Exam : 070-225

Title : Designing and Deploying a Messaging Infrastructure

Ver : 02.15.07

Topic 1, Contoso Ltd, Scenario

Introduction:

You are hired by Contoso, Ltd., to upgrade its existing Exchange Server environment to Exchange 2000 server.

Background:

History:

Contoso, Ltd., is an agricultural research company. The company's headquarters is located in Bismarck. The company has hundreds of offices and research factories, which are located all over the world. The company employs approximately 10,000 computers.

A large company named Enchantment Lakes Corporation owns Contoso, Ltd. The headquarters Enchantment Lakes Corporation is located in New York. Contoso, Ltd., exercises complete control of over its own business.

Contoso, Ltd., recently acquired a small agricultural research company that has offices in Calcutta, Milan and Tripoli.

Company Profile:

Contoso, Ltd., specializes in crop development, generic manipulation and the sale of seeds. The company's primary customers are farmers and government agencies. The company has approximately 10,000 Exchange Server mailboxes.

Bismarck headquarters employs approximately 5,000 people. Each of the other regional offices in the following cities employs 750 and 1,000 people.

1. Bonn
2. Cairo
3. Hong Kong
4. Rio de Janeiro

The other company locations each employ between 5 and 100 people.

Network planning is preferred in Bismarck. Each regional office has an IT staff that is responsible for the day-to-day operations of the servers and network connections in that office.

Factors that influence Business Strategies:

Communication and collaboration are very important at Contoso, Ltd., The company believes that it will succeed if it can successfully communicate its message to employees, to customers and to shareholders.

Contoso, Ltd., will continue to operate as an independent company. However, employees of Contoso, Ltd., will continue to communicate much more frequently with Enchantment Lakes Corporation in the future.

Existing IT Environment:

Directory Design:

The Contoso, Ltd., Active Directory design is shown in the Exhibit.

Contoso, Ltd., keeps the Active Directory employee data, such as office location, department and phone number, up-to-date by exporting information from the Human

Resources (HR) employs database to the Exchange Server 5.5 directory.
The connection from the HR database to the Exchange Server 5.5 is written in Directory API (DAPI), and work is currently being done to migrate the connection to Active Directory Services.
Contoso, Ltd., keeps the Active Directory employee data, such as office location, department and phone number up-to-date by exporting information from the Human Resources (HR) employee database to the Exchange Server 5.5 directory.
The connection from the Human Resources (HR) database to Exchange Server 5.5is written in Directory API (DAPI), and work is currently being done to migrate the connection to Active Directory Services Interface (ADSI).
The migration will not be completed until the Exchange 2000 Server deployment is complete.

Messaging Environment:

Bismarck headquarters has two mailbox servers. BismarckMail1 and BismarckMail2.
Headquarters also has bridgehead mail Server named BismarckHUB1.
Every Contoso, Ltd., location has at least one Exchange Server 5.5 computer.
Exchange Server 5.5 is configured as one Exchange organization and 12 Exchange sites.
Sites that have stable bandwidth are connected to Bismarck headquarters by means of site connectors.
Sites that have unreliable connections to headquarters use X400 connectors.
When Exchange Server 5.5 was installed, sites were configured according to number of users and the types use Microsoft Outlook 2000.
SMTP mail is used at all Contoso, Ltd., offices to communicate to Enchantment Lakes Corporation. However, full SMTP e-mail addresses are currently typed manually.
All of the Exchange Server computers in Contoso, Ltd., locations are members are member servers. The Contoso, Ltd., WAN is currently configured in a hub-and-spoke topology.
Public folder usage at Contoso, Ltd., is minimal. The public information store is 200 MB.
Public folders are not currently backed up.
The Calcutta, Milan and Tripoli offices of the newly acquired agriculture-research company do not have e-mail servers.
1. Users in Calcutta offices use the mail Server in the Hong Kong office and store the e-mail messages on the Server.
2. Users in the Milan office use the mail Server in the Bonn office and download the e-mail messages from that Server.
3. Users in the Tripoli office use the mail Server in Cairo office and store these e-mail messages on that Server.

Network Infrastructure:

The Contoso, Ltd., WAN design is shown in the exhibit.

Contoso, Ltd., plans to upgrade the WAN. However, the company will be unable to upgrade for at least two years.

The regional offices run Microsoft Windows 2000 Advanced Server. Offices that have lower than 500 employees run Windows 2000 Standard.

All Internet access is routed through Bismarck headquarters.

There are domain controllers at each regional office. Most of other locations use one Server for all services.

All domains are administered locally, except for the North American domains and servers. The North American domains are administered from Bismarck headquarters.

Exchange 2000 Server Requirements and Goals:

Security Requirements:

Contoso, Ltd., and Enchantment Lakes Corporation plan to use e-mail to communicate more frequently after Exchange 2000 Server is implemented.

The companies want messages between executives to be encrypted in the future; they might want the ability to encrypt all messages that are sent between the two companies.

Archiving Requirements:

Contoso, Ltd., wants to backup the mailboxes and public folders every night and to create weekly and monthly archives.

Contoso, Ltd., does not currently have a recovery solution. Toe expedite the recover of e-mail company wants to install recovery servers at strategic locations.

Availability Requirements:

Contoso, Ltd., wants to cluster the servers in the regional offices and headquarters because there are more people working at those offices and because the company wants to provide high availability for mailbox access.

Contoso, Ltd., wants to implement Outlook Web Access to make the company's mail Server more accessible to employees. The Sales team in particular must have this improved accessibility.

Users must be able to connect to local e-mail servers even when WAN connections are down.

Interoperability Requirements:

Contoso, Ltd., wants SMTP e-mail addresses for Enchantment Lakes Corporation to appear in an address list.

Goals:

Bismarck headquarters has two computers that the company plans to use as dedicated instant Messaging servers. The servers will be named M1 and M2.

The company is considering the implementation of additional front- end servers in the five regional offices: Bismarck, Bonn, Cairo, Hong Kong and Rio de Janeiro.

Users in Milan office must be able to view their own calendars and some public folders. They must be able to access their e-mail when they are offline.

Contoso, Ltd., plans to use public folders as a central repository for all research documents.

The company wants to implement a backup solution for public folders. In addition, the company wants to be able to restore all public folders in the most efficient manner.

The company wants to continue storing confidential research information in same public folders and allowing employees of only the research facilities to have access to this data.

The administrative staff at Bismarck headquarters wants to limit the administrative overhead necessary for maintaining message routing throughout Contoso, Ltd.,

Client Computer Configuration:

Contoso, Ltd., wants to implement instant Messaging between the Bismarck headquarters and Contoso, Ltd., and the New York headquarters of Enchantment Lakes Corporation.

The first implementation of instant Messaging will be an experimental test phase.

The Sales team frequently hosts meetings in Canberra and Athens. The Sales will require the use of Outlook Web Access, when they are not in their home office.

Contoso, Ltd., wants to acquire additional small agricultural-research firms and quickly integrate them into the company. Typically the e-mail communication between the companies will occur by means of SMTP or X400 mail systems.

Topic 1, Contoso Ltd (11 Questions)

QUESTION 1

How should you design an Instant Messaging solution for Contoso, Ltd., to enable communication with Enchantment Lakes Corporation?

A. Create an SRV record for _rvp service on Contoso, Ltd's internal DNS Server.
Place the Instant Messaging Router in the Perimeter Network (DMZ)
Use e-mail addresses for users to access Instant Messaging.

B. Create an SRV record for _rvp service on external DNS Server.
Place the Instant Messaging Router in the Perimeter Network (DMZ)
Use e-mail addresses for users to access Instant Messaging.

C. Create an SRV record for _rvp service on external DNS Server.
Place the Instant Messaging Router in the Perimeter Network (DMZ)
Use the alias@en.contoso.com address for users to access Instant Messaging.

D. Create an SRV record for _rvp service on internal DNS Server.
Place the Instant Messaging Router in the Perimeter Network (DMZ)
Use the alias@en.contoso.com address for users to access Instant Messaging.

Answer: A

Explanation:
They tell us
Bismarck headquarters has two computers that the company plans to use as dedicated instant Messaging servers. The servers will be named M1 and M2.
By creating the instant messaging in the perimeter network we can have external access to messaging from internet
XADM: How to Install Instant Messaging Service 266643

QUESTION 2
What should you do to enable communication between Contoso, Ltd., and newly acquired research facilities until the facilities are fully integrated into the organization?

A. Implement an X 400 connector or an SMTP connector on the front-end mail Server at Bismarck headquarters.
B. Implement an X 400 connector or an SMTP connector on the back-end mail Server at Bismarck headquarters.
C. Implement an X 400 connector, or use the current SMTP connector that is on one of the SMTP connector servers.
D. Implement a dedicated Server for foreign connectors at the regional office that is nearest to the office that needs to communicate with the new research facility.

Answer: D

Explanation:
They tell us
Typically the e-mail communication between the companies will occur by means of SMTP or X400 mail systems.
Also they tell us Sites that have unreliable connections to headquarters use X400 connectors.
They have Exchange 5.5 servers, they have very poor lines between the central sites and some of theirs spoke X.400 protocol have a better performance for routing large e-mail than smtp, also we van design a X.400 flow queuing messaging system to transmit this email out of normal business hours
X.400 Connector An Exchange component integrated with the MTA that can be configured to connect sites within Exchange, or to route messages to foreign X.400 systems.
X.400 Recommendations Defines the standard interfaces of an electronic messaging system. These recommendations specify the structure of a message handling system, message structure and components, and the method used to transfer messages.
X.400 transport stack Networking software required to support X.400 server-to-server message transport.

QUESTION 3
What should you do to add to Contoso, Ltd's DNS Server SRV records to

accommodate unified namespace for instant Messaging?

A. _rvp_tcp.contoso.com SRV 0.0.80 M1.contoso.com
_rvp_tcp.contoso.com SRV 10.0.80 M2.contoso.com
B. _rvp_tcp.contoso.com SRV 10.0.443 M1.contoso.com
_rvp_tcp.contoso.com SRV 10.0.80 M2.contoso.com
C. _rvp_tcp.contoso.com SRV 0.0.80 BismarckM1.contoso.com
_rvp_tcp.contoso.com SRV 10.0.80 BismarckReg1.contoso.com
D. _rvp_tcp.contoso.com SRV 10.0.443 BismarckM1.contoso.com
_rvp_tcp.contoso.com SRV 10.0.80 BismarckReg1.contoso.com

Answer: A

Explanation:
They tell us
Bismarck headquarters has two computers that the company plans to use as dedicated instant Messaging servers. The servers will be named M1 and M2.
The Contoso.com has register Contoso.com namespace already
In this case the SRV DNS records in Contoso.com name space will be
_rvp_tcp.contoso.com SRV 0.0.80 M1.contoso.com for server M1
rvp_tcp.contoso.com SRV 10.0.80 M2.contoso.com for server M2
Configuring Instant Messaging
1. Create a virtual server. If you create an Exchange 2000 Instant Messaging virtual server, Windows 2000 users can communicate with other users in real time by using the MSN Messenger Service client program. To create a virtual server:
2. 1. Click Start, point to Programs, point to Microsoft Exchange, and then click Exchange System Manager.
2. Click to expand the Administrative Groups container, and then click to expand the first administrative group.
3. Click your server, and then click Protocols.
4. Right-click Instant Messaging (RVP), and then click New.
5. Click Instant Messaging Virtual Server.
6. The Instant Messaging Installation Wizard, which helps you create the Instant Messaging Service virtual server, is displayed.
7. In the Welcome dialog box, click Next.
8. In the Display Name dialog box, type the display name of your virtual server.
9. In the IIS Server dialog box, click the Web site that you want to use in the list.
10. In the Domain Name dialog box, the fully qualified domain name (FQDN) of your Instant Messaging virtual server is automatically displayed. This information is gathered from the host header data that is associated with the Web site that you selected.
11. In the Host Server dialog box, click to select the Allow this server to host user accounts check box. This means that the server is responsible for hosting users; otherwise, the server becomes an Instant Messaging router that directs incoming Instant Messaging traffic to the appropriate destination.
12. Create and configure a Domain Name System (DNS) service location (SRV) record:
13. 1. Start the DNS.

2. Click the zone that you want.
3. Right-click that zone, point to Other New Records, point to Service Location, and then click Create record.
4. In the Service box, type _rvp.
5. In the Protocol box, type _tcp.
6. In the Priority box, type 0.
7. In the Weight box, type 0.
8. In the Port Number box, type 80.
9. In the Host offering this service box, type the FQDN of the server.
Note The FQDN is the same as the FQDN that was displayed when you created the Instant Messaging virtual server.
3. Enable a user for Instant Messaging:
4. 1. Click Start, point to Programs, point to Microsoft Exchange, and then click Active Directory Users and Computers.
2. In the console tree, double-click the domain, and then click Users.
3. Right-click the name of a user, click Exchange Tasks, and then click Next in the Welcome dialog box.
4. Click Enable Instant Messaging, and then click Next.
5. Next to Instant Messaging Home Server, click Browse. In Select Instant Messaging Server, in the Server name column, click the Instant Messaging virtual server that you created in step 1, and then click OK.
6. When the server is displayed in the dialog box, click Next.
7. Click Finish.
Note Repeat the preceding steps as needed for any additional users that want to use the service.
4. Install the MSN Messenger Service client. You may use a computer that is running either Windows 2000 Server, Microsoft Windows 2000 Professional, Microsoft Windows NT Server 4.0, Microsoft Windows NT Workstation 4.0, Microsoft Windows 95, or Microsoft Windows 98 to connect and communicate with an Instant Messaging server. Winsock 2.0 must be installed on Windows 95 based-computers to use Instant Messaging. To install the MSN Messenger Service client:
5. 1. Insert the Exchange Server CD.
2. Click Start, and then click Run.
3. Click Browse, locate drive_letter:\Instmsg\I386\Client\Usa\Mmsetup.exe (where drive_letter is the letter of your CD-ROM drive), and then click OK.
4. Read the end user license, and then click Yes. The MSN Messenger Service client is installed.
5. In the Welcome to MSN Messenger Service dialog box, click Next.
6. In the Provide Microsoft Exchange Instant Messaging information dialog box, type the e-mail address of the Instant Messaging user that you want to configure in the following format
alias@domain_name.com
where alias is the Exchange 2000 alias and domain_name is the name of the domain.
7. In the Get a free passport dialog box, either import an MSN passport or use Exchange Instant Messaging only, as applicable.
8. Click Finish.

After you install the MSN Messenger Service client, the client can log on to the Instant Messaging server and communicate with other Instant Messaging clients.
Note The Instant Messaging client relies on Microsoft Internet Explorer for the connectivity settings. If there is a period (.) in the user's Instant Messaging logon domain (for example, someone@.microsoft.com), Instant Messaging determines that the destination is "external." If Internet Explorer has a proxy server defined for connectivity, this request is passed to the proxy server for a connection.
Reference
Exchange Server 2000
Exchange 2000 Server How to Guide

QUESTION 4
How should you modify the Exchange architecture to fulfill the requirements for Outlook Web Access?

A. Place front-end servers in Bismarck office to service back-end servers in all regions.
B. Place front-end servers in Bismarck, Bonn, Cairo, Hong Kong and Rio de Janeiro regional offices to service all back-end servers.
C. Place front-end servers in the Bismarck, Athens, Bonn, Canberra and Rio de Janeiro offices to back-end servers within their respective regions.
D. Place front-end servers in the Bismarck, Athens, Bonn, Canberra and Rio de Janeiro offices to service back-end servers in the Bismarck, Athens, Bonn, Canberra and Rio de Janeiro offices respectively.

Answer: B

Explanation:
One of their Goals is
The company is considering the implementation of additional front- end servers in the five regional offices: Bismarck, Bonn, Cairo, Hong Kong and Rio de Janeiro.
In this case B is the answer; we need to put an OWA server infrastructure in each related location.

QUESTION 5
How should you configure the Active Directory Connector (ADC) for Contoso, Ltd before the company upgrades to Exchange 2000 Server?

A. Continuously replicate the directory data from Exchange Server 5.5 to Windows 2000. Continue to make revisions in the Exchange Server 5.5 directory until Exchange 2000 is fully implemented.
B. Continuously replicate the directory data from Windows 2000 to Exchange Server 5.5. Make revisions in Windows 2000 directory.
C. Perform a one-time export of the directory data from Exchange Server 5.5 to Windows 2000.
Make revisions in Windows 2000, and export the directory data back to the Exchange Server 5.5 directory.

D. Perform a one-time export of the directory data from Exchange Server 5.5 to Windows 2000.
Make revisions in Windows 2000, but do not export the directory data back to the Exchange Server 5.5 directory.

Answer: B

Explanation:
They tell use
Users in Milan office must be able to view their own calendars and some public folders.
They must be able to access their e-mail when they are offline.
Contoso, Ltd., wants SMTP e-mail addresses for Enchantment Lakes Corporation to appear in an address list.
One of the ADC Active Directory Connector is to schedule the replication flow, between Exchange 5.5 LDAP directory and the Active directory, GAL and users objects.
The way to take their infrastructure as much updated as is possible we will select the option to replicate continuously. In that way any user that still in Exchange 5.5 or Exchange 2000, can located each other on the GAL (Global Address List) Book

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QUESTION 6
How should you modify the Active Directory Design to provide increased availability of directory access for Exchange server?

A. Ensure that there is a global catalog server at each location that has at least one Exchange server computer.
B. Ensure that there is a DNS server at each location that has at least one Exchange server computer.
C. Ensure that there is a domain controller at each location that has at least one Exchange server computer.
D. Ensure that there is a DHCP server at each location that has at least one Exchange server computer.

Answer: A

Explanation:
To provide to Exchange 2000 with a rapid way to search any user mail enabled the best way for that is to locate Exchange 2000 and an AD GC in the same subnet.
The reason is that when you are mailing to a user mail enabled Exchange need to lookup in the MS-exchange attributes like GAL.
Exchange make a 3268 LDAP port query to a GC to located any mail enabled resource
Sample
CN=MailList 2000,CN=All Global Address Lists,CN=Address Lists Container,CN= ContosoMail Mail,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=contoso,DC=com
CN=Default Global Address List,CN=All Global Address Lists,CN=Address Lists Container,CN=ContosoMail ,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=contoso,DC=com

CN= MailList 2000,CN=All Global Address Lists,CN=Address Lists Container,CN= ContosoMail,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=contoso,DC=com

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QUESTION 7
DRAG DROP
Contoso, Ltd's connection to Outlook web Access is shown in the Exhibit.

Answer:

Explanation:
In a perimeter DMZ configuration to permit access to OWA from internet we just need to permit the http port in this case 80 and 448.
From the external firewall to our internal we needed to permit the others
Reference: Exchange 2000 resource Kit
Configuring Firewalls
Chapter 10 - Planning Outlook Web Access Servers
Firewall Integration
This section focuses on firewall planning. You will need to communicate with the relevant individuals or departments to ensure that you have planned for your firewall(s) to accommodate your FE/BE server topology.
Front End Behind Firewall
As outlined earlier in this chapter, if OWA is being accessed from the Internet, your front-end server is likely to be behind a firewall. The services and ports that will need to be enabled are listed in Firewall Integration Table 1 .
Table 1. Firewall Configuration: Front End Behind Firewall

Source	Destination	Service	Protocol and port
Internet / External Network	Internal / Private Network	HTTP	TCP 80
		HTTPS	TCP 443
		IMAP4	TCP 143
		IMAP4TLS	TCP 993

Front-End on Perimeter Network
If you plan to deploy your front-end server on a perimeter network (as outlined earlier in this chapter), there must be two firewalls. The services and ports that must be enabled are listed in Firewall Integration Table 2.
Table 2. Front-End Server(s) in a Perimeter Network

Source	Destination	Service	Protocol and port
Internet/External	Perimeter Network	HTTP	TCP 80
		HTTPS	TCP 443
		IMAP4	TCP 143
		IMAP4TLS	TCP 993
Perimeter Network	Internal/Private Network	DNS	TCP, UDP 53
		HTTP	TCP 80
		RPC EP Mapper	TCP 135
		KERBEROS	TCP UDP 88
		LDAP	TCP 389
		NETLOGON	TCP 445
		DSAccess (GC)	TCP 3268
		TCP High Ports	TCP 1024+

If your security policy does not permit one or more of these services through the firewall, it is possible to statically configure services such as DNS and RPC to reduce the number of ports. For more information on this subject, refer to the Microsoft white paper "The Exchange 2000 Front-End and Back-End Topology," at:
http://www.microsoft.com/exchange/techinfo/E2KFrontBack.htm

QUESTION 8
How should you design an Exchange 2000 server data recovery solution for Contoso, Ltd.?

A. Place recovery servers in the Bismarck, Cairo and Milan offices.
Restore information store databases for the Bismarck office and for offices that do not have mail servers.
B. Place recovery servers in the Bismarck, Calcutta and Tripoli offices.
Restore information store databases for the Bismarck office and for offices that do not have mail servers.
C. Place recovery servers in the Bismarck, Bonn, Cairo, Hong Kong and Rio de Janeiro offices. Restore information store databases for the respective regions of those offices.
D. Place recovery servers in the Bismarck office.

Restore information-store databases for the entire company.

Answer: C

Explanation:
They tell us
Bismarck headquarters employs approximately 5,000 people. Each of the other regional offices in the following cities employs 750 and 1,000 people.
1. Bonn
2. Cairo
3. Hong Kong
4. Rio de Janeiro
In this case need a recovery plan for each of this offices based on the users amount for each location. Place recovery servers in the Bismarck, Bonn, Cairo, Hong Kong and Rio de Janeiro offices.

QUESTION 9
What are the two possible ways to fulfill the security requirements for the executives? (Choose Two)

A. Implement the L2TP/IPSec between Enchantment Lakes Corporation and the client computers of the executives of Contoso, Ltd.,
B. Implement PPTP/IPSec between Enchantment Lakes Corporation and the client computers of the executives of Contoso, Ltd.,
C. Implement secure MIME at Enchantment Lakes Corporation and at Contoso, Ltd.,
D. Implement digital certificates at Enchantment Lakes Corporation and at Contoso, Ltd.,
E. Require executives to use Outlook Web Access, and require SSL for all Outlook Web Access connections.

Answer: C, D

Explanation:
They tell us
The companies want messages between executives to be encrypted in the future; they might want the ability to encrypt all messages that are sent between the two companies. We need to develop a PKI infrastructure between both companies to encrypt messages
To Get a Digital ID for Sending Secure Messages
1. On the Tools menu, click Options, click the Security tab and then. click "Get a Digital ID."
2. If you are using the Corporate or Workgroup installation of Outlook, click to select "Get a S/MIME certificate from an external Certification Authority." and then click OK. This will launch your browser and display information about obtaining a Digital ID from Microsoft's preferred provider, Verisign.
3. Click "Get your ID now."
4. Follow the instructions on the Web page and then click Accept.

Reference:
OL2000: Encryption and Message Security Overview KB article 195477

QUESTION 10
DRAG DROP
The Contoso, Ltd., mail environment is shown in the exhibit.

Answer:

Explanation:
They tell us
Availability Requirements:
Contoso, Ltd., wants to cluster the servers in the regional offices and headquarters because there are more people working at those offices and because the company wants to provide high availability for mailbox access.

QUESTION 11
How should you enable users in Milan to access e-mail after Exchange 2000 server is implemented?

A. Implement Outlook Express on all client computers at the Milan office and configure the client computers for POP3 mail.
Enable POP3 protocol on the mail server at Bonn office.
B. Implement Outlook Express on all client computers at the Milan office and configure the client computers for IMAP4.
Enable IMAP4 protocol on the mail server at Bonn office.
C. Implement Outlook Express on all client computers at the Milan office.
Enable HTTP protocol on the mail server at Bonn office.
D. Implement Outlook 2000 in Corporate or Workgroup mode on all client computers at the Milan office.

Answer: D

Explanation:

They tell us
Users in Milan office must be able to view their own calendars and some public folders.
They must be able to access their e-mail when they are offline.
Also they tell us That Calcutta, Milan and Tripoli offices has not email servers for that reason the users in Milan connect to the Bonn server to download their mail
They have a front end server in Bonn, they can access to front end server, using POP, HTTP or SMTP or IMAP protocols
With IMAP they can use offline but you can not use all the characteristic that come with outlook With Outlook, you can integrate and manage e-mail from multiple e-mail accounts, personal and group calendars, contacts, and tasks. They only offer D as solution is the only one that use outlook
Reference.
OL2002: Differences between Outlook and Outlook Express 257824

Topic 2, Hiabuv Toys, Scenario

Introduction:
You are hired by Hiabuv Toys to assist the company with migrating its messaging system from Exchange Server 5.5 to Exchange 2000 Server. You need to evaluate the company's current messaging infrastructure, access current and future business needs, and design and deploy Exchange 2000 Server in the company's environment.
Background:
Company Profile:
Hiabuv Toys designs and sells high-quality electronic toys. The company sells its products through its web site, catalog distributors and rental stores. The company has 8,000 employees in five U.S locations.
Company headquarters are located in Portland. Office locations and number of employees are shown in the list.

