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Microsoft

70-384 PRACTICE EXAM

Recertification for MCSE: Communication

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Case Study: 1

Contoso Ltd Case A

Overview

General Overview

Contoso, Ltd. is an electronics parts company located in North American. The company has 4,400 employees.

Contoso recently bought a company named Litware, Inc. Litware has an office in New York.

Litware has a Lync Server 2010 infrastructure and has Microsoft Lync 2010 clients deployed to all of its client computers.

Physical Locations

Contoso has a main office and a satellite office. The main office is located in Toronto. The satellite office is located in Boston. The Toronto office has 4,200 users. The Boston office has 200 users.

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

Only the Toronto office connects directly to the Internet.

Existing Environment

Active Directory Environment

Contoso has an Active Directory forest named contoso.com. The forest contains a single domain. All domain controllers run Windows Server 2008 R2.

Lync Server Environment

Contoso has a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization. The Lync Server 2013 infrastructure contains an Enterprise Edition Front End pool named Pool1.

The network contains five servers. The servers are configured as shown in the following table.

Server name	Role	Location
Lync1	Front End Server in Pool1	Toronto
Edge1	Edge Server	Toronto
Exchange1	Mailbox server Client Access server	Toronto
Server1	Member server	Toronto
SQL1	Back End Server	Toronto

The Lync Server infrastructure currently uses the names shown in the following table.

Name	Use
Pool1.contoso.com	Enterprise Edition Front End pool FQDN
Meet.contoso.com	Simple URL for meetings
Webext.contoso.com	External web services FQDN

All users can remotely access the Lync Server services from a client computer. The users cannot access the Lync Server services from a mobile device.

Some of the users have Lync 2010 installed. Most of the users run Lync 2013.

Problems Statements

Contoso identifies the following business issues:

- Users in the Boston office report that there are delays in the audio stream during conferences and that the audio frequently drops. Users in the other offices do not report this issue.
- Users cannot share Microsoft PowerPoint presentations during web conferences. Users can share other documents.
- All of the users in the Toronto office report that they receive the following error message from Lync 2013: "Lync can't connect to Exchange. You might experience Contact list issues".

Requirements

Planned Changes

Contoso plans to implement the following changes:

Implement the unified contact store.

- Deploy the Office Web Apps component.
- Add a second Front End Server named Lync2 in the Toronto office.
- Access Lync Server services by using mobile devices from the internal network and from the Internet.
- Implement direct federation with Litware and other business partners. All federated domains will have to be defined explicitly.

Administrative Requirements

A support technician named Techl must be able to perform all of the tasks currently performed by the members of the CSHelpDesk group. Additionally, Techl must also be able to edit conferencing policies.

Web Conferencing Requirements

Contoso identifies the following requirements for web conferencing:

- Users from Litware must be able to download the content of web conferences.
- Users must be able to share PowerPoint presentations during web conferences.
- Users from Litware must be able to record web conferences.
- A URL that points to a disclaimer must be provided.

Mobility Requirements

Contoso plans to provide all users the ability to connect by using mobile devices. When users connect from a mobile device, they must download their server settings automatically.

Question: 1

Which two tasks should be performed to meet the administrative requirements for Tech1? (Each correct answer presents part of the solution. Choose two.)

- A. Modify the permissions of the RTCUniversalServerAdmins group.
- B. Run the New-CsAdminRole cmdlet.
- C. Run the Update-CsAdminRole cmdlet.

- D. Create a new universal security group and add Tech1 to the group.
E. Create a new global security group and add Tech1 to the group.

Answer: B, D

Explanation:

"To create a new role, you must first create a universal security group in Active Directory Domain Services that shares a name with the role;"

<http://technet.microsoft.com/en-us/library/gg398271.aspx>

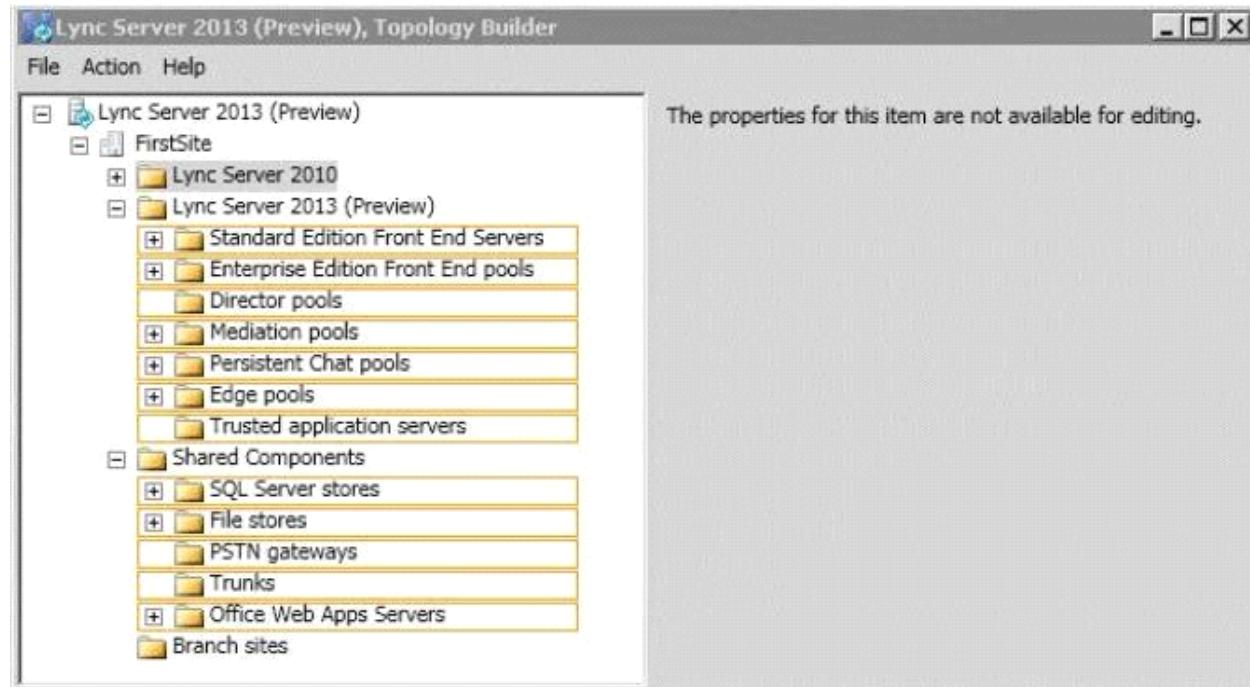
Question: 2

HOTSPOT

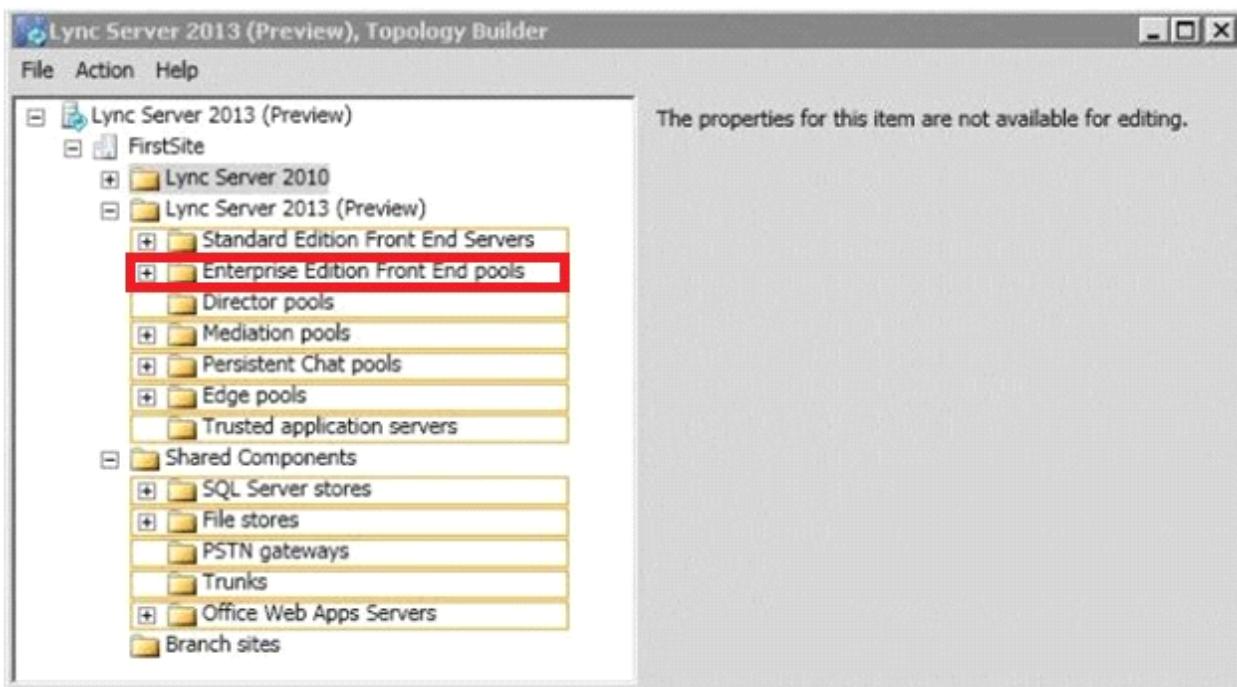
You need to modify the FQDN of the external web services.

From which node should you perform the modification?

To answer, select the appropriate node in the answer area.



Answer:



Explanation:

Configure Web Services

Log on to the computer where Topology Builder is installed as a member of the Domain Admins group and the RTCUniversalServerAdmins group.

Start Topology Builder: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Topology Builder.

In Topology Builder, in the console tree under Standard Edition Front End Servers, Enterprise Edition Front End pools, and Directory pools, select the pool name. Right-click the name, click Edit Properties, and then click Web Services.

Add or edit the External Web Services FQDN, and then click OK.

Question: 3

You are evaluating the implementation of a reverse proxy for Contoso.

You plan to create a certificate for the reverse proxy.

You need to identify which names must be included in the certificate.

Which three names should you identify? (Each correct answer presents part of the solution. Choose three.)

- A. lyncdiscover.contoso.com
- B. lyncdiscoverinternal.contoso.com
- C. meet.contoso.com
- D. pool1.contoso.com
- E. edge.contoso.com
- F. webext.contoso.com

Answer: A, C, F

Explanation:

<http://technet.microsoft.com/en-us/library/jj205381.aspx>

webext is the Subject Name and the Alternative Name with meet and lyncdiscover also listed as Alternative Names

Question: 4

You need to recommend a solution to resolve the audio issues for the users in the Boston office. Which three possible recommendations should you include in the solution? (Each correct answer presents a complete solution. Choose three.)

- A. user services
- B. Quality of Service (QoS)
- C. Call Admission Control (CAC)
- D. a location policy
- E. a conferencing policy

Answer: B, C, E

Question: 5

You are evaluating the implementation the second Front End Server. You need to recommend which common name must be used for the certificate that will be installed on Lync2.

Which name should you recommend using?

- A. *.contoso.com
- B. lync2.contoso.com
- C. lyncdiscover.contoso.com
- D. pool1.contoso.com

Answer: D

Explanation:

<http://social.technet.microsoft.com/Forums/en-US/ocscertificates/thread/bc2b0383-17cd-4707-8c2f-19db8dd340f0/>

The common name or SN of any Front End Server Certificate is the Pool Name.

Question: 6

HOTSPOT

You are planning the implementation of the unified contact store. You need to identify which clients can be used to read the contact list and which clients can be used to modify the contact lists.

Which clients should you identify?

To answer, select the correct actions for each client in the answer area.

Client	Read contact lists	Modify contact lists
Microsoft Outlook 2013	<input type="checkbox"/>	<input type="checkbox"/>
Outlook Web App	<input type="checkbox"/>	<input type="checkbox"/>
Lync 2010	<input type="checkbox"/>	<input type="checkbox"/>
Lync 2013	<input type="checkbox"/>	<input type="checkbox"/>

Answer:

Client	Read contact lists	Modify contact lists
Microsoft Outlook 2013	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Outlook Web App	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lync 2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lync 2013	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

<http://support.microsoft.com/kb/2757458/en-us?fr=1>

(-) CAUSE

This issue occurs because, when the Unified Contact Store is deployed between Microsoft Exchange 2013 and Lync Server 2013, the Lync 2010 and Lync for Mac 2011 clients do not understand where it should update or save changes. Therefore, users who are enabled for the Unified Contact Store cannot change their contacts list from Lync 2010 and Lync for Mac 2011.

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(-) SOLUTION

To resolve this issue, use Microsoft Lync 2013, Microsoft Outlook Web Access 2013, or Microsoft Outlook to change your contacts.

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(-) MORE INFORMATION

On Windows, to confirm if a user is enabled for Unified Contact Store, check the following registry key for a value of 2165. If the key is not present or does not have a value of 2165, the user is not enabled for Unified Contact Store and should be able to change contacts from a Lync 2010 client.

HKEY_CURRENT_USER\Software\Microsoft\Office\15.0\Lync<SIP URL>\UCS

"Lync Server Environment

Contoso has a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization.

The Lync Server 2013 infrastructure contains an Enterprise Edition Front End pool named Pool1.

The network contains five servers. The servers are configured as shown in the following table."

TO EDIT THE CONTACT DATA IN THE UNIFIED CONTACTS STORE USE:

Microsoft Lync 2013,

Microsoft Outlook Web Access 2013

Microsoft Outlook 2013

<http://support.microsoft.com/kb/2757458/en-us?fr=1>

Question: 7

DRAG DROP

You are troubleshooting the issue reported by the Toronto users. You verify that the logging level of the centralized logging service is set to AlwaysOn.

You need to gather additional troubleshooting information immediately to resolve the issue.

Which five actions should you perform?

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

Actions	Answer Area
Sign in to Lync 2013 from a client computer in the Toronto office.	
Run the clscontroller.exe -search command.	
Run the clscontroller.exe -start command.	
Run the clscontroller.exe -flush command.	
Run the clscontroller.exe -stop command.	

Answer:

Box 1:

Run the **clscontroller.exe -start** command.

Box 2:

Sign in to Lync 2013 from a client computer in the Toronto office.

Box 3:

Run the **clscontroller.exe -stop** command.

Box 4:

Run the **clscontroller.exe -flush** command.

Box 5:

Run the **clscontroller.exe -search** command.

