode):

1. The MAC address set in the Virtual NIC settings page (either static or the dynamically assigned one) is

Reference:

<http://blogs.technet.com/b/jhoward/archive/2009/05/21/new-in-hyper-v-windows-server-2008-r2-part-2-macspoofing.aspx>

## Question: 107

Your network contains a server named Server1 that runs Windows Server 2012. Server1 is configured as a Hyper-V host. Server1 hosts a virtual machine named VM1. VM1 is configured as a file server that runs Windows Server 2012. VM1 connects to a shared storage device by using the iSCSI Initiator.

You need to back up the files and the folders in the shared storage used by VM1. The solution must ensure that open files are included in the backup.

What should you do?

- A. From Hyper-V Manager, create a snapshot of VM1.
- B. From Server1, perform a backup by using Windows Server Backup.
- C. From VM1, perform a backup by using Windows Server Backup.
- D. From Microsoft System Center 2012 Virtual Machine Manager (VMM), create a copy of VM1.

---

**Answer: C**

---

Explanation:

Backing Up Hyper-V Virtual Machines Using Windows Server Backup

*Caption: After doing a backup using Windows Server Backup – I can now restore a specific virtual machine... I am showing the backup contains the ID's of all the VM's for the Hyper-V "application"... (see the post by Rob Hefner linked to below to enabled Hyper-V in WSB)*

Reference:

<http://blogs.msdn.com/b/taylorb/archive/2008/08/20/backing-up-hyper-v-virtual-machines-usingwindowsserver-backup.aspx>

---

### **Question: 108**

---

Your network contains three networks named LAN1, LAN2, and LAN3. You have a Hyper-V host named Hyper1 that has Windows Server 2012 installed. Hyper1 has three network adapters.

The network adapters are configured as shown in the following table. Hyper1 hosts 10 virtual machines. A virtual machine named VM1 runs a line-of-business application that is used by all of the users of LAN1. All of the other virtual machines are connected to LAN2.

You need to implement a solution to ensure that users can access VM1 if either NIC1 or NIC2 fails.

What should you do?

<b>Network adapter name</b>	<b>Network</b>
NIC1	LAN1
NIC2	LAN1
NIC3	LAN2

- A. From the properties of each virtual network adapter, enable network adapter teaming, and then modify the bandwidth management settings.
- B. From the properties of each virtual network adapter, enable network adapter teaming, and then enable virtual LAN identification.
- C. From the properties of each physical network adapter, enable network adapter teaming, and then add a second legacy network adapter to VM1.
- D. From the properties of each physical network adapter, enable network adapter teaming, and then create a virtual switch.

---

**Answer: D**

---

---

### **Question: 109**

---

Your network contains an Active Directory domain named contoso.com. You deploy Microsoft System Center 2012 Virtual Machine Manager (VMM). The network contains five physical servers. The servers are configured as shown in the following table.

You plan to use VMM to convert the existing physical servers to virtual machines. You need to identify which physical servers can be converted to virtual machines.

Which servers should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

<b>Server name</b>	<b>Operating system</b>	<b>Disk</b>	<b>Memory</b>	<b>CPU</b>
Server1	Windows Server 2008	C: 100 GB D: 2 TB	4 GB	X86
Server2	Windows Server 2003 R2 Service Pack 2 (SP2)	C: 40 GB D: 4 TB	2 GB	X86
Server3	Windows Server 2008 R2 Service Pack 1 (SP1)	C: 100 GB D: 2.5 TB	8 GB	X64
Server4	Windows Server 2008 R2	C: 100 GB D: 1 TB	16 GB	X64
Server5	Windows Server 2003 R2 Service Pack 2 (SP2)	C: 100 GB D: 2 TB E: 2 TB	4 GB	X86

- A. Server1
- B. Server2
- C. Server3
- D. Server4
- E. Server5

---

**Answer: A, D, E**

---

Reference:

<http://technet.microsoft.com/en-us/systemcenter/hh278293.aspx>

### Question: 110

---

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure. The domain contains the computers configured as shown in the following table.

<b>Computer</b>	<b>Operating system</b>
1,200 desktop computers	Windows 7
500 desktop computers	Windows 8
30 servers	Windows Server 2012
20 servers	Windows Server 2008 R2

You need to implement a monitoring solution that gathers the security logs from all of the computers in the domain. Which monitoring solution should you implement? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Data Collector Sets (DCSs)
- B. Event subscriptions
- C. Desired Configuration Management in Configuration Manager
- D. Audit Collection Services (ACS) in Operations Manager

---

**Answer: D**

---

Explanation:

ACS Collector

The ACS collector receives and processes events from ACS forwarders and then sends this data to the ACS database. This processing includes disassembling the data so that it can be spread across several tables within the ACS database, minimizing data redundancy, and applying filters so that unnecessary events are not added to the ACS database.

The number of ACS forwarders that can be supported by a single ACS collector and ACS database can vary, depending on the number of events that your audit policy generates, the role of the computers that the ACS forwarders monitor (such as domain controller versus member server), the level of activities on the computer, and the hardware on which the ACS collector and ACS database run. If your environment contains too many ACS forwarders for a single ACS collector, you can install more than one ACS collector. Each ACS collector must have its own ACS database.

An ACS Collector must be installed on computers running Windows Server 2003 and later, and must have a minimum of 1 gigabyte (GB) of RAM, with 2 GB recommended. Also, it must have at least a 1.8 gigahertz (GHz) processor, with a 2.8 GHz processor recommended and 10 GB of hard disk space available, at a minimum, with 50 GB recommended. The computer you select as an ACS collector must be an Operations Manager 2007 management server and for security reasons, it must also be a member of an Active Directory domain.

On each computer on which you plan to install the ACS collector, you must download and install the latest version of the Microsoft Data Access Components (MDAC) from the Microsoft Web site. To learn more about MDAC, see "Learning Microsoft Data Access Components (MDAC)" at <http://go.microsoft.com/fwlink/?LinkId=74155>.

Reference:

<http://technet.microsoft.com/en-us/library/bb381373.aspx>

---

## Question: 111

---

Your network contains 10 servers that run Windows Server 2012. The servers have the Hyper-V server role installed. The servers host a Virtual Desktop Infrastructure (VDI) that contains persistent virtual machines. Each virtual machine is assigned to a specific user. Users can install software on their specific virtual machine.

You need to implement a solution to generate monthly reports that contain a list of all the installed software on the virtual machines. The solution must NOT require the installation of additional software on the virtual machines. Which solution should you implement?

- A. A Microsoft System Center 2012 Configuration Manager software inventory
- B. A Microsoft System Center 2012 Configuration Manager hardware inventory
- C. Microsoft Assessment and Planning (MAP) Toolkit scans
- D. Microsoft Audit Collection Services (ACS) audit logs

---

**Answer: C**

---

Explanation:

To assist in the planning for a migration of existing Windows-based computers to Windows 7, MAP provides a readiness scenario to help assess which computers are capable of running Windows 7. After the environment **scan** has been completed, MAP looks at computers running earlier versions of Windows, such as Windows XP and Windows Vista, and compares CPU speed, memory and free disk attributes to the minimum and recommended system requirements. When a computer doesn't meet a specific requirement, such as that for installed memory, MAP provides a specific recommendation that indicates what action is required to bring the machine to the recommended level.

When the assessment is complete, the results are displayed in the MAP console, which is shown in **Figure 1**. For Windows 7, MAP displays the following four types of results in separate sections:

- Inventory Summary
- Before Hardware Upgrades
- After Hardware Upgrades
- Device Compatibility Summary

## Question: 112

Your network contains an Active Directory domain named contoso.com. The domain contains a Hyper-V host named Server1. Server1 has an offline virtual machine named VM1 that is stored on a virtual hard disk named VM1.vhd.

You plan to implement multiple virtual machines that have the same configurations as VM1. You need to recommend a virtual hard disk solution for the planned implementation.

The solution must meet the following requirements:

Minimize the amount of time required to create the new virtual machines.

Minimize the amount of storage space required on Server1.

What should you include in the recommendation?

- A. Differencing VHD disks
- B. Dynamically expanding VHD disks
- C. Dynamically expanding VHDX disks
- D. Differencing VHDX disks

**Answer: A**

Explanation:

## Creating Hyper-V 3 Differencing Disks in Server 2012 with GUI and PowerShell

159 days ago by Tom Arbuthnot 4

I'm not sure how this feature passed me by up until now. Differencing Disks are like VMware Linked Clones, you have Parent VHD and a number of linked VHD/VHDX for VMs that only record the changes from the Parent. A full Server 2008 R2 VHDX is around 11GB, a sysprep'd Differencing disk is around 1GB, meaning more machines in less space, ideal for Test and Dev. I've now got a SSD in my lab Server (which makes a huge difference in performance when running multiple VMs). I was looking into Server 2010 dedupe, but found that is only for VHDs at rest, i.e. libraries of VHD images, not live in use disks. With differencing disks I can make much better use of my SSD.

So how do you create a VM with differencing disks? First you start with a Master or Parent disk. I have a sysprep'd Server 2008 R2 VHDX. Mark it as read only so you don't inadvertently change it. If you do all the child disk will be unusable.

Reference:

<http://lyncdup.com/2012/06/creating-hyper-v-3-differencing-disks-in-server-2012-with-gui-and-powershell/>

## Question: 113

Your network contains an Active Directory domain named contoso.com. The domain contains a Microsoft System Center 2012 infrastructure. You deploy a service named Service1 by using a service template. Service1 contains two virtual machines. The virtual machines are configured as shown in the following table.