Location	Employees
Chicago	2,000
Dallas	600
Kansas City	1,500
Los Angeles	800
Portland	3,000

Business Plan:
Hiabuv Toys currently develops new toys. The company actively seeks customer feedback on how to improve its products.
Existing IT Environment:
Network Infrastructure:
The network diagram is shown in exhibit.

Chief Information Officer (CIO):
I want to implement Exchange 2000 Server so that we can create collaboration services that will allow our employees to communicate online with our business partners and suppliers in real time.
We are planning to give all of our employees Handheld PCs. We want to ensure that employees can access their e-mail while they are in the office or in remote locations.
Director of IT:
Our environment consists of a Microsoft Windows 2000 Active Directory network. We run Windows 2000 professional on all of our client computers.
We have an Exchange Server 5.5 messaging system for the entire company. We have a separate Exchange site for each office, with at least one Exchange Server computers in each office.
I want to ensure that our high-speed data lines are not burdened with unnecessary network and messaging traffic, even if we must spend more time managing our messaging infrastructure. I want the messaging systems to use as little bandwidth as possible over our WAN connections.
E-mail manager:
All administration for the Exchange Server 5.5 computers is performed by an IT group in the Portland office Network administration for the LANs and the WAN is performed by a separate technical support group.
Each office has a LAN analyst who is responsible for resetting user passwords, managing distribution lists and Updating exchange user information, such as telephone numbers and addresses.
The deployment plan details the following deployment order:
1. Portland
2. Dallas
3. Los Angeles
4. Chicago

5. Kansas City
The company executives and designers are in the Portland office. Executives should have their mailboxes backed up daily, and the backup tapes should be retained for atleast one year. I also want to ensure that we can recover their mailboxes as quickly as possible and before those of other network users, if possible.
Designers should have their mailboxes backed up daily, and the backup tapes should be maintained for five years. We should be able to restore their mailboxes after those of the executives, but before those of all other network users.
We have an aggressive internship program that places a total of 20 to 30 interns in various departments throughout the company. I want to limit the size of each interns mailbox to 20MB.
I want to allow employees to access their e-mail by using home computers, but I do not want our technical support staff to provide equipment or install special software on these home computers.
Because the migration might take the several months, I want to ensure that out IT group can continue to use the Exchange 5.5 Administrator application until all offices are upgraded to Exchange 2000 Server.
I want to use the Exchange Server 5.5 computer in Portland office as the bridgehead Server for the Active Directory Connector (ADC) because it has a faster CPU and more disk space than the other Exchange Server 5.5 computers.
Messaging System:
Each office currently has its own Exchange Server 5.5 computer in the Portland and Chicago offices.
Exchange Server computer has approximately 30GB of data in the private information store and approximately 8GB of data in its public information store. Nightly backups of Exchange Server computers in the Portland and Chicago offices currently take 10hours each.
The total data stored on each of the Exchange Server 5.5 computer in the other company offices is between 5Gba and 10 GB.
All Exchange 2000 Server configurations should allow maximum single-instance storage and should minimize Server memory usage where possible.
Employees use Microsoft Outlook 2000 for e-mail use.
Hardware:
These benchmarks were achieved when Exchange 2000 Server was tested on the planned hardware configurations.
* Each Exchange 2000 Server computer can support 3,000 users.
* Each Exchange 2000 Server computer can generate approximately 45 global catalog queries per second.
* The global catalog Server configuration can support 240 queries per second.

Topic 2, Hiabuv Toys (9 Questions)

QUESTION 12
How should you configure the Active Directory Connector (ADC)?

A. Configure a one-way connection agreement from Active Directory to each Exchange Server 5.5 site.

B. Configure a one-way connection agreement from Exchange Server 5.5 site to Active Directory.
C. Configure a two-way connection agreement between Exchange Server 5.5 site and Active Directory.
D. Configure a two-way connection agreement between the hub Exchange Server 5.5 site and the root domain in the Active Directory forest.

Answer: A

Explanation:
They tell us
I want to ensure that our high-speed data lines are not burdened with unnecessary network and messaging traffic, even if we must spend more time managing our messaging infrastructure. I want the messaging systems to use as little bandwidth as possible over our WAN connections.
To avoid part of the sync traffic we just select one way replication model.
Also because they have several site we need to deploy different connections agreements from each Exchange site.

QUESTION 13
What should you do to minimize the effect of denial of service attacks on the Server that is used by company employees for remote e-mail access?

A. Use two storage groups on the Exchange 2000 Server computer that provides Internet mail access.
B. Place two front-end Exchange 2000 Server computers in a perimeter network. (DMZ).
C. Enable IPSec on the Exchange 2000 Server computer that provides Internet mail access.
D. Enable SSL connections on the Exchange 2000 Server computer that provides Internet mail access.

Answer: B

Explanation:
They tell us
I want to allow employees to access their e-mail by using home computers, but I do not want our technical support staff to provide equipment or install special software on these home computers.
In this way the best solution is to implement OWA access over SSL
Performance and Scalability
OWA performance and scalability benefit greatly from the partitioned services architecture of Exchange 2000. The Exchange 2000 FE/BE server topology can be scaled horizontally by adding front-end OWA servers as needed to increase application performance or client-load capacity. Freed from the responsibility of managing a messaging database, a front-end OWA server performs HTTP protocol handling and proxy functions at high speed.

OWA availability can also be increased by balancing client requests across multiple front-end servers with Network Load Balancing (NLB). NLB ensures that user requests are directed to servers that are available and helps maintain user Secure Sockets Layer (SSL) sessions (when used) on a particular server until they disconnect.
Reference
Exchange 2000 Upgrade series
Chapter 10 - Planning Outlook Web Access Servers

QUESTION 14
Which permission should you designate to the Exchange administrators in the Portland office?

A. Exchange Administrator
B. Exchange Full Administrator
C. Exchange View Only Administrator
D. Enterprise Administrator

Answer: B

Explanation:
They tell us
E-mail manager:
All administration for the Exchange Server 5.5 computers is performed by an IT group in the Portland office Network administration for the LANs and the WAN is performed by a separate technical support group.
The company executives and designers are in the Portland office. Executives should have their mailboxes backed up daily, and the backup tapes should be retained for atleast one year. I also want to ensure that we can recover their mailboxes as quickly as possible and before those of other network users, if possible.
Exchange Administration Delegation Wizard
Similar to Active Directory Delegation of Control Wizard, the Exchange Administration Delegation Wizard is a tool that assists in delegating responsibility for managing Exchange configuration objects in Active Directory. As described in Table 11.3, the tool allows you to assign one of three roles to groups or individual users. These roles are similar to the roles assigned in Exchange 5.5. Use the wizard to modify the organization or the individual administrative groups. Permissions are inherited from the top down, but can be overridden at lower levels if desired.
Table 11.3 Administration Delegation Wizard roles

Role	Right
Exchange View Only Administrator	View configuration of all Exchange objects.
Exchange Administrator	Modify configuration of all Exchange objects.
Exchange Full Administrator	Same as Exchange Administrator with the added ability to modify permissions on Exchange objects.

Create groups for the purpose of delegating administration by using Exchange Administration Delegation Wizard instead of specifying individual accounts. This makes it easy to change administrative rights by changing group membership rather than having to run the wizard again.

Reference
MS Exchange 2000 Resource Kit
Chapter 11 - Administration and Maintenance

QUESTION 15
How should you implement a fault-tolerant configuration for users who access e-mail by using Outlook 2000?

A. Use two front-end servers in each office.
B. Use clustered Exchange 2000 mailbox Servers.
C. Use an Exchange 2000 directory Server in Portland office.
D. Use an Exchange 2000 public-store Server in the Chicago office.

Answer: B

Explanation:
In the Exchange architecture front end server must not have storage group for security reason, if we would like to provide fault tolerance we must enable two or more NLB enable front end server and on or more cluster server as back end server.
Windows Clustering
A server cluster is a group of independent computer systems, known as nodes, working together as a single system to ensure that mission-critical applications and resources remain available to clients. Each node has one or more physical disks used for storing the operating system, the swap file, non-shared applications (such as Exchange 2000 binary files), and so on that only they have access to. At the same time, every node is attached to one or more shared cluster storage devices (such as a Storage Area Network) that contain the cluster quorum drive and Exchange 2000 shared resources (such as log files, public stores and message stores). Clustering allows users and administrators to access and manage the nodes as a single system rather than as separate computers.
Reference
MS White Paper
Installing Microsoft Exchange 2000 on a Windows 2000 Cluster: Step-by-Step Guide

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QUESTION 16
You are designing a collaboration service that will fulfill the company's business requirements. How should you ensure that the service could be used by internal users and with suppliers?

A. Use an Exchange 2000 Server computer running the Chat service in auditorium mode. Create a Web site that suppliers can access.
B. Use a dedicated Exchange 2000 client Server running the Chat service in moderated mode. Create a Web site that suppliers can access.
C. Use a dedicated exchange 2000 Instant Messaging Server.
Allow internal employees to use Instant Messaging.
Enable suppliers to access the Hiabuv Toys instant Messaging Server.

D. On an exchange 2000 Server computer, create a public folder for each supplier. Create an SMTP connector that will be used to replicate the contents of these public folders to the suppliers.

Answer: C

Explanation
Chief Information Officer (CIO):
I want to implement Exchange 2000 Server so that we can create collaboration services that will allow our employees to communicate online with our business partners and suppliers in real time.
We are planning to give all of our employees Handheld PCs. We want to ensure that employees can access their e-mail while they are in the office or in remote locations.
In this way we need to plan an enable instant messaging and to enable to partners also to use it

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QUESTION 17
How should you provide a redundant front-end Server configuration to support users who access their e-mail from home?

A. Install two Windows 2000 Server computers that run Routing and Remote Access. Connect modems to each of these servers.
B. Use two storage groups on each Exchange 2000 Server computer.
Use one storage group to support users who access e-mail from home, and the other storage groups to support users who access e-mail in the office.
C. Place two front-end protocol servers on the Internet.
Configure these two servers to use Network Local Balancing (NLB).
D. Place the LDAP on the Internet.
E. Configure the LDAP server to have two separate ports: one for each protocol Server.

Answer: C

Explanation:
Front end servers configuration in exchange is provided by configuring from two to 32 member in a NLB cluster array to perform high availability and performance
HTTP-Specific Configuration
The front-end server's virtual directories and HTTP virtual servers must exactly match those of the back-end server. In a default setting, no additional configuration is necessary on the front-end server-the "exchange" and "public" virtual directories already match.
Optimizing the Front-End Server
You now have a default configuration front-end server that does not store any mailboxes. You can optimize this server for OWA by removing unnecessary protocols.
The front-end server you are configuring will only be used for OWA (HTTP) services. Therefore, the services required by the other e-mail protocols (POP3 and IMAP4) can be disabled. The following table shows the Exchange services required for these protocols that you should disable.

Protocol	Service Name to disable	Internal Name
POP3	Exchange POP3	POP3Svc
	Exchange Information Store Service	MSExchangeIS
	Exchange System Attendant	MSExchangeSA
IMAP4	Exchange IMAP4	IMAP4Svc
	Exchange Information Store Service	MSExchangeIS
	Exchange System Attendant	MSExchangeSA

To stop and disable the services related to POP3 and IMAP4, use the Services Microsoft Management Console (MMC) snap-in and configure the services to disabled.
Configuring a Back-End Server
Back-end servers must be specially configured to support the front-end server. First, the back-end servers must be in the same domain as the front-end.
Public folders can be replicated in any way that is desired. Back-end servers can be accessed directly if required, with no effect on the behavior of the front-end/back-end setup.
Reference
Exchange 2000 Upgrade Series
Chapter 8 - Installing Front-End Servers

QUESTION 18
What should you do to maximize security on the Server that is used by company employees for remote e-mail access?

A. Use the Internet Authentication Service.
B. Use digital certificates on the client computers.
C. Place the front-end Server outside the Internet firewall.
D. Require SSL connections on the front-end Server.
E. Use IPSec to encrypt traffic on port 25.

Answer: D

Explanation:
The best way to secure remote access to a OWA server is to enable SSL communications for HTTP protocol
Security Requirements
Internet-connected OWA solutions require increased security measures and the application of corporate security policies. Servers need to be exposed to the Internet, which usually involves placing the front-end server behind a firewall.
Protecting user login and session data requires the use of SSL between the OWA client and the Exchange server (front-end server only in an FE/BE server topology). To deploy this you must plan for the acquisition and installation of Web server certificates, which are required to enable SSL sessions.
If you plan to use an FE/BE server topology, only Basic Authentication is supported. Because Basic Authentication does not protect user passwords, it is recommended that you use SSL, particularly because SSL encrypted sessions are required by OWA when users change their password.

If the OWA user community is limited to a corporate intranet, NTLM or Kerberos V5 authentication can be used to protect the logon process, but the user data sessions will remain unencrypted. If you have a need to protect the data session in this environment, you should implement Internet Protocol (IP) Security (IPSec) or SSL.
Exchange 2000 Upgrade Series
Chapter 8 - Installing Front-End Servers

QUESTION 19
Based on business priorities, when should you implement your Exchange 2000 server administrative group design?

A. Before upgrading the Portland office.
B. After Upgrading the Portland office, and before upgrading the KANSAS City office.
C. After upgrading the Los Angeles office, and before upgrading the Kansas city office.
D. After upgrading the KANSAS city office.

Answer: B

Explanation:
To configure administrative group, routing and message flow we first need to Deploy Exchange in Portland
They tell us
The deployment plan details the following deployment order:
6. Portland
7. Dallas
8. Los Angeles
9. Chicago
10. Kansas City
The company executives and designers are in the Portland office. Executives should have their mailboxes backed up daily, and the backup tapes should be retained for at least one year. I also want to ensure that we can recover their mailboxes as quickly as possible and before those of other network users, if possible.
E-mail manager:
All administration for the Exchange Server 5.5 computers is performed by an IT group in the Portland office Network administration for the LANs and the WAN is performed by a separate technical support group
Because the migration might take the several months, I want to ensure that out IT group can continue to use the Exchange 5.5 Administrator application until all offices are upgraded to Exchange 2000 Server.
Reference
Exchange 2000 Upgrade Series
Chapter 6 - Constructing Security and Administrative Models

QUESTION 20
Which two actions should u perform to implement a fault tolerant configuration for mailbox access for the handheld PCs that will be given to employees? (Choose two)

A. Use clustered Exchange 2000 mailbox servers
B. Use two front end protocol servers in each office
C. Use a separate information store on the Exchange 2000 server computers to contain the mailbox for the handheld PCs.
D. Use an exchange 2000 directory server in the Portland office
E. Use and exchange 2000 public store server in the Chicago office.

Answer: A, B

Explanation:
Redundant configuration is achieved by placing NLB servers as front end server
Redundant configuration is achieved by following the NBL server to a cluster back end server in active/passive mode, in this way we have high availability, furthermore if we need to support a disaster in the backend we will need also to take Fault tolerance for disks cabinet.
EMC, Unisys, Marathon and HP are vendors that provide this kind of failover configurations
Reference
http://www.microsoft.com/technet/treeview/default.asp?url=/technet/itsolutions/net/default.asp
Using Microsoft Exchange 2000 Front-End Servers
Deploying Microsoft Exchange 2000 Server Clusters

Topic 3, ProseWare Corporation, Scenario

Introduction:
ProseWare Corporation has hired you to provide design and deployment services for the implementation of Microsoft Exchange 2000 Server throughout the company. This implementation will be in upgrade from Exchange Server 5.5, which is the company's existing e-mail system.
Background:
Company Profile:
ProseWare Corporation supplies other companies with human resources for a variety of positions. The company currently has offices in seven cities in the United States. Approximately 1,000 people work in each of six regional offices. Approximately 2,000 people work at the company headquarters in Chicago. Two hundred of the headquarters employees are executives.
History:
ProseWare Corporation has expanded by acquiring other staffing resource companies. ProseWare Corporation recently acquired a company in Boston. The Boston office employs about 800 people who use Lotus notes for e-mail.
Business Plan:
The executives at ProseWare Corporation will continue the company's expansion by acquiring other companies.
Existing IT Environment:
Directory Design:
ProseWare Corporation has a single Microsoft Windows NT 4.0 domain. The domain

contains all ProseWare Corporation user accounts and computers.
ProseWare Corporation is in the process of upgrading to Windows 2000. The company has recently completed the Active Directory design and has implemented this design across the organization. Only 50 employees have been added to Active Directory. The Active Directory structure consists of one domain and one site. There are two domain controllers in each location.

Administrative Model:

The administrator of the ProseWare Corporation domain is performed in the Chicago office. All Exchange Server computers are administered from the Chicago office.

Network Infrastructure:

ProseWare Corporation has a 100-Mbps LAN for servers at each location. Client computers of each location are connected in a 10-Mbps LAN. ProseWare Corporation currently uses permanent 15-Mbps links to connect the locations. The network diagram is shown in the Exhibit.

ProseWare Corporation currently uses WINS for name resolution. There are two WINS servers at each location. After the implementation of Windows 2000, the company will use DNS for name resolution.

Servers:

All of the Exchange Server 5.5 computers are capable of running Exchange 2000 Server. The existing Exchange Server configurations are shown in the exhibit.

The IT staff at ProseWare Corporation has installed Exchange 2000 Server on a domain controller in a lab. They cannot connect to the Exchange 5.5 directory, which is also in the lab, when configuring connection agreements.

There is money in the project budget for two additional Server computers.

Client Computers:

ProseWare Corporation has recently upgraded all client computers to Windows 2000 Professional. Most of these computers run Microsoft Outlook 2000. About 200 migrating consultants use either POP3 or IMAP4 client computer software to remotely access Exchange.

Exchange Server 5.5 Outlook Web Access is available to all employees.

Messaging Environment:

ProseWare Corporation relies heavily on e-mail for communication within each location. Approximately 5% of the company's e-mail messages are sent between locations.

The executives of the ProseWare Corporation use e-mail predominately to communicate with other executives within the company. The executives store many more messages than the typical ProseWare Corporation e-mail users.

When the company installed Exchange Server 5.5, the manager in charge of the e-mail system instructed employees to use public folders.

However, she has discovered that employees are not using public folders.

Employees avoid using public folders because it's difficult to locate specific documents within the public folders. Also, the folders are available only to people who use Microsoft Outlook.

The manager in charge of the e-mail system is concerned that if the employees did start to use public folders. The resulting increase in usage might cause a bottleneck on the Exchange Server computers and increased network traffic.

There is an internal SMTP host that relays across the existing Exchange 5.5 Internet Mail Service.

Exchange 2000 Server Requirements and Goals:
Security Requirements:
ProseWare Corporation wants to increase security to eliminate relay on undedicated commercial e-mail, to prevent forged e-mail messages, and to reduce e-mail virus attacks.
Archiving Requirements:
The Exchange 2000 Server computers should be designated to allow recovery of mailboxes without designating e-mail availability for every employee on any single Server.
All Exchange Servers must be recoverable to the point of failure.
All exchange backups should truncate and purge the log files.
Interoperability Requirements:
ProseWare Corporation wants to complete the upgrade from Exchange Server 5.5 to Exchange 2000 Server within one year.
The people in Boston who use the Nodes Server computer must have maximum interoperability between Nodes and Exchange users at ProseWare Corporation.
An Exchange 2000 Server computer will replace the Nodes Server near the end of the Exchange 2000 implementation.
The manager in charge of the e-mail system wants to allow employees to access e-mail messages by using Microsoft Internet Explorer 5 when they are not in the office. She wants this solution be scalable and easy to use.
The Managing Consultants need to be able to their calendars and contacts with messaging client software.
Support Requirements:
ProseWare Corporation wants to reduce the administrator cost of supporting each of the Exchange Server computers at the six regional offices.
The company also wants to provide a single tool for the administration of Exchange Server 5.5 mailboxes and Exchange 2000 Server mailboxes.
The executives should have higher storage limits than the rest of the Exchange users.
Every effort to minimize the amount of storage used by the executives should be made.
Downtime should be minimized in the event of a failed upgrade.

Topic 3, ProseWare Corporation (10 Questions)

QUESTION 21
You need to decide how many Exchange 2000 Server mailbox computers to use for the ProseWare Corporation and where to place these servers. Which factor or factors should influence this decision? (Choose Three)

A. Administrative Model
B. Bandwidth Utilization
C. E-mail traffic patterns
D. Firewall Configuration
E. Namespace
F. Network protocols
G. Network reliability
H. Network topology
I. Server Hardware

Answer: A, B, C

Explanation:
They have the following considerations
Messaging Environment:
ProseWare Corporation relies heavily on e-mail for communication within each location.
Approximately 5% of the company's e-mail messages are sent between locations.
Administrative Model:
The administrator of the ProseWare Corporation domain is performed in the Chicago office. All Exchange Server computers are administered from the Chicago office.
Employees avoid using public folders because it's difficult to locate specific documents within the public folders. Also, the folders are available only to people who use Microsoft Outlook.
The manager in charge of the e-mail system is concerned that if the employees did start to use public folders. The resulting increase in usage might cause a bottleneck on the Exchange Server computers and increased network traffic.
Following these reasons you must choose A, B,C

QUESTION 22
How should you ensure that the Active Directory design will accommodate Exchange 2000 Server?

A. Define the single domain at a Microsoft Windows 2000 site.
Ensure there is a single global catalog Server in Chicago, which is used by all of the regional offices.
B. Define the single domain at a Microsoft Windows 2000 site.
Configure one domain controller in each location as a global catalog Server.
C. Define each location as a Microsoft Windows 2000 site.
Configure the domain controller in Chicago as global catalog Server for all locations.
D. Define each location as a Microsoft Windows 2000 site.
Configure one domain controller in each location as a global catalog Server.

Answer: D

Explanation:
They tell use that AD implementation will be one Domain one site in Proseware Corporation
They also rely heavily on email communication, they will like to recover mailbox user for everyone in one single server, and they want to reduce the cost of administration in each regional mail servers.
In this way we can achieve the entire goal by placing the entire server in the central site and just and site for performance replication reason and organizational structure. Also to get a better performance we place a GC in each site for Exchange search in Active Directory.

QUESTION 23
What should you do to improve employee's access e-mail by using Microsoft Internet Explorer 5?

A. Install a front-end Server at each location.
Configure each Server to use SSL, and use Outlook Web Access to connect to these servers.
B. Install two front-end servers in Chicago.
Configure each Server to use SSL, and use Outlook Web Access to connect to these servers.
C. Install an IIS Server at each location
Configure each Server to use SSL, and use Outlook Web Access to connect to these servers.
D. Install two IIS servers that use SSL in Chicago.
Install Outlook Web Access on each of these servers.

Answer: B

Explanation:
They have this administrative model:
The administrator of the ProseWare Corporation domain is performed in the Chicago office. All Exchange Server computers are administered from the Chicago office.
They want to reduce the administrator cost of supporting each of the Exchange Server computers at the six regional offices.
They need to access mail from Internet explorer 5. In this way they need to access to a front end servers based in their central location Chicago

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QUESTION 24
How should you change the client computer software for the managing consultants to meet the interoperability requirements?

A. Replace the POP3 and IMAP4 with Outlook Web Access.
B. Replace the POP3 and IMAP4 software with Outlook 2000.
C. Replace the IMAP4 software with POP3 software.
D. Replace the POP3 software with IMAP4 software.

Answer: A

Explanation:
As result of redeploy we just need to kept one Bill of client, Internet Explorer provide access to most of functionality also because is a better solution to provide access to migration consultants from remote locations

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QUESTION 25
How should you design the Active Directory Connector (ADC) Recipient Connection Agreements?

A. Create a one-way Connection Agreement for one Exchange 5.5 site.
B. Create a one-way Connection Agreement for each Exchange 5.5 site.
C. Create a two-way Connection Agreement for one Exchange 5.5 site.
D. Create a two-way Connection Agreement for each Exchange 5.5 site.

Answer: B

Explanation:
Active Directory Connector, provide synchronization between Exchange 5.5 and Exchange 2000 Active directory object, in Exchange 5.5 each site have each own directory and LDAP provider, in this way we need to establish one connection agreement for each Exchange 5.5 site

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QUESTION 26
Which upgrade method should you use to upgrade ProseWare Corporation's mailbox servers to Exchange 2000 Server?

A. Use the Exchange 2000 Server exmerge utility to move the mailboxes to Exchange 2000 Server.
B. Use the move mailbox upgrade method to a new Exchange 2000 environment.
C. Use the in place upgrade feature in Exchange 2000 Server.
D. Use the leapfrog upgrade method using the two new servers.

Answer: C

Explanation:
Because they just have a domain which several sites one of upgrade methods is the in pace upgrade, after taken all the necessary precautions, backup architecture, replication, connector, routing and so on is the fast way to do it.
Also they tell us that all Exchange 5.5 are capable to run Exchange 2000, that is one of the reason for do take the in place upgrade approach.
Reference
Exchange 2000 in Six Steps
Upgrading from Microsoft Exchange Server 5.5 to Microsoft Exchange 2000 Server: A Six-Step Case Scenario

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QUESTION 27
The Active Directory Connector (ADC) in the labs is not updating the directory properly. What should you change to solve this problem?