Explanation:

- Start
- Reproduce issue
- Stop
- Flush
- Search

<http://masteringlyn.com/2012/08/02/centralized-logging-in-lync-2013/>

<http://www.ucprimer.com/lync2013-logging-and-tracing.html>

Question: 8

Contoso is evaluating the implementation of push notifications for mobile devices. You need to identify which tasks must be performed to enable the push notifications. Which three cmdlets should you identify? (Each correct answer presents part of the solution. Choose three.)

- A. New-CsAllowedDomain
- B. Set-CsPublicProvider
- C. New-CsHostingProvider
- D. Set-CsPushNotificationConfiguration
- E. Enable-CsPublicProvider

Answer: A, C, D

Explanation:

<http://technet.microsoft.com/en-us/library/hh690047.aspx>

CONFIGURING FOR PUSH NOTIFICATIONS

LYNC SERVER 2013

Push notifications, in the form of badges, icons, or alerts, can be sent to a mobile device even when the mobile application is inactive. Push notifications notify a user of events such as a new or missed IM invitation and voice mail. The Lync Server 2013 Mobility Service sends the notifications to the cloud-based Lync Server Push Notification Service, which then sends the notifications to the Apple Push Notification Service (APNS) (for an Apple device running the Lync 2010 Mobile client) or the Microsoft Push Notification Service (MPNS) (for a Windows Phone device running the Lync 2010 Mobile or the Lync 2013 Mobile client).

Important:

If you use Windows Phone with Lync 2010 Mobile or Lync 2013 Mobile client, push notification is an important consideration.

If you use Lync 2010 Mobile on Apple devices, push notification is an important consideration.

If you use Lync 2013 Mobile on Apple devices, you no longer need push notification.

Configure your topology to support push notifications by doing the following:

If your environment has a Lync Server 2010 or Lync Server 2013 Edge Server, you need to add a new hosting provider, Microsoft Lync Online, and then set up hosting provider federation between your organization and Lync Online.

If your environment has a Office Communications Server 2007 R2 Edge Server, you need to set up direct SIP federation with push.lync.com.

Note:

[Push.lync.com](http://push.lync.com) is a Microsoft Office 365 domain for Push Notification Service.

To enable push notifications, you need to run the Set-CsPushNotificationConfiguration cmdlet. By default, push notifications are turned off.

Test the federation configuration and push notifications.

TO CONFIGURE FOR PUSH NOTIFICATIONS WITH LYNC SERVER 2013 OR LYNC SERVER 2010 EDGE SERVER

Log on to a computer where Lync Server Management Shell and Ocscore are installed as a member of the RtcUniversalServerAdmins group.

Start the Lync Server Management Shell: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Management Shell.

Add a Lync Server online hosting provider. At the command line, type:

```
New-CsHostingProvider -Identity <unique identifier for Lync Online hosting provider> -Enabled $True -ProxyFqdn <FQDN for the Access Server used by the hosting provider> -VerificationLevel UseSourceVerification
```

For example:

```
New-CsHostingProvider -Identity "LyncOnline" -Enabled $True -ProxyFqdn "sipfed.online.lync.com" -VerificationLevel UseSourceVerification
```

Note:

You cannot have more than one federation relationship with a single hosting provider. That is, if you have already set

up a hosting provider that has a federation relationship with sipfed.online.lync.com, do not add another hosting provider for it, even if the identity of the hosting provider is something other than LyncOnline.

Set up hosting provider federation between your organization and the Push Notification Service at Lync Online. At the command line, type:

```
New-CsAllowedDomain -Identity "push.lync.com"
```

TO CONFIGURE FOR PUSH NOTIFICATIONS WITH OFFICE COMMUNICATIONS SERVER 2007 R2 EDGE SERVER

Log on to the Edge Server as a member of the RtcUniversalServerAdmins group.

Click Start, click All Programs, click Administrative Tools, and then click Computer Management.

In the console tree, expand Services and Applications, right-click Microsoft Office Communications Server 2007 R2, and then click Properties.

On the Allow tab, click Add.

In the Add Federated Partner dialog box, do the following:

In Federated partner domain name, type push.lync.com.

In Federated partner Access Edge Server, type sipfed.online.lync.com.

Click OK.

TO ENABLE PUSH NOTIFICATIONS

Log on to a computer where Lync Server Management Shell and Ocscore are installed as a member of the CsAdministrator role.

Start the Lync Server Management Shell: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Management Shell.

Enable push notifications. At the command line, type:

```
Set-CsPushNotificationConfiguration -EnableApplePushNotificationService $True
```

```
EnableMicrosoftPushNotificationService $True
```

Enable federation. At the command line, type:

```
Set-CsAccessEdgeConfiguration -AllowFederatedUsers $True
```

TO TEST FEDERATION AND PUSH NOTIFICATIONS

Log on to a computer where Lync Server Management Shell and Ocscore are installed as a member of the CsAdministrator role.

Start the Lync Server Management Shell: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Management Shell.

Test the federation configuration. At the command line, type:

```
Test-CsFederatedPartner -TargetFqdn <FQDN of Access Edge server used for federated SIP traffic> -Domain <FQDN of federated domain> -ProxyFqdn <FQDN of the Access Edge server used by the federated organization>
```

For example:

```
Test-CsFederatedPartner -TargetFqdn accessproxy.contoso.com -Domain push.lync.com -ProxyFqdn  
sipfed.online.lync.com
```

Test push notifications. At the command line, type:

```
Test-CsMcxPushNotification -AccessEdgeFqdn <Access Edge service FQDN>
```

For example:

```
Test-CsMcxPushNotification -AccessEdgeFqdn accessproxy.contoso.com
```

Question: 9

You need to identify on which server you can install the Microsoft Office Web Apps server component.

Which server should you identify?

- A. Lync1.contoso.com
- B. Server1.contoso.com
- C. Exchange1.contoso.com
- D. SQL1.contoso.com

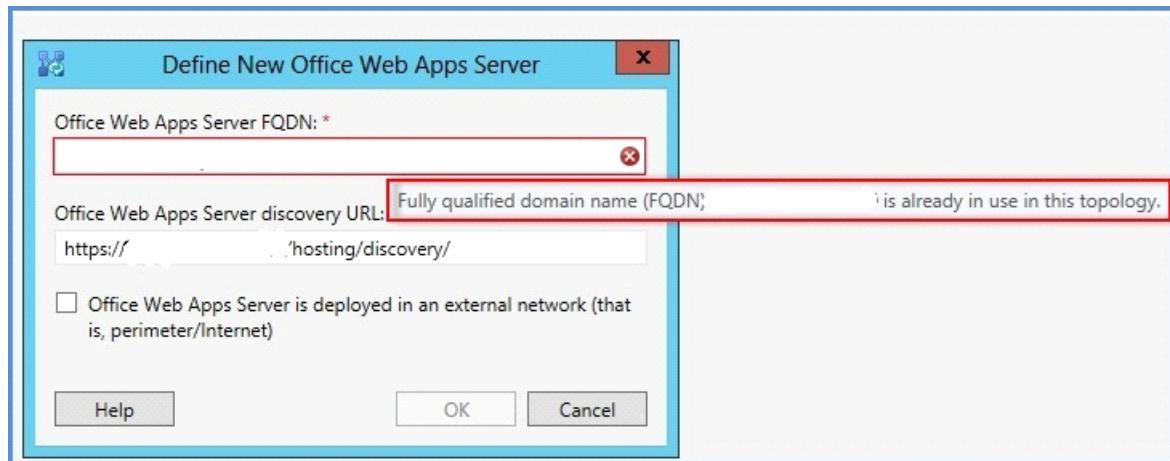
Answer: B

Explanation:

It is unclear what roles are on Server1, but you cannot collocate the web apps server on any server that has been defined in the topology. I have illustrated below trying to add web apps server using the same FQDN as my Standard Edition Pool.

Server1 appears to be the only the correct answer, because in the case study Server1 is a member server with nothing installed on it.

Answer is Server1



Question: 10

DRAG DROP

You need to identify which configurations must be used to meet the web conferencing requirements.

Which configuration should you identify for each requirement?

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

Configurations	Answer Area
A client policy	Users from Litware must be able to download the content of web conferences. Configuration
A conferencing policy	Users must be able to share PowerPoint presentations during web conferences. Configuration
A meeting configuration	Users from Litware must be able to record web conferences. Configuration
	A URL that points to a disclaimer must be provided. Configuration

Answer:

Box 1: A conferencing policy

Box 2: A conferencing policy

Box 3: A conferencing policy

Box 4: A meeting Configuration

Explanation:

"Users from Litware must be able to download the content of the Web Conference"

Download the content of web conferences:

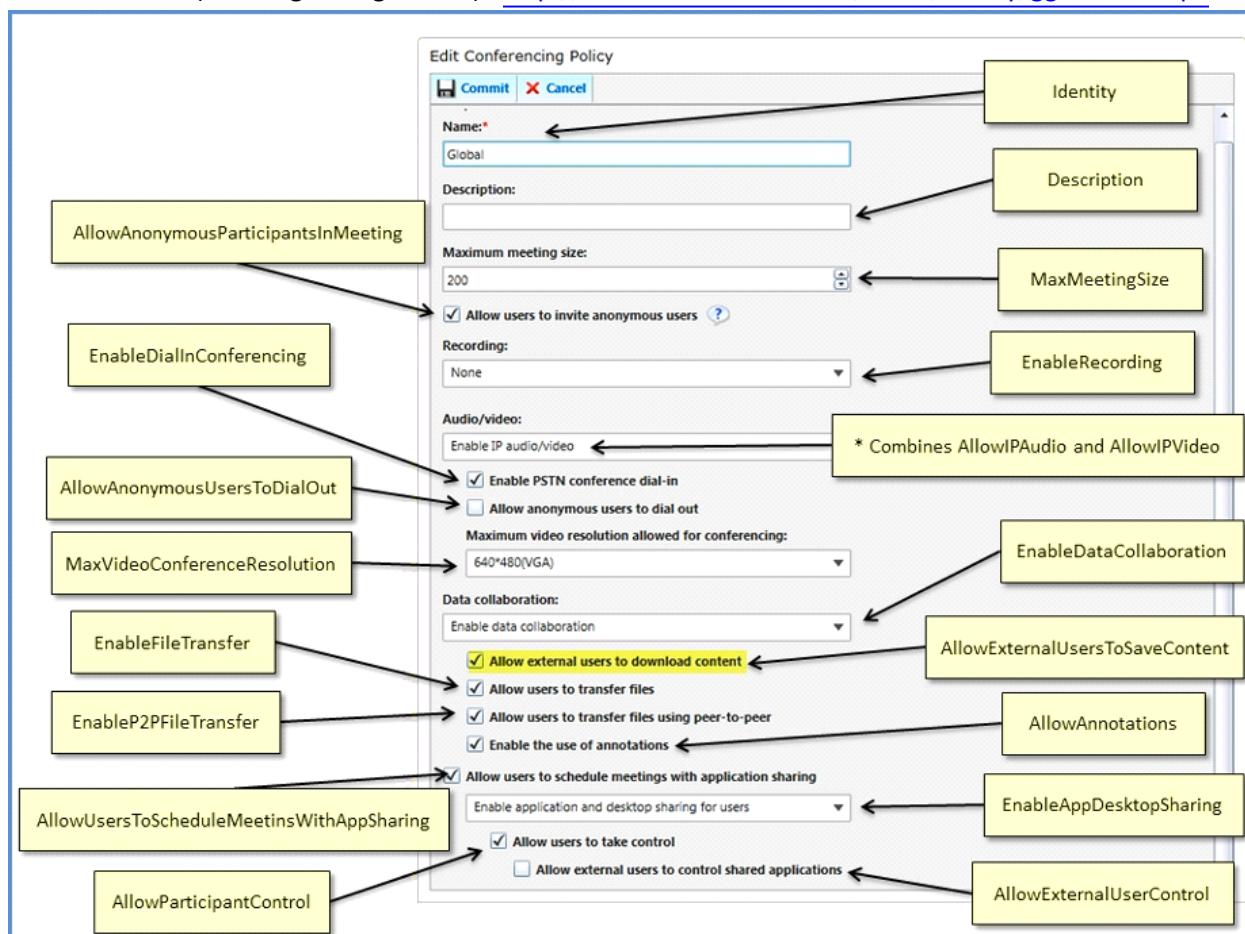
Share PowerPoint presentations (Conferencing Policy)

<http://blogs.technet.com/b/csp/archive/2011/08/11/confpoliciesenabledatacollaboration.aspx>

Record Web Conferences (Conferencing Policy)

<http://blogs.technet.com/b/csp/archive/2011/08/11/confpoliciesallowconferencerecording.aspx>

URL Disclaimer (Meeting Configuration) - <http://technet.microsoft.com/en-us/library/gg398638.aspx>



Case Study: 2

Margie's Travel

Overview

General Overview

Margie's Travel is an executive travel company that has 7,000 employees.

The company has a sales department and a research department.

Physical Locations

The company has a main office and two branch offices. The main office is located in Montreal. The branch offices are located in New York and Seattle.

The number of users in each office is shown in the following table.

Office location	Number of users
Montreal	5,500
New York	800
Seattle	700

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

Existing Environment

Active Directory Environment

The network contains one Active Directory forest named margiestravel.com. Each office is configured as an Active Directory site.

Lync Server Environment

The company has a Lync Server 2010 infrastructure in the Montreal office. The network contains four servers. The servers are configured as shown in the following table.

Server name	Role	Software
Lync1	Front End Server in a pool named Pool1	Lync Server 2010
Edge1	Edge Server	Lync Server 2010
SQL1	Back End Server (cluster node in a cluster named Cluster1)	Microsoft SQL Server 2008 Service Pack 2 (SP2)
SQL2	Back End Server (cluster node in a cluster named Cluster2)	Microsoft SQL Server 2008 Service Pack 2 (SP2)

Lync Server 2013 Standard Edition is deployed in the Montreal office as a pilot on a separate network segment. You create several test users on the Lync Server 2013 pilot.

User Issue

An administrator modifies the global client version policy of the Lync Server 2013 pilot deployment. After the modification, Lync Server 2013 users report that they fail to sign in to Microsoft Lync 2010 and they receive the following error message.



Requirements

Planned Changes

After a successful pilot program, the company plans to deploy Lync Server 2013 on the production network for all users.

The Lync Server 2013 deployment will include the following roles:

Edge Server

- Front End Server
- Mediation Server
- Monitoring Server
- Office Web Apps Server

Lync Server 2013 and Lync Server 2010 will coexist for six months.

Monitoring Requirements

A monitoring solution must save call quality data for 180 days.

Backup Requirements

An administrator plans to perform a weekly manual backup of the Lync Server databases. The backup files will be copied to an offsite location.