<b>Virtual machine name</b>	<b>Roles and software</b>
VM1	Web server Windows Server 2012 R2 Operations Manager agent Configuration Manager agent
VM2	Windows Server 2012 R2 Operations Manager agent Microsoft SQL Server 2012 Configuration Manager agent

You need to recommend a monitoring solution to ensure that an administrator can review the availability information of Service1.

What should you do?

- A. From Configuration Manager, create a Collection and a Desired Configuration Management baseline.
- B. From Virtual Machine Manager (VMM), modify the properties of the service template.
- C. From Operations Manager, create a Distributed Application and a Monitor Override.
- D. From Operations Manager, create a Distributed Application and a Service Level Tracking object.

---

**Answer: D**

---

Explanation:

- Display data through addition of widgets
- New web console
- Dashboards can be easily updated

Microsoft System Center Operations Manager 2012 offers significant new functionality, including enhanced network monitoring and application performance monitoring, as well as architectural changes to remove the root management server and to add management server pools. These capabilities are all important, but one of the most interesting investments is Operations Manager 2012's integrated dashboard functionality.

Reference:

<http://www.windowsitpro.com/article/system-center/dashboards-operations-manager-2012-141491>

## Defining a Service Level Objective Against an Application

This topic has not yet been rated - Rate this topic

Updated: September 10, 2012

Applies To: System Center 2012 - Operations Manager, System Center 2012 SP1 - Operations Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

You can define a service level objective (SLO) to establish the availability and performance goals for an application. In the following procedure, you create a service level objective against a distributed application, define a monitor SLO that is based on availability (99.9% up-time), and define a collection rule SLO that is based on a performance rule (80% average processor time).

Reference:

<http://technet.microsoft.com/en-us/library/hh230719.aspx>

### Question: 114

Your network contains an Active Directory domain named contoso.com. The network contains 15,000 client computers. You plan to deploy an Active Directory Certificate Services (AD CS) infrastructure and issue certificates to all of the network devices.

You need to recommend a solution to minimize the amount of network utilization caused by certificate revocation list (CRL) checking.

What should you include in the recommendation? More than one answer choice may achieve the goal. Select the BEST answer.

- A. The Network Device Enrollment Service role service
- B. An increase of the CRL validity period
- C. A reduction of the CRL validity period
- D. The Online Responder role service

---

**Answer: D**

---

Explanation:

### Setting Up Online Responder Services in a Network

11 out of 12 rated this helpful - Rate this topic

Applies To: Windows Server 2008 R2

Setting up Online Responder services involves several interrelated steps. Several of these steps must be performed on the certification authority (CA) that will be used to issue the Online Certificate Status Protocol (OCSP) signing certificates necessary for an Online Responder to function. These steps include configuring the appropriate certificate template, enabling the certificate template, and configuring and completing certificate autoenrollment so that the computer hosting the Online Responder has the certificates needed for the Online Responder to function.

Installation and configuration of an Online Responder involves using Server Manager to install the Online Responder service, the Certificate Templates snap-in to configure and publish OCSP Response Signing certificate templates, the Certification Authority snap-in to include OCSP extensions in the certificates that it will issue and to issue OCSP Response Signing certificates, and the Online Responder snap-in to create a revocation configuration.

The following topics describe the steps needed to complete these installation and configuration steps and how to verify that the installation was successful.

Reference:

<http://technet.microsoft.com/en-us/library/cc753468.aspx>

## Question: 115

---

Your network contains an Active Directory domain named contoso.com. You deploy Active Directory Certificate Services (AD CS). You plan to deploy 100 external Web servers that will be publicly accessible and will require Secure Sockets Layer (SSL) certificates.

You also plan to deploy 50,000 certificates for secure email exchanges with Internet-based recipients.

You need to recommend a certificate services solution for the planned deployment.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Deploy a certification authority (CA) that is subordinate to an external root CA.
- B. Purchase 50,100 certificates from a trusted third-party root certification authority (CA).
- C. Distribute a copy of the root certification authority (CA) certificate to external relying parties.
- D. Instruct each user to request a Secure Email certificate from a trusted third-party root CA, and then purchase 100 Web server certificates.

---

## Answer: A

---

Explanation:

### Install a Subordinate Certification Authority

0 out of 2 rated this helpful - Rate this topic

Applies To: Windows Server 2008

After a root certification authority (CA) has been installed, many organizations will install one or more subordinate CAs to implement policy restrictions on the public key infrastructure (PKI) and to issue certificates to end clients. Using at least one subordinate CA can help protect the root CA from unnecessary exposure.

If a subordinate CA will be used to issue certificates to users or computers with accounts in an Active Directory domain, installing the subordinate CA as an enterprise CA allows you to use the client's existing account data in Active Directory Domain Services (AD DS) to issue and manage certificates and to publish certificates to AD DS.

Membership in local **Administrators**, or equivalent, is the minimum required to complete this procedure. If this will be an enterprise CA, membership in **Domain Admins**, or equivalent, is the minimum required to complete this procedure. For more information, see [Implement Role-Based Administration](#).

Reference:

[http://technet.microsoft.com/en-us/library/cc772192\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc772192(v=ws.10).aspx)

---

## Question: 116

---

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You need to issue a certificate to users to meet the following requirements:

Ensure that the users can encrypt files by using Encrypting File System (EFS).

Ensure that all of the users reenroll for their certificate every six months.

What should you do first?

- A. From the properties of the User certificate template, assign the Allow -Enroll permission to the Authenticated Users group.
- B. From the properties of the Basic EFS template, assign the Allow -Enroll permission to the Authenticated Users group.
- C. Create a copy of the User certificate template, and then modify the extensions of the copy.
- D. Create a copy of the Basic EFS certificate template, and then modify the validity period of the copy.

---

**Answer: D**

---

Explanation:

## Selecting Certificate Templates

1 out of 1 rated this helpful - Rate this topic

Updated: March 28, 2003

Applies To: Windows Server 2003, Windows Server 2003 R2, Windows Server 2003 with SP1, Windows Server 2003 with SP2

The certificate services that you deploy and the security requirements that are specific to your organization impact the types of certificates that you issue. You can issue multiple types of certificates to meet a variety of security requirements.

The certificate templates available with an enterprise CA in Windows Server 2000 and Windows Server 2003 provide the default contents of all certificates that can be requested from a Windows enterprise CA. These certificate templates are stored in Active Directory and cannot be used with stand-alone CAs.

Certificate templates can serve a single purpose or multiple purposes. Single-purpose templates generate certificates that can be used for a single application. For example, the Smart Card Logon certificate template is designed for smart card logon only. Multipurpose templates generate certificates that can be used for a number of applications, such as Secure Sockets Layer (SSL), S/MIME, and EFS. For example, a user certificate can be used for both user authentication and EFS encryption.

Both Windows 2000 and Windows Server 2003 support single-purpose and multipurpose templates. However, Windows 2000 and Windows Server 2003 Standard Edition only support version 1 templates, which have read-only attributes that cannot be customized or extended. Windows Server 2003, Enterprise Edition supports version 2 templates, which allow you to create new certificate templates, clone an existing template, and replace templates that are already in use.

Reference:

[http://technet.microsoft.com/en-us/library/cc786499\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc786499(v=ws.10).aspx)

---

## Question: 117

---

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You deploy Active Directory Rights Management Services (AD RMS) on the network. You provide several users on the network with the ability to protect content by using AD RMS.

You need to recommend a solution to provide the members of a group named Audit with the ability to read and modify all of the AD RMS-protected content.

What should you recommend?

- A. Issue a CEP Encryption certificate to the members of the Audit group.
- B. Issue a key recovery agent certificate to the members of the Audit group.
- C. Add the Audit group as a member of the super users group.
- D. Add the Audit group as a member of the Domain Admins group.

---

**Answer: C**

---

Explanation:

## Add the Federation Mailbox to the AD RMS Super Users Group

Exchange 2013 | Other Versions | This topic has not yet been rated - Rate this topic

**Applies to:** Exchange Server 2013

**Topic Last Modified:** 2012-10-12

For the following Microsoft Exchange Server 2013 Information Rights Management (IRM) features to be enabled, you must add the Federation mailbox (a system mailbox created by Exchange 2013 Setup) to the **super users** group on your organization's Active Directory Rights Management Services (AD RMS) cluster:

- IRM in Microsoft Office Outlook Web App
- IRM in Exchange ActiveSync
- Journal report decryption
- Transport decryption

You can configure a mail-enabled distribution group as a **super users** group in AD RMS. Members of the distribution group are granted an owner use license when they request a license from the AD RMS cluster. This allows them to decrypt all RMS-protected content published by that cluster. Whether you use an existing distribution group or create a distribution group and configure it as the **super users** group in AD RMS, we recommend that you dedicate the distribution group for this purpose and configure the appropriate settings to approve, audit, and monitor membership changes.

 **Caution:**

Configuring a **super users** group in AD RMS allows group members to decrypt IRM-protected content. We recommend that you take adequate measures to control and monitor group membership and enable auditing to track membership changes. You can also limit unwanted changes to group membership by configuring the group as a restricted group using Group Policy. For details, see [Restricted Groups Policy Settings](#).

Reference:

<http://technet.microsoft.com/en-us/library/ee424431.aspx>

### Question: 118

Your company, which is named Contoso, Ltd., has offices only in North America. The company has 2,000 users. The network contains an Active Directory domain named contoso.com.

You plan to deploy an Active Directory Certificate Services (AD CS) infrastructure and assign certificates to all client computers.