A. Reinstall the Exchange 2000 Server ADC. Reconfigure the connection agreement to the one way.
B. Configure the Exchange Server 5.5 and the ADC connection agreement to use LDAP port 389.
C. Configure the Exchange Server 5.5 and the ADC connection agreement to use LDAP

port 390.
D. Reinstall the Windows 2000 ADC. Reconfigure the connection agreement to be one-way.

Answer: C

Explanation:
Windows 2000 uses its own LDAP Server service which initializes prior to Exchange Server's LDAP Server service. This service uses Ports 389 and 636. When Exchange Server starts, the Exchange Directory attempts to initialize the same ports (for Secure Sockets Layer connectivity). The above stop errors are generated for this initialization failure
Reference
XADM: How to ChangeLDAP PortAssignments in Exchange224447

QUESTION 28
How should you change the current Exchange Server 5.5 routing and administrator model for Exchange 2000 Server?

A. Use an administrative group and a routing group for each existing Exchange Server 5.5 site.
B. Combine all Exchange Server 5.5 sites into one administrative group and one routing group.
C. Combine all Exchange Server 5.5 sites into one administrative group.
Use a routing group for each existing Exchange Server 5.5 site.
D. Use an administrative group for each Exchange Server 5.5 site.
Combine all Exchange Server 5.5 sites into one routing group.

Answer: C

Explanation:
The meaning of administrative group in exchange 2000 change a bit from those concepts that you may have about exchange 5.5
In exchange 2000 an administrative group is used by grouping the differences servers that will configure a routing group and from each routing group we design the flow between connectors
Reference
HOW TO: Use Routing Group Connectors to Connect Routing Groups in Exchange 2000 319416
XADM: How to Assign a Server to a Routing Group 266725
XADM: How to Control Which Site Replication Services Owns a Site Using 315408

QUESTION 29
How should you design the backup strategy to allow the recovery from a corrupted database?

A. Back up each Exchange database separately.
B. Back up each Exchange storage group separately.
C. Back up the Exchange 2000 Server computer offline.
D. Back up drive M on each Exchange 2000 Server computer.

Answer: B

Explanation:
By doing different storage groups we can get a faster restore back, because usually in a good design each storage group will be placed in different disk array
Reference
Chapter 12 - Server Design for Backup and Restore

QUESTION 30
How should you configure the Exchange 2000 Server mailbox computers in Chicago to meet archiving requirements?

A. On one Server, create one storage group with one database. Place the executive's mailboxes and 800 other mailboxes in this database. On the second Server, create one storage group with one database. Place 1000 mailboxes in this database. Backup each storage group to tape.
B. On one Server, create one storage group with one database. Place the executive's mailboxes and 800 other mailboxes in this database. On the second Server, create one storage group with one database. Place 1000 mailboxes in this database. Backup each database to tape.
C. On each Server create one storage group with five databases. Place the executive mailboxes in one database. Place 200 mailboxes in each of the remaining databases. Back up the storage group to tape.
D. On each Server create one storage group with five databases. Place the executive mailboxes in one database. Place 200 mailboxes in each of the remaining databases. Back up each database to tape.

Answer: C

Explanation:
The recommendation for database capacity planning on non-clustered Exchange 2000 Servers is a maximum of four storage groups that contain a maximum of five databases for each storage group. This results in a maximum of 20 databases for each Exchange 2000 server.
They have 2000 people in Chicago, we create a one storage group 5 databases in total, we can put the executives in one database and split the rest in the other databases
Incorrect answers:
You can not put five databases in one storage group. This limit is enforced inside the Exchange System Manger snap-in, so administrators cannot create more storage groups than the system enables.
For backup and recovery, Exchange 2000 enables one active backup or restoration of a

database for each storage group at any one time.
These new values affect the deployment of cluster servers. For example, in a sample configuration of a two-node cluster with two storage groups for each node (assigned to virtual servers), if failover occurs, one node may have four storage groups.
The fundamental rule is that a single server cannot host more than four storage groups at any one time. Exchange Enterprise server can have 5 storage group each storage group can have four mailbox store, in this way
Reference
Exchange 2000 Resource Kit
Chapter 28 - Backup and Restore
XADM: Maximum Number of Storage Groups in Exchange 2000 for Database
Capacity Planning 251123

Topic 4, Trey Research, Scenario

Introduction:
You are an employee of Trey Research. Your current project is to provide design and deployment services for the implementation of Exchange 2000 Server as your company's primary messaging system.
Background:
Company Profile:
Trey Research is a diversified chemical company that produces household and commercial projects. Trey Research employs more than 90,000 people, in 55 countries.
Business Plan:
Trey Research plans to continue to grow. Over the next two years, the company plans to increase staff by 10 percent at each location, with the exception of the Pacific Rim area, where it plans to increase staff 50 percent.
Money is budgeted for improvements in network reliability and scalability.
Overview:
The divisions at Trey Research are autonomous. Each company location has staff assigned to support and administer the Exchange Server computers.
Directory Design:
The directory structure is a traditional Microsoft Windows NT 4.0 multi-master domain model that includes an Exchange Server 5.5 directory. The company does not use Active Directory. The planned Active Directory design implementation will migrate the current Windows n domains to a single Microsoft Windows 2000 domain.
Administrative Model:
The Exchange Server 5.5 staff at each location consists of a group of administrators who are responsible for the Exchange Server 5.5 infrastructure and the Exchange Server 5.5 directory.
The Windows staff is a separate storage group of administrators and who are responsible for the Windows NT and Windows 2000 infrastructure. The group is also responsible for the Windows NT domains.
The network staff is a third group of administrators, who are responsible the network infrastructure which includes DNS name resolution and the firewalls.
Network Infrastructure:
Trey Research has a worldwide network, which is shown in the exhibit.

The Exchange 5.5 site connections follow the physical network connections. The cost value on each site connector is 10. Bandwidth available between sites is at least 256 Kbps.

Servers:

There are Exchange Server 5.5 computers at every location. There are two Exchange Server 5.5 computer configurations

Dual-function mailbox-public folder servers.

Bridgehead servers.

The following lists describe the mailbox-public folder servers.

Small servers

500-999 mailboxes

Priv.edb size of 5 GB to 10 GB

Pub.edb size of 3 GB to 10 GB

Large servers

1,000-6,000 mailboxes

Priv.edb size of 11 GB to 50 GB

Pub.edb size of 11 GB to 40 GB

The large mailbox-public folder servers process a high volume of transactions. Currently, public folder usage has a negative effect on mailbox access on these servers.

Some of the small mil-box public folder servers are configured with circular logging enabled. The large mailbox-public folder servers are configured with circular logging disabled.

The bridgehead servers have 128 MB of memory.

Virus-scanning software is installed on all Exchange Server 5.5 mailbox-public folder servers.

Client Computers:

On a company-wide basis, all versions of Microsoft Outlook are used to access Exchange. Some employees use third-party POP3 client software to remotely access Exchange. Exchange Server 5.5 Outlook Web Access is available but has not been used extensively because of scalability problems.

Users in the inventory control department do not use Microsoft Office or Outlook. This group runs a custom inventory application that does not require powerful client computers. Most users in this group have Pentium computers with 100 MHz processors running Windows for Workgroups 3.11. All users in this group must have access to e-mail and public folders.

Exchange 2000 Server Requirements and Goals:
Security Requirements:
Exchange 2000 Server design must maximize the security between the Exchange 2000 Server computers and the POP3 client software that is used on the remote client computers.
Backup, Recovery, and Archiving Requirements:
These requirements must be fulfilled after a failure.
Mailboxes for users in the Legal department must be restored within two hours.
Mailboxes for all other users must be restored within six hours.
Information in public folders must be restored within eight hours.
These requirements must be fulfilled for archive retention.
Legal department messages must be retained for at least three days, with a measure of 30 days.
All other user's messages must be retained for at least 30 days, with a maximum of one year.
Documents in public folders must be retained for at least two years with no maximum.
The Exchange 2000 Server computers should be recoverable to point of failure.
Interoperability Requirements:
The employees who use POP3 client software must be able to remotely access public folders. The POP3 software must maintain a small footprint on these remote client computers.
Technical Support Requirements:
The Exchange Administrator staff will be split into two groups:
* The first group will administer all connections between Exchange 2000 Server sites and routing groups. This group will also administer Exchange 2000 server computers that are used as bridgehead servers and as front-end servers, and all exchanged hosted connections to outside sources.
* The second group will continue to administer the information store servers at each location. The administrators at each office will be able to administer the information store servers at only that location.
Messaging manager:
The manager in charge of messaging services wants to meet these objectives for the new exchange 2000 server implementation:
* All users must be able to quickly locate documents in all of the public folders.
* The design for exchange 2000 server public folder must accommodate documents that are stored in public folders and tat change very frequently, but are accessed infrequently.
* The back-end servers must be available 99.999 percent of the time, and hardware must be used efficiently.
* Users will log on to the active directory infrastructure by using a windows 2000 account as they are moved to exchange 2000 server.
Changes to the existing network should be avoided, and new physical network connections should be designed with capabilities that exceed the requirements for failover purposes.
Technology Specialist:
The technology specialist who is responsible for the exchange server computers wants to meet these objectives:

* The design should minimize total disk space requirements by maximizing single-instance storage.
* Only the essential items that are needed to perform a complete mailbox server recovery should be backed up to tape on a nightly basis.
* The design must protect against message storms and the misuse of distribution groups.

Topic 4, Trey Research (12 Questions)

QUESTION 31
How should you design the client computer software strategy?

A. Continue to use all versions of Outlook on the client computers.
Ensure that Exchange 2000 Outlook Web Access is available to all users.
Instruct the users in the Inventory Control department to use Outlook Web Access for all e-mail access.
B. Continue to use all versions of Outlook on the client computers.
Ensure that Exchange 2000 Outlook Web Access is available to all users.
Install Outlook 2000 for the users in the Inventory Control department, and instruct those users to use Outlook 2000 for all e-mail access.
C. Upgrade all Outlook 97 and Outlook 98 users to Outlook 2000.
Ensure that Exchange 2000 Outlook Web Access is available to all users.
Instruct the users in the Inventory Control client software for all e-mail access.
D. Continue to use all versions of Outlook on the client computers.
Ensure that Exchange 2000 Outlook Web Access is available to all users.
Install Outlook 97 for the users in the Inventory Control department and instruct these users to use Outlook 97 for all e-mail access.

Answer: A

Explanation:
Because they do not tell us what version of outlook they are using we can not select and answer that contain an upgrade solution for existing clients, They also do not use Exchange Server 5.5 Outlook Web Access because of scalability problems but OWA 2000 scales well, also they havae client that still using windows 3.11 for workgroup
They tell us
Client Computers:
On a company-wide basis, all versions of Microsoft Outlook are used to access Exchange. Some employees use third-party POP3 client software to remotely access Exchange.
Interoperability Requirements:
The employees who use POP3 client software must be able to remotely access public folders. The POP3 software must maintain a small footprint on these remote client computers.
Exchange Server 5.5 Outlook Web Access is available but has not been used extensively because of scalability problems.

QUESTION 32
What recommendations you made for the administrative model?

A. Reorganize the IT organization to move the responsibility for the directory from the exchange Server 5.5 staff to Windows staff.
Assign the Windows staff to be accountable for the design, deployment and administrator of Active Directory services.
B. Create a directory team that includes members from only the Windows staff and the Exchange Server 5.5 staff.
Assign this team to be accountable for the design, deployment and administrator of Active Directory services.
C. Create a directory team that includes members from only the Windows staff, the Exchange Server 5.5 staff and the network staff.
Assign this team to be accountable for the design, deployment and administrator of Active Directory services.
D. Reorganize the IT organization to move the responsibility for the directory from the Windows staff to Exchange Server 5.5 staff.
Assign the Exchange Server 5.5 staff to be accountable for the design, deployment and administrator of Active Directory services.

Answer: C

Explanation:
They require two kinds of groups to manage their infrastructure based on theirs requirements
One for exchange one for Active Directory, in this way best answer is C
They tell us
Technical Support Requirements:
The Exchange Administrator staff will be split into two groups:
* The first group will administer all connections between Exchange 2000 Server sites and routing groups. This group will also administer Exchange 2000 server computers that are used as bridgehead servers and as front-end servers, and all exchanged hosted connections to outside sources.
* The second group will continue to administer the information store servers at each location. The administrators at each office will be able to administer the information store servers at only that location.

QUESTION 33
Which two actions should you perform to configure public folders? (Choose two)

A. Use Exchange 2000 indexing on all public folders.
B. Use Exchange 2000 to replicate all public folders to another Server.
C. Distribute all public folders across multiple public folder trees.
D. Use the Windows 2000 indexing service on drive M.
E. Replicate all public folders to an Exchange 2000 Server computer in each location.

Answer: A, E

Explanation:
Because they accommodate documents that are stored in public folders and tat change very frequently we will use indexing for public folders to get better performance, in searching
Also we will replicate the central public folder to our sites to improve the access to each public folder, best solution when you have a lot of access,
In real life Public folders heavily used must reside in their own servers, an mailbox in theirs own servers.
They tell us
The design for exchange 2000 server public folder must accommodate documents that are stored in public folders and tat change very frequently, but are accessed infrequently.
The large mailbox-public folder servers process a high volume of transactions. Currently, public folder usage has a negative effect on mailbox access on these servers.

QUESTION 34
How should you design the Server disk configurations to maximize performance?

A. Create a RAID 1+0 array for each storage group.
Create a mirrored pair of disk drivers for the transaction logs.
B. Create a single RAID 1+0 array for all of storage groups.
Create a mirrored pair of disk drivers for each set of transaction logs.
C. Create a single RAID 1+0 array for all of the storage groups.
Create a mirrored pair of disk drivers for the transaction logs.
D. Create a RAID 1+0 array for each storage group.
Create a mirrored pair of disk drivers for each set of transaction logs.

Answer: D

Explanation:
Disk Performance Issues
Unlike CPU performance issues, disk performance issues cannot be diagnosed with a single counter that indicates that you have a disk bottleneck.
NoteA disk bottleneck can also be a result of memory issues, and cannot be solved by simply adding more spindles.
Ensure when you size your Exchange 2000 disk configurations, to size for I/O capacity and not for disk space alone. Microsoft recommends RAID 0+1 because this configuration tends to result in more I/O capacity than RAID 5.
Disk Performance Issues: Approach One
The first approach to determining if you are encountering a disk bottleneck is to monitor the following counters for each of your physical drives.
PhysicalDisk(drive:)\Disk Writes/sec
PhysicalDisk(drive:)\Disk Reads/sec
NoteBefore troubleshooting disk performance problems, at the command prompt, run diskperf -y to activate logical, as well as physical, disk counters.

Look at each drive and compare to the total instance to isolate where the I/O is going. You can use the recommendations below to assist with the comparison and determine if you have a bottleneck.
* Raid-0: Reads/sec + Writes/sec < # Spindles x 100
* Raid-1: Reads/sec + 2 * Writes/sec < # Spindles x 100 (each write has to go to each mirror on the array)
* Raid-5: Reads/sec + 4 * Writes/sec < # Spindles x 100 (each write requires two reads and two writes)

NoteThis assumes disk throughput is equal to 100 random I/O per spindle.
For more information about RAID, see the following "RAID Levels" section.
RAID Levels
Although there are many different implementations of RAID technologies, they all share two similar aspects. They all use multiple physical disks to distribute data, and they all store data according to a logic that is independent of the application for which they are storing data.
This section discusses four primary implementations of RAID: RAID-0, RAID-1, RAID-0+1, and RAID-5. Although there are many other RAID implementations, these four types serve as a representation of the overall scope of RAID solutions.
RAID-0
RAID-0 is a striped disk array; each disk is logically partitioned in such a way that a "stripe" runs across all the disks in the array to create a single logical partition. For example, if a file is saved to a RAID-0 array, and the application that is saving the file saves it to drive D, the RAID-0 array distributes the file across logical drive D (see Figure13). In this example, it spans all six disks.

Figure 13RAID-0 disk array
From a performance perspective, RAID-0 is the most efficient RAID technology because it can write to all six disks at once. When all disks store the application data, the most efficient use of the disks occurs.
The drawback to RAID-0 is its lack of reliability. If the Exchange mailbox databases are stored across a RAID-0 array and a single disk fails, you must restore the mailbox databases to a functional disk array and restore the transaction log files. In addition, if you store the transaction log files on this array and you lose a disk, you can perform only a point-in-time restoration of the mailbox databases from the last backup.
RAID-1
RAID-1 is a mirrored disk array in which two disks are mirrored (see Figure14).

Figure 14RAID-1 disk array
RAID-1 is the most reliable of the three RAID disk arrays because all data is mirrored after it is written. You can use only half of the storage space on the disks. Although this

may seem inefficient, RAID 1 is the preferred choice for data that requires the highest possible reliability.

RAID-0+1

A RAID-0+1 disk array allows for the highest performance while ensuring redundancy by combining elements of RAID-0 and RAID-1 (see Figure15).

Figure 15RAID-0+1 disk array

In a RAID-0+1 disk array, data is mirrored to both sets of disks (RAID-1), and then striped across the drives (RAID-0). Each physical disk is duplicated in the array. If you have a six-disk RAID-0+1 disk array, three disks are available for data storage.

RAID-5

RAID-5 is a striped disk array, similar to RAID-0 in that data is distributed across the array; however, RAID-5 also includes parity. This means that there is a mechanism that maintains the integrity of the data stored in the array, so that if one disk in the array fails, the data can be reconstructed from the remaining disks (see Figure16). Thus, RAID-5 is a reliable storage solution.

Figure 16RAID-5 disk array

However, to maintain parity among the disks, 1/n GB of disk space is sacrificed (where n equals the number of drives in the array). For example, if you have six 9-GB disks, you have 45 GB of usable storage space. To maintain parity, one write of data is translated into two writes and two reads in the RAID-5 array; thus, overall performance is degraded.

The advantage of a RAID-5 solution is that it is reliable and uses disk space more efficiently than RAID-1 (and 1+0).

For more information on comparing RAID solutions and RAID levels, as well as Storage Area Network (SAN) and Network Attached Storage (NAS) solutions, see the Storage

Solutions for Microsoft(r) Exchange 2000 Serverwhite paper.
Disk Performance Problems: Approach Two
The second approach to determining if you are encountering a disk bottleneck requires looking at the I/O requests waiting to be completed using the following disk queue counters.
PhysicalDisk(drive:)\Avg. Disk Queue
PhysicalDisk(drive:)\Current Disk Queue
The PhysicalDisk(drive:)\Avg. Disk Queue counter indicates the average queue length over the sampling interval. The PhysicalDisk(drive:)\Current Disk Queue counter reports the queue length value at the instant of sampling.
You are encountering a disk bottleneck if the average disk queue length is greater than the number of spindles on the array and the current disk queue length never equals zero. Short spikes in the queue length can drive up the queue length average artificially, so you must monitor the current disk queue length. If it drops to zero periodically, the queue is being cleared and you probably do not have a disk bottleneck.
NoteWhen using this approach, correlate the queue length spikes with the MSExchangeIS\RPC Requests counter to confirm the effect on clients.
Disk Problems: Approach Three
For the third approach to determining if you are encountering a disk bottleneck, look at the I/O latency, which can give you an indication of the health of your disks:
PhysicalDisk(drive:)\Avg. Disk sec/Read
PhysicalDisk(drive:)\Avg. Disk sec/Write
A typical range is .005 to .020 seconds for random I/O. If write-back caching is enabled in the array controller, the PhysicalDisk(drive:)\Avg. Disk sec/Write counter should be less than .002 seconds.
If these counters are between .020 and .050 seconds, there is the possibility of a disk bottleneck. If the counters are above .050 seconds, there is definitely a disk bottleneck.
Reference
Troubleshooting Microsoft Exchange 2000 Server Performance
Exchange Core Documentation

QUESTION 35
How should you design a backup solution that fulfills the company's requirements?

A. Create three storage groups: one for the Legal department, one for public folders.
Create one information store in each storage group.
Backup all three storage groups to a single tape.
B. Create three storage groups: one for the Legal department, one for public folders.
Create one information store in each storage group.
Backup each storage group to a separate tape.
C. Create two storage groups: one for Legal department and one for other mailboxes and public folders.
Back up both of the storage groups to a single tape.
D. Create two storage groups: one for Legal department and one for other mailboxes and public folders.
Back up each of the storage groups to a separate tape.

Answer: B
Databases and Storage Groups
It might be easiest to understand backup and restore in Exchange 2000 by looking at the differences between Exchange 5.5 and Exchange 2000. For information about backup and restore in Exchange 5.5, see the Exchange 5.5 documentation and related sources on the Exchange Web site at http://www.microsoft.com/exchange .
The first and most obvious difference is that the architecture of the Web Storage System and Extensible Storage Engine (ESE) has changed:
* Instead of a fixed database layout, Exchange 2000 has storage groups. A storage group corresponds to an instance of ESE (with it's own sequence of transaction log files). Exchange 2000 supports four storage groups per server.
Note In this discussion, the generic word database refers to either a mailbox store or a public folder store in a storage group.
* Each storage group can support up to five databases, and each database can contain either mailboxes or public folders. The transactions for all databases in a storage group are contained in the single set of log files.
Although the backup application programming interface (API) incorporates a number of changes, online backup still looks and acts very much the same as in Exchange 5.5. On a server with a single mailbox store or public folder store, the differences are minimal. Most changes pertain to backing up multiple storage groups and databases.
You can restore a single database in a storage group running multiple databases without taking the others offline. You can run parallel backups and restores to support large configurations. These features are possible because:
* Backup runs on a storage group. This is because a storage group corresponds to an instance of ESE and an instance of the backup API.
* Backup runs sequentially against the databases in a storage group. It is not necessary to back up all the databases in a storage group as part of the same job; old transaction logs are not purged until all databases have been backed up. After a full backup, two things are deleted: the transaction log files, and the transactions that have been committed to the databases and that have been backed up. Incremental backups will back up and delete transaction logs before the checkpoint file.
* Storage groups can be backed up in parallel. Each storage group is an instance of ESE, and these run independently of each other, at least as far as backup is concerned.
* A database can be restored without affecting databases running in the same storage group. To do so, initialize a reserved instance of ESE to handle the restore (the Web Storage System is able to support more storage groups than can be created on an Exchange server; the additional capacity allows for this reserved instance of ESE). You can restore the database using this temporary instance of ESE, then dismount the database and mount it in the correct storage group.
* Databases can be restored in parallel.
These features of Exchange 2000 make backup and restore designs and associated procedures more complex than in Exchange 5.5. There are some detail changes around restore and recovery that are necessary to support this level of potential complexity.
* A restore-in-progress key is no longer used during restore. Individual data structures are created for each database being restored.

* It is no longer possible to allow recovery without solving corruption problems, for example, to play the wrong transaction log files into a database, or to trick a database into starting when the necessary components are not present on disk.

Backup

Backup works for Exchange 2000 in basically the same way as Exchange 5.5. However, there are a few differences:

* Each database consists of two files: the .edb file and .stm file. They are backed up together. The backup process continues sequentially until all of the databases in the storage group that have been selected for the current backup are copied to the backup device.
* The transaction log files and patch files have checksums that are validated during the backup process.
* The transaction log files are not truncated until all databases in the storage group have been backed up. After a full backup, two things are deleted: the transaction log files and the transactions that have been committed to the databases and that have been backed up. Incremental backups back up and delete transaction log files that precede the checkpoint file.
* A database must be online to be backed up. If a database has been dismounted it cannot be backed up, and the transaction log sequence will not be truncated.
* Conduct a full backup after switching from circular logging to non-circular logging. During circular logging, information in the .stm file is not recorded in the log files. When you change to non-circular logging, transaction log files still exist that do not have .stm file data; these transaction logs must not be replayed.

Restore

Restore in Exchange 2000 has changed more than backup. Before you can attempt to restore a database in Exchange 2000, the following must be true:

* The relevant service and the Web Storage System must be running.
* The database to be restored must be dismounted.

The significant differences are as follows:

* It is possible to restore multiple databases from the same storage group as part of a single restore job. In this case, the restore process restores all of the databases to disk before continuing.
* The transaction log files in the backup set and the patch files are restored to the temporary disk location specified by the user. The information about the restore previously written to the restore-in-progress key is written to a file called Restore.env.
* If multiple datasets are being restored (for example, for differential or incremental backups), the dataset containing the full backup must be restored last. When the last dataset is being restored, you must select Last Backup Set.
* After all files are restored, recovery begins. The Restore.env file is used to find the end and beginning transaction log numbers and the relevant transactions are replayed into the database. After the end log is replayed, recovery goes to the transaction log files of the target storage group and continues to play through additional log files until the end of the sequence is reached.
* After restore finishes, the database is dismounted from the temporary instance of ESE and the files in the temporary work area are deleted. If you selected Mount Database after restore, the database is automatically mounted in the target storage group.

