

Microsoft

Exam 70-414

Implementing an Advanced Server Infrastructure

Verson: Demo

[Total Questions: 10]

Topic break down

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Topic 1, Contoso, Ltd Case A

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 No : 1 - (Topic 1)

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 No : 2 - (Topic 1)

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

Topic 2, Proseware Inc

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.

Server name	Location
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 .vhd 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 No : 3 HOTSPOT - (Topic 2)

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 No : 4 DRAG DROP - (Topic 2)

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.	

Answer:

Actions	Answer Area
Configure a notification subscription.	
Configure an availability monitor.	Install the Operations Manager console on the VMM server.
From the Virtual Machine Manager console, configure Operations Manager integration.	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.	Configure a notification subscription.
Install the Virtual Machine Manager console on the Operations Manager server.	

Question No : 5 - (Topic 8)

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 No : 6 - (Topic 8)

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 No : 7 - (Topic 8)

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?

Network adapter name	Network
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 No : 8 - (Topic 8)

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 No : 9 - (Topic 8)

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"> • Two SATA disks • One SAS disk
StoragePool2	<ul style="list-style-type: none"> • Two iSCSI disks • One USB disk
StoragePool3	<ul style="list-style-type: none"> • Five SAS disks • Two iSCSI disks
StoragePool4	<ul style="list-style-type: none"> • Three SAS disks
StoragePool5	<ul style="list-style-type: none"> • Two iSCSI disks

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: A,D

Explanation: 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 No : 10 - (Topic 8)

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