Conferencing Requirements

The company plans to implement a conferencing solution to meet the following requirements:

- The company's executives must be able to create conferences that contain up to 250 participants.
- The company's managers must be able to create conferences that contain up to 50 participants.
- All other users must be prevented from creating conferences that contain more than 15 users.

Question: 1

DRAG DROP

You need to design the deployment of the planned Edge Server.

Which four actions should you include in the design?

To answer, move the four appropriate actions from the list of actions the correct order.

Actions	Answer Area
From the Topology Builder, save a copy of the topology.	
On the new Edge Server, run the Lync Server Deployment Wizard and select the .tbxml file as the source file.	
Run the Export-CsConfiguration cmdlet.	
From the Topology Builder, configure the new Edge pool.	
On the new Edge Server run the Lync Server Deployment Wizard and select the .zip file as the source file.	
From the Topology Builder, publish the topology.	

Answer:

Box 1:

From the Topology Builder, configure the new Edge pool.

Box 2:

From the Topology Builder, publish the topology.

Box 3:

Run the **Export-CsConfiguration** cmdlet.

Box 4:

On the new Edge Server run the Lync Server Deployment Wizard and select the .zip file as the source file.

Explanation:

Note:

You install Lync Server 2013 on Edge Servers by using Lync Server Deployment Wizard. By running the Deployment Wizard on each Edge Server, you can complete most of the tasks required to set up the Edge Server. In order to deploy Lync Server 2013 on an Edge Server, you must have already run Topology Builder (see note 2 below) to define and

publish your Edge Server topology, and exported it to media that is available from the Edge Server.

To install an Edge Server

Log on to the computer on which you want to install your Edge Server as a member of the local Administrators group or an account with equivalent user rights and permissions.

Ensure that the topology configuration file you created using Topology Builder, and then exported and copied to external media, is available on the Edge Server (for example, access to the USB drive onto which you copied the topology configuration file, or verify access to the network share where you copied the file).

Start the Deployment Wizard.

In the Deployment Wizard, click Install or Update Lync Server System.

After the wizard determines the deployment state, for Step 1. Install Local Configuration Store, click Run and then do the following:

- * In the Configure Local Replica of Central Management Store dialog box, click Import from a file (Recommended for Edge Servers), go to the location of the exported topology configuration file, select the .zip file, click Open, and then click Next.

- * The Deployment Wizard reads the configuration information from the configuration file and writes the XML configuration file to the local computer.

- * After the Executing Commands process is finished, click Finish.

Etc.

Note 2: To define the topology for a single Edge Server

Start Topology Builder: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Topology Builder.

In the console tree, expand the site in which you want to deploy an Edge Server.

Right-click Edge pools, and then click New Edge Pool.

In Define the New Edge Pool, click Next.

In Define the Edge pool FQDN,

Note 3: Export-CsConfiguration

Exports your Lync Server topology, policies, and configuration settings to a file. Among other things, this file can then be used to restore this information to the Central Management store after an upgrade, a hardware failure, or some other issue has resulted in data loss. This cmdlet was introduced in Lync Server 2010.

Reference: Install Edge Servers; Define Your Edge Topology; Export-CsConfiguration

Question: 2

HOTSPOT

You need to resolve the user issue.

Which rule should you modify in the client version policy?

To answer, select the appropriate rule in the answer area.

Edit Client Version Policy - Global

Commit **Cancel**

Scope: Global

Name: *
Global

Description:

User agent	Version	Operation	Action
RTC	1.3.*.*	Older than or same as	Block
WM	5.*.*	Older than or same as	Block
OC	3.5.6907.233	Older than	Block
OC	3.9999.9999.9999	Older than or same as	Allow
OC	4.0.7577.314	Older than	Block
OC	4.9999.9999.9999	Older than or same as	Allow
OC	15.0.3612.1010	Newer than	Block
UCCP	2.0.5999.*	Older than or same as	Block

Answer:

Edit Client Version Policy - Global

Commit **Cancel**

Scope: Global

Name: *
Global

Description:

User agent	Version	Operation	Action
RTC	1.3.*.*	Older than or same as	Block
WM	5.*.*	Older than or same as	Block
OC	3.5.6907.233	Older than	Block
OC	3.9999.9999.9999	Older than or same as	Allow
OC	4.0.7577.314	Older than	Block
OC	4.9999.9999.9999	Older than or same as	Allow
OC	15.0.3612.1010	Newer than	Block
UCCP	2.0.5999.*	Older than or same as	Block

Explanation:

Note: Lync has a Client Version Policy that allows you to allow or reject registrations from certain client versions. Here the Lync server 2013 clients are blocked because they have too new version number.

Question: 3

You are evaluating the implementation of SQL Server database mirroring on new SQL Server servers for the planned Lync Server 2013 deployment.

You need to recommend which tasks must be performed to prepare SQL Server database mirroring for Lync Server 2013.

Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

- A. From the Topology Builder, create a new Enterprise Edition Front End pool and a new SQL Server database, SQL Server database mirroring, and a witness.
- B. From the Topology Builder, publish the topology and install the databases.
- C. On the SQL Server servers, install Failover Clustering.
- D. On the Front End Servers, install Failover Clustering.
- E. Run the Update-CsUserDatabase cmdlet.
- F. Run the Invoke-CsDatabaseFailover cmdlet.

Answer: A, B

Explanation:

<http://technet.microsoft.com/en-us/library/jj204992.aspx>

DEPLOYING SQL MIRRORING FOR BACK END SERVER HIGH AVAILABILITY

To be able to deploy SQL mirroring, your servers must run a minimum of SQL Server 2008 R2. This version must run on all the involved servers: the primary, mirror, and the witness. For details, see <http://go.microsoft.com/fwlink/?LinkId=3052&Kbid=2083921>.

In general, setting up SQL mirroring between the two Back End Servers with a witness requires the following:

The primary server's version of SQL Server must support SQL mirroring.

The primary, mirror, and the witness (if deployed) must have the same version of SQL Server.

The primary and the mirror must have the same edition of SQL Server. The witness may have a different edition.

For SQL best practices in terms of what SQL versions are supported for a Witness role, see "Database Mirroring Witness" in the MSDN Library at <http://go.microsoft.com/fwlink/?LinkId=247345>.

You use Topology Builder to deploy SQL mirroring. You select an option in Topology Builder to mirror the databases, and Topology Builder sets up the mirroring (including setting up a witness, if you want) when you publish the topology. Note that you set up or remove the witness at the same time you set up or remove the mirror. There is no separate command to deploy or remove only a witness.

To configure server mirroring, you must first set up SQL database permissions correctly. For details, see "Set Up Login Accounts for Database Mirroring or AlwaysOn Availability Groups (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=268454>.

With SQL mirroring, database recovery mode is always set to Full, which means you must closely monitor transaction log size and back up transaction logs on a regular basis to avoid running out of disk space on the Back End Servers. The frequency of transaction log backups depends on the log growth rate, which in turn depends on database transactions incurred by user activities on the Front End pool. We recommend that you determine how much transaction log growth is expected for your Lync deployment workload so that you can do the planning accordingly. The following articles provide additional information on SQL backup and log management:

Database recovery models: "Recovery Models (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=268446>

Backup overview: "Backup Overview (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=268449>

Backup transaction log: "Backup a Transaction Log (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=268452>

With SQL mirroring, you can either configure the topology for mirroring when you create the pools, or after the pools are already created.

IMPORTANT:

Using Topology Builder or cmdlets to set up and remove SQL mirroring is supported only when the primary, mirror, and witness (if desired) servers all belong to the same domain. If you want to set up SQL mirroring among servers in different domains, see your SQL Server documentation.

TO CONFIGURE SQL MIRRORING WHILE CREATING A POOL IN TOPOLOGY BUILDER

On the Define the SQL Store page, click New next to the SQL store box.

On the Define new SQL Store page, specify the primary store, select This SQL instance is in mirroring relation, specify the SQL mirroring port number (the default is 5022), and then click OK.

Back on the Define the SQL store page, select Enable SQL Store mirroring.

In the Define new SQL Store page, specify the SQL store to be used as the mirror. Select This SQL instance is in mirroring relation, specify the port number (the default is 5022), and then click OK.

If you want a witness for this mirror, do the following:

Select Use SQL mirroring witness to enable automatic failover.

In the Define the SQL Store page, select Use SQL mirroring witness to enable automatic failover, and specify the SQL store to be used as the witness.

Specify the port number (the default is 7022) and click OK.

After you are done defining your Front End pool and all other roles in your topology, use Topology Builder to publish the topology. When the topology is published, if the Front End pool that hosts Central Management store has SQL mirroring enabled, you will see an option to create both primary and mirror SQL store databases. Click Settings, and type the path to use as the file share for the mirroring backup. Click OK and then Next to create the databases and publish the topology. The mirroring and the witness (if specified) will be deployed.

You can use Topology Builder to edit the properties of an already existing pool to enable SQL mirroring.

TO ADD SQL MIRRORING TO AN EXISTING FRONT END POOL IN TOPOLOGY BUILDER

In Topology Builder, right-click the pool and then click Edit Properties.

Select Enable SQL Store Mirroring, and then click New next to Mirroring SQL Store.

Specify the SQL store that you want to use as the mirror.

Select This SQL instance is in mirroring relation, specify the SQL mirroring port number (the default port is 5022), and then click OK.

If you want to configure a witness, select Use SQL mirroring witness to enable automatic failover, and click New.

Specify the SQL store that you want to use as the witness.

Select This SQL instance is in mirroring relation, specify the SQL mirroring port number (the default port is 7022), and then click OK.

Click OK.

Publish the topology. When you do so, you will be prompted to install the database.

You must then install the database before going on to the next procedure.

You should keep the following in mind when setting up SQL mirroring:

If a mirroring endpoint already exists, it will be reused using the ports defined there, and will ignore the ones you specify in the topology.

Any port already allocated for other applications on the same server, including those for other SQL instances, should not be used for the installed SQL instances at hand. This implies that if you have more than one SQL instance installed on the same server, they must not use the same port for mirroring. For details, see the following articles:

"Specify a Server Network Address (Database Mirroring)" in the MSDN Library at <http://go.microsoft.com/fwlink/?LinkId=247346>

"The Database Mirroring Endpoint (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=247347>

USING LYNC SERVER MANAGEMENT SHELL CMDLETS TO SET UP SQL MIRRORING

The easiest way to set up mirroring is by using Topology Builder, but you can also do so using cmdlets.

Open a Lync Server Management Shell window and run the following cmdlet:

```
Install-CsMirrorDatabase [-ConfiguredDatabases] [-ForInstance] [-ForDefaultInstance] [-DatabaseType <Application | Archiving | CentralMgmt | Monitoring | User | BIStaging | PersistentChat | PersistentChatCompliance >] -FileShare <fileshare> -SqlServerFqdn <primarySqlserverFqdn> [-SqlInstanceId] [-DatabasePathMap] [-ExcludeDatabaseList]
```

[-DropExistingDatabasesOnMirror] -Verbose

For example:

Install-CsMirrorDatabase -ConfiguredDatabases -FileShare <\\PRIMARYBE\csdatabackup> -SqlServerFqdn <primaryBE.contoso.com> -DropExistingDatabasesOnMirror -Verbose

You will see the following:

Database Name:rtcxds

Data <File:D:\CsData\BackendStore\rtc\DbPath\rtcxds.mdf>
Log <File:D:\CsData\BackendStore\rtc\LogPath\rtcxds.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:rtcshared

Data <File:D:\CsData\BackendStore\rtc\DbPath\rtcshared.mdf>
Log <File:D:\CsData\BackendStore\rtc\LogPath\rtcshared.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:rtcab

Data <File:D:\CsData\ABSStore\rtc\DbPath\rtcab.mdf>
Log <File:D:\CsData\ABSStore\rtc\LogPath\rtcab.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:rgsconfig

Data <File:D:\CsData\ApplicationStore\rtc\DbPath\rgsconfig.mdf>
Log <File:D:\CsData\ApplicationStore\rtc\LogPath\rgsconfig.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:rgsdyn

Data <File:D:\CsData\ApplicationStore\rtc\DbPath\rgsdyn.mdf>
Log <File:D:\CsData\ApplicationStore\rtc\LogPath\rgsdyn.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:cpsdyn

Data File:<D:\CsData\ApplicationStore\rtc\DbPath\cpsdyn.mdf>

Log File:<D:\CsData\ApplicationStore\rtc\LogPath\cpsdyn.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:xds

Data File:<D:\CsData\CentralMgmtStore\rtc\DbPath\xds.mdf>

Log File:<D:\CsData\CentralMgmtStore\rtc\LogPath\xds.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

Database Name:lis

Data File:<D:\CsData\CentralMgmtStore\rtc\DbPath\lis.mdf>

Log File:<D:\CsData\CentralMgmtStore\rtc\LogPath\lis.ldf>

Primary SQL: e04-ocs.los_a.lsipt.local\rtc

Account: LOS_A\e04-ocs\$

Mirror SQL: K16-ocs.los_a.lsipt.local\rtc

Account: LOS_A\K16-ocs\$

Witness SQL : AB14-lct.los_a.lsipt.local\rtc

Account: LOS_A\AB14-lct\$

[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "Y"):

Verify the following:

Port 5022 is accessible through the firewall if Windows Firewall is enabled in the primary SQL Server e04-ocs.los_a.lsipt.local\rtc.

Port 5022 is accessible through the firewall if Windows Firewall is enabled in the mirror SQL Server K16-ocs.los_a.lsipt.local\rtc.

Port 7022 is accessible through the firewall if Windows Firewall is enabled in the witness SQL Server AB14-lct.los_a.lsipt.local\rtc.

Accounts running the SQL Servers on all primary and mirror SQL servers have read/write permission to the file share <\\E04-OCS\csdatabase>

Verify that the Windows Management Instrumentation (WMI) provider is running on all these servers. The cmdlet uses this provider to find the account information for SQL Server services running on all primary, mirror and witness servers.

Verify that the account running this cmdlet has permission to create the folders for the data and log files for all the mirror servers.

Note that the user account that the SQL instance uses to run must have read/write permission to the file share. If the file share is on a different server, and the SQL instance runs a local system account, you must grant file share permissions to the server that hosts the SQL instance.

Type A and press ENTER.

The mirroring will be configured.

Install-CsMirrorDatabase installs the mirror and configures mirroring for all the databases that are present on the primary SQL store. If you want to configure mirroring for only specific databases, you can use the -DatabaseType option, or if you want to configure mirroring for all databases except for a few, you can use the -ExcludeDatabaseList option, along with a comma-separated list of database names to exclude.