You need to recommend a PKI solution to protect the private key of the root certification authority (CA) from being accessed by external users.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. An offline standalone root CA and an online enterprise issuing CA
- B. An online enterprise root CA and an online enterprise issuing CA
- C. An offline standalone root CA and an offline enterprise issuing CA
- D. An online enterprise root CA, an online enterprise policy CA, and an online enterprise issuing CA

---

**Answer: A**

---

Reference:

[http://technet.microsoft.com/en-us/library/cc737481\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc737481(v=ws.10).aspx)

### Question: 119

Your network contains an Active Directory domain. The domain contains a site named Site1.

All of the client computers in Site1 use static IPv4 addresses on a single subnet. Site1 contains a Storage Area Network

(SAN) device and two servers named Server1 and Server2 that run Windows Server 2012.

You plan to implement a DHCP infrastructure that will contain Server1 and Server2. The infrastructure will contain several IP address reservations. You need to recommend a solution for the DHCP infrastructure to ensure that clients can receive IP addresses from a DHCP server if either Server1 or Server2 fails.

What should you recommend? (Each correct answer is a complete solution. Choose all that apply.)

- A. Configure all of the client computers to use IPv6 addresses, and then configure Server1 and Server2 to run DHCP in stateless mode.
- B. Configure Server1 and Server2 as members of a failover cluster, and then configure DHCP as a clustered resource.
- C. Configure a DHCP failover relationship that contains Server1 and Server2.
- D. Create a scope for each server, and then configure each scope to contain half of the IP addresses.

---

**Answer: B, C, D**

**Explanation:**

Windows Server 2012 DHCP provides a new high availability mechanism addressing these critical aspects. Two DHCP servers can be set up to provide a highly available DHCP service by entering into a failover relationship. A failover relationship has a couple of parameters which govern the behavior of the DHCP servers as they orchestrate the failover. One of them is the *mode* of the failover operation – I will describe this shortly. The other is the set of scopes that are part of the failover relation. These scopes are set up identically between the two servers when failover is configured. Once set up in this fashion, the DHCP servers replicate the IP address leases and associated client information between them and thereby have up-to-date information of all the clients on the network. So even when one of the servers goes down – either in a planned or in an unplanned manner – the other DHCP server has the required IP address lease data to continue serving the clients.

## Modes of Failover Operation

There are two modes of configuring **DHCP failover** to cater to the various deployment topologies: *Load Balance* and *Hot Standby*. The Load Balance mode is essentially an Active-Active configuration wherein both DHCP servers serve client requests with a configured load distribution percentage. We will look at how the DHCP servers distribute client load in a later post.

**Reference:**

<http://blogs.technet.com/b/teamdhcp/archive/2012/06/28/ensuring-high-availability-of-dhcp-usingwindowsserver-2012-dhcp-failover.aspx>

---

## Question: 120

Your network contains two servers named Server1 and Server2 that run Windows Server 2012. Server1 and Server2 are connected to a Fibre Channel Storage Area Network (SAN). Server1 and Server2 are members of a failover cluster named Cluster1.

You plan to host the clustered File Server role on the nodes in Cluster1. Cluster1 will store application databases in shared folders. You need to implement a storage solution for Cluster1. The solution must minimize the amount of time the shared folders are unavailable during a failover.

What should you implement? More than one answer choice may achieve the goal. Select the BEST answer.

- A. An iSCSI Target Server cluster role in Cluster1
- B. The Multi Path I/O (MPIO) feature on Server1 and Server2
- C. A Virtual Fibre Channel SAN on Server1 and Server2
- D. A Cluster Shared Volume (CSV) in Cluster1

---

**Answer: D**

Explanation:

## Use Cluster Shared Volumes in a Windows Server 2012 Failover Cluster

1 out of 1 rated this helpful - Rate this topic

Published: August 29, 2012

Updated: August 29, 2012

Applies To: Windows Server 2012

Cluster Shared Volumes (CSVs) in a Windows Server 2012 failover cluster allow multiple nodes in the cluster to simultaneously have read-write access to the same LUN (disk) that is provisioned as an NTFS volume. With CSVs, clustered roles can fail over quickly from one node to another node without requiring a change in drive ownership, or dismounting and remounting a volume. CSVs also help simplify managing a potentially large number of LUNs in a failover cluster.

CSVs provide a general-purpose, clustered file system in Windows Server 2012, which is layered above NTFS. They are not restricted to specific clustered workloads. (In Windows Server 2008 R2, CSVs only supported the Hyper-V workload.) CSV applications include:

- Clustered virtual hard disk (VHD) files for clustered Hyper-V virtual machines
- Scale-out file shares to store application data for the Scale-Out File Server role. Examples of the application data for this role include Hyper-V virtual machine files and Microsoft SQL Server data. For more information about Scale-Out File Server, see [Scale-Out File Server for Application Data Overview](#).

Reference:

<http://technet.microsoft.com/en-us/library/jj612868.aspx>\

## Question: 121

Your network contains a Microsoft System Center 2012 Virtual Machine Manager (VMM) infrastructure. You plan to provide self-service users with the ability to create virtual machines that run Windows Server 2012 and have the following configurations:

8 GB of memory

The File Server server role

Windows Internal Database

A local Administrator password set to 'P@\$\$w0rd'

You have a VHD that contains a generalized version of Windows Server 2012. You need to ensure that the self-service users can provision virtual machines that are based on the VHD.

What should you create? (Each correct answer presents part of the solution. Choose all that apply.)

- A. A Hardware Profile
- B. An Application Profile
- C. An Application Host Profile
- D. A VM Template
- E. A Guest OS Profile

**Answer: A, D, E**

Explanation:

<http://technet.microsoft.com/en-us/library/hh368987.aspx>

## Creating Profiles in VMM

0 out of 1 rated this helpful - Rate this topic

Updated: September 10, 2012

Applies To: System Center 2012 - Virtual Machine Manager, System Center 2012 SP1 - Virtual Machine Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

A profile contains configuration settings that you can apply to a new virtual machine template or virtual machine. The following table lists the types of **profiles** that you can create in System Center 2012 – Virtual Machine Manager (VMM).

<http://technet.microsoft.com/en-us/library/bb740838.aspx>

## About Virtual Machine Templates

2 out of 3 rated this helpful - Rate this topic

A Virtual Machine Manager **template** provides a standardized group of hardware and software settings that can be used repeatedly to create new virtual machines configured with those settings. In Library view in the Administrator Console, you can use the **New template** action to open the **New Template Wizard** used to create a virtual machine **template**.

Although you can use a number of methods to create a template, you cannot create a template that does not include an operating system. Virtual Machine Manager supports the use of either Windows Server 2003 or Windows 2000 Server. If you want to create a virtual machine with a blank virtual hard disk on which you install an operating system later, you must use the New Virtual Machine Wizard rather than the **New Template Wizard** that is described in this topic. For more information about using the New Virtual Machine Wizard, see Creating Virtual Machines.

## Question: 122

Your network contains four servers. The servers are configured as shown in the following table.

Server name	Nodes	Platform
Cluster1	Five nodes	VMware ESX 4.0
Cluster2	Ten nodes	Citrix XenServer
Cluster3	Six nodes	Hyper-V
Cluster4	Three nodes	Hyper-V

You manage all of the servers and all of the clusters by using Microsoft System Center 2012 Virtual Machine Manager (VMM).

You plan to implement Dynamic Optimization for the virtual machines. You need to recommend a configuration for the planned implementation.

What should you recommend?

- A. Dynamic Optimization on Cluster3 and Cluster4 only  
Virtual machines that are balanced across the clusters
- B. Dynamic Optimization on all of the clusters  
Virtual machines that are balanced across the nodes in the clusters
- C. Dynamic Optimization on all of the clusters  
Virtual machines that are balanced across the clusters
- D. Dynamic Optimization on Cluster1 and Cluster2 only  
Virtual machines that are balanced across the nodes in the clusters

---

**Answer: B**

---

Explanation:

<http://technet.microsoft.com/en-us/library/gg675109.aspx>

## Configuring Dynamic Optimization and Power Optimization in VMM

0 out of 1 rated this helpful - Rate this topic

Updated: September 10, 2012

Applies To: System Center 2012 - Virtual Machine Manager, System Center 2012 SP1 - Virtual Machine Manager

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

The procedures in this section explain how to configure Dynamic Optimization and Power Optimization in System Center 2012 – Virtual Machine Manager (VMM), and how to run Dynamic Optimization on demand for a host cluster.

VMM can perform load balancing within host clusters that support live migration. Dynamic Optimization migrates virtual machines within a cluster according to settings you enter.

### Note

In System Center 2012 – Virtual Machine Manager, Dynamic Optimization replaces the host load balancing that is performed for Performance and Resource Optimization (PRO) by the PRO CPU Utilization and PRO Memory Utilization monitors in System Center Virtual Machine Manager (VMM) 2008 R2.

VMM can help to save power in a virtualized environment by turning off hosts when they are not needed and turning the hosts back on when they are needed.

Reference:

<http://searchsystemschannel.techtarget.com/feature/Using-Microsoft-Cluster-Services-for-virtualmachineclustering>

Unlike NLB clusters, server clusters are used solely for the sake of availability. Server clusters do not provide performance enhancements outside of high availability. In a typical server cluster, multiple nodes are configured to be able to own a service or application resource, but only one node owns the resource at a given time. Server clusters are most often used for applications like Microsoft Exchange, Microsoft SQL Server, and DHCP services, which each share a need for a common datastore. The common datastore houses the information accessible by the node that is online and currently owns the resource, as well as the other possible owners that could assume ownership in the event of failure. Each node requires at least two network connections: one for the production network and one for the cluster service heartbeat between nodes. Figure 11.2 details the structure of a server cluster.