Because parallel restores are possible, the restore process relies on the user to provide a path to temporary disk space that will be used during the restore. Separate restore processes running at the same time must use different disk locations. The temporary disk space required is about 10 megabytes (MB) more than the size of the transaction log files and patch files that are being restored.
After the relevant files are restored to disk, the backup process will have to replay logs to process log and patch files and make the database consistent. An instance of ESE is required to perform the recovery, and this is where the reserved instances of ESE are used. ESE itself can support 16 instances, whereas the Web Storage System does not, so there are enough instances of ESE to run recoveries in parallel.
Parallel Operations
Parallel backups and restores put far more stress on input/output (I/O) subsystems than single database backups and restores. Particular attention must be paid to aggregate I/O bandwidth over the entire data path between database disks and backup devices.
Exchange 2000 backup and restore is faster than previous versions of Exchange. Rates of up to 70 gigabytes (GB) per hour on backup and 40 GB per hour on restore are possible. However, you must carefully design the data paths in order to support several concurrent operations at these rates.
Reference
Exchange 2000 Resource Kit
Chapter 12 - Server Design for Backup and Restore
Chapter 28 - Backup and Restore

QUESTION 36
How should you design the Exchange 2000 Server infrastructure so it will be resistant to the misuse of distribution groups?

A. Require Kerberos4 authentication.
Use encryption between the client software and the Exchange 2000 Server computers.
Create nested distribution groups.
Limit the users who can use top-level distribution groups.
B. Require Kerberos4 authentication.
Use encryption between the client software and the Exchange 2000 Server computers.
Apply recipient permissions as appropriate.
Use a firewall, and restrict the protocols that are not required.
C. Create mail enabled security groups.
Create nested distribution groups.
Limit users who can access all distribution groups.
Apply recipient permissions as appropriate.
D. Set messages size limits for distribution groups.
Create nested distribution groups.
Limit users who can access top-level distribution groups.
Apply recipient permissions as appropriate.

Answer: D

Explanation:
The best way to control the misuse of public folder and mailbox is use a storage policy to control the aspect of permit size, and apply those users that you will like to kept under strict control
HOW TO: Configure Storage Limits on Mailboxes in Exchange 2000 319583
HOW TO: Configure Storage Limits on Public Folders in Exchange 2000 319439

QUESTION 37
How should you ensure that your Exchange 2000 Server design fulfills the interoperability requirements for public folder access?

A. Instruct the users to use a newsreader to access public folders.
B. Replace the POP3 client software with Outlook Express.
Configure Outlook Express to use IMAP4.
C. Replace the POP3 client software with Outlook 2000.
D. Instruct the users to use Outlook Web Access.

Answer: D

Explanation:
You can only access to Public folders, using imap protocol, owa, or mapi client, also because imap can not access to advanced functions as calendar and rules, best solution is to avoid use of pop clients or imap, and as standard use outlook 2000 they can not access to Public Folder structure,

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QUESTION 38
How should you deploy the routing groups to increase performance in mixed mode?

A. Deploy Exchange 2000 Server routing groups that correspond to each Exchange Server 5.5 site.
Install an Exchange Server 5.5 bridgehead Server to connect to one of the Exchange Server 5.5 sites.
Install an Exchange 2000 Server bridgehead Server to connect to other Exchange 2000 Server routing groups.
B. Deploy Exchange 2000 Server routing groups that correspond to each Exchange Server 5.5 site.
Install an Exchange Server 5.5 bridgehead Server to connect to one of the Exchange Server 5.5 sites.
Install an Exchange 2000 Server mailbox Server in each routing group.
C. Deploy one Exchange 2000 Server computer in each Exchange Server 5.5 site.
Configure this Server as the site connector bridgehead Server to connect to the other Exchange 2000 Server bridgehead servers in each of the other sites.
D. Deploy one Exchange 2000 Server computer in each Exchange Server 5.5 site.
Configure this Server as routing group connector bridgehead Server to connect to the other Exchange 2000 Server bridgehead servers in each of the other sites.

Answer: D

Explanation:
The directory is automatically replicated among servers in a site to ensure that all servers have the same information. Among sites, the directory is replicated by directory bridgehead servers according to a schedule you set in the Administrator program. Each site has one or more directory bridgehead servers that are responsible for keeping the site's directory synchronized with the directories in other sites.
Choose local connectors. A local connector can send the message directly to the remote site. The MTA selects local connectors first to avoid an extra hop to the remote MTA in the site. Remote connectors require the MTA to pass the message to a messaging bridgehead server before the message can be passed to the remote site. Using local connectors reduces the need for additional processing power and bandwidth to transmit the message.
When to Use Multiple Routing Groups
If you have a single physical location and all servers are connected through a reliable, permanent link, you might not need multiple routing groups. However, you might need multiple routing groups under one or more of the following conditions:
* Network connectivity is unreliable.
* You want to control the message paths in an Exchange organization; for example, if you need to alter the messaging path from a single-hop to multi-hop, such as when servers are located in separate physical locations, but the servers are configured to communicate in a single-hop environment.
* You want to schedule messaging between two locations.
* You want to control public folder referrals. Public folder referrals will preferentially go to a server in the same routing group, and then through the least cost route between routing groups by using connectors that allow referrals.
Routing Group Topology
The link state provides flexibility in designing routing groups, particularly by allowing multiple paths between routing groups.
Multiple Paths Available Between Routing Groups
In earlier versions of Exchange, the site topology takes into account the possible message bouncing that occurs when sites have multiple routes between them. This means that most site topologies are hub-and-spoke, with only a single connector between the hub and each spoke. Exchange 2000 uses the link state table, which makes this topology unnecessary because messages do not bounce back and forth. If a connector fails, the message can be rerouted through another routing group, and will bounce back to the original routing group because Exchange determines if the connector is down and propagates that state information around the organization.
Reference
Exchange 2000 Server Resource Kit
Part 10 - Exchange Architecture
Chapter 31 - Optimizing Exchange 2000

QUESTION 39
What changes should you make to the Exchange Server 5.5 environment to deploy

Exchange 2000 Server?

A. Disable circular logging on all of the servers.
Stop the virus-scanning software services prior to upgrading to Exchange 2000 Server.
After the upgrade, restart the virus-scanning software services.
B. Enable circular logging on all of the servers.
Stop the virus-scanning software services prior to upgrading to Exchange 2000 Server.
After the upgrade, restart the virus-scanning software services.
C. Disable circular logging on all of the servers.
Uninstall the virus-scanning software services prior to upgrading to Exchange 2000 Server.
D. Enable circular logging on all of the servers.
Uninstall the virus-scanning software services prior to upgrading to Exchange 2000 Server.

Answer: C

Explanation:
Circular Logging
In Exchange 2000, circular logging is disabled by default. This is different from earlier versions of Exchange because the use of transaction log files greatly enhances the recovery of an Exchange server. Databases within a storage group share transaction log files. Therefore, the circular logging setting applies to one storage group at a time
Description of Circular Logging
In the standard transaction logging used by Exchange 2000 Server, each database transaction in a storage group is written to a log file and then to the database. When a log file reaches a certain size, it is renamed and a new log file is created. Over time, this results in a set of a log files. If there is a crash, you can recover the transactions by replaying the data from these log files into the database.
Circular logging overwrites and reuses the first log file after the data it contains has been written to the database. In Exchange 2000 Server, circular logging is disabled by default. By enabling it, you reduce drive storage space requirements, but without complete transaction log files, you cannot recover anything more recent than the last full backup. Therefore, in a normal production environment, circular logging is not recommended.
How to Enable or Disable Circular Logging
Exchange 2000 Server supports multiple databases and storage groups on the same server. You can create up to four storage groups on a server and each storage group can contain up to five databases, for a maximum of 20 databases on a single server. Each storage group is controlled by a separate instance of the Extensible Storage Engine (ESE). Therefore, each storage group shares the same set of log files. As a result, circular logging is enabled or disabled for a particular storage group, not for a particular database.
To enable or disable circular logging:
1. Click Start, point to Programs, point to Microsoft Exchange, and then click System Manager.
2. If the Administrative Groups branch exists in the left pane, expand it, expand the appropriate administrative group's branch, expand the Servers branch, and then expand

the appropriate server's branch. If the Administrative Groups branch does not exist, expand the Servers branch in the left pane, and then expand the appropriate server's branch. To expand a branch, double-click the branch or click the plus sign (+) to the left of the branch.
3. Right-click the storage group you want, and then click Properties.
4. To enable circular logging, click to select the Enable circular logging check box, and then click OK. When you are prompted to continue, click Yes.
To disable circular logging, click to clear the Enable circular logging check box, and then click OK.
5. Restart the information store. To do so:
a. Click Start, point to Programs, point to Administrative Tools, and then click Services.
b. Click Microsoft Exchange Information Store in the right pane, and then on the Action menu, click Restart. If a dialog box appears stating that additional services will be restarted, click Yes.
Note The information store must be restarted because when it starts, it reads configuration information from Microsoft Windows 2000 Active Directory. The Active Directory attribute associated with the circular logging setting is called MSExchESEParamCircularLog. When circular logging is enabled, this attribute is set to 1. When circular logging is disabled, it is set to 0.
Final Preparation
After completing the previous steps, you must uninstall (remove) any virus-scanning software, backup software, or other third-party products or their agents from these systems. Exchange 2000 Setup may fail if these are still operational during the upgrade.
Note You also need to find replacements for these software applications that are compatible with Exchange 2000
Reference
Exchange 2000 Server Resource Kit
Chapter 10 - Preparing an Existing Environment
Exchange 2000 upgrade series
Chapter 5 - Upgrading Exchange Server 5.5 to Exchange 2000 Server

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QUESTION 40
You need to deploy Exchange 2000 Server on a cluster. You install Exchange 2000 Server on the first Server node that has the Windows 2000 cluster service installed. What should you do next?

A. Create mailboxes and then start using the first Server node in production.
When clustering is required, install Exchange 2000 Server on the second Server node that has hardware identical to that of the first Server node.
B. Create an Exchange virtual Server on this node.
Create mailboxes and then start using the first Server node in production.
When clustering is required, install Exchange 2000 Server on the second Server node that has hardware identical to that of the first Server node.
Create an Exchange virtual Server on the second node.
Create mailboxes and then start using the second Server node in production.
C. Install Exchange 2000 Server on the second Server node in the cluster.

Create an Exchange virtual Server on each Server node.
Create mailboxes on each node, and then start using the clustered Servers in production.
D. Install Exchange 2000 Server on the second Server node in the cluster.
Create storage groups and mailboxes, and then start using the clustered servers in production.

Answer: C

Explanation:
After install Exchange on the first cluster node you will need to configure the second node to provide failover capacities active/passive or active/active configuration
Reference
XADM: How to Add an Exchange 2000 Virtual Server to a Cluster Server 293510
HOW TO: Implement Exchange 2000 Server on a Windows 2000-Based Cluster 328875

QUESTION 41
How should you design a recovery solution that fulfills the archiving requirements?

A. Ensure that circular logging is enabled on all servers. When a restore is required, perform the following steps:
Restore the storage group that contains the information store that must be recovered.
Mount the information store.
Re-create the index for the information store if required.
B. Ensure that circular logging is enabled on all servers. When a restore is required, perform the following steps:
Restore the storage group that contains the information store and the index that must be recovered.
Mount the information store and the index.
C. Ensure that circular logging is disabled on all servers. When a restore is required, perform the following steps:
Restore the information store that must be recovered.
Mount the information store, and replay the transaction logs.
Re-create the index for the information store if required.
D. Ensure that circular logging is disabled on all servers. When a restore is required, perform the following steps:
Restore the information store and the index that must be recovered.
Mount the information store and the index, and replay the transaction logs.

Answer: C

Explanation:
Determine whether or not circular logging is enabled for the storage group. You do not need to disable circular logging to perform offline backups. However, you must disable circular logging if you want to replay transaction logs into restored offline backups. To successfully replay transaction logs, you must restore database files (.edb and .stm) to the

same path locations from which the files were backed up.
There is currently no method other than online backup to verify the checksums for each page of an .stm file. The .stm file contains raw data. All of the indexes and pointers that organize that data are in the .edb file. A problem in the .stm file causes some specific client data loss, but does not compromise the structural or logical integrity of the database as a whole
Incorrect Answers
A is wrong they have circular logging enabled
B is wrong they have circular logging enabled
C they are mounting the store and recreating indexing after that
Reference
* XADM: How Log Files Are Replayed During Exchange 2000 Server Restore Procedure 232922
* XADM: How to Restore an Information Store Database to a Server That Resides in the Same Active Directory Forest 324127
* How to Back Up and Restore an Exchange Computer by Using the Windows Backup Program 258243
* Offline Backup and Restoration Procedures for Exchange 296788

QUESTION 42
What should be backed up to meet the goals of the technology specialist? (Choose two)

A. All of the Exchange 2000
B. All of the Windows 2000
C. All storage groups and databases
D. IIS Metabase
E. System State
F. Windows 2000 Active Directory
G. The complete contents of each server backed up offline.

Answer: C, E

Explanation:
To get a full disaster recovery we need to select three options but just permit to select two.
This is one of the questions that may be market for comments
In this way we select system state and All storage groups and databases
These include the following:
* Active Directory (on domain controllers)
* The system volume (on domain controllers)
* The Internet Information Services (IIS) metabase (Exchange 2000 Server uses IIS to transport messages using the Simple Mail Transfer Protocol (SMTP).
* The boot files
* The COM+ class registration database
* The registry

* Certificate Server (if it's running on your system)
* Exchange 2000 Server storage groups
They tell us
Technology Specialist:
The technology specialist who is responsible for the exchange server computers wants to meet these objectives:
* The design should minimize total disk space requirements by maximizing single-instance storage.
* Only the essential items that are needed to perform a complete mailbox server recovery should be backed up to tape on a nightly basis.
* The design must protect against message storms and the misuse of distribution groups.
Reference
Exchange 2000 Server Disaster Recovery: Worst-Case Survival Handbook

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Topic 5, A Datum Corporation, Scenario

Introduction:
You are hired to provide services in design and deployment for A Datum Corporation. You need to evaluate the company's existing messaging infrastructure, access current and future business needs and design and deploy exchange 2000 server in the company's environment.
Background:
Company Profile:
A Datum Corporation is one of the largest manufacturers of automotive parts in the world. The company consistently places emphasis on producing quality products and keeping overhead costs as low as possible. The company sets its products exclusively through 125 distributors.
Company headquarters is located in Los Angeles. The company has a total of 30,000 employees. Office locations and number of employees are shown in the list:
Location Employees
Brisbane 2,100
Hong Kong 200
Jakarta 80
London 2,000
Los Angeles 20,000
Mexico City 720
Munich 2,200
Paris 2,500
Tokyo 125
Toronto 75
Business Plan:
The business of A Datum Corporation is to design, develop, and produce high-quality automotive parts. The company has a large engineering group that is producing parts for both the newest automobile models and the rarest automobiles.
Existing IT Environment:
Network Diagram:
The network diagram is shown in the exhibit. Click the exhibit button.

Chief Information Officer (CIO):
Our current IT environment is fairly up-to-date and is working reliably. However, we want to use exchange 2000 server to provide easier administration and greater efficiency of resources. We also want t investigate whether the services in exchange 2000 server can be used to increase our profitability and to provide enhanced services to our employees.
Our manufacturing environment operates in two shifts per day, seven days a week. We must provide a reliable computing environment for messaging, data sharing, and assembling line documentation and work orders. We want to find new ways to enhance productivity on the assembly line and also want to provide new communication channels from the assembly-line workers to managers and design engineers.
Director of IT:
Our environment consists of a Microsoft windows 2000 active directory network. All client computers on the network run windows 2000 professional. We have an exchange server 5.5 messaging system for the entire list:
* Brisbane
* Hong Kong
* Jakarta
* Tokyo
Deployment is planned in the offices in this order:
* Los Angeles
* Paris
* Brisbane
* Mexico city
* Toronto
* Hong Kong
* Jakarta
* London
* Munich

* Tokyo
After completing the upgrades, we want to change the native mode immediately.
We hire temporary employees during periods of peak demand. For temporary employees, I want to limit the mailbox to 25MB, and I want to keep the mailbox backups for one year.
I want to provide company exclusives with access to their e-mail from their home offices, but I do not want our technical support staff to provide equipment or install special software on these home computers.
I want to maximize the connectivity between our offices and ensure that our mail is replicated as efficiently as possible. Public fold are not used.
Our migration plan must allow for coexistence during the entire upgrade process.
Messaging System:
The current exchange server 5.5 environment has been divided into six exchange server 5.5 sites.
* The Los Angeles site contains the Los Angeles and Mexico City Offices.
* The Paris site contains the London, Munich, and Paris offices.
* The Brisbane, Hong Kong, Jakarta, and Tokyo sites each contain only their own offices.
Users in the Tokyo office use an exchange 2000 server computer in the Los Angeles office to store their mailboxes.
There are permanent employees, company executives, engineers, and temporary employees in all offices.
Hardware:
These benchmarks were achieved when exchange 2000 server was tested on the physical hardware configurations:
* Each exchange 2000 server computer can support 3,000 users
* Each exchange 2000 server computer can generate approximately 45 global catalog queries per second.
* The global catalog server configuration can support 140 queries per second

Topic 5, A Datum Corporation (9 Questions)

QUESTION 43
You are designing the routing infrastructure for the Exchange 2000 Server implementation. What should you do on the Exchange 2000 Server computers?

A. Install the Internet Authentication Services.
B. Install and use the Key Management Service (KMS).
C. Configure the servers to require Transport Layer Security (TLS).
D. Configure the TCP/IP settings on the servers to require IPSec.

Answer: D

Explanation:
We can provide a reliable computing environment for messaging, data sharing, and assembling line documentation and work orders. Implementing IPSEC communications for Exchange servers

IPSEC Protection against attacks
IPSec protects data so that an attacker finds it extremely difficult or impossible to interpret it. The level of protection provided is determined by the strength of the security levels specified in your IPSec policy structure.
IPSec has a number of features that significantly reduce or prevent the following attacks:
1. Sniffers (lack of confidentiality)
The Encapsulating Security Payload (ESP) protocol in IPSec provides data confidentiality by encrypting the payload of IP packets.
1. Data modification
IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. Any modification to the packet data alters the checksum, which indicates to the receiving computer that the packet was modified in transit.
1. Identity spoofing, password-based, and application-layer attacks
IPSec allows the exchange and verification of identities without exposing that information to interpretation by an attacker. Mutual verification (authentication) is used to establish trust between the communicating systems and only trusted systems can communicate with each other.
After identities are established, IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. The cryptographic checksum ensures that only the computers that have knowledge of the keys could have sent each packet.
1. Man-in-the-middle attacks
IPSec combines mutual authentication with shared, cryptography-based keys.
1. Denial-of-service attacks
IPSec uses IP packet filtering methodology as the basis for determining whether communication is allowed, secured, or blocked, according to the IP address ranges, IP protocols, or even specific TCP and UDP ports.
They tell us
I want to provide company exclusives with access to their e-mail from their home offices, but I do not want our technical support staff to provide equipment or install special software on these home computers.
We must provide a reliable computing environment for messaging, data sharing, and assembling line documentation and work orders.

QUESTION 44
You are designing global catalog Server configuration for the Los Angeles office.
How many global catalog servers should you implement?

A. one
B. two
C. three
D. four

Answer: C

Explanation:
The Los Angeles site contains the Los Angeles Toronto, and Mexico City Offices and theirs user's number is
Los Angeles 20,000 Mexico city 720 and Toronto 75 users
They have a 384 Frame relay connections
Also we must take care that they are planning Exchange in Los Angeles, Mexico and Toronto
In that way best consideration is three CG to support Exchange Directory queries

AD sites Plus Exchange Placement

QUESTION 45
What is the maximum number of mailbox stores needed for the Brisbane office?

A. one
B. two
C. three
D. four
E. five

Answer: D

Explanation:
They have 2100 users in Brisbane

But the trick here is that they also have three more sites here, Hong Kong, Jakarta and Tokyo
And they tell us that exchange will be deployed in those sites. In this situation you need four mailbox servers.

QUESTION 46
You are designing Exchange 2000 Server configuration for the Los Angeles office.
How many Exchange 2000 mailbox Servers should you implement?

A. one
B. two
C. three
D. four
E. five
F. six
G. seven
H. eight

Answer: G

Explanation:
The Los Angeles site contains the Los Angeles Toronto, and Mexico City Offices
The current exchange server 5.5 environments have been divided into six exchange server 5.5 sites.
The Los Angeles site contains the Los Angeles and Mexico City Offices.
Los Angeles users are 20,000 plus 720 Mexico users plus 75 Toronto users
20,795 total user's number

They tell us that each Exchange server can support 3.000 users
20,795/3,000= 6,9316, We select a little headroom, in this case we need seven servers

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QUESTION 47
How should you provide fault tolerance for distribution group expansion and name look- ups for users in the Toronto office?

A. Ensure that there are two or more global catalog servers in the Toronto office.
B. Ensure that there are two or more domain controllers in the Toronto office domain.
C. Ensure that there are two or more global catalog servers in the same Active Directory site and domain as the Exchange 2000 Server computer in Los Angeles office.
D. Ensure that there are two or more domain controllers in the same Active Directory site and the domain as the Exchange 2000 Server computer in Los Angeles computer.

Answer: C

Explanation:
To provide fault tolerance we need that exchange queries can be do it to at least two GC, in their site and their exchange also need to be in the same domain as the AD GC

QUESTION 48
What should you do to minimize the effect of denial-of-service attacks on the Server that is used by company executives for remote e-mail access?

A. Use two storage groups on the Exchange 2000 Server computer that runs Outlook Web Access.
B. Place two front-end Exchange 2000 Server computers in an Internet perimeter network (DMZ).
C. Enable IPSec on the Exchange 2000 Server computer that runs Outlook Web Access.
D. Enable SSL connections on the Exchange 2000 Server computer that runs Outlook Web Access and place the Server in an Internet perimeter network (DMZ).

Answer: B

Explanation:
Basic security an PKI knowledge question. We have a NLB cluster Server in our perimeter network. This mean that external users are accessing to our OWA site over SSL. Although we can use MS certificate services to secure our Web server. This certificates need to be distributed to any client in order to avoid the typical error. Avoid ROOT authority unknown. In this way we will need to obtain just one certificate for our NLB cluster and put the same certificate in each Web server that are in the cluster.
IPSEC Protection against attacks
IPSec protects data so that an attacker finds it extremely difficult or impossible to interpret it. The level of protection provided is determined by the strength of the security levels specified in your IPSec policy structure.
IPSec has a number of features that significantly reduce or prevent the following attacks:

* Sniffers (lack of confidentiality)
The Encapsulating Security Payload (ESP) protocol in IPSec provides data confidentiality by encrypting the payload of IP packets.
* Data modification
IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. Any modification to the packet data alters the checksum, which indicates to the receiving computer that the packet was modified in transit.
* Identity spoofing, password-based, and application-layer attacks
IPSec allows the exchange and verification of identities without exposing that information to interpretation by an attacker. Mutual verification (authentication) is used to establish trust between the communicating systems and only trusted systems can communicate with each other. After identities are established, IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. The cryptographic checksum ensures that only the computers that have knowledge of the keys could have sent each packet.
* Man-in-the-middle attacks
IPSec combines mutual authentication with shared, cryptography-based keys.
* Denial-of-service attacks
IPSec uses IP packet filtering methodology as the basis for determining whether communication is allowed, secured, or blocked, according to the IP address ranges, IP protocols, or even specific TCP and UDP ports.

Microsoft network client: Digitally sign communications (always)Description
This security setting determines whether packet signing is required by the SMB client component.

The server message block (SMB) protocol provides the basis for Microsoft file and print sharing and many other networking operations, such as remote Windows administration. To prevent man-in-the-middle attacks that modify SMB packets in transit, the SMB protocol supports the digital signing of SMB packets. This policy setting determines whether SMB packet signing must be negotiated before further communication with an SMB server is permitted.

Using NTLMv2 helps eliminate man-in-the-middle attacks
A security attack in which an attacker intercepts and possibly modifies data that is transmitted between two users. The attacker pretends to be the other person to each user. In a successful man-in-the-middle attack, the users are unaware that there is an attacker between them, intercepting and modifying their data. Also referred to as a bucket brigade attack.in which an attacker tries to force authentication using the less secure Lan Manager (LM) Authentication protocol.

Reference
Windows 2000 Server Help
Exchange Server 2000 Resource KIT
Exchange server help

How to Configure Certificate Server for Use with SSL on IIS KB 218445
HOW TO: Load Balance a Web Server Farm Using One SSL Certificate in IIS KB 313299

QUESTION 49
How should you design the Exchange 2000 Server administrative groups in native mode?

A. Use one administrative group that contains all of the Exchange 2000 Server computers for all the offices. Delegate appropriate permissions to the technical support staff on the Paris and Brisbane office.
B. Use three administrative groups, one each for the office in Brisbane, Los Angeles and Paris. Configure each group to include the servers that are administered by that office.
C. Use six administrative groups one for the Los Angeles and Mexico City offices and one for London, Paris and Munich offices and one each for Brisbane, Hong Kong, Jakarta and Tokyo offices.
D. Use nine administrative groups one each for the offices in Brisbane, Hong Kong, Jakarta, London, Los Angeles, Mexico City, Munich, Paris and Tokyo.

Answer: B

Explanation:
They have not special administrative requirements also their Actual Messaging System is:
* The Los Angeles site contains the Los Angeles and Mexico City Offices.
* The Paris site contains the London, Munich, and Paris offices.
* The Brisbane, Hong Kong, Jakarta, and Tokyo sites each contain only their own offices.
In this way the best answer is B

QUESTION 50
Which two actions should you perform to allow users in the Toronto office to use an SMTP domain address of adatum.ca? (Choose Two)?