For example, if you add the following option to Install-CsMirrorDatabase, all databases except rtcab and rtxds will be

mirrored.

-ExcludeDatabaseList rtcab,rtcxds

For example, if you add the following option to Install-CsMirrorDatabase, only the rtcab, rtcshared, and rtxcds databases will be mirrored.

-DatabaseType User

REMOVING OR CHANGING SQL MIRRORING

To remove the SQL mirroring of a pool in Topology Builder, you must first use a cmdlet to remove the mirror in SQL Server. You can then use Topology Builder to remove the mirror from the topology. To remove the mirror in SQL Server, use the following cmdlet:

```
Uninstall-CsMirrorDatabase -SqlServerFqdn <SQLServer FQDN> [-SqlInstanceName <SQLServer instance name>] -  
DatabaseType <Application | Archiving | CentralMgmt | Monitoring | User | BIStaging | PersistentChat |  
PersistentChatCompliance> [-DropExistingDatabasesOnMirror] [-Verbose]
```

For example, to remove mirroring and drop the databases for the User databases, type the following:

```
Uninstall-CsMirrorDatabase -SqlServerFqdn primaryBE.contoso.com -SqlInstanceName rtc -Verbose -DatabaseType  
User -DropExistingDatabasesOnMirror
```

The -DropExistingDatabasesOnMirror option causes the affected databases to be deleted from the mirror.

Then, to remove the mirror from the topology, do the following:

In Topology Builder, right-click the pool and click Edit Properties.

Uncheck Enable SQL Store Mirroring and click OK.

Publish the topology.

IMPORTANT:

Whenever you make a change to a Back End Database mirroring relationship, you must restart all the Front End Servers in the pool.

For a change in mirroring, (such as changing the location of a mirror), you must use Topology Builder to perform these three steps:

Remove mirroring from the old mirror server.

Add mirroring to the new mirror server.

Publish the topology.

REMOVING A MIRRORING WITNESS

Use this procedure if you need to remove the witness from a Back End Server mirroring configuration.

In Topology Builder, right-click the pool and click Edit Properties.

Uncheck Use SQL Server mirroring witness to enable automatic failover and click OK.

Publish the topology.

After publishing the topology, Topology Builder you will see a message that includes the following

Run the Uninstall-CsMirrorDatabase cmdlet to remove databases that are paired with following primary databases.

However, do not follow that step, and do not type Uninstall-CsMirrorDatabase as that would uninstall the entire mirroring configuration.

To remove just the witness from the SQL Server configuration, follow the instructions in "Remove the Witness from a Database Mirroring Session (SQL Server)" at <http://go.microsoft.com/fwlink/?LinkId=268456>.

Question: 4

You need to configure the conferencing settings to support the conferencing requirements and the business requirements.

What should you do?

A. Modify the global conferencing policy. Create a site-level conferencing policy for the managers and a site-level conferencing policy for the executives.

B. Create a per-user conferencing policy for all users, a per-user conferencing policy for the managers, and a per-user conferencing policy for the executives.

C. Modify the global conferencing policy. Create a per-user conferencing policy for the managers and a per-user

conferencing policy for the executives.

D. Create a site-level conferencing policy for all users, a site-level conferencing policy for the managers, and a per-user conferencing policy for the executives.

Answer: C

Question: 5

The company is planning to implement help and support resources for users that use the Lync Server 2013 conferencing features.

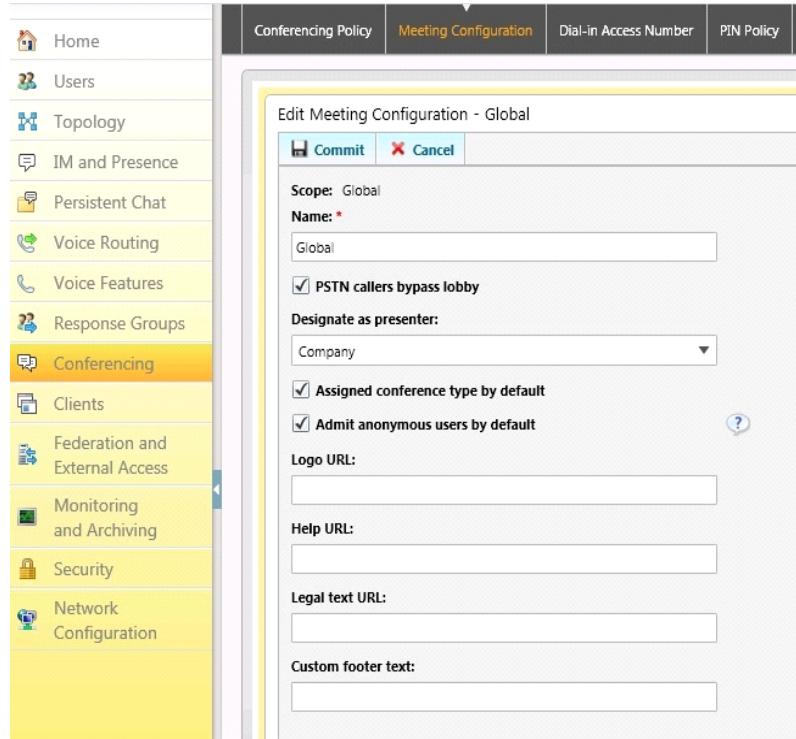
You need to ensure that the users can access the help and support resources by clicking a URL from a meeting invitation.

What should you do?

- A. Run the Set-CsConferenceDisclaimer cmdlet.
- B. From the Microsoft Lync Server 2013 Control Panel, modify the conferencing policy settings.
- C. Run the Set-CsMeetingRoom cmdlet.
- D. From the Microsoft Lync Server 2013 Control Panel, modify the meeting configuration settings.

Answer: D

Explanation:



Question: 6

HOTSPOT

You are evaluating how many servers are required for the planned Lync Server 2013 deployment.

You need to identify which components can be collocated on the Front End Servers and which components must be installed on a new server.

Which components should you identify for which servers?
To answer, configure the appropriate components in the answer area.

Answer Area

Edge Server

Mediation Server

Monitoring Server

Office Web Apps server

Answer Area

Edge Server

Can be collocated on Front End Server
Must be installed on a separate server

Mediation Server

Can be collocated on Front End Server
Must be installed on a separate server

Monitoring Server

Can be collocated on Front End Server
Must be installed on a separate server

Office Web Apps server

Can be collocated on Front End Server
Must be installed on a separate server

Answer:

Answer Area

Edge Server

Can be collocated on Front End Server
Must be installed on a separate server

Mediation Server

Can be collocated on Front End Server
Must be installed on a separate server

Monitoring Server

Can be collocated on Front End Server
Must be installed on a separate server

Office Web Apps server

Can be collocated on Front End Server
Must be installed on a separate server

Question: 7

You are evaluating the implementation of the planned monitoring solution.

You need to recommend which tasks must be performed to meet the monitoring requirements.

Which cmdlet should you include in the recommendation?

- A. Set-CsArchivingConfiguration
- B. Set-CsQoEConfiguration
- C. Set-CsCDRConfiguration
- D. Set-CsHealthMonitoringConfiguration

Answer: B

Explanation:

"A monitoring solution must save call quality data for 180 days". The default is 60 days. The Set-CsQoEConfiguration cmdlet with the –KeepQoEDataForDays option can be used to change the value to 180 days.

Question: 8

You need to recommend which task must be performed to meet the backup requirements.

Which cmdlet should you recommend using?

- A. Export-CsConfiguration
- B. Backup-CsPool
- C. Restore-CsDatabase
- D. Export-CsUserData

Answer: A

Explanation:

Export-CsConfiguration, Exports your Lync Server topology, policies, and configuration settings to a file. Among other things, this file can then be used to restore this information to the Central Management store after an upgrade, a hardware failure, or some other issue has resulted in data loss.

<http://technet.microsoft.com/en-us/library/hh202170.aspx>

Question: 9

Which cmdlet should you run to move the users to the planned Lync Server 2013 infrastructure?

- A. Move-CsManagementServer
- B. Move-CsLegacyUser
- C. Move-ADObject
- D. Move CsUser

Answer: D

Explanation:

<http://technet.microsoft.com/en-us/library/gg398528.aspx>

Move-CsLegacyUser is to move users from Office Communication Server 2007 to Lync Server only,

otherwise use Move-CsUser

Question: 10

You need to recommend changes to the existing SQL Server environment to support Lync Server 2013 during the coexistence period.

What should you recommend?

- A. Upgrade to SQL Server 2008 R2 on the existing servers that have SQL Server deployed.
- B. Upgrade to SQL Server 2012 on the existing servers that have SQL Server deployed.
- C. Create a new SQL Server instance on the existing servers that have SQL Server deployed.
- D. Implement a new server that has SQL Server 2012 deployed.

Answer: D

Explanation:

<http://technet.microsoft.com/en-us/library/gg425764.aspx>

You must use separate and distinct computers running Microsoft SQL Server 2008 R2 or Microsoft SQL Server 2012 for your Lync Server 2013 database instances. You cannot use the same instance of SQL Server for a Lync Server 2013 Front End pool that you use for a Lync Server 2010 or Office Communications Server 2007 R2 Front End pool. If you define and configure Lync Server 2013 in Topology Builder for a deployment that already has Lync Server 2010 or Office Communications Server 2007 R2 deployed, Topology Builder will not allow you to define an instance of a Lync Server 2013 that is already in use in the topology.

Topology Builder will display the following message to inform you of this issue: "The SQL server [FQDN of the server] already contains a SQL instance hosting role 'User Store'."

Coexistence Scenarios

Lync Server 2013 can coexist with components of either a Lync Server 2010 deployment or an Office Communications Server 2007 R2 deployment. Concurrent deployment of Lync Server 2013 with both Lync Server 2010 and Office Communications Server 2007 R2 (concurrent deployment of all three versions) is not supported.

During a phased migration in which a previous Lync Server 2010 or Office Communications Server 2007 R2 deployment coexists temporarily with the new Lync Server 2013 deployment, support for mixed version routing is limited. For details, see the Migration documentation.

You must use separate and distinct computers running Microsoft SQL Server 2008 R2 or Microsoft SQL Server 2012 for your Lync Server 2013 database instances. You cannot use the same instance of SQL Server for a Lync Server 2013 Front End pool that you use for a Lync Server 2010 or Office Communications Server 2007 R2 Front End pool. If you define and configure Lync Server 2013 in Topology Builder for a deployment that already has Lync Server 2010 or Office Communications Server 2007 R2 deployed, Topology Builder will not allow you to define an instance of a Lync Server 2013 that is already in use in the topology.

Topology Builder will display the following message to inform you of this issue: "The SQL server [FQDN of the server] already contains a SQL instance hosting role 'User Store'."

Note:

If you intend to deploy server roles that are new to your Lync Server 2013 deployment, you should first upgrade your existing deployment as described in the Migration documentation and the Deployment documentation, and then deploy the new server roles as described in the Planning documentation and Deployment documentation. If you are migrating a previous version of Group Chat, migrate it last, after completing the process for migrating all other components from Lync Server 2010 or Office Communications Server 2007 R2.

For specific coexistence requirements and other details about coexistence and migration of Lync Server 2010 or Office Communications Server 2007 R2 and Lync Server 2013 components, see [Migration from Lync Server 2010 to Lync Server 2013](#) and [Migration from Office Communications Server 2007 R2 to Lync Server 2013](#) in the Migration documentation. For details about mixed version support for clients, see [Supported Clients from Previous Deployments](#).

Case Study: 3 Litware, Inc Case A

Overview

General Overview

Litware, Inc., is an international manufacturing company that has 4,000 employees. The company has a sales department, a marketing department, a research department, and a human resources department.

Litware has a partner company named Fabrikam, Inc. Fabrikam has an office in Paris. Fabrikam uses a XMPP-based instant messaging (IM) solution.

Physical Locations

Litware has seven offices located throughout North America and Europe.

Litware has two data centers. The data centers are located in New York and London. All communications for the North American offices are routed through the New York data center.

All communications for the European offices are routed through the London data center.

The number of users in each office is shown in the following table.

Office location	Number of users
New York	1,500
Miami	50
Los Angeles	60
London	1,500
Frankfurt	50
Barcelona	75
Amsterdam	80

Existing Environment

Active Directory Environment

Litware has an Active Directory forest named litwareinc.com. The forest contains a single domain. All domain controllers run Windows Server 2008 R2.

Each office contains five domain controllers. Each office is configured as an Active Directory site.

Lync Server Environment

Litware has a Lync Server 2010 infrastructure that contains two servers in the New York office. The servers are configured as shown in the following table.

Server name	Role
Lync1	Standard Edition Front End Server
Lync2	Edge Server

The SIP domain is litwareinc.com.

Litware has a Microsoft Exchange Server 2013 organization.

Problem Statements

Users in the London office report poor video quality during conferences.

Requirements

Business Goals

Litware wants to minimize the costs associated with purchasing hardware and software.

Planned Changes

Litware plans to migrate the Lync Server 2010 infrastructure to Lync Server 2013. The migration will have a coexistence period of six months.

Litware plans to implement the following components as part of the planned migration:

- Persistent Group Chat
- The unified contact store
- Enterprise Voice for all users
- A central site in each data center
- A branch site in each branch office
- A Front End pool in each central site
- Microsoft Lync Phone Edition devices
- Pool pairing

Litware plans to create a federation relationship with Fabrikam.

Technical Requirements

Litware identifies the following technical requirements for the planned migration:

- Users must be able to use all Lync Server features if a single server fails.
- Users must be able to connect to the Lync Server infrastructure if a single central site fails.
- Members of a group named Temp_Contractors must be prevented from using Microsoft Lync 2013 when they connect remotely.
- Only users in the human resources department must be able to access and discover a persistent chat room named HRConfidential.

Security Requirements

Litware plans to deploy remote access. Some users work remotely from their customers' offices, which have firewall restrictions. All of the remote users must be able to connect to the Lync Server infrastructure by using TCP port 443.

Question: 1

DRAG DROP

You are planning the Lync Server 2013 migration.

You need to identify which management tools must be used to achieve the following migration tasks during the coexistence period:

Move users from Lync Server 2010 to Lync Server 2013.

Add a server that has Lync Server 2013 deployed to the topology.

Remove a server that has Lync Server 2010 deployed from the topology.

Which tools should you identify?