### Question: 123

Your network contains two servers that run Windows Server 2012. The servers are members of a failover cluster. Each server has 32 GB of RAM and has the Hyper-V server role installed. Each server hosts three highly available virtual machines. All of the virtual machines have an application named App1 installed. Each of the virtual machines is configured to have 4 GB of memory. During regular business hours, the virtual machines use less than 2 GB of memory. Each night, App1 truncates its logs and uses almost 4 GB of memory.

You plan to add another three virtual machines to each host. The new virtual machines will run the same load as the existing virtual machines.

You need to ensure that all of the virtual machines can run on one of the Hyper-V hosts if a single host fails.

What should you do?

- A. From the properties of each Hyper-V host, modify the Allow virtual machines to span NUMA nodes.
- B. From the properties of each virtual machine, modify the NUMA Configuration -Maximum amount of memory setting.
- C. From the properties of each virtual machine, modify the Smart Paging File Location.
- D. From the properties of each virtual machine, modify the Dynamic Memory settings.

---

Answer: D

---

**Explanation:**

With the **Dynamic Memory** improvements for Hyper-V in Windows Server 2012, you can attain higher consolidation numbers with improved reliability for restart operations. This can lead to lower costs, especially in environments that have many idle or low-load virtual machines, such as pooled VDI environments. **Dynamic Memory** run-time configuration changes can reduce downtime and provide increased agility to respond to requirement changes.

**Technical overview**

Dynamic Memory, introduced in Windows Server 2008 R2 Service Pack 1 (SP1), defined startup memory as the minimum amount of memory that a virtual machine can have. However, Windows requires more memory during startup than the steady state. As a result, administrators sometimes assign extra memory to a virtual machine because Hyper-V cannot reclaim memory from these virtual machines after startup. In Windows Server 2012, **Dynamic Memory** introduces a minimum memory setting, which allows Hyper-V to reclaim the unused memory from the virtual machines. This is reflected as increased virtual machine consolidation numbers, especially in Virtual Desktop Infrastructure (VDI) environments.

Windows Server 2012 also introduces Smart Paging for reliable virtual machine restart operations. Although minimum memory increases virtual machine consolidation numbers, it also brings a challenge. If a virtual machine has a smaller amount of memory than its startup memory and if it is restarted, Hyper-V needs additional memory to restart the virtual machine. Due to host memory pressure or virtual machine states, Hyper-V may not always have additional memory available. This can cause sporadic virtual machine restart failures. Smart Paging is used to bridge the memory gap between minimum memory and startup memory, and allow virtual machines to restart reliably.

**Reference:**

<http://technet.microsoft.com/en-us/library/hh831766.aspx>

**Question: 124**

Your network contains two servers named Server1 and Server2 that run Windows Server 2012.

Server1 and Server2 are members of a failover cluster named Cluster1 and are connected to an iSCSI Storage Area Network (SAN).

You need to ensure that you can implement the clustered File Server role of the File Server for scale-out application data type for Cluster1.

What should you install?

- A. The iSCSI Target Server cluster role
- B. The Distributed Transaction Coordinator (DTC) cluster role
- C. The DFS Namespace Server cluster role
- D. A Cluster Shared Volume (CSV)

**Answer: D****Explanation:**

Applies To: Windows Server 2012

**Cluster Shared Volumes** (CSVs) in a Windows Server 2012 failover cluster allow multiple nodes in the cluster to simultaneously have read-write access to the same LUN (disk) that is provisioned as an NTFS volume. With CSVs, clustered roles can fail over quickly from one node to another node without requiring a change in drive ownership, or dismounting and remounting a volume. CSVs also help simplify managing a potentially large number of LUNs in a failover cluster.

CSVs provide a general-purpose, clustered file system in Windows Server 2012, which is layered above NTFS. They are not restricted to specific clustered workloads. (In Windows Server 2008 R2, CSVs only supported the Hyper-V workload.) CSV applications include:

- Clustered virtual hard disk (VHD) files for clustered Hyper-V virtual machines
- Scale-out file shares to store application data for the **Scale-Out File Server** role. Examples of the application data for this role include Hyper-V virtual machine files and Microsoft SQL Server data. For more information about Scale-Out File Server, see [Scale-Out File Server for Application Data Overview](#).

**Reference:**

<http://technet.microsoft.com/en-us/library/jj612868.aspx>

### Question: 125

---

Your network contains a main data center and a disaster recovery data center. Each data center contains a Storage Area Network (SAN). The main data center contains a two-node failover cluster named Cluster1 that hosts a Microsoft SQL Server 2012 database named DB1.

The database files in DB1 are stored on the SAN in the main office. The disaster recovery data center contains a server that runs SQL Server 2012.

You need to recommend a disaster recovery solution for the SQL Server database. The solution must ensure that the database remains available if the main data center fails.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Deploy Distributed File System (DFS) Replication.
- B. Extend the failover cluster to the disaster recovery data center.
- C. Implement a Cluster Shared Volume (CSV) and move the database files to the CSV.
- D. Implement SQL Server database replication between the two data centers.

---

### Answer: D

---

Explanation:

#### SQL Server Replication

| SQL Server 2012 | Other Versions | 25 out of 37 rated this helpful - Rate this topic

Replication is a set of technologies for copying and distributing data and database objects from one database to another and then synchronizing between databases to maintain consistency. Using replication, you can distribute data to different locations and to remote or mobile users over local and wide area networks, dial-up connections, wireless connections, and the Internet.

Transactional replication is typically used in server-to-server scenarios that require high throughput, including: improving scalability and availability; data warehousing and reporting; integrating data from multiple sites; integrating heterogeneous data; and offloading batch processing. Merge replication is primarily designed for mobile applications or distributed server applications that have possible data conflicts. Common scenarios include: exchanging data with mobile users; consumer point of sale (POS) applications; and integration of data from multiple sites. Snapshot replication is used to provide the initial data set for transactional and merge replication; it can also be used when complete refreshes of data are appropriate. With these three types of replication, SQL Server provides a powerful and flexible system for synchronizing data across your enterprise.

Reference:

<http://technet.microsoft.com/en-us/library/ms151198.aspx>

### Question: 126

---

What is the minimum number of certificate servers you need to deploy?

- A. 2
- B. 3
- C. 4
- D. 5

---

### Answer: C

---

Explanation:

Planned Changes	Notification Requirements	Technical Requirements	Security Requirements	All
-----------------	---------------------------	------------------------	-----------------------	-----

- A. Datum identifies the following security requirements:
- An offline root certification authority (CA) must be configured.
  - Client computers must be issued certificates by a server in their local office.
  - Changes to the CA configuration settings and the CA security settings must be logged.
  - Client computers must be able to renew certificates automatically over the Internet.
  - The number of permissions and privileges assigned to users must be minimized whenever possible.
  - Users from a group named Group1 must be able to create new instances of App1 in the private cloud.
  - Client computers must be issued new certificates when the computers are connected to the local network only.
  - The virtual machines used to host App2 must use BitLocker Drive Encryption (BitLocker).
  - Users from Trey Research must be able to access App2 by using their credentials from [treyresearch.com](http://treyresearch.com).

Planned Changes	Notification Requirements	Technical Requirements	Security Requirements	All
-----------------	---------------------------	------------------------	-----------------------	-----

- A. Datum plans to implement the following changes:
- Replace all of the servers with new servers that run Windows Server 2012.
  - Implement a private cloud by using Microsoft System Center 2012 to host instances of App1.
  - In the Miami office, deploy four new Hyper-V hosts to the perimeter network.
  - In the Miami office, deploy two new Hyper-V hosts to the local network.
  - In the Seattle office, deploy two new Hyper-V hosts. In the Miami office, implement a System Center 2012 Configuration Manager primary site that has all of the system roles installed.
  - Implement a public key infrastructure (PKI).
  - Implement AD FS.

## **Question: 127**

Your network contains an Active Directory domain named contoso.com. The domain contains Server 2012 R2 and has the Hyper-V server role installed.

You need to log the amount of system resources used by each virtual machine.

What should you do?

- A. From Windows PowerShell, run the Enable-VMResourceMetering cmdlet.
- B. From Windows System Resource Manager, enable Accounting.
- C. From Windows System Resource Manager, add a resource allocation policy.
- D. From Windows PowerShell, run the Measure-VM cmdlet.

**Answer: A**

Explanation:

The Enable-VMResourceMetering cmdlet collects resource utilization data for a virtual machine or resource pool.

## **Question: 128**

Your network contains an Active Directory domain named contoso.com. The domain contains a member server named HVServer1. HVServer1 runs Windows Server 2012 R2 and has the Hyper-V server role installed. HVServer1 hosts 10 generation 1 virtual machines. All of the virtual machines connect to a virtual switch named Switch1. Switch1 is configured as a private network. All of the virtual machines have the DHCP guard and the router guard settings enabled.

You install the DHCP server role on a virtual machine named Server1. You authorize Server1 as a DHCP server in contoso.com. You create an IP scope. You discover that the virtual machines connected to Switch1 do not receive IP settings from Server1.

You need to ensure that the virtual machines can use Server1 as a DHCP server.

What should you do?

- A. Enable MAC address spoofing on Server1.
- B. Enable single-root I/O visualization (SR-IOV) on Server1.
- C. Disable the DHCP guard on Server1.
- D. Disable the DHCP guard on all of the virtual machines that are DHCP clients.

---

**Answer: C**

---

Explanation:

DHCP guard setting

This setting stops the virtual machine from making DHCP offers over this network interface.