A. Place a global catalog server in the Toronto organizational Unit (OU)
B. Create a recipient policy that is filtered for the Toronto users.
C. Create a group policy for the Toronto Organizational Unit (OU)
D. Reconfigure the Recipient Update service for the Toronto Organizational Unit (OU)
E. On the external DNS server, create an MX record for the Toronto Domain.
F. ON the external Dns server, Create an SRV record for the exchange for the exchange 2000 server computer in the LOSANGELES office.

Answer: B, E

Explanation:
We can get this by apply a recipient smtp policy to Toronto mailbox store users, also we

will need a MX record for that domain, to permit to exchange to routing the mail follow to the adequate recipient
Reference
XIMS: How to Receive Messages for Two SMTP Domains Using Exchange 2000
289833

QUESTION 51
Which action or actions should you perform to maximize security on the server that is used by company executives for remote e-mail access? (Choose all that apply)?

A. Use Ipsec to encrypt traffic on port 25
B. Use Ipsec to encrypt traffic on port 80
C. Use the internet authentication service
D. Use digital certificates on client computers
E. Require SSL connections on the front end server
F. Place a front end server outside the internet firewall.

Answer: D, E

Explanation:
We need to use certificates, to communicate with Exchange over a PKI infrastructure using SSL certificates in that way we need, D and E, most secure way.
We can communicate with SLL to an OWA server with just a Certificate in the server part or better with a server part that ask for a user for certificate.

Topic 6, MILLER TEXTILES, Scenario

Introduction:
You are an employee of Miller Textiles.
Your current project is to provide design and deployment services for the implementation of exchange 2000 server throughout the company.
Background:
Company profile:
Miller Textiles is one of the world's largest producers of bedding and bath products, table linens, plows, luggage, and rugs.
There are six miller textiles locations: the company headquarters and five manufacturing plants.
Each plant has a combined sales staff and office staff of approximately 300 people.
Each plant also has a large manufacturing staff that operates in three shifts.
The number of employees at miller textiles is slowly but steadily increasing.
History:
Miller textiles employs more than 20,000 people.
Approximately two-thirds of these employees are manufacturing staff who does not have access to e-mail.
There are 5,000 employees at headquarters, and they all use e-mail and public folders.
The sales staff and office staff at each plant use e-mail and public folders.
Last year a failed disk array controller corrupted the exchange information store.

One week was needed to detect and correct the problem, and 1,000 people were unable to use e-mail during that time.
Business Plan:
The executives at miller textiles have increased the autonomy of each plant because of this change; the executives expect to need 25 percent more office staff at each plant three years from now.
There is a limited budget for upgrades to the company's WAN.
Existing IT Environment:
Overview:
Exchange server 5.5 service pack 3 is the standard e-mail platform at miller textiles.
A single active directory forest that contains one domain has been deployed.
There are two global catalog servers at headquarters.
Each plant has a domain controller.
Each location is a Microsoft windows 2000 site.
Administrative model:
Miller textiles is moving forward a decentralized administrative mode, but most of the administration is still performed at headquarters.
Al each of the five plants, there is an IT person who performs technical support tasks and some server administration requested by headquarters.
The amount of administration require for the computers that are administered in each plant will steadily increase as the plants increase their autonomy.
Network Infrastructure:
The client computers at headquarters are connected by a 10-Mbps Ethernet LAN.
The servers are on a 100-Mbps switched Ethernet segment.
The WAN that connects the plants uses 512-Kbps frame replay connections with committed information rates between 64 and 128Kbps, depending upon the plant.
These connections internally fail.
The miller textiles network design is shown in the exhibit. Click the exhibit button.

Servers:
There are five mailbox servers at headquarters that run Exchange Server 5.5.
Each of the servers has approximately 1,000 mailboxes.
At each of the plants, there is one Exchange Server computer that contains 300 mailboxes.
All public folders are stored on a dedicated public folder Server named headquarters.
There is a dedicated X400 bridgehead Server at headquarters that is also the Internet Mail Server computer.
The mailbox servers and public folder Server at headquarters are dual Pentium Pro 200-MHz computers that have 256 MB of memory.
The bridgehead Server has 64 MB of memory.
The number of documents that are stored in public folder has increased significantly at Miller Textiles.
Employees must be able to access these documents 99 percent of the time.
The mailbox servers at the plants are Pentium II 450-MHz computers that have 256 MB of memory.
The entire Windows 2000 and Exchange environment is backed up nightly.
The following backup rotation is used.
There is a tape for each day of the month.
Each tape is used once per month and is numbered with the date of month on which it is used.
For example,
Tape 1 is used on the first day of the month,
Tape 2 is used on the second day of the month and so on.
Except for the tape used on the first day of the month, other tapes are overwritten during the following month.

The tape used on the last day of each month is a month-end tape, which is stored for one year.
A new tape will replace this tape in the tape set.
The bridgehead Server is backed up on only the odd-numbered days of each month.
Client Computers:
Most Miller Textiles client computers use Microsoft Outlook 2000 and a POP3 software package to access Exchange.
It is company's policy to use Outlook Web Access for remote messaging.
Exchange 2000 Server Requirements and Goals:
Security Requirements:
The company wants to reduce the likelihood that employees will create message storms.
Archiving Requirements:
The back up plan should allow for the recovery of computed information store database without affecting more than 500 e-mail users.
The company wants to allow recovery to the point of failure.
Messaging Requirements:
Messages should continue to be delivered between locations in the event of the WAN connection failure.
The company wants to ensure access to frequently used public folders.
All users must be allowed to configure Server-based rules and to access their own calendars and calendars of other users.
The originator of the e-mail upgrade project wants to meet the following objectives.
Enable easier remote access to e-mail and calendars for travelling employees.
Minimize downtime caused by hardware problem or data corruption.
Minimize the potential legal liability that can result when e-mail messages are stored for more than 30 days.
Maximize performance that is achieved when messages are sent between each plant and headquarters.
The manager responsible for the e-mail environment wants to meet the following objectives.
Decrease WAN traffic caused by people accessing frequently used public folders that are homed or Server at headquarters.
The IT person at each plant should administer the Exchange Server computer at that plant.
Consolidate the headquarters Exchange Server computers if possible.
Technical Support Requirements:
The IT department wants to reduce technical support tasks by eliminating the third part POP3 client software usage.

Topic 6, MILLER TEXTILES (17 Questions)

QUESTION 52
How should you design server recovery?

A. Back up drive Microsoft of each exchange server computer to tape. Restore Windows 2000 Server, install Exchange 2000 Server in disaster recovery mode, stop exchange services, restore the tape to drive M, and start exchange services.

B. Separately back up each exchange server storage group to tape. Restore Windows 2000 Server, install Exchange 2000 Server, restore each storage group, and mount each database after the restore process is complete.
C. Separately back up each exchange server database to tape. Restore Windows 2000 Server, install Exchange 2000 Server in disaster recovery mode, copy the logs to the logfile directories, restore each database, and mount each database after the restore process is complete.
D. Separately back up each exchange server storage group to tape. Restore Windows 2000 Server, install Exchange 2000 Server in disaster recovery mode, copy the logs to the logfile directories, restore each storage group, and mount each database after the restore process is complete.
E. Separately back up each exchange server database to tape. Restore Windows 2000 Server, install Exchange 2000 Server in disaster recovery mode, restore each database, and mount each database after the restore process is complete.

Answer: D

Explanation:
We must take in consideration that they ask to us for design server recovery, in this way we need to consider two scenarios if Exchange 2000 is running on a Domain Controller or is running in a member server. The trick that use the answer involves different order is the statements, some dumps or other guide tell to you that correct answer is B, but this process will run only to recover the exchange database, not from a disaster recovery where you also miss the OS system.
In this way the correct answer is D
Exchange 2000 Disaster Recovery Process
1. Reconfigure hardware that is similar to the original hardware.
2. Create logical drives that closely match the original configuration. Although hardware does not always need to be identical, be aware that some drivers that are listed in the backup set may be incompatible with hardware on the new systems, and may require you to manually remove or install drivers in Safe mode. Test the system state restoration on replacement hardware before you actually need to perform a system state restoration.
3. Reinstall the operating system.
Install the same version of Windows 2000 Server (Windows 2000 Server, Microsoft Windows 2000 Advanced Server, or Microsoft Windows 2000 Datacenter Server) as a stand-alone server to the same drives and paths to which Windows 2000 Server was previously installed, and use the same server names that were used before.
4. Restore full drive backups. In rare cases, you may need to restore a system state backup before you restore full drive backups. Perform a "drill" before an actual emergency occurs to determine if you have any applications with this requirement. If you have made disk image backups, if you restore those disk image backups, you may be able to skip reinstallation of the operating system and restoration of other backups.
5. Restore system state backups. Restore and restart domain controllers first so that member servers have a logon server and access to Active Directory. By restoring the system state, you have restored Active Directory and the IIS metabase.

6. Reinstall Exchange 2000 by using the /disasterrecovery switch.
The disaster recovery mode in Setup reads Active Directory and restores as many previous settings as possible. For example, database paths are stored in Active Directory, and are set correctly, regardless of whether you install Exchange 2000 program files to the previous locations.
If you restore full drive backups and system state information, you may not need to run Setup with the /disasterrecovery switch. The local Exchange 2000 installation may be completely functional already.
When you use the /disasterrecovery switch, you must manually select all the components that were previously installed on the server.
7. Restore Exchange 2000 databases, including information store and ancillary databases, such as the SRS and KMS databases.
Requirements for Recovering Exchange 2000 There are five common requirements for recovering all Exchange 2000 servers:
1. Windows 2000 and Exchange 2000 installation CDs This includes any applicable service packs or hot fixes as outlined in the Windows 2000 and Exchange 2000 release notes.
2. Full backups of the system drive This includes any other logical drives where critical application data is installed.
3. Recent Windows 2000 system state backup A system state backup is an important type of Windows 2000 backup. Windows 2000 Backup captures and saves system configuration information that a file system backup normally fails to back up. System configuration information, such as the Windows registry and IIS metabase data, is included in a system state backup.
4. Backups of Exchange databases These are online backups of the Web Storage System databases.
5. A server object in Active Directory for the server you want to restore
If an Exchange 2000 server is damaged, it is important that the server object in Active Directory is intact. If the server object is deleted from Active Directory, using either Exchange System Manager snap-in or Active Directory Users and Computers snap-in, recovery cannot succeed. Following a disaster, you must avoid changing the server object until the actual server is recovered.
Reference
Exchange Server Documentation
* Support part. Exchange 2000 Server Database Recovery
Exchange 2000 Resource Kit
* Chapter 28 - Backup and Restore

QUESTION 53
How should you design the disk configurations for the mailbox servers at headquarters to achieve the best performance and fault tolerance?

A. Place the operating system and the transaction logs for all storage groups on a single mirrored pair of disk drives. Place each information store on its own RAID-5 volume.
B. Place the operating system on a mirrored pair of disk drives. Place transaction logs for all storage groups on a single mirrored pair of disk drives. Place the information

stores on a single RAID-5 volume.
C. Place the operating system on a mirrored pair of disk drives. Place transaction logs for each storage group on their own RAID-1 mirrored pair of disk drives. Place the information stores on a single RAID-5 volume.
D. Place the operating system and the transaction logs for all storage groups on a single RAID-5 volume. Place each information store on its own RAID-5 volume.

Answer: C

Explanation:
Best performance and recovery process is
Place each database mailbox store from each storage group in it own RAID (0+1) array
Place the storage group transaction log in each own Raid 1 array, but if you can not afford this kind of configuration you can use Raid 5 array instead of Raid (0+1) arrays than mean Raid 10
In this case the best hardware solution is C
Disk Performance Issues
Unlike CPU performance issues, disk performance issues cannot be diagnosed with a single counter that indicates that you have a disk bottleneck.
Note
A disk bottleneck can also be a result of memory issues, and cannot be solved by simply adding more spindles.
Ensure when you size your Exchange 2000 disk configurations, to size for I/O capacity and not for disk space alone. Microsoft recommends RAID 0+1 because this configuration tends to result in more I/O capacity than RAID 5.
Disk Performance Issues: Approach One
The first approach to determining if you are encountering a disk bottleneck is to monitor the following counters for each of your physical drives.
PhysicalDisk(drive:)\Disk Writes/sec
PhysicalDisk(drive:)\Disk Reads/sec
Note
Before troubleshooting disk performance problems, at the command prompt, run diskperf -y to activate logical, as well as physical, disk counters.
Look at each drive and compare to the total instance to isolate where the I/O is going. You can use the recommendations below to assist with the comparison and determine if you have a bottleneck.
* Raid-0: Reads/sec + Writes/sec < # Spindles x 100
* Raid-1: Reads/sec + 2 * Writes/sec < # Spindles x 100 (each write has to go to each mirror on the array)
* Raid-5: Reads/sec + 4 * Writes/sec < # Spindles x 100 (each write requires two reads and two writes)
Note
This assumes disk throughput is equal to 100 random I/O per spindle.
For more information about RAID, see the following "RAID Levels" section.
RAID Levels
Although there are many different implementations of RAID technologies, they all share

two similar aspects. They all use multiple physical disks to distribute data, and they all store data according to a logic that is independent of the application for which they are storing data.

This section discusses four primary implementations of RAID: RAID-0, RAID-1, RAID-0+1, and RAID-5. Although there are many other RAID implementations, these four types serve as a representation of the overall scope of RAID solutions.

RAID-0

RAID-0 is a striped disk array; each disk is logically partitioned in such a way that a "stripe" runs across all the disks in the array to create a single logical partition. For example, if a file is saved to a RAID-0 array, and the application that is saving the file saves it to drive D, the RAID-0 array distributes the file across logical drive D (see Figure13). In this example, it spans all six disks.

Figure 13RAID-0 disk array

From a performance perspective, RAID-0 is the most efficient RAID technology because it can write to all six disks at once. When all disks store the application data, the most efficient use of the disks occurs.

The drawback to RAID-0 is its lack of reliability. If the Exchange mailbox databases are stored across a RAID-0 array and a single disk fails, you must restore the mailbox databases to a functional disk array and restore the transaction log files. In addition, if you store the transaction log files on this array and you lose a disk, you can perform only a point-in-time restoration of the mailbox databases from the last backup.

RAID-1

RAID-1 is a mirrored disk array in which two disks are mirrored (see Figure14).

Figure 14RAID-1 disk arrays

RAID-1 is the most reliable of the three RAID disk arrays because all data is mirrored after it is written. You can use only half of the storage space on the disks. Although this may seem inefficient, RAID 1 is the preferred choice for data that requires the highest possible reliability.

RAID-0+1

A RAID-0+1 disk array allows for the highest performance while ensuring redundancy by combining elements of RAID-0 and RAID-1 (see Figure15).

Figure 15RAID-0+1 disk array

In a RAID-0+1 disk array, data is mirrored to both sets of disks (RAID-1), and then striped across the drives (RAID-0). Each physical disk is duplicated in the array. If you have a six-disk RAID-0+1 disk array, three disks are available for data storage.

RAID-5

RAID-5 is a striped disk array, similar to RAID-0 in that data is distributed across the array; however, RAID-5 also includes parity. This means that there is a mechanism that maintains the integrity of the data stored in the array, so that if one disk in the array fails, the data can be reconstructed from the remaining disks (see Figure16). Thus, RAID-5 is a reliable storage solution.

Figure 16RAID-5 disk array

However, to maintain parity among the disks, 1/n GB of disk space is sacrificed (where n equals the number of drives in the array). For example, if you have six 9-GB disks, you have 45 GB of usable storage space. To maintain parity, one write of data is translated into two writes and two reads in the RAID-5 array; thus, overall performance is degraded.

The advantage of a RAID-5 solution is that it is reliable and uses disk space more efficiently than RAID-1 (and 1+0).

For more information on comparing RAID solutions and RAID levels, as well as Storage Area Network (SAN) and Network Attached Storage (NAS) solutions, see the Storage Solutions for Microsoft(r) Exchange 2000 Serverwhite paper.

Disk Performance Problems: Approach Two

The second approach to determining if you are encountering a disk bottleneck requires looking at the I/O requests waiting to be completed using the following disk queue counters.

PhysicalDisk(drive:)\Avg. Disk Queue
PhysicalDisk(drive:)\Current Disk Queue
The PhysicalDisk(drive:)\Avg. Disk Queue counter indicates the average queue length over the sampling interval. The PhysicalDisk(drive:)\Current Disk Queue counter reports the queue length value at the instant of sampling.
You are encountering a disk bottleneck if the average disk queue length is greater than the number of spindles on the array and the current disk queue length never equals zero. Short spikes in the queue length can drive up the queue length average artificially, so you must monitor the current disk queue length. If it drops to zero periodically, the queue is being cleared and you probably do not have a disk bottleneck.
Note
When using this approach, correlate the queue length spikes with the MSExchangeIS\RPC Requests counter to confirm the effect on clients.
Disk Problems: Approach Three
For the third approach to determining if you are encountering a disk bottleneck, look at the I/O latency, which can give you an indication of the health of your disks:
PhysicalDisk(drive:)\Avg. Disk sec/Read
PhysicalDisk(drive:)\Avg. Disk sec/Write
A typical range is .005 to .020 seconds for random I/O. If write-back caching is enabled in the array controller, the PhysicalDisk(drive:)\Avg. Disk sec/Write counter should be less than .002 seconds.
If these counters are between .020 and .050 seconds, there is the possibility of a disk bottleneck. If the counters are above .050 seconds, there is definitely a disk bottleneck.
Reference
Troubleshooting Microsoft Exchange 2000 Server Performance
Exchange Core Documentation

QUESTION 54
How should you design the administrative groups for Miller Textiles for native mode?

A. Create a single administrative group.
Delegate control of the administrative group to the administrator at the plants.
Delegate permissions for administrators at headquarters to administer this group.
B. Create one administrative group for each company location.
Delegate control of the administrative group at each plant to the administrator at the plants.
Delegate permissions for administrators at headquarters to administer these groups.
C. Create a single administrative group.
Delegate control of the servers in this administrative group to the administrators of those servers.
Delegate permissions for administrators at headquarters to administer this group.
D. Create one administrative group for each company location.
Delegate control of the Server objects in the administrative group at each plant to the administrator of those servers.
Delegate permissions for administrators at headquarters to administer these groups.

Answer: B

Explanation:
For this case just answer B is valid
They tell us
The IT person at each plant should administer the Exchange Server computer at that plant.
All public folders are stored on a dedicated public folder Server named headquarters.
Administrative model:
Miller textiles is moving forward a decentralized administrative mode, but most of the administration is still performed at headquarters.
The amount of administration require for the computers that are administered in each plant will steadily increase as the plants increase their autonomy.
Al each of the five plants, there is an IT person who performs technical support tasks and some server administration requested by headquarters.

QUESTION 55
Which two configurations of messaging client computers software should you implement to fulfill the Miller Textiles messaging requirements? (Choose two)

A. Outlook 2000 in corporate or Workgroup mode.
B. Outlook 2000 in Internet Only Mode.
C. Outlook Express with IMAP4.
D. Outlook Express with POP3.
E. Outlook Web Access.

Answer: A, E
They tell us
Technical Support Requirements:
The IT department wants to reduce technical support tasks by eliminating the third part POP3 client software usage.
Enable easier remote access to e-mail and calendars for traveling employees.
The originator of the e-mail upgrade project wants to meet the following objectives.
The company wants to ensure access to frequently used public folders.
All users must be allowed to configure Server-based rules and to access their own calendars and calendars of other users.
Messaging Requirements:
Messages should continue to be delivered between locations in the event of the WAN connection failure.
Client Computers:
Most Miller Textiles client computers use Microsoft Outlook 2000 and a POP3 software package to access Exchange.

Explanation:

The easiest way to access from remote location for traveling user is OWA
To be able to access their own calendars and calendars of other users they need outlook

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QUESTION 56
Which action or actions should you perform to deploy the
administrative group for Miller Textiles? (Choose all that apply)

A. Run setup.exe /forestprep
B. Run setup.exe /domainprep
C. Install the Windows 2000 Server Active Directory Connector (ADC).
D. Install the Active Directory Migration tool (ADMT).
E. Install the Exchange 2000 Server Active Directory Connector (ADC).

Answer: A, B

Explanation:
After implementation of Active Directory, they need to prepare the schema to support Exchange Objects this must be do it using Exchange setup with /forestprep switch
To prepare the domain for Exchange groups and security the need to run the Exchange setup with /domainprep switch
ForestPrep
The ForestPrep utility performs all Exchange 2000 setup tasks that require EnterpriseAdmin and SchemaAdmin permissions, as it makes changes in the configuration container of Active Directory. ForestPrep extends your Active Directory schema to include Exchange-specific information. ForestPrep also creates objects in Active Directory and gives permissions on those objects to the account designated as the Exchange 2000 administrator. This administrator will ultimately have enough permissions to install the first Exchange 2000 server in your organization.
DomainPrep
The DomainPrep utility performs the Exchange setup tasks that require DomainAdmin permissions; it should be run by a member of the DomainAdmin group. You need to run DomainPrep once in each domain that contains an Exchange 2000 server and in any domain that hosts Exchange users. (An Exchange domain that contains mail-enabled users, but no Exchange servers, is a user domain.) This utility creates the groups and permissions necessary for Exchange servers to read and modify user attributes. DomainPrep creates two new domain groups: Exchange Domain Servers (a Windows 2000 global security group) and Exchange Enterprise Servers (a Windows 2000 domain local security group).
Reference
ForestPrep and DomainPrep
Exchange 2000 Server Help

QUESTION 57
How should you modify the mailbox server hardware for the
Exchange 2000 Server computers?

A. Replace the five mailbox servers at headquarters with one new Pentium III-based computer.
Use the old mailbox severs as front-end servers a headquarters.
Add memory to the bridgehead server.
B. Replace the five mailbox servers at headquarters with two new Pentium III-based computers.
Move the public folders to the new mailbox servers.
Use the old public folder server as a bridgehead server.
C. Replace the mailbox servers at each location with one new Pentium III-based computer for each location.
Move the public folders to the new mailbox servers.
Use the old public folder server as a bridgehead server.
D. Replace the five mailbox servers at headquarters with two new Pentium III-based computers.
Use the old mailbox servers as X.400 bridgehead servers that connect to the plants.

Answer: D
The best hardware upgrade that they propose are answer D this give more capacity for access to the public folders documents, the way to reuse this server is to put them for bridge server that actually have just 64 MB memory

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QUESTION 58
You need to recover a mail-enabled user account that was deleted from Active Directory. Which recovery method should you use to recover this account as quickly as possible?

A. Re-create the account Active Directory.
On the exchange server computer, re-associate the mailbox to this account.
B. Re-create the account in Active Directory.
Re-create the mailbox.
Re-associate the re-created mailbox to this account.
C. Restore he user account to Active Directory from tape.
On the exchange server computer, re-associate the mailbox to this account.
D. Restore the mailbox from tape.
Restore the user account to Active Directory from tape.
Re-associate the restored mailbox to this account.

Answer: A

Explanation:
By default each mailbox have one period of seven days until that the mailbox will be lsot and most be recover form a backup, when you delete a mailbox but not the user account, you just need to recreate the mailbox for the user account and follow the next steps.
Restore a Mailbox by Using Exchange System Manager
To restore a mailbox by using Exchange System Manager, follow these steps:
1. Click Start, point to Programs, point to Microsoft Exchange, and then click System

Manager.
2. Expand Administrative Groups, and then expand AdministrativeGroupName.
3. Expand Servers, and then expand ServerName.
4. Right-click Mailbox Store, and then click Run Cleanup Agent.
5. Right-click the mailbox that you want to recover, and then click Reconnect.
6. In the list of Active Directory accounts that appear, click the user account to which you want the mailbox to connect, and then click OK.
7. Quit Exchange System Manager.
Reference
HOW TO: Recover or Restore a Single Mailbox in Exchange 2000 Server 813337

QUESTION 59
How should you design the mailbox servers that run Exchange 2000 Server at headquarters to fulfill recovery requirements?

A. Use one Exchange 2000 Server computer. Create one storage group that contains four mailbox stores. Back up the storage group, and purge the transaction logs.
B. Use one Exchange 2000 Server computer. Create two storage groups that contain four mailbox stores. Back up each mailbox store, and purge the transaction logs.
C. Use two Exchange 2000 Server computers. On each of these servers, create one storage group that contains five mailbox stores. Back up the storage group, and purge the transaction logs.
D. Use two Exchange 2000 Server computers. On each of these servers, create four storage groups that each contains one mailbox store. Back up each mailbox store, and purge the transaction logs.

Answer: C

Explanation:
The creation of each store group is processor intensive resource in that way we need just to create the necessary storage group
By definition in Exchange Enterprise version you can create four storage groups and each storage group can contain 5 mailbox stores.
They tell us that each server in headquarters have 1,000 mailbox enabled users, in this way they have in total 5,000 mailbox enabled users that must be split in the proposed solutions.
The best proposal answer is C , because they tell us that if they servers fail do not must affect to more than 500 users, this mean two servers, 2500 users per server 500 mailbox user per mailbox store we achieve the require solution

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QUESTION 60
How should MMC be used during the upgrade?