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

Management Tools	Answer Area
<input type="checkbox"/> Lync Server 2010 Topology Builder	Move users from Lync Server 2010 to Lync Server 2013. Management tool
<input type="checkbox"/> Lync Server 2013 Topology Builder	Add a server that has Lync Server 2013 deployed to the topology. Management tool
<input type="checkbox"/> Microsoft Lync Server 2010 Control Panel	Remove a server that has Lync Server 2010 deployed from the topology. Management tool
<input type="checkbox"/> Microsoft Lync Server 2013 Control Panel	

Answer:

Box 1:

Microsoft Lync Server 2013 Control Panel

Box 2:

Lync Server 2013 Topology Builder

Box 3:

Lync Server 2013 Topology Builder

Explanation:

<http://technet.microsoft.com/en-us/library/jj205369.aspx>

Question: 2

DRAG DROP

You are evaluating the deployment of the Persistent Chat feature.

You need to recommend which tasks must be performed to create HRConfidential.

Which three actions should you recommend?

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

Actions	Answer Area
Set the privacy of the chat room to Secret .	
Set the privacy of the chat room to Closed .	
Create a category and set the scope of the category.	
Run the New-CsPersistentChatPolicy cmdlet.	
Run the New-CsPersistentChatRoom cmdlet.	

Answer:

- A) Create a category and set the scope of the category.
- B) Run the **New-CsPersistentChatRoom** cmdlet.
- C) Set the privacy of the chat room to **Secret**.

Explanation:

Note:

* From the scenario we have: Only users in the human resources department must be able to access and discover a persistent chat room named HRConfidential

* Select a privacy setting for your room from the three options:

Open – Anyone will be able to find this room (via search), open it, and read and write in (“post to”) it. Open rooms have no “membership” per se.

Closed – Non-members will be able to find this room and see who is a member, but only members will be able to open the room, read or post to it. (This is the default setting.)

Secret – on-members won’t be able to find this room, learn who has membership in it, or read or post to it.

* New-CsPersistentChatRoom

Creates a new Persistent Chat chat room. A chat room is a discussion forum that typically revolves around a specific topic.

* New-CsPersistentChatPolicy

Creates a new Persistent Chat policy at the site or the per-user scope. Persistent Chat policies determine whether or not users are allowed access to Persistent Chat chat rooms.

Question: 3

DRAG DROP

You need to recommend which Lync Server 2013 components must be deployed to support the planned changes. The solution must meet the technical requirements.

Which components should you recommend?

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

Components		Answer Area	
	Director server	Each central site	Component
	Edge Server		Component
	Enterprise Edition Front End Server		Component
	Mediation Server		Component
	Persistent Chat Server	Each branch site	Component
	Standard Edition Front End Server		
	Survivable Branch Appliance		

Answer:

*Each central site

Edge Server

Enterprise Edition Front End Server

Mediation Server

Persistent Chat Server

*Each branch site

Survivable Branch Appliance

Question: 4

You need to recommend a remote access solution for each central site. The solution must meet the security

requirements and the technical requirements.

What are two possible recommendations that achieve the goal? (Each correct answer presents a complete solution. Choose two.)

A.

- Deploy two Edge Servers that are load balanced by using DNS load balancing.
- Deploy a network address translation (NAT) solution.
- Assign one public IP address to each Edge Server service on each Edge Server.

B.

- Deploy two Edge Servers that are load balanced by using a hardware load balancer.
- Assign one public IP address to each Edge Server service on each Edge Server.
- Assign three public IP addresses to the hardware load balancer.

C.

- Deploy two Edge Servers that are load balanced by using a hardware load balancer.
- Deploy a network address translation (NAT) solution.
- Assign one public IP address to each Edge Server.

D.

- Deploy two Edge Servers that are load balanced by using a hardware load balancer.
- Assign one public IP address to each Edge Server.
- Assign two public IP addresses to the hardware load balancer.

Answer: AB

Explanation:

<http://technet.microsoft.com/en-us/library/gg425716.aspx>

Question: 5

You need to plan for the implementation of the DHCP configurations for the Lync Phone Edition devices.

Which three configurations should be applied to the Lync Phone Edition devices from DHCP? (Each correct answer presents part of the solution. Choose three.)

- A. The FQDN of the Lync Server pool registrar
- B. The IP address of a time server
- C. The URL of the certificate provisioning service of the Lync Server pool
- D. The IP address of a Mediation Server
- E. The SIP domain

Answer: A, B, C

[http://technet.microsoft.com/en-us/library/gg425854\(OCS.14\).aspx](http://technet.microsoft.com/en-us/library/gg425854(OCS.14).aspx)

Question: 6

You are evaluating a disaster recovery solution for the planned Front End pools.

You need to recommend a solution for restoring access to the Central Management store if the Front End pool fails. Which cmdlet should you include in the recommendation?

- A. Invoke-CsManagementServerFailover
- B. Import-CsConfiguration

- C. Invoke-CsPoolFailover
- D. Move-CsManagementServer

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/jj204647.aspx>

Question: 7

HOTSPOT

You are evaluating the implementation of an Edge Server.

You need to identify which ports must be open on the firewall to support the planned federation relationship.

Which port should you open between the Internet and the planned Edge Server?

To answer, configure the appropriate protocol and port in the answer area.

Answer Area

Protocol

Port

Answer Area

Protocol

TCP
UDP

Port

5060
5061
5066
5269

Answer:

Answer Area

Protocol

TCP
UDP

Port

5060
5061
5066
5269

Explanation:

Note:

Protocol/TCP or UDP/Port, Source (IP address), Destination (IP address), Comments

*XMPP/TCP/5269

IP address or addresses of XMPP federated partners

Access Edge External Standard server-to-server communication port for XMPP.

Allows communication to the Edge-deployed XMPP proxy from federated XMPP partners

*XMPP/TCP/5269

Access Edge External IP address or addresses of XMPP federated partners

Standard server-to-server communication port for XMPP.

Allows communication from the Edge-deployed XMPP proxy to federated XMPP partners

Question: 8

HOTSPOT

You need to identify which DNS record must be implemented for the planned federation relationship.

Which DNS record should you identify?

To answer, select the appropriate configurations for the DNS record in the answer area.

Answer Area

Type of DNS record

Name of DNS record

Location

Answer Area

Type of DNS record

Service Location (SRV)
Test (TXT)

Name of DNS record

_xmpp-server._tcp.litwareinc.com
_sipfederationtls._tcp.litwareinc.com

Location

External DNS zone
Internal DNS zone

Answer:

Answer Area

Type of DNS record

Service Location (SRV)
 Test (TXT)

Name of DNS record

_xmpp-server._tcp.litwareinc.com
 _sipfederationtls._tcp.litwareinc.com

Location

External DNS zone
 Internal DNS zone

Explanation:

Note:

Protocol/TCP or UDP/Port, Source (IP address), Destination (IP address), Comments

*XMPP/TCP/5269

IP address or addresses of XMPP federated partners

Access Edge External Standard server-to-server communication port for XMPP.

Allows communication to the Edge-deployed XMPP proxy from federated XMPP partners

*XMPP/TCP/5269

Access Edge External IP address or addresses of XMPP federated partners

Standard server-to-server communication port for XMPP.

Allows communication from the Edge-deployed XMPP proxy to federated XMPP partners

General Overview**From the case...**

Litware, Inc., is an international manufacturing company that has 4,000 employees. The company has a sales department, a marketing department, a research department, and a human resources department.

Litware has a partner company named **Fabrikam, Inc.** Fabrikam has an office in Paris.

Fabrikam uses a XMPP-based instant messaging (IM) solution.

Extensible Messaging and Presence Protocol (XMPP) TCP PORT 5269

Planned Federation Relationship in Litware-Case A is XMPP Federation

The Partner Company uses XMPP for IM

Answer is: Use Port TCP/5269 which is for XMPP Federation

Port Summary - Single Consolidated Edge with Public IP Addresses

The Lync Server 2013, Edge Server functionality described in this scenario architecture is very similar to what was implemented in Lync Server 2010. The most noticeable addition is the port 5269 over TCP entry for the extensible messaging and presence protocol (XMPP). Lync Server 2013 optionally deploys an XMPP proxy on the Edge Server or Edge pool and the XMPP gateway server on the Front End Server or Front End pool. Planning information for the reverse proxy and federation are found in Scenarios for Reverse Proxy and Planning for SIP, XMPP Federation and Public Instant Messaging sections, respectively.

Port and Protocol Details

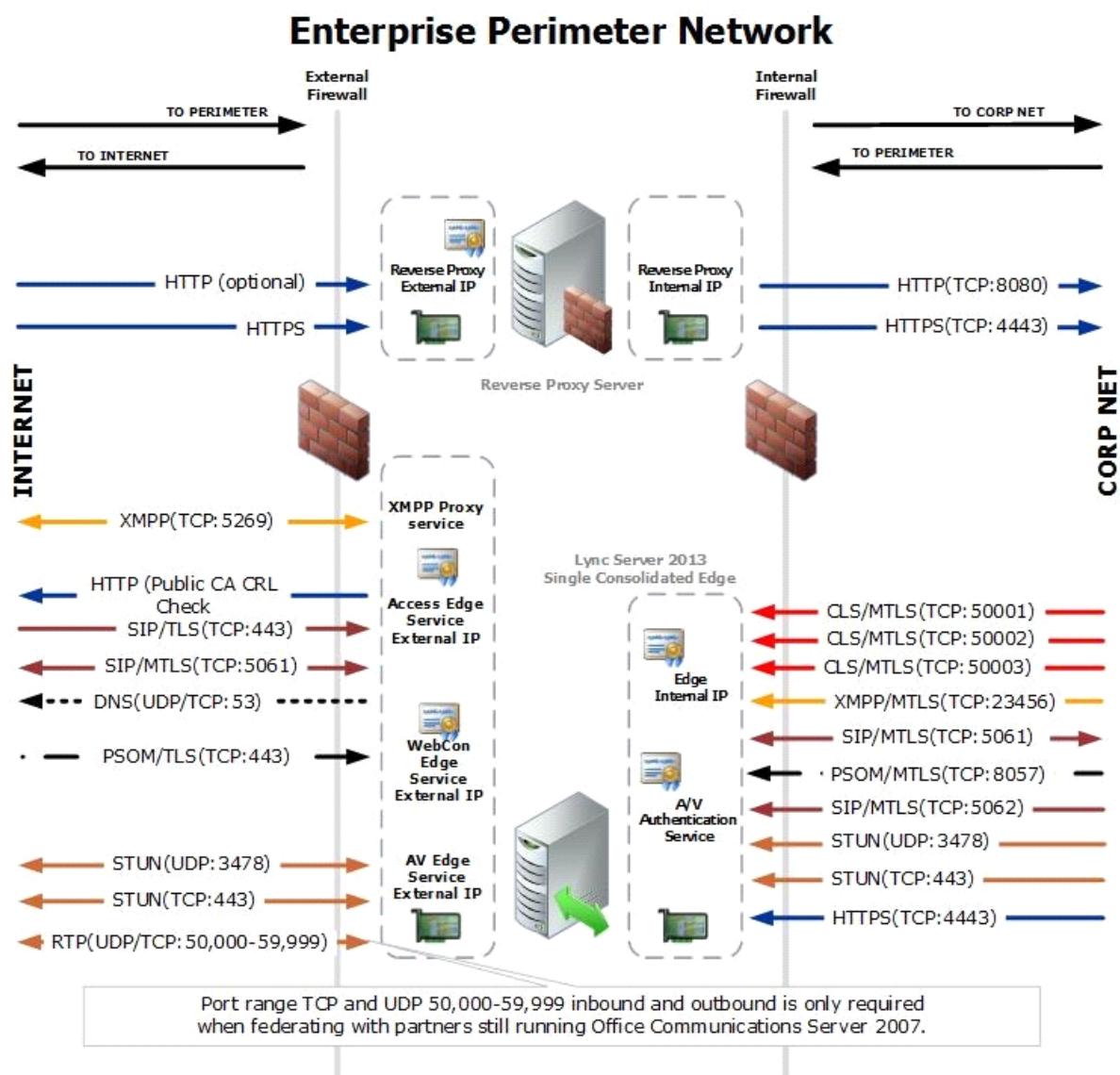
We recommend that you open only the ports required to support the functionality for which you are providing external access.

For remote access to work for any edge service, it is mandatory that SIP traffic is allowed to flow bidirectionally as shown in the Inbound/Outbound edge traffic figure. Stated another way, the SIP messaging to and from the Access Edge service is involved in instant messaging (IM), presence, web conferencing, audio/video (A/V) and federation.

Firewall Summary for Single Consolidated Edge with Public IP Addresses: External Interface

Firewall Summary for Single Consolidated Edge with Public IP Addresses: External Interface			
Role/Protocol/TCP or UDP/Port	Source IP address	Destination IP address	Notes
XMPP/TCP/5269	Any	XMPP Proxy service (shares IP address with Access Edge service)	XMPP Proxy service accepts traffic from XMPP contacts in defined XMPP federations
Access/HTTP/TCP/80	Edge Server Access Edge service public IP address	Any	Certificate revocation/CRL check and retrieval
Access/DNS/TCP/53	Edge Server Access Edge service public IP address	Any	DNS query over TCP
Access/DNS/UDP/53	Edge Server Access Edge service public IP address	Any	DNS query over UDP
Access/SIP(TLS)/TCP/443	Any	Edge Server Access Edge service public IP address	Client-to-server SIP traffic for external user access
Access/SIP(MTLS)/TCP/5061	Any	Edge Server Access Edge service public IP address	For federated and public IM connectivity using SIP
Access/SIP(MTLS)/TCP/5061	Edge Server Access Edge service public IP address	Any	For federated and public IM connectivity using SIP
Web Conferencing/PSOM(TLS)/TCP/443	Any	Edge Server Web Conferencing Edge service public IP address	Web Conferencing media
A/V/RTP/TCP/50,000-59,999	Edge Server Access Edge service public IP address	Any	Required for federating with partners running Office Communications Server 2007, Office Communications Server 2007 R2, Lync Server 2010 and Lync Server 2013.
A/V/RTP/UDP/50,000-59,999	Edge Server A/V Edge service public IP address	Any	Required only for federation with partners running Office Communications Server 2007
A/V/RTP/TCP/50,000-59,999	Any	Edge Server A/V Edge service public IP address	Required only for federation with partners running Office Communications Server 2007.
A/V/RTP/UDP/50,000-59,999	Any	Edge Server A/V Edge service public IP address	Required only for federation with partners running Office Communications Server 2007.
A/V/STUN,MSTURN/UDP/3478	Edge Server A/V Edge service public IP address	Any	3478 outbound is used to determine the version of Edge Server that Lync Server is communicating with and also for media traffic from Edge Server-to-Edge Server. Required for federation with Lync Server 2010, Windows Live Messenger, and Office Communications Server 2007 R2, and also if multiple Edge pools are deployed within a company.
A/V/STUN,MSTURN/UDP/3478	Any	Edge Server A/V Edge service public IP address	STUN/TURN negotiation of candidates over UDP/3478
A/V/STUN,MSTURN/TCP/443	Any	Edge Server A/V Edge service public IP address	STUN/TURN negotiation of candidates over TCP/443
A/V/STUN,MSTURN/TCP/443	Edge Server A/V Edge service public IP address	Any	STUN/TURN negotiation of candidates over TCP/443

In addition to IPv4, the Edge Server now supports IPv6. For clarity, only IPv4 is used in the scenarios.