To be clear this does not affect the ability to receive a DHCP offer (i.e. if you need to use DHCP to acquire an IP address that will work) it only blocks the ability for the virtual machine to act as a DHCP server.

---

### **Question: 129**

---

You have a server named Server1 that runs Windows Server 2012 R2. You plan to enable Hyper-V Network Virtualization on Server1. You need to install the Windows Network Virtualization Filter Driver on Server1.

Which Windows PowerShell cmdlet should you run?

- A. Set-NetVirtualizationGlobal
- B. Enable-NetAdapterBinding
- C. Add - WindowsFeature
- D. Set-NetAdapterVmq

---

**Answer: B**

---

Explanation:

Hyper-V Network Virtualization runs multiple virtual networks on a physical network. And each virtual network operates as if it is running as a physical network.

The Set-NetAdapter cmdlet sets the basic properties of a network adapter such as virtual LAN (VLAN) identifier (ID) and MAC address.

Thus if you add the binding parameter to the command then you will be able to install the Windows Network Virtualization Filter Driver.

Step one: Enable Windows Network Virtualization (WNV). This is a binding that is applied to the NIC that your External Virtual Switch is bound to.

This can be a physical NIC, it can be an LBFO NIC team. Either way, it is the network adapter that your External Virtual Switch uses to exit the server.

This also means that if you have multiple virtual networks or multiple interfaces that you can pick and choose and it is not some global setting.

If you have one External Virtual Switch this is fairly easy:

```
$vSwitch = Get-VMSwitch -SwitchType External# Check if Network Virtualization is bound# This could be done by
# checking for the binding and seeing if it is enabled
ForEach-Object $vSwitch {if ((Get-NetAdapterBinding
-ComponentID "ms_netwvn" - InterfaceDescription$_.NetAdapterInterfaceDescription).Enabled -eq $false){ # Lets
enable it
Enable-NetAdapterBinding -InterfaceDescription $_.NetAdapterInterfaceDescription - ComponentID
"ms_netwvn"}}
```

---

### **Question: 130**

---

Your network contains an Active Directory domain named contoso.com. You install Windows Server 2012 R2 on a new server named Server1 and you join Server1 to the domain. You need to ensure that you can view processor usage and

memory usage information in Server Manager.  
What should you do?

- A. From Server Manager, click Configure Performance Alerts.
- B. From Performance Monitor, create a Data Collector Set (DCS).
- C. From Performance Monitor, start the System Performance Data Collector Set (DCS).
- D. From Server Manager, click Start Performance Counters.

---

**Answer: D**

---

Explanation:

You should navigate to the Server Manager snap-in and there click on All Servers, and then Performance Counters. The Performance Counters, when started can be set to collect and display data regarding processor usage, memory usage, amongst many other resources like disk-related and security related data, that can be monitored.

Reference:

<http://technet.microsoft.com/en-us/library/bb734903.aspx>

---

### **Question: 131**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a server named Server1 that runs Windows Server 2012 R2. Server1 has the Hyper-V server role installed. The domain contains a virtual machine named VM1. A developer wants to attach a debugger to VM1.

You need to ensure that the developer can connect to VM1 by using a named pipe.

Which virtual machine setting should you configure?

- A. BIOS
- B. Network Adapter
- C. COM 1
- D. Processor

---

**Answer: C**

---

Explanation:

Named pipes can be used to connect to a virtual machine by configuring COM 1.

References:

<http://support.microsoft.com/kb/819036>

<http://support.microsoft.com/kb/141709>

---

### **Question: 132**

---

Your network contains an Active Directory domain named contoso.com. The domain contains a member server named Server 1. Server1 runs Windows Server 2012 R2 and has the Hyper-V server role installed. You create an external virtual switch named Switch1.

Switch1 has the following configurations:

Connection type: External network

Single-root I/O virtualization (SR-IOV): Enabled

Ten virtual machines connect to Switch1.

You need to ensure that all of the virtual machines that connect to Switch1 are isolated from the external network and can connect to each other only. The solution must minimize network downtime for the virtual machines.

What should you do?

- A. Remove Switch1 and recreate Switch1 as an internal network.
- B. Change the Connection type of Switch1 to Private network.
- C. Change the Connection type of Switch1 to Internal network.
- D. Remove Switch1 and recreate Switch1 as a private network.

---

**Answer: B**

---

**Explanation:**

You can change the connection type of a virtual switch from the virtual switch manager without having to remove it. A private virtual network is isolated from all external network traffic on the virtualization server, as well any network traffic between the management operating system and the external network.

This type of network is useful when you need to create an isolated networking environment, such as an isolated test domain.

**Reference:**

<http://technet.microsoft.com/en-us/library/cc816585%28v=WS.10%29.aspx>

<http://blogs.technet.com/b/jhoward/archive/2008/06/17/hyper-v-what-are-the-uses-for-different-types-of-virtualnetworks.aspx>

---

### **Question: 133**

---

Your network contains two Hyper-V hosts named Host1 and Host2. Host1 contains a virtual machine named VM1. Host2 contains a virtual machine named VM2. VM1 and VM2 run Windows Server 2012 R2.

You install the Network Load Balancing feature on VM1 and VM2. You need to ensure that the virtual machines are configured to support Network Load Balancing (NLB).

Which virtual machine settings should you configure on VM1 and VM2?

- A. DHCP guard
- B. MAC address
- C. Router guard
- D. Port mirroring

---

**Answer: B**

---

**Explanation:**

When MAC addresses are not assigned to virtual machines, it could cause network problems.