A. Use the Exchange 2000 Server Active Directory Connector for two-way

directories. Use MMC to administer the Exchange Server 5.5 mailboxes.
B. Use the Windows 2000 Server Active Directory Connector for two-way directory updates. Use MMC to administer the Exchange Server 5.5 mailboxes.
C. Use the Exchange 2000 Server Active Directory connector for one-way directory updates from Exchange to Active Directory. Use MMC to administer the Exchange Server 5.5 mailboxes.
D. Use the Windows 2000 Server Active Directory connector for a one-way directory update from Exchange to Active Directory. Use MMC to administer the Exchange Server 5.5 mailboxes.

Answer: A
Explanation:
The MMC is
not usable to administering Exchange 5.5 mailbox repository we need to use the Exchange 5.5 system manager tool to do that.To administering Exchange mailbox enabled user we need to use Active Directory Users and Computers snap in, click on the user account right click and select Exchange Task, we can not add or delete mailbox from Exchange 2000 system manager tool

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QUESTION 61
How should you plan for coexistence between Exchange 2000 and the exchange server 5.5 computers during migration?

A. Use the Exchange 2000 Server Active Directory Connector for two-way directory upgrades. Use MMC to administer the exchange server 5.5 mailboxes.
B. Use the Windows 2000 Server Active Directory connector for two-way directory updates. Use MMC to administer the exchange server 5.5 mailboxes.
C. Use the Exchange 2000 Server Active Directory connector for one-way directory updates from exchange to Active Directory. Use MMC to administer the exchange server 5.5 mailboxes.
D. Use the Windows 2000 Server Active Directory connector for one-way directory update from exchange to Active Directory. Use MMC to administer the exchange server 5.5 mailboxes.

Answer: A

QUESTION 62
How should you design the Miller Textiles public folders in a manner that will ensure fault tolerance?

A. Add a second public folder server, and replicate all public folders to this server. Replicate all public folders to the exchange server computers at each plant. Disable public folder referrals for the connectors between headquarters and the plants.
B. Add a second public folder server, and replicate all public folders to this server. Replicate only the public folders that are used at each plant to the exchange server computers at that plant.

C. Replicate each public folder to the exchange server computer at each plant.
Disable public folder referrals between the plants and headquarters.
D. At headquarters create a two-node cluster server for all
public folders. Use affinity to access the public folders from the plants.

Answer: B
They tell us
The manager responsible for the e-mail environment wants to meet the following
objectives.
Decrease WAN traffic caused by people accessing frequently used public folders that are
homed or Server at headquarters.
The best solution is B
In this way the get a better performance in headquarters, also they just need to replicate
the public folder that each plant use, after replication the Wan traffic will decrease

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QUESTION 63
Which factor or factors should you consider when planning the
use of Exchange 2000 Server administrative groups at Miller Textiles for native
mode? (Choose all that apply)

A. The use of public folders at each plant.
B. The skill level of the IT person at each plant.
C. Adherence to policies and standards set by headquarters.
D. Size of mailboxes at each plant.
E. Available network bandwidth between headquarters and each plant.
F. The number of exchange server computers at each plant

Answer: B, C
They tell us
Administrative model:
Miller textiles is moving forward a decentralized administrative mode, but most of the
administration is still performed at headquarters.
The amount of administration require for the computers that are administered in each
plant will steadily increase as the plants increase their autonomy.
Al each of the five plants, there is an IT person who performs technical support tasks and
some server administration requested by headquarters.

Explanation:
Answer B and C take in consideration the administrative model request

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QUESTION 64
How should you design the routing groups for Miller Textiles?

A. Use a single routing group. All exchange 2000 server computers will be members
of this routing group.
B. Use a single routing group. All exchange server 5.5 computers will be members

of this routing group.
C. Use one routing group for the Exchange 2000 Server computers at headquarters. Use one routing group for each plant. The Exchange 2000 Server computers at each plant will be members of the routing group for that plant.
D. Use six routing groups at headquarters.
Place one mailbox server in each of the first five routing groups. Place the bridgehead server and the public folder server in the sixth routing group. Use one routing group for each plant. The exchange server 5.5 computers at each plant will be members of the routing group for that plant.

Answer: C
Administrative model:
Miller textiles is moving forward a decentralized administrative mode, but most of the administration is still performed at headquarters.
The amount of administration require for the computers that are administered in each plant will steadily increase as the plants increase their autonomy.
Al each of the five plants, there is an IT person who performs technical support tasks and some server administration requested by headquarters.

Explanation:
The best model that suit and follow the administrative model is answer C

QUESTION 65
In your design of the Exchange 2000 Server environment, you need to minimize the possibility of message storms. What should you do? (Choose all that apply)

A. Instruct users to store large attachments in public folders.
B. Mail-enable the universal security groups.
C. Set message size limits for distribution groups.
D. Set permissions to limit the use of distribution groups.
E. Reduce the maximum recipient limit.
F. Use nested distribution groups.
G. Mail-enable the global security groups.

Answer: A, C, E

Explanation:
Using the public folder to attach larger mail enable to all users to access this mail answer A Setting mailbox limits answer C and E, limit and increase the performance limiting the misuse

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QUESTION 66
How should you design a recovery solution that fulfils the archiving requirements?

A. Ensure that circular logging is enabled on all servers. When a restore is required,

perform the following steps:
* Restore the storage group that contains the information store that must be recovered.
* Mount the information store
* Re-create the index for the information store if required
B. Ensure that circular logging is enabled on all servers. When a restore is required, perform the following steps:
* Restore the storage group that contains the information store and the index that must be recovered.
* Mount the information store and the index
C. Ensure that circular logging is disabled on all servers. When a restore is required, perform the following steps:
* Restore the information store that must be recovered.
* Mount the information store, and reply the transaction logs.
* Re-create the index for the information store if required
D. Ensure that circular logging is enabled on all servers. When a restore is required, perform the following steps:
* Restore the information store and the index that must be recovered.
* Mount the information store and the index, and reply the transaction logs.

Answer: C

Explanation:
Circular logging enabled is not the best way to design a recovery solution because they wants to recover to point of failure, because you will loose changes after backup but anyway,
Answer is C
Circular Logging
Circular logging reduces disk storage requirements by overwriting transaction logs after transactions are committed to the databases. Circular logging is used with non-critical data and is disabled by default. Transactions to the .stm files are not logged because the data is saved to the .stm file before the transaction is committed. Because less data is written, the process is faster and more resources are available. When circular logging runs, changes to the .edb file are written to the transaction log files. In a restore operation, you can play back data only to the point of the last backup. These transactions are entered into the restored database file to update the database to the point in time when the last backup was performed, and not to the point when the database files went offline. It is recommended that you leave circular logging disabled because you can lose information during a restore operation.
Having enabled the circular logging is not a good thing just let to you to save disk space but if the storage group fails you will loose all the mail between backups
Reference
Exchange 2000 Resource Kit
Chapter 28 - Backup and Restore

QUESTION 67
Which change or changes should you make to the miller textiles network

infrastructure to support Exchange 2000 Server? (Choose all that apply)

A. Configure the Exchange 2000 Server as a global catalog server at each plant.
B. Increase the available bandwidth on connections between each plant and headquarters.
C. Ensure that a redundant connection exists between each plant and headquarters.
D. Decrease the number of mailboxes on each Exchange 2000 Server computer.
E. Combine the plants into a single Windows 2000 Site.

Answer: B, C

Explanation:
Answer A
If we put a CG in each Plant we need to get wider bandwidth for replication for this year answer is (NO) for future can be (YES). I choose NO because they ask Which change or changes should you make to the miller textiles network infrastructure to support Exchange 2000 Server
This is not needed to implement exchange
Answer B
They will like to reduce Decrease WAN traffic caused by people accessing frequently used public folders that are homed or Server at headquarters. But the upgrade plan is a three years plan just budget for WAN upgrade is constraint this year (YES)
Answer C
They want Messages should continue to be delivered between locations in the event of the WAN connection failure. (YES)
Answer D
The constrain is for WAN not for server upgrade, they need to increase the servers performance for documents that are been accessed 99% of time (NO) but we do not need to decrease server mailbox number
Answer E
Bad design if you consider lines, The WAN that connects the plants uses 512-Kbps frame replay connections with committed information rates between 64 and 128Kbps, depending upon the plant. (NO)
They tell us
Archiving Requirements:
The back up plan should allow for the recovery of computed information store database without affecting more than 500 e-mail users.
The company wants to allow recovery to the point of failure.
Messaging Requirements:
Messages should continue to be delivered between locations in the event of the WAN connection failure.
The company wants to ensure access to frequently used public folders.
All users must be allowed to configure Server-based rules and to access their own calendars and calendars of other users.
The originator of the e-mail upgrade project wants to meet the following objectives.
Enable easier remote access to e-mail and calendars for travelling employees.

Minimize downtime caused by hardware problem or data corruption.
Minimize the potential legal liability that can result when e-mail messages are stored for more than 30 days.
Maximize performance that is achieved when messages are sent between each plant and headquarters.
The manager responsible for the e-mail environment wants to meet the following objectives.
Decrease WAN traffic caused by people accessing frequently used public folders that are homed or Server at headquarters.
The IT person at each plant should administer the Exchange Server computer at that plant.
Consolidate the headquarters Exchange Server computers if possible.
Technical Support Requirements:
The IT department wants to reduce technical support tasks by eliminating the third part POP3 client software usage.

QUESTION 68
How should you modify the network resources to fulfill the requirements of Miller textiles?

A. Increase the Committed Information rate of all frame relay connections to 256 Kbps.
B. Increase the Committed Information rate of all frame relay connections to 512 Kbps.
C. Install line connections and exchange connectors between plant 1 and 2, between plants 2 and 3, between plants 3 and 4, between 4 and 5, and between plant 5 and headquarters.
D. Install line connections and exchange connectors between plant 1 and 2, between plants 3 and 4, and between plant 5 and headquarters.
E. Install leased line connections and exchange connectors between each plant and every other plant

Answer: B

Explanation:
The best upgrade will be to increase the CIR to the full capacity instead to use 64 and 128Kbps,CIR within 512-Kbps frame replay lines
They tell us
The WAN that connects the plants uses 512-Kbps frame replay connections with committed information rates between 64 and 128Kbps,

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Topic 7, Litware Inc, Scenario

Introduction:
You are hired by Litware,Inc.,to upgrade the company's exchange server 5.5 (service Pack 3) environment to Exchange 2000 Server.
All client computers currently run Microsoft Windows 2000 Professional. All servers run Windows 2000 advanced server.
Background:

History:
Litware,Inc., is a law firm that has its headquarters in Washington, D.C.
The company has branch offices in 15 other cities around the world.
o Brussels
o Cairo
o London
o New Delhi
o Moscow
o North America
* Denver
* Los Angeles
* Miami
* Minneapolis
* New York
* San Francisco
* Seattle
o Seoul
o Shanghai
o Tehran
Company Profile:
Litware,Inc., specializes in corporate law, government regulations, and international law.
Overall, the company employs approximately 7,000 people.
The Washington, D.C, headquarters employs approximately 2,000 people.
The Los Angeles and New York utilities each employ approximately 1,000 people.
All other offices each employ between 200 and 250 people.
Business Plan:
Litware,Inc., wants to improve the efficiency of its business by using the internet and the world wide web.
The company has not added any new offices during the past five years.
The company plans to grow by acquiring two or three smaller companies in the next three years.
Factors that influence Business Strategies:
Litware, Inc. has two primary business strategies:
o Make use of technology
o Expand the types of services that are offered by the company.
Existing IT environment:
Network Environment
The Litware Inc. WAN design is shown in the exhibit below:

Administrative Model:

The executive committee at the Washington, D.C., headquarters makes all company-wide decisions Technology decisions for all offices are also made at headquarters.

These company-wide functions are performed at the headquarters office:

o Administration
o Accounting
o Human resources
o IT

The Los Angeles and New York offices each have a staff of ten IT people who are responsible for local user needs.

The responsibilities of this staff includes the creation and deletion of user accounts, LAN troubleshooting, and client-computer decisions.

The IT staff in the Los Angeles office also provides backup support for the Seattle, San Francisco, and Denver offices.

Each of the other branch offices has an IT staff of three people who are responsible for resetting local passwords, creating local accounts, and turning on and off the local routers.

Messaging Environment at Headquarters:

The Washington D.C headquarters office has two exchange server computers that are used for mailboxes.

These servers are named EXSERVER1 and EXSERVER2.

Each serves approximately 1,000 mailboxes. Both servers are configured as domain controllers.

ExSERVER1 and EXSERVER2 each have 256MB of memory.
Each one has two 4-GB hard disks configured in a RAID-1 pair mirrored disks to store the operating system.
There are two additional 4-GB hard disks configured in a RAID-1 pair of mirrored disks to store exchange binary files and transaction log files.
Each of the servers also has five 9-GB hard disks configured in a RAID-5 disks array to store the Exchange database.
Two additional servers named CONN1 and CONN2 are located at headquarters.
These servers are used for all foreign mail connectors.
They also run the Internet mail service and the key management service.
There is a PROFS connector on CONN2.
There are also two servers that are dedicated to providing Microsoft outlook web access.
They are named OWA1 and OWA2.
Currently, only the headquarters office uses outlook web access.
The hardware of these two servers has the same configuration as the hardware for the servers at the branch office. Public folders are not currently backed up.
Messaging Environment at Branch Offices:
Each branch office has two Windows 2000 advanced server computers for file and print services.
Each branch office also has a global catalog server and an exchange server 5.5 computer to meet the needs of the local office.
Most of the exchange server computers at the branch office has 128MB of memory.
These servers each have two 4-GB disks configured in a RAID-1 pair of mirrored disks to store the operating system.
Each one also has four9-GB hard disks configured in a RAID5 disk array.
On these computers, the binary files and log files are stored in one logical partition.
The database files are stored in another partition on the RAID-5 disk array.
Client computers in all branch offices run Microsoft outlook 2000 and Microsoft Internet explorer 5.
The exchange server computers at the Los Angeles and New York offices are named LosAngelesMail and NewYorkMail, respectively.
The hardware for the exchange server computers in these two offices has the same configuration as the hardware for the mailbox servers at headquarters.
The existing exchange server 5.5 environment includes a site named Far West.
This site includes the Denver, Los Angeles, Miami, Minneapolis, New York, San Francisco, Seattle, and Washington, D.C, offices.
The exchange server computer in the Brussels, Cairo, London, and Moscow offices are named BrusselsMail, CairoMail, LondonMail, and MoscowMail respectively.
These servers are all in their own exchange server 5.5 sites.
The exchange server computers in the New Delhi, Seoul, Shanghai, and Tehran office are named New DelhiMail, SeoulMail, ShanghaiMail, and TeheranMail respectively.
These servers are all in their own exchange server 5.5 sites.
Network Infrastructure:
The Litware, Inc. network diagram is shown in the exhibit. . click the exhibit button , and then click the network diagram tab.
The Moscow, New Delhi, and Tehran offices each connect to the Frame Relay service by

means of 128-Kbps satellite links.
The satellite connections temporarily become inoperable approximately twice each week.
The links between the Los Angeles and Shanghai offices, between the London and Seoul offices, and between the Cairo and Washington, D.C offices are only to provide redundancy.

Exchange 2000 Server Requirements and Goals:

Security Requirements:

The two outlook access servers, OWA1 and OWA2 require secure access.
Data encryption is required for all communications to or from the Moscow, New York, and Teheran offices. Litware, Inc. Global Address List. (GAL)
Archiving Requirements:
Backups are scheduled to occur once per week. Messages should not be saved for more than one week.
Additional backups should also be performed prior to system maintenance.
The executive system team wants to limit legal liability associated with their archived messages.
Therefore, executives' mailboxes must not be backed up.

Availability Requirements:

Litware.Inc, wants to keep the mailboxes of the executive team separate from the rest of the company's mailboxes to protect the company and to provide increased mailbox availability for the executive team.
Litware.Inc., wants to extend outlook web access to the New York and Los Angeles offices.
Currently, all internet mail is sent by means of CONN1.
Litware,Inc. plans to add two additional connector servers named CONNLA and CONNY.
The company wants to add these servers to provide greater fault tolerance for internet mail routing, in the event that CONN1 becomes available.

Interoperability Requirements:

Customers of Litware,Inc. use various e-mail systems Litware,Inc., wants to continue to communicate by using the e-mail system that is most convenient for each customer.

Goals:

The use of public folders has dramatically increased during the past four months. The company wants to achieve faster performance without adding new hardware.
At a minimum, Litware,Inc. plans to create the following routing group:
* East
* Far west
* West
Litware,Inc., wants to provide better e-mail connectivity to a new customer named Woodgrove Bank. Woodgrove Bank runs exchange server 5.5 on Windows 2000.
The connection to Woodgrove Bank is set up on CONN2. CONN2 is currently over utilized
Woodgrove Bank is considering upgrading to Exchange 2000 Server, but has not yet done any preparation work.
Litware,Inc., receives too much unsolicited commercial e-mail (UCE). The company

wants to use an automated process to reject all UCE.

Topic 7, Litware Inc (14 Questions)

QUESTION 69
How you should implement e-mail communications between Woodgrove Bank and Litware, Inc, after Exchange 2000 Server is implemented?

A. Configure Woodgrove bank users as mail-enabled contacts in the Litware,Inc, global address list. Ensure that Woodgrove Bank configures Litware,Inc, users as SMTP custom recipients in the Woodgrove Bank GAL.
B. Configure Woodgrove Bank users as mail-enabled contacts in the Litware,Inc, global address list. Ensure that Woodgrove bank configures Litware,Inc, users as contacts in the Woodgrove band Active Directory services.
C. Delegate mailbox and remote access permission for Litware,Inc, to Woodgrove Bank users. Ensure that Woodgrove bank delegates mailbox and remote access permissions to Litware,Inc. users.
D. Ensure the that each Woodgrove bank user has a mailbox and a virtual private network connection to Litware,Inc.
E. Ask Woodgrove Bank to ensure that each Litware,Inc. , user has a mailbox and a VPN connection to Woodgrove bank.

Answer: A
They tell us
Interoperability Requirements:
Customers of Litware, Inc. use various e-mail systems Litware, Inc., wants to continue to communicate by using the e-mail system that is most convenient for each customer. Litware, Inc., wants to provide better e-mail connectivity to a new customer named Woodgrove Bank. Woodgrove Bank runs exchange server 5.5 on Windows 2000. The connection to Woodgrove Bank is set up on CONN2. CONN2 is currently over utilized Woodgrove Bank is considering upgrading to Exchange 2000 Server, but has not yet done any preparation work.

Explanation:
A Contact is the Windows 2000 Active Directory representation of a user who is not a security principal (that is, the user cannot log on). A Contact may optionally have a target e-mail address and one or more Exchange Server e-mail addresses. The Exchange 2000 Server and Exchange Server 2003 concept of a Contact is the same as an Exchange Server 5.5 custom recipient Exchange Organizations have just one GAL (Global address list) from Exchange 5.5 to Exchange 2000 and Exchange 2003 is not possible to share this GAL without and external Toll this tool is called Microsoft Identity Integration Server
We can enable in either organization contacts to redirect external e-mail for other organizations
References
XCON: Sharing SMTP Address Spaces in Exchange 2000 321721
How to Configure Exchange to Forward Messages to a Foreign Messaging System

That Shares the Same SMTP Domain Name Space 319759
Windows 2000 Contacts and Users 233209

QUESTION 70
You need to decide which servers to place in the West routing group after changing Exchange 2000 Server to native mode.
Which of the following servers should be places in the West routing group?

A. BrusselsMail
B. CairoMail
C. LondonMail
D. MoscovMail
E. SeoulMail
F. ShanghaiMail
G. CONN1

Answer: A,B,C,D

Explanation:
We must configure the servers BrusselsMail, CairoMail, LondonMail, and MoscowMail as the WEST group
At a minimum, Litware,Inc. plans to create the following routing group:
* East
* Far west
* West
The exchange server computer in the Brussels, Cairo, London, and Moscow offices are named BrusselsMail, CairoMail, LondonMail, and MoscowMail respectively.

These servers are all in their own exchange server 5.5 sites.

QUESTION 71
How should you implement encryption to fulfill the requirements of Litware,Inc?

A. Configure an IP security rule to encrypt all traffic to and from the mail servers in the Moscow, New Delhi, and Tehran offices.
B. Configure the exchange server computers in the Moscow, New Delhi, and Teheran offices to use encrypted RPCs to communicate with headquarters.
C. Use exchange 2000 key management service to enable users to encrypt messages.
D. Configure users in the Moscow, New Delhi, and Tehran offices to connect to OWA1 and OWA2 by using Internet explorer 5 and SSL.

Answer: A
They tell us
Data encryption is required for all communications to or from the Moscow, New York, and Teheran offices. Litware.Inc., global address list. (GAL)

Explanation:
We can achieve this using IPSEC communication between servers
IPSEC Protection against attacks
IPSec protects data so that an attacker finds it extremely difficult or impossible to interpret it. The level of protection provided is determined by the strength of the security levels specified in your IPSec policy structure.
IPSec has a number of features that significantly reduce or prevent the following attacks:
1. Sniffers (lack of confidentiality)
The Encapsulating Security Payload (ESP) protocol in IPSec provides data

confidentiality by encrypting the payload of IP packets.
1. Data modification
IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. Any modification to the packet data alters the checksum, which indicates to the receiving computer that the packet was modified in transit.
1. Identity spoofing, password-based, and application-layer attacks
IPSec allows the exchange and verification of identities without exposing that information to interpretation by an attacker. Mutual verification (authentication) is used to establish trust between the communicating systems and only trusted systems can communicate with each other.
After identities are established, IPSec uses cryptography-based keys, shared only by the sending and receiving computers, to create a cryptographic checksum for each IP packet. The cryptographic checksum ensures that only the computers that have knowledge of the keys could have sent each packet.
1. Man-in-the-middle attacks
IPSec combines mutual authentication with shared, cryptography-based keys.
1. Denial-of-service attacks
IPSec uses IP packet filtering methodology as the basis for determining whether communication is allowed, secured, or blocked, according to the IP address ranges, IP protocols, or even specific TCP and UDP ports.
Reference
Server Help
Windows 2000 Resource Kit
Networking Services

QUESTION 72
How should you protect the exchange 2000 server computers against unsolicited commercial e-mail (UCE)?

A. Require TLS for all external connections.
B. Use reverse DNS lookups to deny connections from domains and IP addresses that transmit UCE.
C. Disable connections over Extended SMTP.
D. Modify the Active Directory schema to deny connections from domains and IP addresses that transmit UCE.

Answer: B

Explanation:
A reverse DNS lookup is used to avid spam query for the domain name to see is exist or nor, this is not a good anti spam method but work for not register domains
The site which the message is destined for is possibly using reverse zone lookups for security purposes. The Fully Qualified Domain Name (FQDN) of the Exchange Server computer does not match its InterNic-registered IP address; hence, the telnet session to the destination mail server is refused.

Reference
XIMS: SMTP Messages Not Being Delivered to Certain Domains 198981

QUESTION 73
How should you increase public folder performance for all users at Litware,Inc?

A. Restrict permissions to allow only managers to create public folders.
B. Replicate frequently used public folders to additional servers.
C. Restrict permissions to allow only managers to create objects in public folders.
D. Regulate the number of public folders by setting age limits for public folders.

Answer: B

Explanation:
The best way to achieve better performance for the most used public folder is to configure a replicate in the local servers where the mailbox reside
Exchange supports multiple public folder hierarchies; each hierarchy (or tree) is stored in a public folder store. The default server installation includes one public folder store that contains one public folder hierarchy. Figure 26.1 shows a graphical representation of the Exchange 2000 architecture, including the Extensible Storage Engine, Web Storage System, Exchange Interprocess Communication Layer (ExIPC), and IIS, and their underlying components.

QUESTION 74
You change Exchange 2000 server to native mode. How should you delegate administrative authority to the IT staff in the Los Angeles office?

A. Delegate all Exchange 2000 Resources to the Los Angeles office.
B. Delegate Exchange 2000 Resources in the Denver, San Francisco, and Seattle offices to the Los Angeles office.
C. Delegate Exchange 2000 Resources in the Denver, San Francisco, Seattle, and Washington D.C offices to the Los Angeles office.

D. Delegate no exchange 2000 resources to the Los Angeles office.

Answer: B

Explanation:
They headquarters in Los Angeles and New your have IT staff and also provide backup support for Seattle, San Francisco, and Denver offices in this way we need to delegate the administration of this sites to Los Angeles office
They tell us
Administrative Model:
The executive committee at the Washington, D.C., headquarters makes all company-wide decisions Technology decisions for all offices are also made at headquarters.
These company-wide functions are performed at the headquarters office:
o Administration
o Accounting
o Human resources
o IT
The Los Angeles and New York offices each have a staff of ten IT people who are responsible for local user needs.
The responsibilities of this staff include the creation and deletion of user accounts, LAN troubleshooting, and client-computer decisions.
The IT staff in the Los Angeles office also provides backup support for the Seattle, San Francisco, and Denver offices.
Each of the other branch offices has an IT staff of three people who are responsible for resetting local passwords, creating local accounts, and turning on and off the local routers.