Firewall Summary for Federation

Role/Protocol/TCP or UDP/Port	Source IP address	Destination IP address	Notes
Access/SIP(MTLS)/TCP/5061	Access Edge service public IP address	Any	For federated and public IM connectivity using SIP

Firewall Summary – Public Instant Messaging Connectivity

Role/Protocol/TCP or UDP/Port	Source IP address	Destination IP address	Notes
Access/SIP(MTLS)/TCP/5061	Public IM connectivity partners	Edge Server Access Edge service	For federated and public IM connectivity using SIP
Access/SIP(MTLS)/TCP/5061	Edge Server Access Edge service	Public IM connectivity partners	For federated and public IM connectivity using SIP
Access/SIP(TLS)/TCP/443	Clients	Edge Server Access Edge service	Client-to-server SIP traffic for external user access
A/V/RTP/TCP/50,000-59,999	Edge Server A/V Edge service	Live Messenger clients	Used for A/V sessions with Windows Live Messenger if public IM connectivity is configured.
A/V/STUN,MSTURN/UDP/3478	Edge Server A/V Edge service	Live Messenger clients	Required for public IM connectivity with Windows Live Messenger
A/V/STUN,MSTURN/UDP/3478	Live Messenger clients	Edge Server A/V Edge service	Required for public IM connectivity with Windows Live Messenger

Firewall Summary for Extensible Messaging and Presence Protocol

Protocol/TCP or UDP/Port	Source (IP address)	Destination (IP address)	Comments
XMPP/TCP/5269	Any	Edge Server Access Edge service interface IP address	Standard server-to-server communication port for XMPP. Allows communication to the Edge Server XMPP proxy from federated XMPP partners
XMPP/TCP/5269	Edge Server Access Edge service interface IP address	Any	Standard server-to-server communication port for XMPP. Allows communication from the Edge Server XMPP proxy to federated XMPP partners
XMPP/MTLS /TCP/23456	Any	Each internal Edge Server Interface IP	Internal XMPP traffic from the XMPP Gateway on the Front End Server or Front End pool to the Edge Server internal IP address or each Edge pool member's internal IP address

Question: 9

DRAG DROP

You need to identify which tasks must be performed to move the Central Management store during the planned migration.

Which three actions should you identify?

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

Actions	Answer Area
From a server that has Lync Server 2013 deployed, run the Enable-CsTopology cmdlet.	
From a server that has Lync Server 2013 deployed, run the Install-CsDatabase cmdlet.	
From Lync1, run the Move-CsManagementServer cmdlet.	
From a server that has Lync Server 2013 deployed, run the Move-CsManagementServer cmdlet.	
From Lync1, run the Export-CsConfiguration cmdlet.	

Answer:

Box 1:

From a server that has Lync Server 2013 deployed, run the **Install-CsDatabase** cmdlet.

Box 2:

From a server that has Lync Server 2013 deployed, run the **Enable-CsTopology** cmdlet.

Box 3:

From a server that has Lync Server 2013 deployed, run the **Move-CsManagementServer** cmdlet.

Explanation:

Lync1 is a Lync 2010 Server - so we DO NOT RUN any commands on Lync1 to move the Central Management Store
Run Install-CsDatabase from one of the 2013 Front-Ends
Enable-CsTopology - commonly done on the same Front-End server
Move-CsManagementServer - again, target Front-End Pool, commonly done on the same FE.

Question: 10

You need to recommend which tasks must be performed to implement the planned unified contact store.
Which three actions should you recommend? (Each correct answer presents part of the solution. Choose three.)

- A. From a server that has Lync Server 2013 deployed, run the Set-CsUserServicesPolicy cmdlet.
- B. From a server that has Lync Server 2013 deployed, run the Set-CsClientPolicy cmdlet.
- C. From a server that has Lync Server 2013 deployed, run the New-CsPartnerApplication cmdlet.
- D. From a server that has Exchange Server 2013 deployed, run the Configure-EnterprisePartnerApplication.ps1 script.
- E. From a server that has Exchange Server 2013 deployed, run the ExchUCUtil.ps1 script.

Answer: A, C, D

Explanation:

<http://blog.insidelync.com/2012/08/the-lync-2013-preview-unified-contact-store-ucs/>

Question: 11

DRAG DROP

You need to identify which tasks must be performed to configure pool pairing between the Front End pools.

Which four actions should you identify?

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

Actions	Answer Area
Run the Export-CsConfiguration cmdlet.	
Run the Invoke-CsBackupServiceSync cmdlet.	
From Topology Builder, publish the topology.	
From Topology Builder, associate a backup pool.	
Run the bootstrapper, and then start the Lync Server Backup service.	
Implement Microsoft SQL Server database mirroring.	

Answer:

Answer Area

From Topology Builder, associate a backup pool.

From Topology Builder, publish the topology.

Run the bootstrapper, and then start the Lync Server Backup service.

Run the **Invoke-CsBackupServiceSync** cmdlet.

Explanation:

Deploying Paired Front End Pools for Disaster Recovery

<http://technet.microsoft.com/en-us/library/jj204773.aspx>

Deploying Paired Front End Pools for Disaster Recovery

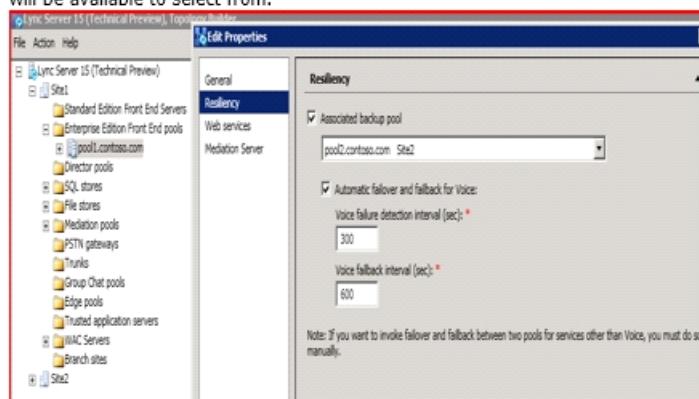
Lync Server 2013

Topic Last Modified 2013-02-21

You can easily deploy the disaster recovery topology of paired Front End pools using Topology Builder.

To deploy a pair of Front End pools

1. If the pools are new and not yet defined, use Topology Builder to create the pools.
2. In Topology Builder, right-click one of the two pools, and then click **Edit Properties**.
3. Click **Resiliency** in the left pane, and then select **Associated Backup Pool** in the right pane.
4. In the box below **Associated Backup Pool**, select the pool that you want to pair with this pool. Only existing pools that are not already paired with another pool will be available to select from.



5. Select **Automatic failover and fallback for Voice**, and then click **OK**. When you view the details about this pool, the associated pool now appears in the right pane under **Resiliency**.
6. Use Topology Builder to publish the topology.

7. If the two pools were not yet deployed, deploy them now and the configuration will be complete. You can skip the final two steps in this procedure. However, if the pools were already deployed before you defined the paired relationship, you must complete the following two final steps.
8. On every Front End Server in both pools, run the following:
9. <system drive>\Program Files\Microsoft Lync Server 2013\Deployment\Bootstrapper.exe

This configures other services required for backup pairing to work correctly.

10. From a Lync Server Management Shell command prompt, run the following:
11. Start-CsWindowsService -Name LYNCBACKUP
12. Force the user and conference data of both pools to be synchronized with each other, with the following cmdlets:
13. Invoke-CsBackupServiceSync -PoolFqdn <Pool1 FQDN>
14. Invoke-CsBackupServiceSync -PoolFqdn <Pool2 FQDN>

Synchronizing the data may take some time. You can use the following cmdlets to check the status. Make sure that the status in both directions is in steady state.

```
Get-CsBackupServiceStatus -PoolFqdn <Pool1 FQDN>
Get-CsBackupServiceStatus -PoolFqdn <Pool2 FQDN>
```

NOTE:

The **Automatic failover and fallback for Voice** option and the associated time intervals in Topology Builder apply only to the voice resiliency features that were introduced in Lync Server 2010. Selecting this option does not imply that the pool failover discussed in this document is automatic. Pool failover and fallback always require an administrator to manually invoke the failover and fallback cmdlets, respectively.

Case Study: 4

Litware, Inc Case B

Overview

General Overview

Litware, Inc. is an international manufacturing company that has 10,000 users.

Physical Locations

Litware has two offices. The offices are located in New York and Denver.

The offices connect to each other by using a WAN link. Each office connects directly to the Internet.

Existing Environment

Active Directory Infrastructure

The network contains an Active Directory forest named litware.com. The forest contains a single domain. All domain controllers run Windows Server 2008 R2.

Each office contains two domain controllers. Each office is configured as an Active Directory site.

Lync Server 2010 Infrastructure

Litware has a Lync Server 2010 infrastructure in the New York office. The infrastructure contains servers and appliances. The servers and appliances are configured as shown in the following table.

Server name	Role	Pool name
Lync01	Front End Server	pool1
Lync02	Edge Server	pool2
Lync03	Mediation Server	pool3
Lync04	Group Chat Server	<i>Not applicable</i>

All of the servers that have Lync Server 2010 deployed are monitored by using Microsoft System Center Operations Manager.

All client computers have either Microsoft Lync 2010 or Microsoft Office Communicator 2007 R2 installed.

Administrators configure the following Lync Server 2010 features:

- IM and presence for all sites
- External user access for IM and conferencing
- Conferencing for all sites
- Response groups
- Group Chat

Problem Statements

Litware identifies the following issues:

- Users report that other users who are not listed on their contact list can see their presence information. This also occurs when the users set their privacy mode to allow only the users on their contact list to see their presence information.
- The users report that when they connect to meetings remotely, they cannot use presenter controls.

Requirements

Business Goals

Litware plans to minimize hardware and software purchasing costs.

Planned Changes

Litware plans to upgrade to Lync Server 2013 during the next six months and plans to implement the following changes during the upgrade:

- Migrate the current Front End pool to an Enterprise Edition Front End pool named fepool1 that will contain two servers named Lync13_01 and Lync13_02.
- Migrate Group Chat to Persistent Chat.

Technical Requirements

Litware identifies the following technical requirements for the planned changes:

- Users running previous client versions must be able to use chat features after the server is migrated to Persistent Chat.
- Users who have mobile devices must be able to receive notifications if the Lync mobile application is inactive.
- A client computer named Monitor01 must be used to monitor client connectivity by using synthetic transactions.
- All response groups must be migrated to Lync Server 2013.
- External users must be able to expand distribution groups.
- External users must be able to download meeting content.
- The Lync 2013 Windows Store app must be supported.

High Availability Requirements

The new Lync Server 2013 infrastructure in the New York office must be available if a single server fails.

Question: 1

You need to recommend a solution to resolve the presence information issue.

You verify that enhanced presence privacy mode is enabled for all users.

What should you recommend including in the solution?

- A. A client version policy

- B. A conferencing policy
- C. A presence policy
- D. A client policy

Answer: A

Question: 2

HOTSPOT

You need to move all users to the new Lync Server 2013 infrastructure.

What command should you run? (To answer, configure the appropriate command in the answer area.)

Get-CsUser	-Identity all -OnLyncServer -UnassignedUser	Move-CsUser Set-CsUser Enable-CsUser	-Target -RegistrarPool -ProxyPool	fepool1.litware.com pool1.litware.com lync13_01.litware.com
------------	---	--	---	---

Answer:

Get-CsUser	-Identity all -OnLyncServer -UnassignedUser	Move-CsUser Set-CsUser Enable-CsUser	-Target -RegistrarPool -ProxyPool	fepool1.litware.com pool1.litware.com lync13_01.litware.com
------------	--	--	--	--

Question: 3

You need to recommend which type of client connection the remote users must use to prevent the connection issue. Which Lync client or clients should you recommend? (Choose all that apply.)

- A. Lync 2013
- B. Lync Web App
- C. Lync Windows Store app
- D. Lync Attendee

Answer: AB

A: Lync 2013 is the full-featured client for Lync Server. The Lync 2013 user interface has been fully redesigned and includes newly integrated features, such as Persistent Chat (Lync 2010 had a separate client for chat functionality), tabbed conversations, video preview, and multiparty video

B:

* Lync Web App is the client of choice for participants outside your organization. With Lync Web App, no local client installation is required, although audio, video, and sharing features require installation of a plug-in during first use.

* Lync Web App is the web-based conferencing client for Lync Server 2013 meetings. In this release, the addition of computer audio and video to Lync Web App provides a complete in-meeting experience for anyone who does not have a Lync client installed locally. Meeting participants have access to all collaboration and sharing features and presenter meeting controls.

Note:

* From scenario:

/ Migrate Group Chat to Persistent Chat

/ Users running previous client versions must be able to use chat features after the server is migrated to Persistent Chat.

Incorrect:

Not C:

* Lync Windows Store app supports most of the commonly-used features for contact management, conversations, and calls. For advanced features such as delegate set up, team calls, response groups, and persistent chat, use Lync 2013 for the desktop instead.

Not D:

* Because of the enhancements to Lync Web App, an updated version of Microsoft Lync 2010 Attendee is not available for Lync Server 2013.

* Lync 2010 Attendant The Microsoft Lync 2010 Attendant integrated call-management program enables a receptionist to manage multiple conversations at the same time through rapid call handling, IM, and onscreen routing.

Reference: Clients for Lync Server 2013

Question: 4

You need to implement a solution to meet the notification requirements for the mobile devices. The solution must meet the technical requirements.

Which three actions should you perform before you enable push notification? (Each correct answer presents part of the solution. Choose three.)

- A. Configure a reverse proxy.
- B. Add a hosting provider.
- C. Modify the client policy.
- D. Configure accepted domains.
- E. Enable federation.