**Reference:**

<http://blogs.msdn.com/b/clustering/archive/2010/07/01/10033544.aspx>

---

### **Question: 134**

---

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, an administrator creates a virtual machine named VM1. A user named User1 is the member of the local Administrators group on Server1. User1 attempts to modify the settings of VM1 as shown in the following exhibit. (Click the Exhibit button.)

```
Windows PowerShell
PS C:\> Set-VM VM1 -ProcessorCount 4
Set-VM : The parameter is not valid. Hyper-V was unable to find a virtual machine with name VM1.
At line:1 char:1
+ Set-VM VM1 -ProcessorCount 4
+ ~~~~~~
+ CategoryInfo          : InvalidArgument: (VM1:String) [Set-VM], VirtualizationUnavailableArgumentException
+ FullyQualifiedErrorId : InvalidParameter,Microsoft.HyperV.PowerShell.Commands.SetVM
```

You need to ensure that User1 can modify the settings of VM1 by running the Set-Vm cmdlet. What should you instruct User1 to do?

- A. Run Windows PowerShell with elevated privileges.
- B. Install the Integration Services on VM1.
- C. Modify the membership of the local Hyper-V Administrators group.
- D. Import the Hyper-V module.

---

**Answer: A**

---

**Explanation:**

You can only use the PowerShell snap-in to modify the VM settings with the vm cmdlets when you are an Administrator.

Thus best practices dictate that User1 run the Powershell with elevated privileges.

References: <http://technet.microsoft.com/en-us/library/jj713439.aspx>

---

### Question: 135

---

Your network contains an Active Directory domain named contoso.com. The domain contains two member servers named Server1 and Server2. All servers run Windows Server 2012 R2.

Server1 and Server2 have the Failover Clustering feature installed.

The servers are configured as nodes in a failover cluster named Cluster1. Cluster1 has access to four physical disks. The disks are configured as shown in the following table.

You need to ensure that all of the disks can be added to a Cluster Shared Volume (CSV).

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Enable BitLocker on Disk4.
- B. Disable BitLocker on Disk1.
- C. Format Disk2 to use NTFS.
- D. Format Disk3 to use NTFS.

---

**Answer: C, D**

---

**Explanation:**

You cannot use a disk for a CSV that is formatted with FAT, FAT32, or Resilient File System (ReFS).

---

### Question: 136

---

Your network contains three servers named HV1, HV2, and Server1 that run Windows Server 2012 R2. HV1 and HV2 have the Hyper-V server role installed. Server1 is a file server that contains 3 TB of free disk space.

HV1 hosts a virtual machine named VM1. The virtual machine configuration file for VM1 is stored in D:\VM and the virtual hard disk file is stored in E:\VHD.

You plan to replace drive E with a larger volume. You need to ensure that VM1 remains available from HV1 while drive E is being replaced. You want to achieve this goal by using the minimum amount of administrative effort.

What should you do?

- A. Perform a live migration to HV2.
- B. Add HV1 and HV2 as nodes in a failover cluster. Perform a storage migration to HV2.
- C. Add HV1 and HV2 as nodes in a failover cluster. Perform a live migration to HV2.
- D. Perform a storage migration to Server1.

---

**Answer: D**

### **Question: 137**

---

You have a Hyper-V host named Server1 that runs Windows Server 2012 R2. Server1 hosts 50 virtual machines that run Windows Server 2012 R2.

Your company uses smart cards for authentication. You need to ensure that you can use smart card authentication when you connect to the virtual machine by using Virtual Machine Connection.

What should you configure?

- A. The NUMA Spanning settings
- B. The RemoteFX settings
- C. The Enhanced Session Mode Policy
- D. The Integration Services settings

---

**Answer: C**

### **Question: 138**

---

You have a Hyper-V host named Server1 that runs Windows Server 2012 R2. Server1 hosts a virtual machine named VM1 that runs Windows Server 2012 R2. VM1 has several snapshots.

You need to modify the snapshot file location of VM1.

What should you do?

- A. Delete the existing snapshots, and then modify the settings of VM1.
- B. Right-click VM1, and then click Move.
- C. Right-click VM1, and then click Export.
- D. PauseVM1, and then modify the settings of VM1.

---

**Answer: A**

Explanation:

You will need to navigate to the Hyper-V Management snap-in (C:\ProgramData\Microsoft\Windows\Hyper-V) and from there access the Snapshot file Location tab where you can change the settings for the VM1 snapshot file location. However, since there are already several snapshots in existence, you will need to delete them first because you will not be able to change the location of the snapshot file while there is an existing snapshot.

You need to modify the snapshot file location of VM1.

### **Question: 139**

---

Your network contains an Active Directory domain named contoso.com.

The domain contains four servers named Server1, Server2, Server3, and Server4 that run Windows Server 2012 R2.

All servers have the Hyper-V server role and the Failover Clustering feature installed.  
 You need to replicate virtual machines from Cluster1 to Cluster2.  
 Which three actions should you perform? (Each correct answer presents part of the solution. Choose three.)

- A. From Hyper-V Manager on a node in Cluster2, create three virtual machines.
- B. From Cluster2, add and configure the Hyper-V Replica Broker role.
- C. From Failover Cluster Manager on Cluster1, configure each virtual machine for replication.
- D. From Cluster1, add and configure the Hyper-V Replica Broker role.
- E. From Hyper-V Manager on a node in Cluster2 modify the Hyper-V settings.

---

**Answer: B, C, D**

---

**Explanation:**

These are two clusters, to replicate any VM to a cluster you need to configure the Replica Broker role on each cluster  
 the last step should be enabling replication on the VMs.

### Question: 140

---

**DRAG DROP**

You plan to delegate the management of virtual machines to five groups by using Microsoft System Center 2012 Virtual Machine Manager (VMM).

The network contains 20 Hyper-V hosts in a host group named HostGroup1. You identify the requirements for each group as shown in the following table.

Group name	Requirement
VMA admins1	Must only be able to manage the virtual machines hosted in HostGroup1.
VMA admins2	Must only be able to manage the virtual machines that the group creates.
VMA admins3	Must only be able to view the status of the hosts in HostGroup1.
VMA admins4	Must be able to manage all of the hosts in all of the host groups.

You need to identify which user role must be assigned to each group.

Which user roles should you identify?

To answer, drag the appropriate user role to the correct group in the answer area. Each user role may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

User roles	Answer Area
Administrators	VMAdmins1 User role
Delegated Administrators	VMAdmins2 User role
Read-Only Administrators	VMAdmins3 User role
Self-Service Users	VMAdmins4 User role

---

**Answer:**

---

User roles	Answer Area
	Delegated Administrators
	Self-Service Users
	Read-Only Administrators
VMA admins1 VMA admins2 VMA admins3 VMA admins4	Administrators

**Explanation:**

You can create **user roles** in System Center 2012 – Virtual Machine Manager (VMM) to define the objects that users can manage and the management operations that users can perform. The following table summarizes the capabilities of each **user role** in VMM :

**User Role Descriptions for VMM**

VMM User Role	Capabilities
	Members of the Administrators <b>user role</b> can perform all administrative actions on all objects that VMM manages. Administrators have sole responsibility for these features of VMM:

References: <http://mountainss.wordpress.com/2011/11/19/user-roles-in-system-center-virtual-machine-manager-2012/>  
<http://technet.microsoft.com/en-us/library/gg696971.aspx>

---

**Question: 141**

---

**DRAG DROP**

Your network contains an Active Directory domain named contoso.com. The network has an Active Directory Certificate Services (AD CS) infrastructure.

You publish the certificate revocation list (CRL) to a farm of Web servers. You are creating a disaster recovery plan for the AD CS infrastructure. You need to recommend which actions must be performed to restore certificate revocation checking if a certification authority (CA) is offline for an extended period of time.

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

Actions	Answer Area
By using Certutil, republish the CRL.	
Restore a copy of the CA's private key, and then retrieve a copy of the CRL.	
Copy the CRL to the Web server farm.	
By using Certutil, resign the CRL, and then extend the validity period of the CRL.	
Restore a copy of the CA's public key and a copy of the CA's certificate.	

**Answer:**

Actions	Answer Area
Copy the CRL to the Web server farm.	Restore a copy of the CA's private key, and then retrieve a copy of the CRL.
	By using Certutil, resign the CRL, and then extend the validity period of the CRL.
	By using Certutil, republish the CRL.

Restore a copy of the CA's public key and a copy of the CA's certificate.

**Explanation:****Certutil**

11 out of 37 rated this helpful - Rate this topic

Updated: November 14, 2012

Applies To: Windows Server 2008 R2, Windows Server 2012

Certutil.exe is a command-line program that is installed as part of Certificate Services. You can use Certutil.exe to dump and display certification authority (CA) configuration information, configure Certificate Services, back up and restore CA components, and verify certificates, key pairs, and certificate chains.

**Reference:**

[http://technet.microsoft.com/en-us/library/cc732443\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc732443(v=ws.10).aspx)

**Question: 142****HOTSPOT**

Your network contains an Active Directory domain named contoso.com. You have a failover cluster named Cluster1 that contains two nodes named Server1 and Server2. Both servers run Windows Server 2012 R2 and have the Hyper-V server role installed.

You plan to create two virtual machines that will run an application named App1. App1 will store data on a virtual hard drive named App1data.vhdx. App1data.vhdx will be shared by both virtual machines.

The network contains the following shared folders:

An SMB file share named Share1 that is hosted on a Scale-Out File Server.

An SMB file share named Share2 that is hosted on a standalone file server.

An NFS share named Share3 that is hosted on a standalone file server.

You need to ensure that both virtual machines can use App1data.vhdx simultaneously.

What should you do? To answer, select the appropriate configurations in the answer area.

Hot Area:

Location of App1data.vhdx:

Share1
Share2
Share3

App1data.vhdx disk type:

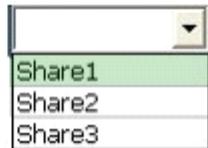
Differencing
Dynamically expanding

---

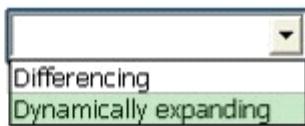
**Answer:**

---

Location of App1data.vhdx:



App1data.vhdx disk type:

**Question: 143**

A company has offices in Seattle and Shanghai. You use Hyper-V Server 2012 R2 as the server virtualization platform. Each office has a secured server room where all the servers are located. Eighty percent of the company's servers are virtual. The company signs a data center services agreement with a vendor that is located in New York. The agreement includes a 1 GB per second link to the collocation facility in New York.