QUESTION 75
How should you implement Exchange 2000 Server at headquarters to meet the needs of the executive team?

A. Cluster the Exchange 2000 Server computers for the executive team's mailboxes.
B. On one of the existing mailbox servers, add a new public-store database for the executive team.
C. On one of the existing mailbox servers, add a new mailbox-store database for the executive team.
D. On one of the existing mailbox servers, add a new storage group for the executive team.

Answer: D
The tell us
Availability Requirements:
Litware.Inc, wants to keep the mailboxes of the executive team separate from the rest of the company's mailboxes to protect the company and to provide increased mailbox availability for the executive team.

Explanation:
The best way to achieve this requirement is to configure a new storage group with a new mailbox store just for executives

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QUESTION 76
How should you configure OWA1?

A. As a connector server.
B. As a front-end server.
C. As a bridgehead server.
D. As a back-end server.

Answer: B

Explanation:
The own name of the server tell to you the answer OWA (Outlook Web Access)
Front end server
They tell us
The two outlook access server OWA1 and OWA2 require secure access

---

QUESTION 77
The existing mail server configuration for Litware,Inc., is shown in the exhibit.

How should you deploy routing groups for the mail servers in native mode?

A. Place the NewDelhiMail, SeoulMail, ShanghaiMail, TeheranMail servers in separate routing groups.
B. Place the SeoulMail, ShanghaiMail, and TeheranMail servers in the East routing

group. Place the NewDehliMail server in a separate routing group.
C. Place the NewDehliMail, SeoulMail, and ShanghaiMail servers in the East routing group. Place the TeheranMail server in a separate routing group.
D. Place the SeoulMail and ShanghaiMail servers in the East routing group. Place the NewDehliMail and the TeheranMail servers in separate routing groups.

Answer: D

Explanation:
Based on the graphic, and because the have just a west group for all these countries best fit will be to create a separate group for TeheranMail and NewDehliMail all these group are in the same frame relay line

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QUESTION 78
What should you configure the MX records to fulfill Litware, Inc. Exchange 2000 Server requirements?

A. MX 10 CONN1
MX 20 CONNNY
MX 30 CONNLA
B. MX 10 CONNLA
MX 20 CONN1
MX 30 CONNNY
C. MX 10 CONNNY
MX 20 CONN1
MX 30 CONNLA
D. MX 10 CONNNY
MX 20 CONNLA
MX 30 CONN1

Answer: A
They tell us
Two additional servers named CONN1 and CONN2 are located at headquarters.
These servers are used for all foreign mail connectors.
Litware, Inc. wants to extend outlook web access to the New York and Los Angeles offices.
Currently, all internet mail is sent by means of CONN1.
Litware, Inc. plans to add two additional connector servers named CONNLA and CONNY.
The company wants to add these servers to provide greater fault tolerance for internet mail routing, in the event that CONN1 becomes available.
The connection to Woodgrove Bank is set up on CONN2. CONN2 is currently over utilized

Explanation:
We need to setup CONN1 and CONN2 and two additional connector servers named

CONNLA and CONNY to provide fault tolerance also the connection CONN2 is currently over utilized
In this way we set a different MX cost to the principal server cost 10 and secondary for redundancy CONNLA cost 20 and CONNY cost 30
Mail Exchanger (MX) is used for mapping a DNS domain name to the name of a computer that exchanges or forwards mail.
Reference
DNS help
Exchange Server Help

QUESTION 79
How should you change the Litware, Inc. Outlook web access design after all servers are updated to Exchange 2000 Server?

A. Use OWA1 and OWA2 as front-end servers for all mailbox servers for the Far West Windows 2000 site.
B. Use OWA1 as front-end servers for EXSERVER1 and EXSERVER2.
Use OWA2 as front-end servers for LosAngelesMail and NewYorkMail.
C. Use OWA1 and OWA2 as front-end servers for EXSERVER1 and EXSERVER2.
Use OWA3 as front-end servers for LosAngelesMail
Use OWA4 as front-end servers for NewYorkMail.
Locate both new servers at headquarters.
C. Use OWA1 as front-end servers for EXSERVER.
Use OWA2 as front-end servers for EXSERVER2.
Use OWA3 as front-end servers for LosAngelesMail
Use OWA4 as front-end servers for NewYorkMail.
Locate both new servers at headquarters.

Answer: C
They tell us
The Washington D.C headquarters office has two exchange server computers that are used for mailboxes.
These servers are named EXSERVER1 and EXSERVER2.
The two outlook access servers, OWA1 and OWA2 require secure access.
Litware.Inc., wants to extend outlook web access to the New York and Los Angeles offices.
They are named OWA1 and OWA2. Only headquarters office use outlook web access
There are also two servers that are dedicated to providing Microsoft outlook web access.

Explanation:
They already have two servers for OWA, they need two more for New York and Los Angeles offices,.

QUESTION 80
DRAG DROP

You need to design server and hardware disk configurations for greater fault tolerance and faster throughout for the Exchange 2000 Server computers at headquarters. Move each hardware configurations to the appropriate server. (Use all hardware configurations. Use each hardware configuration only once)
Washington, D.C Exchange 2000 Server Computers
Hardware Configurations
Collapse
EXSERVER1
CONN1
OWA1
<<Move
Remove>>
256 MB RAM, 18-GB HardDrive
2GB RAM, 2x18-GB Mirror, RAID 1+0 Array
512 MB RAM, 2x18-GB Mirror

Answer:

Explanation:
They have other server configuration but because they tell us, you can use each configuration just once this is less stupid configuration,
Also all the mail will flow to CON1. We need at least a mirror here
NOTE: They tell us that OWA1 and OWA2 have the same hardware as the branch office servers
Branch offices server run
128 MB Memory
4 disks configured in raid 1 than mean
2 disk one raid 1
2 disk one raid 1
5 disk in Raid 5
CON1 also this configuration
ExServer1 and ExServer2 run
256 MB memory
4 disk in pair mirror that mean
2 disk one raid 1
2 disk one raid 1
5 disk in raid 5

QUESTION 81
You change Exchange 2000 Server to native mode. How should you delegate administrative authority to the IT staff in the Los Angeles office?

A. Delegate all Exchange 2000 Resources to the Los Angeles
B. Delegate Exchange 2000 Resources in the Denver, San Francisco and Seattle offices to the Los Angeles office
C. Delegate Exchange 2000 Resources in the Denver, San Francisco, Seattle and Washing D.C offices to the Los Angeles office
D. Delegate no Exchange 2000 Resources to the Los Angeles Office.

Answer: B

Explanation:
They headquarters in Los Angeles and New your have IT staff and also provide backup support for Seattle, San Francisco, and Denver offices in this way we need to delegate the administration of this sites to Los Angeles office
They tell us
The executive committee at the Washington, D.C., headquarters makes all company-wide decisions Technology decisions for all offices are also made at headquarters.
These company-wide functions are performed at the headquarters office:
o Administration
o Accounting
o Human resources
o IT
The Los Angeles and New York offices each have a staff of ten IT people who are responsible for local user needs.
The responsibilities of this staff include the creation and deletion of user accounts, LAN troubleshooting, and client-computer decisions.
The IT staff in the Los Angeles office also provides backup support for the Seattle, San Francisco, and Denver offices.
Each of the other branch offices has an IT staff of three people who are responsible for resetting local passwords, creating local accounts, and turning on and off the local routers.

QUESTION 82
DRAG DROP
The existing mail server network configuration for Litware, Inc is shown in the exhibit.

Brussels
1.54 Mbps
West Frame
Relay
London
1.54 Mbps
Cairo
1.54 Kbps
Tehran
121 Kbps
New Delhi
121 Kbps

You need to decide which servers to place in the west routing group after changing Exchange 2000 Server to native mode. Move the appropriate servers to the west routing group pane. (Use only servers that apply. The order of the servers is unimportant.)
West Routing Group
Exchange 2000 Server Computers
Collapse
BrusselsMail
CairoMail
LondonMail
MoscowMail
SeoulMail
ShanghaiMail
CONN1
<<Move
Remove>>

Answer:

Explanation:
They tell us
We must configure the servers BrusselsMail, CairoMail, LondonMail, and MoscowMail as the WEST group At a minimum, Litware,Inc. plans to create the following routing group: East, Far west, West
The exchange server computer in the Brussels, Cairo, London, and Moscow offices are named BrusselsMail, CairoMail, LondonMail, and MoscowMail respectively.
These servers are all in their own exchange server 5.5 sites.

Topic 8, Fabrikam Inc, Scenario

Background:
Introduction:
You are hired to provide design and deployment consulting services to Fabrikam Inc.
You need to evaluate the company's existing messaging infrastructure, access current and future business needs, and design and deploy Exchange 2000 Server in the company's environment.
You also need to implement the Microsoft Windows 2000 infrastructure that will be needed for exchange 2000.
Company Profile:
Fabrikam Inc. is an internet service provider that recently became a subsidiary of a larger parent organization.
Fabrikam Inc. has 14 offices throughout the United State.
Company headquarters is in Chicago. Other company offices are located in the following cities:
* Atlanta
* Cincinnati
* Dallas
* Denver
* Detroit
* Kansas city
* Los Angeles
* Miami
* Minneapolis
* New York
* Phoenix
* Seattle
* Washington, D.C
Business Plan:
Fabrikam Inc. will continue to provide internet access services.
The parent organization also wants Fabrikam Inc. to be an application service provider that provides messaging and collaboration services to businesses that have from 50 to 1,000 users.
Fabrikam Inc. must have a scalable server and messaging infrastructure that will accommodate planned company growth.
Fabrikam Inc. plans to offer varying levels of minimum downtime and recoverability,

customized according to customer need and cost to the customer.
Fabrikam Inc. will also provide application-development services as a part of its web hosting services. These development services will be applied to messaging if needed by the customer. To support interoperability, the messaging system will provide standards-based services to the customer.
Services Provided:
Basic Services:
Fabrikam Inc. will offer the following services:
* Message hosting services
* Support for standards-based messaging client software
* Support for Microsoft Outlook
* Dial-up dedicated internet access at speeds up to 45Mbps
* DNS hosting
* E-commerce and web site hosting and development
* Public-folders hosting
* Collaboration services including Chat, Instant Messaging, and online conference capabilities
* Secure web access
* X.509 certificate services.
Service Levels Provided:
Fabrikam Inc. will off two service levels for message hosting and web site hosting gold and bronze.
Gold-Level Service:
* Will be more expensive than bronze level service
* Will provide a unique domain name
* Will ensure a maximum of one hour of downtime per year
* Will guarantee that no more than the most recent four hours of data will be lost, in the event of catastrophic system failure or natural disaster.
* Will provide the customer with a customized SMTP e-mail domain
Bronze-Level Service:
* Will provide an economy level service
* Will provide web pages on fabricam.com
* Will ensure a maximum of 24 hours of downtime per year.
* Will guarantee that no more than the recent 24 hours of data will be lost in the event of catastrophic system failure or natural disaster
* Will provide the customer with an e-mail address at the fabricam.com SMTP e-mail domain.
Both levels of message hosting services will be set up to allow each customer to assign personnel to create and manage mailboxes and the user properties associated with them.
Technical Support Structure:
Human Resources:
There will be a technical support staff at each Fabrikam Inc. office
A centralized IT staff at the Chicago office will provide support for the entire company and will be available 24 hours a day, seven days a week.
The centralized IT staff will consist of five IT teams. Each the five teams will have sole responsibility for one of the following tasks:

* Administer the Windows 2000 Server computers
* Manage the Exchange 2000 Server implementation
* Manage the Web Sites
* Perform custom web development
* Manage the connectivity between all company offices, the UNIX-based Web servers, and the DNS infrastructure.

During the Windows 2000 and Exchange 2000 Server implementation and deployment, one administrator will be a member of the schema administrator's security group, the enterprise administrator's security group, and the domain administrator security group.
Neither the enterprise administrator nor any of members of the domain administrator security group will manage Exchange 2000 Server.
The exchange 2000 administrators will be in the domain administrator's security group.
Server Infrastructure:
The new Windows 2000 infrastructure will consists of one domain. Initially, there will be at least two Exchange 2000 Server computers at each office.
The services that are provided to each customer will be hosted from one specific office.
All documents that need to be available to all customers will be created as web page on the Fabrikam Inc. Web server.
All IT infrastructures will be designed to minimize cost and administration Exchange 2000 Server computers will be designed to optimize fault tolerance, performance, and security.
Only required ports will be opened on the firewalls.
The IT infrastructure at all Fabrikam Inc. offices will be designed to allow customers to access their e-mail servers even if the WAN connections to the Fabrikam Inc. office are not functioning.
Exchange public folders will be created for each customer who wants them.

Name Resolution;

Fabrikam Inc. will be hasting many web sites and DNS domains for its customers.
Currently, the company has two UNIX-based BIND DNS servers.
One of these servers is in the Chicago office and one is in the Denver office.
The Chicago office hosts the primary zones, and the Denver office hosts the secondary zones.
The existing DNS servers support SRV records and dynamic update.

Network Infrastructure:

All Fabrikam Inc. offices will be connected by means of a partial-mesh topology of 45-Mbps links, as shown in the exhibit.
Click the exhibit button, and then click the network diagram tab.
There will be two connections to the Internet.
One of these connections will be in the Chicago office, and one will be in the Denver office.
Each company office will have two firewalls that are deployed as shown in the exhibit.
Click the exhibit button, and then click the Internet connection diagram tab.
Network Diagram
** MISSING ***
Internet Connection Diagram

** MISSING **

Topic 8, Fabrikam Inc (10 Questions)

QUESTION 83

You are working with the Windows 2000 design team to design the implementation of DNS for Fabrikam Inc. how should you recommend that DNS complemented?

A. Move the DNS from the UNIX-based servers to Windows 2000. Add a Windows 2000-based DNS server at each office that does not currently have one. Use Active Directory integrated zones for all zones. Create an MX record for fabrikam.com
B. Move the DNS from the UNIX-based servers to Windows 2000. Continue to use the UNIX-based BIND DNS servers in the Chicago and Denver offices. Use Active Directory integrated zones for all zones. Create an MX record for each domain that will be represented on the Fabrikam Inc. internet mail servers.
C. Continue to use the UNIX-based BIND DNS servers in the Chicago and Denver offices. Configure all primary DNS zones on the DNS server in the Chicago office, and configure the secondary DNS zones on the DNS server in the Denver office. Create an MX record for fabrikam.com
D. Continue to use the UNIX-based BIND DNS servers in the Chicago and Denver offices. Add a UNIX-based BIND DNS server at each office that does not currently have one. Configure all primary DNS zones on the DNS server in the Chicago office, and configure the secondary DNS zones on the DNS servers in the other offices. Create an MX record for each domain that will be represented on the Fabrikam Inc. Internet Mail Servers.

Answer: B

Explanation:
They Tell us
Name Resolution;
Fabrikam Inc. will be hasting many web sites and DNS domains for its customers.
Currently, the company has two UNIX-based BIND DNS servers.
One of these servers is in the Chicago office and one is in the Denver office.
The Chicago office hosts the primary zones, and the Denver office hosts the secondary zones.
The existing DNS servers support SRV records and dynamic update.
A centralized IT staff at the Chicago office will provide support for the entire company and will be available 24 hours a day, seven days a week.
Manage the connectivity between all company offices, the UNIX-based Web servers, and the DNS infrastructure.

Explanation:
Only one way that propose to use Windows 2000 as DNS server is answer B, (MS like this move out their competitors also in the exams).
They can continue using UNIX-based BIND DNS servers in the Chicago and Denver offices.

SOA and NS record will be there for the new zones and for services that Fabrikam will provide they will use Active Directory integrated zones for all zones. They also will need to create an MX record for each domain that they implement in their hosted solution for new customers

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QUESTION 84
How should you design the placement of domain controllers and global catalog servers?

A. Place one domain controller in each office. Configure the domain controllers in only the Chicago and Denver offices as global catalog servers.
B. Place two domain controllers in each office. Configure the domain controllers in only the Chicago and Denver offices as global catalog servers.
C. Place one domain controller in each office and configure them as global catalog servers.
D. Place two domain controllers in the Chicago office, and place two domain controllers in the Denver office. Configure one of the domain controllers in each of these offices as a global catalog server.

Answer: C

Explanation:
They tell us
Company headquarters is in Chicago. Other company offices are located in the following cities: Atlanta, Cincinnati, Dallas, Denver, Detroit, Kansas city, Los Angeles, Miami, Minneapolis, New York, Phoenix, Seattle, Washington, D.C

Explanation:
They are going to implement Exchange, Exchange need to query to a domain controller who also needs to be Global Catalog, in this way they need to put at least on DC and CG for each location
In this way you can not choose A, B, and D

QUESTION 85
For which customers are the e-mail service offerings that are hosted at Fabrikam Inc. appropriate? (Choose all that apply)

A. Customers that have 768Kbps DSL connections and who want to post to newsgroups or send via e-mail documents that are associated with more than one application.
B. Customers who have connections of 56-Kbps or slower and who frequently want to post to newsgroups or send via e-mail documents that are larger than 2MB.
C. Customers who have 128-Kbps two-channel ISDN connections and who usually access their e-mail by using HTTP.
D. Customers who do not currently use Windows client computers.
E. Customers who currently use network address translation to gain access to the Internet.

Answer: A, C

Explanation:
They tell us
Those provide Gold and Bronze Service Level Agreements that provide Secure Web access

Explanation:
B is discarded just think about sending documents that are larger than 2MB over a line of 56-Kbps or slower
D is difficult to provide a service to people that not have computer
E there is not a good reason just that a customer use NAT to host their services this is provably a share connections using NAT services, which mean poor line

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QUESTION 86
What should you do to provide fault tolerance for public folders for Bronze-level customers?

A. Perform a backup of the public folder store every 12 hours.
B. Replace each public folder to an Exchange 2000 Server computer in a separate office.
C. Provide a two-node cluster for running the Exchange 2000 Server computer that hosts the public folders.
D. Implement a host standby backup of the Exchange 2000 Server computer on a server in a separate office.

Answer: C

Explanation:
They do not offer to us a solution based on replication, so best solution is to implement a cluster, this is not a totally protection but they have a 24 hours of time in the case of a catastrophic system failure or natural disaster

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QUESTION 87
How should you design storage and backup?

A. For gold-level customers, perform a full backup every four hours.
For bronze-level customers, perform an offline backup every 24 hours.
Create a mailbox store for each customer, and set a maximum of 500 users for each store.
Set a default maximum size of 50MB for each mailbox.
B. For gold-level customers, perform a full backup every four hours.
For bronze-level customers, perform a full backup every 24 hours.
Create an appropriate number of mailbox stores for each customer, and set a maximum of 250 users for each store.
Set a default maximum size of 100MB for each mailbox.

C. For gold-level customers, perform a full backup every four hours.
For bronze-level customers, perform an offline backup every 24 hours.
Create a appropriate number of mailbox stores for each customer, and set a maximum of 250 users for each store.
Set a default maximum size of 100MB for each mailbox.

Answer: B

Explanation:
They need to get adequate SLA service for Gold this customer needs a backup every four hours.
They need to get adequate SLA service for Bronze needs one backup every 24 hours.
They set a maximum of 250 users for each store. Good for online backups good for restore
This eliminates A and C.

QUESTION 88
Which two actions should you perform to implement e-mail for customers who want to have their own e-mail domain? (Choose two)

A. Create a new POP3 virtual server to host the customer's domain.
B. Create a new SMTP virtual server to host the customer's domain.
C. Create a new web site to host the customer's domain.
D. Create a new recipient policy to add the appropriate domain alias to the SMTP address for each mailbox user.
E. In the DNS zone file for the customer's zone, create an A record that points to the SMTP virtual server that hosts the customer's domain.
F. In the DNS zone file for the customer's zone, create an MX record that points to the Fabrikam Inc. mail server that hosts the customer's domain.
G. In the DNS zone file for the customer's zone, create a CNAME record that points to the Fabrikam Inc. mail server that hosts the customer's domain.

Answer: D, F

Explanation:
We can get this by apply a recipient SMTP address policy any group storage, also we will need a MX record for that domain, to permit to exchange to routing the mail follow to the adequate recipient
Reference
XIMS: How to Receive Messages for Two SMTP Domains Using Exchange 2000
289833

QUESTION 89
Which three business requirements should have the greatest influence on your Exchange 2000 Server design for Fabrikam Inc.? (Choose Three)

A. Requirements to provide for availability of customer data.
B. Requirements to provide for recovery of customer data.
C. Requirements to provide for secure access to customer data from several different types of messaging software.
D. Requirements to provide custom development services for web customers and messaging customers.
E. Requirements to provide Internet services and message-hosting services from a single IT infrastructure.
F. Required time for implementation of Fabrikam Inc. e-mail infrastructure.

Answer: A, B, E

Explanation:
They base part of their business in provides in provide access even in the Fabrikam Wan fail answer A is valid
They base part of their business in provides data recovery answer B is valid
They do not speak about a single infrastructure they are in 15 locations with communications redundancy require coordination and more answer E is valid
They need to provide the following services
* Will provide a unique domain name
* Will ensure a maximum of one hour of downtime per year
* Will guarantee that no more than the most recent four hours of data will be lost, in the event of catastrophic system failure or natural disaster.
* Will provide the customer with a customized SMTP e-mail domain
They ask to us about three business requirements not technical
They do not speak to provide third party software to access mail this discard answer C
To develop any application is not a business requirement this discard answer D
Time to provide the service is a factor for business but not critical they need first go on line this discard answer F

QUESTION 90
How should you implement fault tolerance to recover from database corruption for Gold Service customers?

A. Divide the messaging database among more than one storage group
B. Run Exchange 2000 Server on a two-node cluster
C. Use a hot standby server to provide backup.
D. Place the messaging database on a hardware-based RAID 5 disk array

Answer: A

Explanation:
The best way to protect data is to split all the storage groups in different arrays in this way we can put each database of the storage group in Raid 0+1 will also we need to put the entire transaction logs for the storage group in another array raid 1 for. This prevent the database corruption,

They do not ask for server protection in this case this discard B.
To have a recovery server is not a viable solution here to much time
To have database in Raid 5 protect from a disk fail not database corruption

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QUESTION 91
How should you design the placement of Windows 2000 support services for Fabrikam Inc.?

A. Continue to use the DNS server service at the Chicago and Denver office.
At each of the 14 Fabrikam Inc. offices, place the domain controllers and the Exchange 2000 Server computers on the internal network.
Place a front-end server for HTTP, SMTP, IMAP, and POP3 on the perimeter network.
To support VPN connections, enable Routing and Remote access on a server on the perimeter network.
B. Continue to use the DNS server service at the Chicago and Denver office. At each of the 14 Fabrikam Inc. offices, place the domain controllers and the Exchange 2000 Server computers on the internal network. Place a front-end server for HTTP, SMTP, IMAP, and POP3 on the external network, outside both firewalls. To support VPN connections, enable Routing and Remote access on a server on the perimeter network and one connection on the internal network.
C. Implement the DNS server service at each office that does not currently have it. At each of the 14 Fabrikam Inc. offices, place the domain controllers and the Exchange 2000 Server computers on the internal network. Place a front-end server for HTTP, SMTP, IMAP, and POP3 on the perimeter network. To support VPN connections, enable Routing and Remote access on a server on the perimeter network.
D. Implement the DNS server service at each office that does not currently have it. At each of the 14 Fabrikam Inc. offices, place the domain controllers and the Exchange 2000 Server computers on the internal network. Place a front-end server for HTTP, SMTP, IMAP, and POP3 on the external network, outside both firewalls. To support VPN connections, enable Routing and Remote access on a server on the perimeter network and one connection on the internal network.

Answer: C

Explanation:
By providing DNS in each office we provide fault redundancy
By placing domain controllers in each location we have logon capacity
By placing front end servers we provide access including if the WAN fail
To support VPN access we need to enable Routing and Remote access on a server on the perimeter network, not the best solution for hosting services but work
Incorrect Answers
The answer A propose to keep just two DNS servers in Chicago and Denver wrong to provide fault tolerance for DNS
The solution offer in Answers B and D propose placing the front end servers outside the firewalls wrong solution and insecure

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QUESTION 92
How should you design the server disk configuration for Fabrikam Inc.?

A. Create four partitions on a single hardware based RAID 5 disk array.
Place Operating System on the first partition.
Place each transaction log on it own partition.
Place each store on it own partition.
B. Create four partitions on a single Microsoft Windows 2000 RAID 5 volume.
Place the operating system on the first partition.
Place each transaction log on its own partition
Place each store on it own partition.
C. Place the operating system on mirrored disks.
Place each transaction log on a set of mirrored disks.
Place each storage group on a dedicated hardware based RAID 5 controller.
D. Place the operating system on the mirrored disks.
Place each transaction log on the set of mirrored disks
Place each storage group on five disks grouped together as Microsoft Windows NT raid 5 volume.
E. Place the operating system on a single disk.
Place each transaction log on its own disk.
Place each storage group on the dedicated hardware based RAID 5 controller

Answer: C

Explanation:
C is valid, support binaries in one array, support transaction logs in one array, support each storage group in one array 5 (Raid 0+1 will be better)
Incorrect answers
A and B are wrong just do partition of a single volume
D bad performance binaries and databases together
E do not support fail disk for binaries and transaction logs

Topic 9, Arbor Shoes, Scenario

Introduction:
You are implementing a messaging situation for a company named arbor shoes.
The company is upgrading its current mainframe-based e-mail environment to Exchange 2000 Server.
The company does not plan to retain any information from the old messaging system.
The new system will provide messaging services to company headquarters, distribution centers, and retail stores.
Background:
History:
Arbor shoes are a distributor or brake shoes and brake-related components for automobiles and large trucks.
It has 110 retail stores and site distribution centers throughout the United States.
The company headquarters is located in Boston.