Answer: B, D, E

Explanation:

Reference: How to Enable Push Notifications for Lync Mobile iPhone & Windows 7 Phone

<http://msexchangeanywhere.wordpress.com/2012/01/13/how-to-enable-push-notifications-for-lync-mobile-iphone-windows-phone-7-2/>

HOW TO ENABLE PUSH NOTIFICATIONS FOR LYNC MOBILE – (IPHONE & WINDOWS PHONE 7)

Push notifications, in the form of badges, icons, or alerts, can be sent to a mobile device even when the mobile application is inactive. Push notifications notify a user of events such as a new or missed IM invitation, missed calls, and voice mail. The Microsoft Lync Server 2010 Mobility Service sends the notifications to the cloud-based Microsoft Lync Server 2010 Push Notification Service, which then sends the notifications to the Apple Push Notification Service (APNS) or the Microsoft Push Notification Service (MPNS).

Push Notification requires a Lync or OCS EDGE Server and Federation with Lync Online because Push Notification works via Lync Online Federation.

1. First step is to create new hosting provider federation with Lync Online.

```
New-CsHostingProvider -Identity "LyncOnline" -Enabled $True -ProxyFqdn  
"sipfed.online.lync.com" -VerificationLevel UseSourceVerification
```

2. Add push.lync.com to the allowed domains list

```
New-CsAllowedDomain -Identity "push.lync.com"
```

3. Enable Push Notifications (iPhone & WP7)

```
Set-CsPushNotificationConfiguration -EnableApplePushNotificationService $True -  
EnableMicrosoftPushNotificationService $True
```

4. Enable Federation if you have not already done that in your environment

```
Set-CsAccessEdgeConfiguration -AllowFederatedUsers $True
```

5. Test Lync Online Federation

```
Test-CsFederatedPartner -TargetFqdn internaledge.contoso.com -Domain push.lync.com -  
ProxyFqdn sipfed.online.lync.com
```

6. Test Push Notifications

```
Test-CsMxPushNotification -AccessEdgeFqdn internaledge.contoso.com
```

Question: 5

HOTSPOT

You need to recommend which names must be included in the certificate installed on Lync13_02. Which names should you recommend? (To answer, select the appropriate names in the answer area.)

Name	Required	Not required
SN=fepool1.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SN=lync13_02.litware.com	<input checked="" type="radio"/>	<input type="radio"/>
SAN=*.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SAN=fepool1.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SAN=lync13_01.litware.com	<input checked="" type="radio"/>	<input type="radio"/>
SAN=lync13_02.litware.com	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Name	Required	Not required
SN=fepool1.litware.com	<input checked="" type="radio"/>	<input type="radio"/>
SN=lync13_02.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SAN=*.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SAN=fepool1.litware.com	<input checked="" type="radio"/>	<input type="radio"/>
SAN=lync13_01.litware.com	<input type="radio"/>	<input checked="" type="radio"/>
SAN=lync13_02.litware.com	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:<http://technet.microsoft.com/en-us/library/gg398094.aspx>

Certificate MUST have the Pool Name as the Subject Name (SN) and SAN Name and the Server Name in the SAN.

Question: 6

You need to recommend the minimum number of Lync servers required to support the Lync Server 2013 infrastructure in the New York office. The solution must meet the high availability requirements.

How many servers should you recommend deploying to each network? (To answer, select the appropriate number of servers for each network in the answer area.)

Lync servers on the external network:

Lync servers on the internal network:

Reverse proxy servers on the external network:

Reverse proxy servers on the internal network:

Select four.

- A. Lync servers on the external network: 0
- B. Lync servers on the external network: 1
- C. Lync servers on the external network: 2
- D. Lync servers on the external network: 3
- E. Lync servers on the external network: 4
- F. Lync servers on the internal network: 0
- G. Lync servers on the internal network: 1
- H. Lync servers on the internal network: 2
- I. Lync servers on the internal network: 3
- J. Lync servers on the internal network: 4
- K. Reverse proxy servers on the external network: 0
- L. Reverse proxy servers on the external network: 1
- M. Reverse proxy servers on the external network: 2
- N. Reverse proxy servers on the internal network: 0
- O. Reverse proxy servers on the internal network: 1
- P. Reverse proxy servers on the internal network: 2

Answer: C, J, M, N

Question: 7

You are evaluating the migration of the response groups.

You need to identify which statement correctly describes the migration of the response groups to Lync Server 2013.

Which statement should you identify?

- A. An administrator must modify the topology after the response groups are migrated to Lync Server 2013.
- B. An administrator must re-enable all users for Enterprise Voice after the response groups are migrated to Lync Server 2013.
- C. All of the response groups must be recreated after the users are moved to Lync Server 2013
- D. All of the response groups must be migrated in a single migration operation.

Answer: D

Question: 8

You install System Center 2012 Operations Manager on a server named SCOM01. You import the Lync 2013 Server Management Pack to SCOM01.

You need to configure monitoring to meet the technical requirements.

Which three actions should you perform before you configure the synthetic transactions? (Each correct answer presents part of the solution. Choose three.)

- A. Install the Lync Server 2013 core components on SCOM1.
- B. Install the SCOM agent on Monitor01.
- C. Run watchernode.msi on Monitor01.
- D. Install the Lync Server 2013 core components on Monitor01.
- E. Run watchernode.msi on SCOM01.

Answer: BCD

Explanation:

* From Scenario:

A client computer named Monitor01 must be used to monitor client connectivity by using synthetic transactions.

* You must run Watchernode.msi on a computer where both the Operations Manager (SCOM) agent files and the Lync Server 2013 core components are installed.

Note:

* Watcher nodes are computers that periodically run Lync Server synthetic transactions. Synthetic transactions are Windows PowerShell cmdlets that verify that key end user scenarios—such as the ability to sign in to the system, or the ability to exchange instant messages—are working as expected.

Reference: Installing and Configuring Watcher Nodes

Question: 9

You are evaluating the migration of the response groups.

You need to identify which statement correctly describes the migration of the response groups to Lync Server 2013.

Which statement should you identify?

- A. All of the response groups must be recreated after the users are moved to Lync Server 2013.
- B. All of the response groups must be migrated in a single migration operation.
- C. An administrator must modify the topology after the response groups are migrated to Lync Server 2013.
- D. An administrator must re-enable all users for Enterprise Voice after the response groups are migrated to Lync Server 2013.

Answer: B

Question: 10

DRAG DROP

You need to recommend which actions must be performed to add the planned Lync Server 2013 servers.

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

Answer Area

From Lync Server 2013 Topology Builder, save a copy of the topology.

From Lync Server 2010 Topology Builder, publish the topology.

From Lync Server 2013 Topology Builder, publish the topology.

From Lync Server 2013 Topology Builder, configure the topology.

From Lync Server 2010 Topology Builder, save a copy of the topology.

From Lync Server 2010 Topology Builder, configure the topology.

Answer:

Box 1: From the Lync Server 2010 Topology Builder, save a copy of the topology.

Box 2: From the Lync Server 2013 Topology Builder, configure the topology.

Box 3: From the Lync Server 2013 Topology Builder, publish the topology.

Explanation:

Note:

* From scenario:

/ Litware plans to upgrade to Lync Server 2013

Question: 11**HOTSPOT**

After the migration, users report that when they connect remotely, they fail to sign in by using the Lync 2013 Windows Store app.

You verify the external DNS records for Lync and locate the records shown in the following table.

Record type	FQDN
Service location (SRV)	_sipfederationtls._tcp.litware.com
Service location (SRV)	_sip._tls.litware.com
Host (A)	Sip.litware.com

You need to ensure that the users can sign in by using the Lync 2013 Windows Store app.

What DNS record should you create? (To answer, select the appropriate configuration in the answer area.)

Record type:

Host (A)
Service location (SRV)
Text (TXT)

FQDN:

Lyncdiscover.litware.com
Lyncdiscoverinternal.litware.com
_sipinternaltls.litware.com
_sipinternaltls._tcp.litware.com
_siptls._tcp.litware.com

Answer:

Record type:

Host (A)
Service location (SRV)
Text (TXT)

FQDN:

Lyncdiscover.litware.com
Lyncdiscoverinternal.litware.com
_sipinternaltls.litware.com
_sipinternaltls._tcp.litware.com
_siptls._tcp.litware.com

Question: 12

You need to ensure that the Client Computers that have Office Communicator 2007 R2 installed can use IM and Presence and can join Web Conferences Hosted on Lync Server 2013.

The solution must minimize Administrative effort.

What should you do?

- A. Modify the Client Version Policy allow all versions of office Communicator 2007 R2 to connect
- B. Implement Communicator Web Access Server
- C. Apply the latest hot fixes to Office Communicator 2007 R2.
- D. Update the computers to Lync 2010

Answer: A

Explanation:

The presence and IM features in Office Communicator 2007 R2 are compatible with Lync Server 2013, but conferencing features are not. During migration from Office Communications Server 2007 R2, Office Communicator 2007 R2 is suitable for presence and IM interoperability, but users should use Lync Web App 2013 to join Lync Server 2013 meetings.

Ref: <http://technet.microsoft.com/en-us/library/jj204672.aspx>

Case Study: 5

Contoso Ltd. Case B

Overview

General Overview

Contoso, Ltd. is an international manufacturing company that has 30,000 users.

Contoso has the following departments: sales, research, marketing, human resources, executive, manufacturing, and legal. The sales department has 2,000 users. All of the users in the sales department are located in the United States. The research department has 3,000 users. All of the users in the research department are located in Europe.

Physical Locations

Contoso has two main offices. The offices are located in Houston and Frankfurt. Each office has 15,000 users.

The offices connect to each other by using an MPLS network. Each office connects directly to the Internet.

Existing Environment

Lync Server Infrastructure

Contoso has a Lync Server 2010 infrastructure that only uses internal instant messaging (IM) and presence. The infrastructure contains a single Enterprise Edition Front End pool that services all of the users.

Contoso uses a SIP domain of contoso.com for all of the users.

Client computers have either Microsoft Office Communicator 2007 R2 installed or Microsoft Lync 2010 installed.

Before deploying Lync Server 2013 and migrating the users to Lync Server 2013, you implement a small pilot project to test the functionality of Lync Server 2013.

Problem Statements

The users in the pilot report that occasionally, they cannot sign in to Lync 2013.

Requirements

Business Goals

Contoso plans to upgrade to Lync Server 2013 during the next six months. Contoso must deploy all of the Lync Server conferencing and edge services. Contoso must also configure federation with its parent company, which is named Proseware, Inc. Proseware is located in Europe and has an Office Communication Server 2007 R2 infrastructure.

Contoso must minimize hardware and software purchasing costs, while guaranteeing performance levels for all Lync Server 2013 workloads.

Planned Changes

Contoso plans to implement the following workloads in the Lync Server 2013 deployment:

- Federation
- Dial-in conferencing
- External user access
- Audio, video, and web conferencing
- The ability to host Lync meetings that have external participants

The FQDNs of the edge services will be configured as shown in the following table.

Service	United States region	Europe region
Access Edge	us-ae.contoso.com	Eu-ae.contoso.com
Web Conferencing Edge	us-wc.contoso.com	Eu-wc.contoso.com
A/V Edge	us-av.contoso.com	Eu-av.contoso.com

Technical Requirements

Contoso identifies the following technical requirements for the planned deployment:

- Only federation to Proseware must be allowed.
- All of the edge services must use default ports.
- WAN traffic and Internet traffic must be minimized.
- All of the user contacts stored in Lync Server 2013 must be backed up.
- The sales department must have a dedicated dial-in conferencing number. All other users in both the United States and Europe must use a pool of regional dial-in conferencing numbers.
- If a single component fails, all Lync services must remain available without the need for manual intervention. Performance degradation is acceptable during a component failure state.
- The conversations of all the sales department users must be archived for 30 days. The conversations of all the research department users must be archived for 90 days. No other conversations must be archived.
- After the migration to Lync Server 2013, all client computers will have three months to upgrade to Lync 2013. After three months, legacy clients must be blocked from accessing the Lync Server 2013 infrastructure.

Security Requirements

Contoso identifies the following security requirements for the planned deployment:

- All Lync Server conferences must use a unique URL.
- Each Internet-facing service must have one or more dedicated public IP addresses.
- Only the users in the human resources department must be prevented from connecting to Lync Server remotely.

Question: 1

DRAG DROP

You need to identify the cause of the authentication issue for the pilot users.

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

Answer Area	
Run Start-CsClsLogging .	
Run Stop-CsClsLogging .	
Open the log file by running snooper.exe .	
Run Set-CsClsRegion .	
Run Update-CsClsLogging .	
Run Search-CsClsLogging .	

Answer:

Box 1: Update-CsClsLogging

Box 2: Run Start-CsClsLogging

Box 3: Run Stop-CsClsLogging

Box 4: Open the log file by running snooper.exe.

Explanation:

Note:

* From scenario:

/ Before deploying Lync Server 2013 and migrating the users to Lync Server 2013, you implement a small pilot project to test the functionality of Lync Server 2013.

/ Problem Statements

The users in the pilot report that occasionally, they cannot sign in to Lync 2013.

* Start-CsClsLogging

Starts the specified scenario centralized logging service scenario. Centralized logging provides a way for administrators to simultaneously enable or disable Lync Server 2013 tracing on multiple computers.

* set-CsClsRegion

Modifies an existing centralized logging configuration region. Centralized logging provides a way for administrators to simultaneously enable or disable event tracing on multiple computers.

* Update-CsClsLogging

Updates the duration time for all active centralized logging scenarios.

* (incorrect) Search-CsClsLogging

Provides a command-line option for searching the centralized logging service log files.

* The centralized logging service (which replaces the OCSLogger and OCSTracer tools used in Microsoft Lync Server 2010) provides a way for administrators to manage logging and tracing for all computers and pools running Lync Server 2013. Centralized logging enables administrators to stop, start, and configure logging for one or more pools and computers by using a single command;

Question: 2

You need to configure the Lync Server 2013 infrastructure to meet the security requirements for the human resources

department. The solution must minimize administrative effort.
What should you do?

- A. Create a new user-level external access policy.
- B. Modify the Access Edge Configuration settings.
- C. Create a new user-level client policy.
- D. Modify the global external access policy.

Answer: A

Question: 3

HOTSPOT

You need to configure the required external DNS record to support federation. The solution must meet the business goals and the technical requirements.

How should you configure the DNS record? (To answer, select the appropriate options for the DNS record in the answer area.)