The link between the Seattle and Shanghai offices is slow and unreliable. You must design and implement a cost-effective data recovery solution to replicate virtual servers from Seattle to both the New York and Shanghai locations.

The solution must support the following requirements:

Perform failover replication from Seattle to New York.

Perform scheduled replication between as many locations as possible.

In case of a disaster, a fast failover should be possible to the replicated servers with minimal changes required to the existing infrastructure.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Use Hyper-V Replica unplanned failovers.
- B. Configure the Seattle Hyper-V server as the primary replica server and the Shanghai Hyper-V server as the secondary replica server.
- C. Use Hyper-V Replica planned failovers.
- D. Configure the Seattle Hyper-V server as the primary replica server and the New York Hyper-V server as the secondary replica server.

---

**Answer: AD**

---

A: Unplanned Failover is an operation initiated on the replica VM when the primary VM/site is hit by a disaster.

Incorrect:

Not B: We should not use Shanghai as the secondary replica server as the link between the Seattle and Shanghai offices is slow and unreliable.

Not C: We must protect against disaster, so we cannot use planned failovers.

Reference:

Types of failover operations in Hyper-V Replica—Part III - Unplanned Failover

<http://blogs.technet.com/b/virtualization/archive/2012/08/08/types-of-failover-operations-in-hyper-v-replica-part-iii-unplanned-failover.aspx>

**Question: 144**

Your network contains servers that run only Windows Server 2012.

You have five storage pools. The storage pools are configured as shown in the following table.

Storage pool name	Contents
StoragePool1	<ul style="list-style-type: none"> <li>• Two SATA disks</li> <li>• One SAS disk</li> </ul>
StoragePool2	<ul style="list-style-type: none"> <li>• Two iSCSI disks</li> <li>• One USB disk</li> </ul>
StoragePool3	<ul style="list-style-type: none"> <li>• Five SAS disks</li> <li>• Two iSCSI disks</li> </ul>
StoragePool4	<ul style="list-style-type: none"> <li>• Three SAS disks</li> </ul>
StoragePool5	<ul style="list-style-type: none"> <li>• Two iSCSI disks</li> </ul>

You need to identify which storage pools can be used as clustered disk resources.

Which storage pools should you identify? (Each correct answer presents part of the solution. Choose all that apply.)

- A. StoragePool1
- B. StoragePool2
- C. StoragePool3
- D. StoragePool4
- E. StoragePool5

---

#### Answer: AD

---

The clustered storage pool MUST be comprised of Serial Attached SCSI (SAS) connected physical disks.

Note: SAS, Serial Attached SCSI, is an evolution of parallel SCSI into a point-to-point serial peripheral interface in which controllers are linked directly to disk drives.

Incorrect:

Not B, not C, not E: iSCSI and Fibre Channel controllers are not supported.

Reference:

Deploy Clustered Storage Spaces

<https://technet.microsoft.com/en-us/library/jj822937.aspx>

---

#### Question: 145

---

An organization uses an Active Directory Rights Management Services (AD RMS) cluster named RMS1 to protect content for a project. You uninstall AD RMS when the project is complete. You need to ensure that the protected content is still available after AD RMS is uninstalled.

Solution: You run the following command from an administrative command prompt:

`cipher /a /d /s:<protected share name>`

Does this meet the goal?

- A. Yes
- B. No

---

#### Answer: B

---

If you plan to remove Active Directory Rights Management Services from your organization, you should first

decommission the AD RMS cluster. This allows your AD RMS users to remove AD RMS protection from existing content. If you uninstall AD RMS without first decommissioning it, your protected content will no longer be accessible.

Reference:

Decommissioning AD RMS

<http://blogs.technet.com/b/rms/archive/2012/04/29/decommissioning-ad-rms.aspx>

---

### **Question: 146**

---

You need to automatically restart the appropriate web service on DETCRL01 and CHICRL01 if the web service is stopped.

Solution: You create a Windows Events monitor in SCOM and configure it to monitor events related to the http.sys service?

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: B**

---

Just monitoring the service will not restart it.

---

### **Question: 147**

---

Your network contains an Active Directory domain named adatum.com. The domain contains a server named ADFS1.

You plan to deploy Active Directory Federation Services (AD FS) to ADFS1.

You plan to register the company's SMTP domain for Office 365 and to configure single sign-on for all users.

You need to identify which certificate or certificates are required for the planned deployment.

Which certificate or certificates should you identify? (Each correct answer presents a complete solution. Choose all that apply.)

- A. a certificate that is issued by an internal certification authority and that contains the subject name ADFS1
- B. a certificate that is issued by an internal certification authority and that contains the subject name adfs1.adatum.com
- C. a certificate that is issued by a trusted third-party root certification authority and that contains the subject name ADFS1
- D. self-signed certificates for adfs1.adatum.com
- E. a certificate that is issued by a trusted third-party root certification authority and that contains the subject name adfs1.adatum.com

---

**Answer: AE**

---

E (not C, not D): Setting up AD FS requires the use of a third party SSL certificate. Make sure you match the certificate's subject name with the Fully Qualified Domain Name of the server.

Reference:

Geek of All Trades: Office 365 SSO: A Simplified Installation Guide

<https://technet.microsoft.com/en-us/magazine/jj631606.aspx>

---

### **Question: 149**

---

You manage a Hyper-V 2012 cluster by using System Center Virtual Machine Manager 2012 SP1. You need to ensure high availability for business-critical virtual machines (VMs) that host business-critical SQL Server databases.

Solution: You create a custom placement rule and apply it to all business-critical VMs.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

### **Question: 150**

---

You have a properly configured certification authority in an Active Directory Domain Services domain.

You must implement two-factor authentication and use virtual smart cards to secure user sessions.

You need to implement two-factor authentication for each client device.

What should you install on each client device?

- A. a smart card reader
- B. a user certificate issued by a certification authority
- C. a Trusted Platform Module (TPM) chip
- D. a local computer certificate issued by a certificate authority

---

**Answer: B**

---

Reference:

A Complete Guide on Active Directory Certificate Services in Windows Server 2008 R2

<http://blog.windowsserversecurity.com/2012/01/17/a-complete-guide-on-active-directory-certificate-services-in-windows-server-2008-r2/>

### **Question: 151**

---

You implement cross-forest enrollment between Contoso.com and Fabrikam.com.

You receive version errors when you deploy updated certificates from the Contoso domain to the Fabrikam domain.

You need to ensure that you can deploy the certificates to the fabrikam.com domain.

What should you do?

- A. Run the following Windows PowerShell script:

DumpADObj.ps1 –ForestName fabrikam.com

B. Run the following Windows PowerShell script:

PKISync.ps1 -sourceforest contoso.com -targetforest fabricam.com -f

C. Run the following Windows PowerShell command:

Get-CertificationAuthority contoso.com | Get-PendingRequest | Approve-CertificateRequest

D. Run the following Windows PowerShell command:

Get-CertificationAuthority –Name contoso.com | Get-PolicyModuleFlag | Enable-PolicyModuleFlag

EnableOCSPRevNoCheck, DisableExtensionList -RestartCA

---

**Answer: B**

---

Reference:

AD CS: DumpADObj.ps1 Script for Cross-forest Certificate Enrollment

[https://technet.microsoft.com/en-us/library/ff961505\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/ff961505(v=ws.10).aspx)

---

### **Question: 152**

---

Your network contains an Active Directory domain named contoso.com. The domain contains several domain controllers. The domain controllers run either Windows Server 2012 or Windows Server 2008 R2.

The domain functional level is Windows Server 2008 R2. The forest functional level is Windows Server 2008.

The corporate compliance policy states that all items deleted from Active Directory must be recoverable from a Recycle Bin.

You need to recommend changes to the current environment to meet the compliance policy.

Which changes should you recommend? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Run the Set-ADForestMode cmdlet.
- B. Run the New-ADOObject cmdlet.
- C. Run the Set-ADOObject cmdlet.
- D. Run the Set-ADDomainMode cmdlet.
- E. Run the Enable-ADOptionalFeature cmdlet.

---

### **Answer: AE**

---

A: You can enable Active Directory Recycle Bin only if the forest functional level of your environment is set to Windows Server 2008 R2.

The Set-ADForestMode cmdlet sets the Forest mode for an Active Directory forest. You specify the forest mode by setting the ForestMode parameter. Here we should set it to Windows2008R2Forest.

E: Enabling Active Directory Recycle Bin

After the forest functional level of your environment is set to Windows Server 2008 R2, you can enable Active Directory Recycle Bin by using the following methods:

- / Enable-ADOptionalFeature Active Directory module cmdlet (This is the recommended method.)
- / Ldp.exe

---

### **Question: 153**

---

Your network contains five Active Directory forests.

You plan to protect the resources in all of the forests by using Active Directory Rights Management Services (AD RMS).

Users in one of the forests will access the protected resources.

You need to identify the minimum number of AD RMS clusters required for the planned deployment.

What should you identify?

- A. five licensing clusters and one root cluster
- B. one licensing cluster
- C. one root cluster
- D. five root clusters and one licensing cluster

---

### **Answer: D**

---

---

### **Question: 154**

---

You manage a Hyper-V 2012 cluster by using System Center Virtual Machine Manager 2012 SP1. You need to ensure high availability for business-critical virtual machines (VMs) that host business-critical SQL Server databases.

Solution: You create an availability set and place each business-critical VM in the set.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

When you place multiple virtual machines in an availability set, VMM will attempt to keep those virtual machines on separate hosts and avoid placing them together on the same host whenever possible. This helps to improve continuity of service.

Reference:

Configuring Availability Options for Virtual Machines Overview

<https://technet.microsoft.com/en-us/library/jj628163.aspx>

---

### **Question: 155**

---

You need to automatically restart the appropriate web service on DETCTRL01 and CHICRL01 if the web service is stopped.

Solution: You create a Basic service monitor in SCOM and configure it to monitor the World Wide Web publishing service.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