Company Profile:
An arbor shoe sells its products directly to automotive repair facilities.
The company also sells products at company retail stores.
Arbor shoes employ approximately 8,500 people nationwide.
Its Boston headquarters employs 2,000 people.
The company has distribution centers in the following cities:
* Boston
* Chicago
* Dallas
* Los Angeles
* Miami
* Seattle
Each distribution center has 500 to 750 employees.
Each retail store has 10 to 30 sales clerks and two retail managers.
Sales clerks usually are employed at arbor shoes for less than a year.
The IT department is located at headquarters. Each distribution center has three to five IT personnel on site who are skilled in the day-to-day IT operations of the distribution centers.
Business Plan:
Arbor shoes plans to expand the business aggressively to opening 25 new retail stores each year in new regions, including international stores.
The company also wants to expand into markets such as aviation, farm implements, and heavy equipment.
Factors that Influence Business Strategies:
Most of the company's administration and strategic planning occur at Boston headquarters.
Arbor shoes wants to improve administration, reduce costs, and support innovative ideas and new opportunities for growth.
Existing IT environment:
Directory Design:
Arbor shoes have one domain namespace, which is named arborshoes.com.
The company is running Microsoft Windows 2000 in native mode.
There is a single Windows 2000 site named ArborShoes.
There are three top-level Organizational Units within the ArborShoes site:
* Corporate
* Distribution centers
* Retail stores
Departments at headquarters are set up as separate OUs within the corporate OU.
Each distribution center is set up as a separate OU within the distribution centers OU.
Each distribution center OU also contains OUs for separate departments.
Each retail store is set up as a separate OU within the retail stores OU.
Messaging Requirements:
Arbor shoes frequently communicate by using e-mail.
Usually, SMTP mail is used, and it is used over the Internet.
Retail managers receive their e-mail from the corporate mainframe computer.
Sales clerks do not have e-mail and do not have access to the Internet.

All inbound and outbound e-mail is forwarded to an SMTP smart host that belongs to the company's Internet service provider.
The ISP provides virus scanning services over a gateway. However, the ISP is not currently routing SMTP mail through this mail gateway.
Network Infrastructure:
A Frame Relay network is used to connect all company locations.
Distribution centers by means of 512-Kbps links.
Retail stores connect by means of either 65-Kbps links or 128-Kbps links.
Pricing information for the retail products is stored on three older mainframe computers at headquarters.
Employees in the retail stores can scan a product and quickly find out pricing information and product availability.
These mainframe computers will remain functional.
Arbor shoes have recently implemented a T1 connection to the internet.
Network traffic is steady, but it consumes only 8Kbps.
Global catalog servers are located only at Boston headquarters.
Each retail store has a Windows 2000 Server computer the functions as a file and print server.
Each of these servers is a Pentium Pro 266-MHz computer that has 128MB of memory and two 8GB disks in mirrored configuration.
Each distribution center has two domain controllers.
Arbor shoes have an internal-only DNS server named CorpDNS1. the company also has a DNS server named CorpDNS2, which is in a perimeter network that is connected to the internet.
Exchange 2000 Server Requirements and Goals:
Security Requirements:
Arbor shoes want to have a secure connection to the internet. The company wants to protect SMTP mail from attacks from the Internet.
Archive Requirements:
Arbor shoes needs to implement a backup plan. Storage and archiving of data are important to the company. The company wants to have frequent, reliable backups.
Availability Requirements:
Servers in retail stores must be available during the stores standard business hours.
The company is investigating high-availability solutions.
The IT personnel at the distribution centers need to be able to change storage-group configurations.
IT staff is not available to administer computer and accounts at retail stores.
Cash registers in retail stores run a local sales application on Windows 2000.
His cash registers must be able to process sales whether or not the network is available.
Reliable messaging connectivity to customers is important.
Interoperability Requirements:
Arbor shoes needs to be able to send e-mail SMTP recipients over the Internet.
The company wants to implement other forms of communication to its customers by using the Internet.
Goals:
Arbor shoes want to improve communications among employees in retail stores by

implementing a messaging solution.
Each distribution center will have its own exchange mailbox server.
The servers will have the following names:
* BostonMail1
* ChicagoMail1
* DallasMail1
* Los AngelesMail1
* MiamiMail1
* SeattleMail1
All retail managers need calendaring features and will be required to store messages on the exchange server computer.
Sales clerks need to be able to communicate electronically with their managers and with other sales clerk, but they do not need to store messages.
Arbor shoes will open 25 new retail stores and new distribution center in the Toronto metropolitan area within the next 12 months.
Six Exchange 2000 Server computers are currently installed at headquarters:
* CorpMail1 and CorpMail2 will house corporate mailboxes.
* CorpMail3 is an additional server that was initially used for testing mailbox load simulations in the lab.
* CorpSMTP1 will be a dedicated external SMTP connector server.
* CoprOWA1 and CorpOWA2 will be dedicated for implementing access to Microsoft Outlook Web Access.
Headquarters also has four computers that will be used as servers for Instant Messaging:
* IMHome1
* IMHome2
* IMHome3
* IMRouter1
The president of arbor shoes is receptive to customer comments and criticism in the past, comments came directly to her mailbox.
Under the new mail system, she wants the comments to be initially viewed by a Comment Committee: through she will occasionally view some of the comments herself.

Topic 9, Arbor Shoes (11 Questions)

QUESTION 93
How should you implement a messaging client software solution for Arbor Shoes?

A. Configure Outlook 2000 for retail managers to connect to Exchange 2000 Server computers at the distribution centers. Ensure that employees at the distribution centers and at headquarters use only Outlook Express.
B. Configure Outlook 2000 for retail managers to connect to Exchange 2000 Server computers at the distribution centers. Ensure that employees at the distribution centers and at headquarters use Outlook 2000.
C. Configure Outlook express 2000 for retail managers to connect to Exchange 2000 Server computers at the distribution centers. Ensure that employees at the distribution centers and at the headquarters use Outlook 2000.
D. Configure Outlook express for retail managers to connect to Exchange 2000 Server

computers at the distribution centers. Ensure that employees at the distribution centers and at headquarters use only outlook web access.

Answer: B
Arbor Shoe wants to improve administration an reduce cost they achieve this using just one mail client Arbor shoe wants calendar support for this reason fit the requirements and discard A, C and D

QUESTION 94
How should you implement the Exchange 2000 Server administrative model for each distribution center?

A. Implement group policies
B. Create Windows 2000 sites
C. Create administrative groups
D. Create routing groups

Answer: C

Explanation:
They have different kind of privileges the best situation for this is to base part of policy in using administrative groups

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QUESTION 95
Which changes should you make to the network to accomplish Exchange 2000 Server?

A. Implement additional global catalog servers at each distribution center.
B. Implement additional DNS servers at each distribution center.
C. Implement additional WINS servers at each distribution center.
D. Implement additional domain controllers at each distribution center.

Answer: A
In we thing just about to provide a better Exchange response we can think in provide more global catalog servers. They just have a file printer server in retails stores also because distribution center have domain controllers they need DNS this solution will provide DNS redundancy

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QUESTION 96
How should you design a messaging solution to fulfill the customer-comment requirements?

A. Create a mail-enabled group for receiving customer comments. Add the company president to this group. Limit the users who can send messages directly to the president's mailbox.
B. Implement a public folders solution that allows customers to post comments

anonymously and that allows the company president and comment committee members to read the comments at their convenience.
C. Implement a chat server that customers can use to log on and post comments in real time. Deploy chat client software to the company president and to members of the Comment Committee.
D. Create a mail-enabled group for receiving customer comments. Add the company president to this group. Use rules and fibers to drop these messages into another folder.

Answer: B

Explanation:
They can enable mail-enabled groups but is not necessary to do that this discard answers A and D
Implementing a Chat server is right but is more administrative overhead.
They can put public folder and exposed this folder in their web site so comments can be left anonymously, in this way the president can view the criticism comments

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QUESTION 97
How should you configure the hardware that was previously used for CorpMail3?

A. Configure CorpMail3 to be an additional company mailbox server.
B. Configure CorpMail3 to be an Instant Messaging home server.
C. Configure CorpMail3 to be a bridgehead server.
D. Configure CorpMail3 to be a backup SMTP server.

Answer: D
They can reuse CorpMail3in Corp to be a backup SMTP server also if you look question 7 you will get the other reason to choose CorpMail3 as a SMTP backup server instead of mailbox server
They already have 4 servers for instant messaging this discard B
They do not speak about server that they are using to be bridgehead this discard C
They do not tell nothing about mailbox performance or limits so discard A also because we need a SMP server for question 7

QUESTION 98
What is required so that all retail stores can use the instant messaging servers at headquarters?

A. Network bandwidth to retail stores must be doubled.
B. A DNS server must be present in each retail store.
C. A domain controller must be present in each retail store.
D. The WAN link must be reliable and must be completely utilized.

Answer: B

Explanation:

They can put DNS service in the file printer server without performance penalty answer B is valid
Incorrect Answer
They will like to reduce cost this discard answer A
They do not would like to increase the cost they just have a file printer server in the retail stores this discard C
For messaging the wan link must be reliable, but in neither case nee to be completely utilized.

QUESTION 99
How should you design a high-availability solution to fulfill the requirements for Internet mail?

A. Implement two additional SMTP connector servers in each distribution center. Set the MX records for that server at a cost value that is higher than the MX records for CorpSMTP1. Cluster the new SMTP connector server with CorpSMTP1.
B. Implement an additional SMTP connector server at headquarters. Set the MX records for that server at a cost value that is higher than the MX records for CorpSMTP1.
C. Implement an additional SMTP connector server in each distribution center. Set the MX records for that server at a cost value that is higher than the MX records for CorpSMTP1. load-balance with the SMTP connector server at headquarters.
D. Implement an additional SMTP connector server at headquarters. Set the MX records for that server at a cost value that is higher than the MX records for CorpSMTP1. Cluster the new SMTP connector server with CorpSMTP1.

Answer: C

Explanation:
We need to put one server SMTP connector as a backup to the primary and NLB to balance the load also think about in this way they can reuse server CorpMail3 with not cost.
Incorrect Answers
We can select A as valid but one more time this solution increase the cost
They do not tell us that for that solution we need to use NLB in the fornt end servers so this discard answer B
Same reason for answer C placing another connector server at the distribution center

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QUESTION 100
How should you design a backup solution to fulfill the requirements of the distribution centers?

A. Back up Exchange 2000 Server system files and Windows 2000 system files and registry keys each night, and make weekly and monthly archives of the files.
B. Back up exchange server transaction logs and Exchange 2000 Server system files each night, and make weekly and monthly archives of these files.
C. For each Exchange 2000 Server computer, back up all files on the local hard disks

each night, and make weekly and monthly archives of these files.
D. Back up Exchange 2000 Server storage groups and system state data each night, and make weekly and monthly archives of this data.

Answer: D

Explanation:
Just see the disaster recovery requirements, the only answer that backup the system state and the storage groups is D
Exchange 2000 Disaster Recovery Process 1. Reconfigure hardware that is similar to the original hardware.
2. Create logical drives that closely match the original configuration. Although hardware does not always need to be identical, be aware that some drivers that are listed in the backup set may be incompatible with hardware on the new systems, and may require you to manually remove or install drivers in Safe mode. Test the system state restoration on replacement hardware before you actually need to perform a system state restoration.
3. Reinstall the operating system. Install the same version of Windows 2000 Server (Windows 2000 Server, Microsoft Windows 2000 Advanced Server, or Microsoft Windows 2000 Datacenter Server) as a stand-alone server to the same drives and paths to which Windows 2000 Server was previously installed, and use the same server names that were used before.
4. Restore full drive backups. In rare cases, you may need to restore a system state backup before you restore full drive backups. Perform a "drill" before an actual emergency occurs to determine if you have any applications with this requirement. If you have made disk image backups, if you restore those disk image backups, you may be able to skip reinstallation of the operating system and restoration of other backups.
5. Restore system state backups. Restore and restart domain controllers first so that member servers have a logon server and access to Active Directory. By restoring the system state, you have restored Active Directory and the IIS metabase.
6. Reinstall Exchange 2000 by using the /disasterrecovery switch.
The disaster recovery mode in Setup reads Active Directory and restores as many previous settings as possible. For example, database paths are stored in Active Directory, and are set correctly, regardless of whether you install Exchange 2000 program files to the previous locations.
If you restore full drive backups and system state information, you may not need to run Setup with the /disasterrecovery switch. The local Exchange 2000 installation may be completely functional already.
When you use the /disasterrecovery switch, you must manually select all the components that were previously installed on the server.
7. Restore Exchange 2000 databases, including information store and ancillary databases, such as the SRS and KMS databases.

QUESTION 101
DRAG DROP

Answer:

Explanation:
Headquarters and Distribution Center have their own Exchange server they will use Outlook 2000.
Retail Managers need rich calendaring features and storage mail in the servers so they

need Outlook 2000,
Also think in the lines (64kbs or 128 kbps) in that case OWA is better and provide calendaring, Calendar functions are not as rich in OWA as in Outlook but may be enough or not, in we just think rich we must choose outlook in we think in the lines OWA
They also want to improve communications among employees in retail stores so they need messaging.
Sales clerk do not have e-mail and do not have access to internet, they just need to communicate electronically with their managers in that case messaging is enough

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QUESTION 102
How should you implement fault-tolerance for Arbor Shoes?

A. Implement clustering for the public folder servers. Use network Load Balancing on the front-end servers.
B. Use replication for the public folders. Use network Load Balancing on the front-end servers.
C. Use replication for the public folders. Implement clustering for the front-end servers.
D. Implement clustering for the front-end servers. Implement clustering for the public folder servers.

Answer: A

Explanation:
Cluster solution will provide a failover solution for Public folders, Front end servers NLB Enabled will provide failover for internet access
Incorrect Answers
B can be but use network for replication
C you can not cluster front end servers just NLB, front end servers do not have public folder or mailbox stores
D We can not cluster front end servers just NLB

QUESTION 103
How should you design Exchange 2000 Server environment to fulfill the messaging requirements of the retail stores?

A. Implement and install Exchange 2000 Server on an additional server in each retail store. Add global catalog at each retail store.
B. Place the retail managers' mailboxes onto the existing Exchange 2000 Server computers at all of the distribution centers and at headquarters, and upgrade the bandwidth.
C. Place the retail managers' mailboxes onto the existing Exchange 2000 Server computers at the closest distribution centers and at headquarters, and do not upgrade the bandwidth.
D. Upgrade the hardware on the existing Windows 2000 Server computers, and install Exchange 2000 Server on these servers. Add global catalog at each retail store.

Answer: C

Explanation:
Because in the retail stores they do not have their own exchange and can not be too much people in this job, we will put retail managers' mailboxes in the closest Exchange distribution center.

Topic 10, Hanson Brother, Scenario

Introduction:
You are hired to provide design and deployment consulting services to the Hanson Brothers investment company.
You need to evaluate the company's existing messaging infrastructure, to assess current and future business needs, and to design and deploy Exchange 2000 Server in the company's environment.
Background:
Company profile:
Hanson Brothers has more than 500,000 customers and manages more than $100 billion in funds.
The company has 16,000 employees in six offices dispersed around the world.
The company has executives in each of its offices.
Company headquarters is located in New York, New York, and has 8,000 employees.
Other office locations and number of employees are as follows:
* Bonn, Germany, has 1,750 employees
* Hang Kong, china, has 1,000 employees
* London, England, has 3,000 employees
* Tokyo, Japan, has 1,600 employees
* Zurich, Switzerland, has 650 employees
Business Plan:
The business of Hanson Brother is to protect customer funds while seeking to maximize return on customer investments.
The company specializes in foreign currency stocks, so it requires constant and reliable connections to stock market information sources throughout in the world.
Existing IT Environment:
Network Diagram:
The network diagram is shown in the exhibit. Click the exhibit button.
Chief Information Office (CIO):
We are adversely affected by competition from other companies that use newer technologies to offer great solutions. We want to provide new services to attract new customers and to retain our current customers.
We plan to launch a new service named CurrencyNow.
This service will offer live, online discussions that will allow hundreds of our best customers to communicate with senior investment advisors and other industry analysts.
We would like to allow our customers to submit questions to be answered while using the service without other users seeing the questions.
Investment advisors have e-mail addresses, but only can be contacted when they are in the office. We want to be able to offer e-mail access to our brokers when they are out of

the office.
Director of IT:
We currently use Lotus cc:Mail for e-mail, and employees can use e-mail only when they are in the office.
I want to enforce mailbox limits of 50MB for each employee, with the exception of company executives. Company executives should not be affected by this limit.
We recently completed upgrading our company-wide network infrastructure.
We now have 1,544-mbps or higher connections between all of our offices.
The connections average 40-percent utilization during peak usage.
We are running only Microsoft Windows 2000 Professional and Windows 2000 Server.
The Windows 2000 Server computers run Active Directory in native mode.
E-mail Manager:
I want to ensure that the IT group at company headquarters in New York will be able to manage the Exchange 2000 Server environment.
This IT group will be only group allowed to assign exchange permissions.
The London and Hong Kong office each have an IT group to share the responsibility to support messaging information, such as telephone numbers and addresses, and to change backup tapes.
I want to ensure that we design our Exchange 2000 Server computers to achieve optimal performance and recoverability.
I also want to minimize server memory usage.
I want to ensure that we can always recover a database without taking the server offline or affecting other databases in a storage group.
I want to enable employees to access their e-mail by using their home computers or public kiosks.
I want to accomplish this as efficiently and as economically as possible.
We want to implement Exchange 2000 Server in the New York office first.
We will then implement Exchange 2000 Server in the following offices, in this order Bonn, Hong Kong, Tokyo, London, and Zurich.
We have a company-wide distribution list named MarketUpdate.
This distribution list is used every hour to send market updates to the entire company.
I want to be able to recover mailboxes up to the point of failure at any time.
To minimize Exchange 2000 Server mailbox configuration, I want to use store-level settings whenever possible.
Each office has its own Active Directory site public folders are not used in the company.
A full Exchange 2000 Server backup will occur on a weekly basis and the tapes reused the following week.
Hardware:
Exchange 2000 Server will be used on existing hardware.
The following performance benchmarks were achieved when testing Exchange 2000 on the planned hardware configurations:
* Each Exchange 2000 Server computer can support 2,000 users
* Exchange 2000 Server computer will generate approximately 35 global catalog queries per second
* The global catalog server configuration can support 200 queries per second
Archiving Requirements:

Legal Counsel:
Because we have offices internationally, we are required to meet the regulations of each country's government regarding the archive and backup of investment-related information.
These regulations pertain only to the information in the mailboxes that reside on computers in each location.
The new Exchange 2000 Server implementation must accommodate these specific archiving and backup requirements.
New York:
Mailboxes of company executives must be backed up every day and retained for a minimum of one year and a maximum of three years.
Mailboxes for other users must be backed up every week and retained for a minimum of one year.
London:
Mailboxes for all users must be backed up every day and retained for a minimum of three years
Zurich and Bonn:
Mailboxes for investment advisors must be backed up every day and retained for a maximum of three months.
Mailboxes for other users must be backed you every day and retained for a minimum of one year and a maximum of three years.
Hong Kong and Tokyo:
Mailboxes of company executives must be backed up every database and retained for a minimum of one year and a maximum of three years.
Mailboxes for investment advisors must be backed up every hour and retained for a minimum of six months and a maximum of nine months.
Mailboxes for other users must be backed up every week and retained for a minimum of one year.

Topic 10, Hanson Brother (10 Questions)

QUESTION 104
How should you implement the CurrencyNow service?

A. Use public folders
B. Use instant messaging
C. Use a chat community in private mode
D. Use a chat community in Auditorium mode

Answer: D
They need a chat service because CurrencyNow will offer, online discussions we can discard A and B You can not use MS chat in private mode this discard C
/Mode (Room_name)
/Mode
<room_name>[<room_modes>][<max_member>][<nickname>][<nickname_mask>][<passw
ord>]
The plus sign (+) before the <room_modes> changes the room's mode as described

below; the minus sign (-)removes the mode from the room
Reference
IRC, IRCX and Microsoft Chat Commands 187991

QUESTION 105
How should you design the Exchange 2000 Server computer for the Zurich office?

A. Use one storage group that contains one mailbox store
B. Use one storage group that contains two mailbox stores
C. Use one storage group that contains three mailbox stores
D. Use two storage groups that each contain one mailbox store

Answer: B

Explanation:
They have two different backup requirements for Zurich
* Advisors backed up every day and retained for three months.
* Other users backed up every day and retained for 1-3 years
To do it they need to do backup to database level

QUESTION 106
How many routing groups should you implement for Hanson Brother?

A. One
B. Two
C. Three
D. Four

Answer: D

Explanation:
1. New York,
2. Zurich and Bonn,
3. Tokyo and Hong Kong,
4. London.

QUESTION 107
How should you design the Exchange 2000 Server computer for the company headquarters in New York?
Use one storage group that contains one mailbox store

A. Use one storage group that contains two mailbox stores
B. Use one storage group that contains three mailbox stores
C. Use two storage groups that each contain one mailbox store

Answer: B

Explanation:
They also here have two different backup requirements for New York
* Executives backed up every day and retained for 1 year,
* Other users backed up every week and retained for 1 year).
We need the ability to conduct two different backups database level; we need to storage group with a mailbox store each one

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QUESTION 108
How many global catalog servers should you install at the New York office if you install four Exchange 2000 Servers in the New York?

A. One
B. Two
C. Three
D. Four

Answer: B

Explanation:
They need to put four servers for 8,000 users in this way they can split 2,000 users per server
Also to achieve Exchange redundancy for DC and Exchange they need at least two GCs to support Exchange queries in the case on one GC failure

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QUESTION 109
How should you design the Exchange 2000 Server computer for the London office?

A. Use one storage group that contains one mailbox store
B. Use one storage group that contains two mailbox stores
C. Use one storage group that contains three mailbox stores
D. Use two storage groups that each contain one mailbox store

Answer: C

Explanation:
They need to backup all users every day and they need to retain the backup for three years
They are putting four server 2,000 users in each server according prior question so they need at
But the best way to split users in each storage is put split the 2,000 users into the full Enterprise capacity that is five mailbox storage for each one storage group, but they do not give to us these option, just one storage group three mailbox store. Also they need to backup London server every day, in they backup to database level splitting the backup in three tapes the backup restore operations will be faster than if we use answer A

QUESTION 110
What should you do to minimize the effect of denial-of-service attacks on the remote e-mail access service for company employees?

A. Place two VPN server computers in a perimeter network.
B. Place two front-end Exchange 2000 Server computers in an internet perimeter network.
C. Enable SSL connections on the Exchange 2000 Server computer that provides internet access.
D. Use two storage groups on the Exchange 2000 Server computer that provides internet mail access

Answer: B

Explanation:
They just need to put front-end servers in the perimeter network as a way to minimize denial-of-service attacks
They do not ask to use to protect communications that will be answer C with SSL enabled

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QUESTION 111
When a client computer in Bonn connects to a mailbox that is on an Exchange 2000 Server computer in the New York office, which global catalog server should service their address book queries?

A. A global catalog server in the Bonn office.
B. A global catalog server in the London office.
C. A global catalog server in the Active Directory site as the Exchange 2000 Server computer in the Bonn office.
D. A global catalog server in the Active Directory site as the Exchange 2000 Server computer in the new York office.

Answer: D

Explanation:
The Exchange DSaccess service use a GC to query the address book, mailbox enabled user or validate users in this case the mailbox of the users is in New York, if we put a global catalog server in New York this will be helpful to provide the required support.

QUESTION 112
How should you design the Exchange 2000 Server computer for the Hong Kong office?

A. Use one storage group that contains one mailbox store.
B. Use one storage group that contains two mailbox stores.
C. Use one storage group that contains three mailbox stores.

D. Use two storage groups that each contain one mailbox store

Answer: C

Explanation:
Hong Kong requires three different stores.
* Executive,
* Investment advisors
* Other users.
They need one storage group with three mailbox stores.

QUESTION 113
What should you do to implement the MarketUpdate distribution list in Exchange 2000 Server?

A. Place a global catalog server in each office location.
B. Place a global catalog server on the same network segment as the Active Directory Connector server.
C. Create the distribution list as a mail-enabled universal group. Add global groups to the universal group. Add recipients to the global groups.

Answer: C

Explanation
They need to have under control the access to the Distribution List.
We can use a universal group mail-enabled to create the list as then we add to the global grups that we need to that list the global group to a local group and in the local group we put the users in this we optimize the replication traffic.