This can be done with a recovery task.

Reference:

HOW DO I: MONITOR A SERVICE AND AUTOMATICALLY RESTART IT IF IT STOPS (SCOM 2012)

<http://www.opsconfig.com/how-do-i-monitor-a-service-and-automatically-restart-it-if-it-stops-scom-2012/>

---

### **Question: 156**

---

You have a server named Host1 that runs Windows Server 2012 and has the Hyper-V server role installed.

Host1 has one physical network adapter. You plan to deploy 15 virtual machines on Host1.

You need to implement a networking solution that ensures that all of the virtual machines use PXE to boot when they connect to Windows Deployment Server (WDS).

What should you do?

- A. Install legacy network adapters for each virtual machine.
- B. Modify the settings of the virtual switch.
- C. Modify the settings of the network adapter for each virtual machine.
- D. Install a second physical network adapter.

---

**Answer: A**

---

Since Windows Server 2012 R2 (WS2012 R2) Hyper-V and Windows 8.1 Client Hyper-V, there are two generations of virtual machine hardware specification. Generation 1 virtual machines (the only generation on legacy versions of Hyper-V) make things a little tricky when it comes to PXE booting. The default (and better performing) synthetic

Network Adapter (that leverages the Hyper-V integration components) does not support booting off of the network in Generation 1 virtual machines. If you do want to boot this type of virtual hardware using PXE then you must add an emulated Legacy Network Adapter.

Reference:

Boot a Hyper-V Virtual Machine Using PXE

<https://www.petri.com/boot-hyper-v-virtual-machine-using-pxe>

---

### **Question: 157**

---

You have a small Hyper-V cluster built on two hosts that run Windows Server 2012 R2 Hyper-V. You manage the virtual infrastructure by using System Center Virtual Machine Manager 2012.

Distributed Key Management is not installed. You have the following servers in the environment:

<b>Server name</b>	<b>Role</b>
DC1	Active Directory Domain Services domain controller
HYPERVER1	Hyper-V host with 40 virtual machines
HYPERVER2	Hyper-V host with 25 virtual machines
SQL1	SQL Server 2012 database
DPM1	Data Protection Manager (DPM) server
VMM1	Virtual Machine Manager (VMM) 2012
FILESERVER1	File server, shared folders
FILESERVER2	File server, VMM Library Server

You have the following requirements:

You must back up virtual machines at the host level.

You must be able to back up virtual machines that are configured for live migration.

You must be able to restore the entire VMM infrastructure.

You need to design and implement the backup plan.

What should you do?

A. Run the following Windows PowerShell command:

`Set-DPMGlobalProperty -DPMServerName DPM1 -KnownVMMservers VMM1`

B. Install the DPM console on VMM1.

C. Run the following Windows PowerShell command:

`Checkpoint-VM -Name DPM1 -ComputerName SQL1`

D. Configure backup for all disk volumes on FILESERVER1.

---

### **Answer: A**

---

Run the Set-DPMGlobalProperty PowerShell command to connect all the servers that are running Hyper-V to all the DPM servers. The cmdlet accepts multiple DPM server names. For more information see Set-DPMGlobalProperty.

`Set-DPMGlobalProperty -dpmservername <dpmservername> -knownvmmservers <vmmservername>`

Reference:

Set up protection for live migration

<https://technet.microsoft.com/en-us/library/jj656643.aspx>

---

### **Question: 158**

---

You plan to allow users to run internal applications from outside the company's network. You have a Windows Server 2012 R2 that has the Active Directory Federation Services (AD FS) role installed. You must secure on-premises resources by using multi-factor authentication (MFA). You need to design a solution to enforce different access levels for users with personal Windows 8.1 or iOS 8 devices.

Solution: You install a local instance of MFA Server and connect it to your Microsoft Azure MFA provider. Then, you use the Workplace Join process to configure access for personal devices to the on-premises resources.

Does this meet the goal?

- A. Yes
- B. No

---

**Answer: A**

---

Reference:

Setting up on-premises conditional access using Azure Active Directory Device Registration

<https://azure.microsoft.com/en-gb/documentation/articles/active-directory-conditional-access-on-premises-setup/>

---

### **Question: 159**

---

You plan to implement 20 highly available virtual machines on FC1. All of the virtual machines must be stored in a single shared folder. You need to ensure that the VHD files of the virtual machines can be stored on SAN1. VHD files must be available from any node in FC2.

Failover cluster name	Role
FC1	Hyper-V hosting
FC2	File Services

Only the members of FC2 can connect to SAN1

What should you do on FC2 ?

- A. Configure the clustered File server role on the filer server for general use.
- B. Add the iSCSI target server cluster role.
- C. Configure the clustered file server role of the scale-out file server for application data.
- D. Add the storage services role service.

---

**Answer: BC**

---

---

### **Question: 160**

---

Your network contains a server named Hyperl that runs Windows Server 2012. Hyperl is configured as a Hyper-V host and runs System Center 2012 Virtual Machine Manager (VMM).

Hyperl hosts a virtual machine named Guestl. Guestl is configured as a file server that runs Windows Server 2012. Guestl connects to a shared storage device by using the iSCSI Initiator.

You need to back up the files and the folders in the shared storage used by Guestl. The solution must ensure that the backup is successful even if Guestl is in a saved state. What should you do? O

- A. From Hyper-V Manager, create a snapshot of Guestl.
- B. From Hyperl, configure an iSCSI initiator to the shared storage and perform a backup by using Windows Server Backup.
- C. From Guestl, schedule regular backups by using Windows Server Backup.

D. From Microsoft System Center 2012 Virtual Machine Manager (VMM), create a copy of Guestl.

---

**Answer: B**

---

### **Question: 161**

---

Contoso.Ltd, has an Active Directory Domain Services (AD DS) domain named contoso.com. The domain and forest functional levels are set to Windows Server 2008 R2. You have a property configured certification authority (CA). All servers run Windows Server 2012 R2.

You have the following requirements.

- . Users must not be able to attach specific documents to e-mail messages or copy the files to a personal USB device.
- . Finance department users must be able to access the solution from their domain-joined windows devices on the corporate network over the internet without any additional configuration.
- . Finance department users must be able to access the documents even if the primary server fails.

What should you do?

- A. Upgrade the domain functional level to Windows 2012 or higher.
- B. Install Active Directory Federation Services (AD FS), and integrate the Active Directory Rights Management Services server with AD FS.
- C. Ensure that the internal and external URLs for the Active Directory Rights Management Services cluster are the same.
- D. Implement an Active Directory Rights Management Services cluster and place at least one cluster node in the perimeter network

---

**Answer: D**

---

### **Question: 162**

---

Your network contains an Active Directory domain named contoso.com

You plan to implement Network Load Balancing (NLB)

You need to identify which network services and application can be load balance by using NLB.

Which three services and applications should you identify?

- A. Microsoft SQL Server 2012 Reporting Services
- B. Microsoft Exchange Server 2012 Mailbox servers
- C. file servers
- D. Microsoft Exchange Server 2012 Client Access Servers
- E. DHCP Servers
- F. Microsoft Sharepoint Server 2012 front-end Web servers

---

**Answer: ADF**

---

### **Question: 163**

---

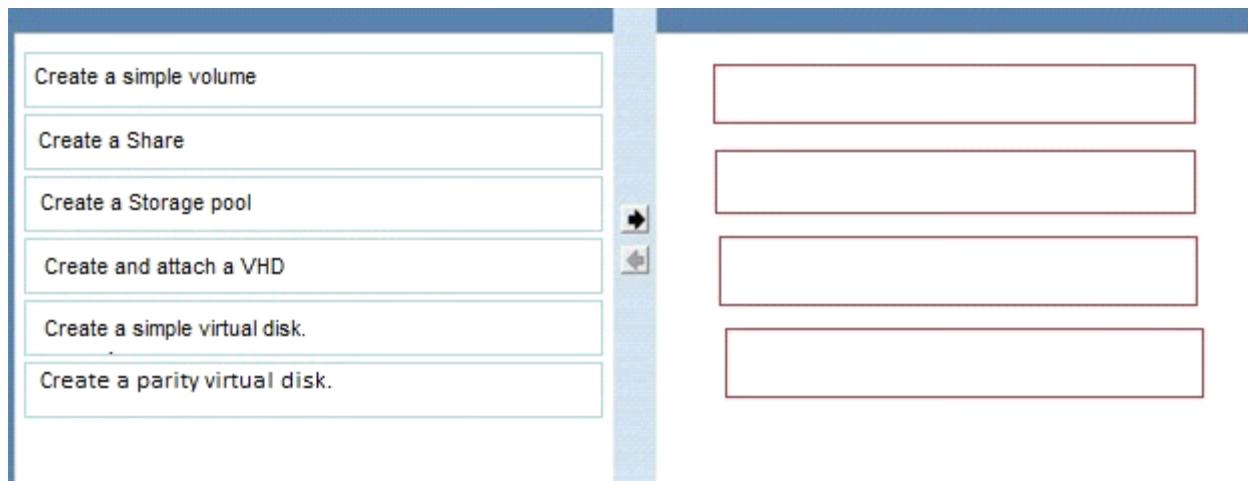
DRAG DROP

You have a file server named File1 that runs Windows Server 2012. File1 has five physical disks.

You plan to create a highly available network share named Share1.

You need to create Share1 on File1. The solution must ensure that Share1 is available if a single disk fails.

Which four actions should you perform?



---

**Answer:**

---

Create a parity virtual disk.

Create a simple volume.

Create and attach a VHD.

Create a storage pool.

---

**Question: 164**

---

Your network contains an Active Directory domain named contoso.com. All domain controllers run Windows Server 2012 R2. The forest functional level is Windows Server 2012.

Your company plans to deploy an application that will provide a search interface to users in the company.

The application will query the global catalog for the Employee-Number attribute.

You need to recommend a solution to ensure that the application can retrieve the Employee-Number value from the global catalog.

What should you include in the recommendation?

- A. the Set-AdObject cmdlet
- B. The Set-User cmdlet
- C. the Set-ADUser cmdlet
- D. thecluster command

---

**Answer: C**

---

---

**Question: 165**

---

You have an IP address Management (IPAM) server that runs Windows Server 2012 SP1. You need to integrate the IPAM server with System center Virtual Machine Manager (SCVMM)

Solution: You add the IPAM server in SCVMM and specify the IPAM\_svc user account as the RunAs account.

Does this meet the goal?

- A. Yes  
B. No

---

**Answer: B**

---

**Question: 166**

---

You have an IP Address Management (IPAM) server that runs Windows Server 2012 SP1. You need to integrate the IPAM server with System Center Virtual Machine Manager (SCVMM).

Solution: You create a dedicated user account named IPAM\_svc, and add it to the IPAM ASM Administrators local group on the IPAM server.

Does this meet the goal?

- A. Yes  
B. No

---

**Answer: B**

---

**Question: 167**

---

Your network contains an Active Directory domain named contoso.com. The domain contains four servers on a test network.

The servers are configured as shown in the following table.

<b>Server name</b>	<b>Role</b>
Server1	Hyper-V
Server2	File and Storage Services
Server3	File and Storage Services
Server4	File and Storage Services

Server1 uses the storage shown in the following table.

<b>Drive name</b>	<b>Type</b>
C	Locally attached IDE disk
D	Locally attached SCSI disk
E	Tiered storage space from locally attached SCSI and SSD drives

You perform the following tasks:

- \* On Server2, you create an advanced SMB share named Share2A and an applications SMB share named Share2B.
- \* On Server3, you create an advanced SMB share named Share3
- \* On Server4, you create an applications SMB share named Share4.
- \* You add Server 3 and Server4 to a new failover cluster named Clus1.
- \* On Clus1, you configure the File Server for general use role, you create a quick SMB share named Share5A and then you create an applications SMB share named Share5B.

You plan to create a failover cluster of two virtual machines hosted on Server1. The clustered virtual machines will use shared .vhdx files. You need to recommend a location to store the shared .vhdx files.

Where should you recommend placing the virtual hard disk (VHD)?

- A. \\Server3\Share3
- B. the E drive on Server1
- C. \\Server2\Share2A
- D. \\Clus1\Share5A

---

**Answer: D**

---