Record type:	<input type="button" value="▼"/>
<input type="checkbox"/> Host (A) <input type="checkbox"/> Service location (SRV)	
Service:	<input type="button" value="▼"/>
<input type="checkbox"/> _sip._tls.contoso.com <input type="checkbox"/> _sipfederationtls._tcp.contoso.com	
Port number:	<input type="button" value="▼"/>
<input type="checkbox"/> 443 <input type="checkbox"/> 5061	
Host offering service:	<input type="button" value="▼"/>
<input type="checkbox"/> Eu-ae.contoso.com <input type="checkbox"/> Us-ae.contoso.com	

Answer:

Record type: Host (A) Service location (SRV) **Service location (SRV)**

Service: _sip._tls.contoso.com _sipfederationtls._tcp.contoso.com **_sipfederationtls._tcp.contoso.com**

Port number: 443 5061 **5061**

Host offering service: Eu-ae.contoso.com **Eu-ae.contoso.com** Us-ae.contoso.com

Explanation:

Reference: Configuring DNS Records

<http://technet.microsoft.com/en-us/library/bb870389%28v=office.12%29.aspx>

Table 2 DNS Records for the Single-Site Edge Topology

Interface	Server	DNS Settings
External	Collocated Access Edge Server	<p>An external SRV record for all Access Edge Servers for _sipfederationtls._tcp.<domain>, over port 5061 (where <domain> is the name of the SIP domain of your organization). This SRV should point to an A record with the external FQDN of the Access Edge Server. If you have multiple SIP domains, you need a DNS SRV record for each domain. This SRV record supports federation and public IM connectivity.</p> <p>A DNS SRV (service location) record for _sip._tls.<domain>, over port 443 where <domain> is the name of your organizations SIP domain. This SRV record must point to the A record of the Access Edge Server. If you have multiple SIP domains, you need a DNS SRV record for each domain. This SRV record supports external user access through Office Communicator and the Live Meeting client.</p> <p>Note:</p> <p>Configuring multiple SRV records for the same SIP domain is not supported. If multiple DNS records are returned to a DNS SRV query, the Access Edge Server always picks the DNS SRV record with the lowest numerical priority and highest numerical weight.</p> <p>For each supported SIP domain in your organization, an external DNS A record for sip.<domain> that points to the external interface of the Access Edge Server and resolves to the external IP address on the firewall. If you have multiple SIP domains, you need a DNS A record for each. If a client cannot perform an SRV record lookup to connect to the Access Edge server, it uses this A record as a fallback.</p> <p>An external DNS A record that resolves the external FQDN of the Web Conferencing Edge Server to its external IP address.</p>
	Reverse proxy	An external DNS A record that resolves the external Web farm FQDN to the external IP address of the reverse proxy. The client uses this record to connect to the reverse proxy.
	Access Edge Server	An internal DNS A record that resolves the internal FQDN of the Access Edge Server to its internal IP address.

Question: 4

You need to recommend a backup solution to meet the technical requirements. Which tool should you include in the recommendation?

- A. Export-CsUserData
- B. Ocslogger
- C. Snooper
- D. Get-CsAdContact
- E. Dbimpexp

Answer: A

Explanation:

Reference: Export-CsUserData

<http://technet.microsoft.com/en-us/library/jj204897.aspx>

Export-CsUserData

Detailed Description

The Export-CsUserData cmdlet provides a way for administrators to Export User Data and/or Conference Directory for a Lync Server Pool.

That data, which can be saved in the User Data format used by either Lync Server 2013 or Microsoft Lync Server 2010 can then be imported by using the Import-CsUserData cmdlet.

To return a list of all the role-based access control (RBAC) roles this cmdlet has been assigned to (including any custom RBAC roles you have created yourself), run the following command from the Windows PowerShell command-line interface prompt:

```
Get-CsAdminRole | Where-Object {$_.Cmdlets -match "Export-CsUserData"}
```

Lync Server Control Panel: The functions carried out by the Export-CsUserData cmdlet are not available in the Lync Server Control Panel.

Question: 5

HOTSPOT

You need to ensure that the Lync Server 2013 infrastructure meets the security requirement for conferences.

Which setting should you modify in Meeting Configuration? (To answer, select the appropriate setting in the answer area.)

Answer:

The screenshot shows the Lync Server 2013 management interface. On the left is a navigation menu with items like Home, Users, Topology, IM and Presence, Persistent Chat, Voice Routing, Voice Features, Response Groups, Conferencing (which is selected), Clients, Federation and External Access, Monitoring and Archiving, Security, and Network Configuration. The main area is titled 'Edit Meeting Configuration - Global'. It contains fields for Name (Global), PSTN callers bypass lobby (checked), Designate as presenter (Company dropdown), Assigned conference type by default (checked and highlighted with a red border), Admit anonymous users by default (checked), Logo URL, Help URL, Legal text URL, and Custom footer text.

Question: 6

You need to ensure that the client computers that have Office Communicator 2007 R2 installed can use IM and presence and can join web conferences hosted on Lync Server 2013. The solution must minimize administrative effort. What should you do?

- A. Implement Communicator Web Access Server.
- B. Modify the client version policy to allow all versions of Office Communicator 2007 R2 to connect,
- C. Upgrade the computers to Lync 2010.
- D. Apply the latest hotfixes to Office Communicator 2007 R2

Answer: B

Question: 7

The Lync Server 2013 infrastructure was implemented successfully three months ago. You need to recommend a solution to meet the technical requirements. Which cmdlet should you run?

- A. Set-CsClientVersionConfiguration
- B. Set-CsClientVersionPolicy
- C. Set-CsMobilityPolicy
- D. Set-CsDeviceUpdateConfiguration

E. Set-CsClientPolicy

Answer: B

Question: 8

You need to identify the dial-in conferencing configurations required to meet the technical requirements for the sales department.

Which two configurations should you identify? (Each correct answer presents part of the solution. Choose two.)

- A. Create a user-level conferencing policy. Assign the conferencing policy to the sales department users.
- B. Create a user-level dial plan. Assign the dial plan to the sales department users.
- C. Create a new dial-in access number. Assign the dial-in access number to a dial-in conferencing region.
- D. Create a user-level voice policy. Assign the voice policy to the sales department users.
- E. Create a new meeting configuration. Assign the meeting to a site.

Answer: BC

Explanation:

Note:

* The sales department must have a dedicated dial-in conferencing number. All other users in both the United States and Europe must use a pool of regional dial-in conferencing numbers.

Question: 9

You need to identify the minimum number of Lync Server 2013 servers and supporting server roles required in each Lync site to meet the business goals and the technical requirements.

How many servers should you identify? (To answer, select the appropriate number servers in the answer area.)

Edge Servers per site:

Front End Servers per site:

Office Web Apps servers per site:

Microsoft SQL Servers per site:

- A. Edge Servers per site: 0
- B. Edge Servers per site: 1
- C. Edge Servers per site: 2
- D. Edge Servers per site: 3
- E. Front End Servers per site: 0
- F. Front End Servers per site: 1
- G. Front End Servers per site: 2
- H. Front End Servers per site: 3
- I. Office Web Apps servers per site: 0
- J. Office Web Apps servers per site: 1
- K. Office Web Apps servers per site: 2
- L. Office Web Apps servers per site: 3

- M. Microsoft SQL Servers per site: 0
- N. Microsoft SQL Servers per site: 1
- O. Microsoft SQL Servers per site: 2
- P. Microsoft SQL Servers per site: 3

Answer: C, H, K, P

Explanation:

Contoso must minimize hardware and software purchasing costs, while guaranteeing performance levels for all Lync Server 2013 workloads.

If a single component fails, all Lync services must remain available without the need for manual intervention. Performance degradation is acceptable during a component failure state.

For the number of users, 3 FE servers are required. In the event of a failure, one server could not handle 15,000 users. SQL mirroring is the recommended database HA solution in Lync 2013. To avoid manual intervention, you need a third server to act as a witness server. You could use a failover cluster using two servers but this tends to be more expensive in terms of hardware cost.

Question: 10

You need to recommend an archiving solution that meets the business goals and the technical requirements. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

- A. Create a new Front End pool. Home the sales department users and the research department users on the new pool. Configure archiving for the new pool.
- B. Create a new Front End pool for the sales department and a new Front End pool for the research department. Configure archiving for the new pools.
- C. Configure the global archiving policy.
- D. Home the sales department users on the Front End pool in the United States. Home the research department users on the Front End pool in Europe. Configure archiving for each pool.
- E. Create a new user-level archiving policy.

Answer: BC

Explanation:

* From scenario

The conversations of all the sales department users must be archived for 30 days. The conversations of all the research department users must be archived for 90 days. No other conversations must be archived.

Question: 11

You need to identify the minimum number of required public IP addresses for each Lync Server 2013 component. The solution must meet the business goals and the technical requirements.

How many public IP addresses should you identify for each component? (To answer, select the appropriate number of public IP addresses for each component in the answer area.)

Edge server: 

Hardware load balancer: 

Web component: 

Office Web Apps server: 

Select four.

- A. Edge server: 0
- B. Edge server: 1
- C. Edge server: 2
- D. Edge server: 3
- E. Hardware load balancer: 0
- F. Hardware load balancer: 1
- G. Hardware load balancer: 2
- H. Hardware load balancer: 3
- I. Web component: 0
- J. Web component: 1
- K. Web component: 2
- L. Web component: 3
- M. Office Web Apps: 0
- N. Office Web Apps: 1
- O. Office Web Apps: 2
- P. Office Web Apps: 3

Answer: D, H, J, N

Explanation:

Each Internet-facing service must have one or more dedicated public IP addresses

Question: 12

HOTSPOT

You are evaluating how many Servers are required for the planned Lync Server 2013 deployment.

You need to identify which components can be collocate on the Front End Servers

and which components must be installed on a new Server.

Which components should you identify for which servers?

To answer, configure the appropriate components in the answer area.

Edge Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Mediation Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Monitoring Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Office Web Apps server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server

Answer:

Edge Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Mediation Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Monitoring Server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server
Office Web Apps server	<input type="checkbox"/> Can be collocated on Front End Server <input checked="" type="checkbox"/> Must be installed on a separate server

Case Study: 6**Mix Questions****Question: 1**

You have a Lync Server 2013 infrastructure that contains an Enterprise Edition front end pool.

You plan to add the following server roles to the existing infrastructure:

Edge Server

Archiving Server

Monitoring Server

Persistent Chat Server

You need to identify the minimum number of Microsoft SQL Server servers that must be added to the existing Lync Server 2013 infrastructure. The solution must not use the existing SQL Server Back End Server.

What is the minimum number of SQL Server servers that you should identify?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg398102.aspx>

"You need to identify the minimum number of Microsoft SQL Server Servers that must be added to the existing Lync Server 2013 Infrastructure.

The solution MUST NOT use the existing SQL Server Back End Server."

We CANNOT use the existing Back End SQL Server

Persistent Chat on its own SQL Server

Edge Server DOES NOT require a SQL Server, it installs SQL Express Edition for local CMS

Monitoring and Archiving can be collocate onto the same SQL Server that is used by the Persistent Chat Server

The conclusion and the answer is:

The Minimum Number of Microsoft SQL Server Servers is: 1

Question: 2

HOTSPOT

You plan to deploy a Lync Server 2013 infrastructure that will contain the components shown in the following table.

Component name	Description	IP address
Server1	Enterprise Edition Front End Server	10.0.0.1
Server2	Enterprise Edition Front End Server	10.0.0.2
HLB VIP	Virtual IP address of a hardware load balancer	10.0.0.10

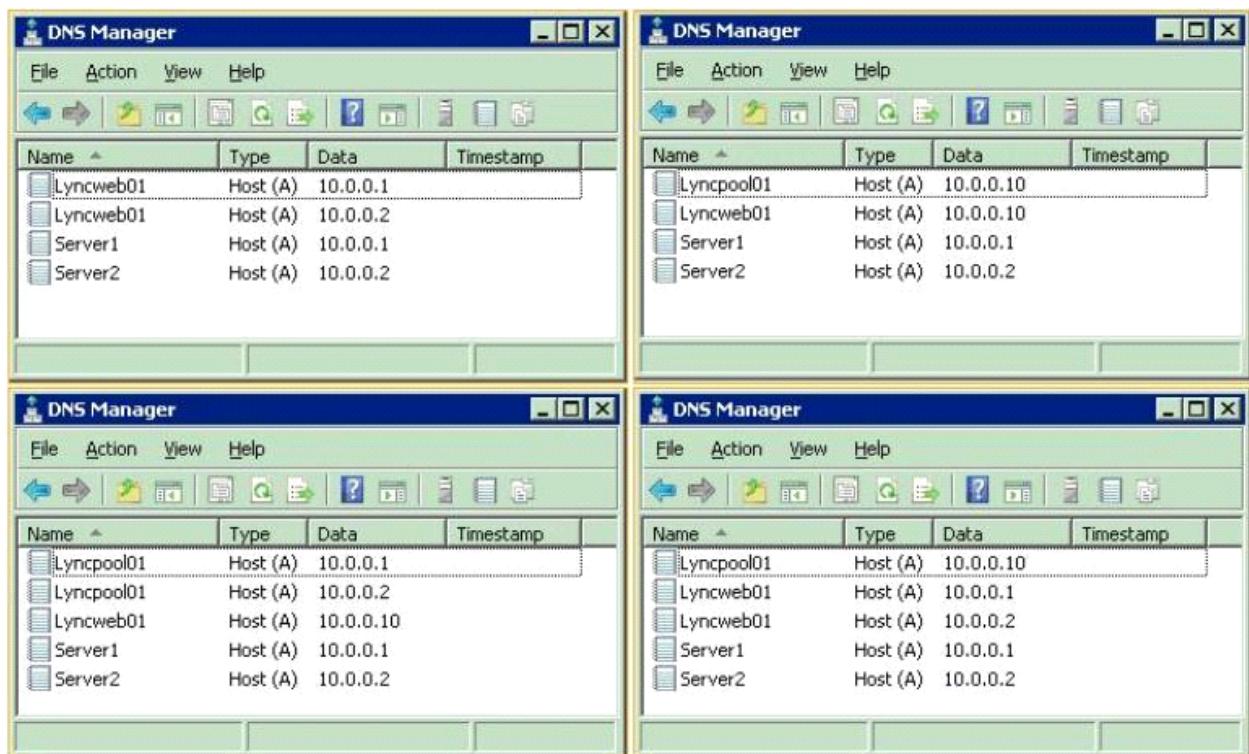
The fully qualified domain name (FQDN) of the Enterprise Edition pool will be lyncpool01.contoso.com. Lync web services will be accessed at a URL of <https://lyncweb01.contoso.com>.

You plan to use DNS load balancing for the Enterprise Edition pool.

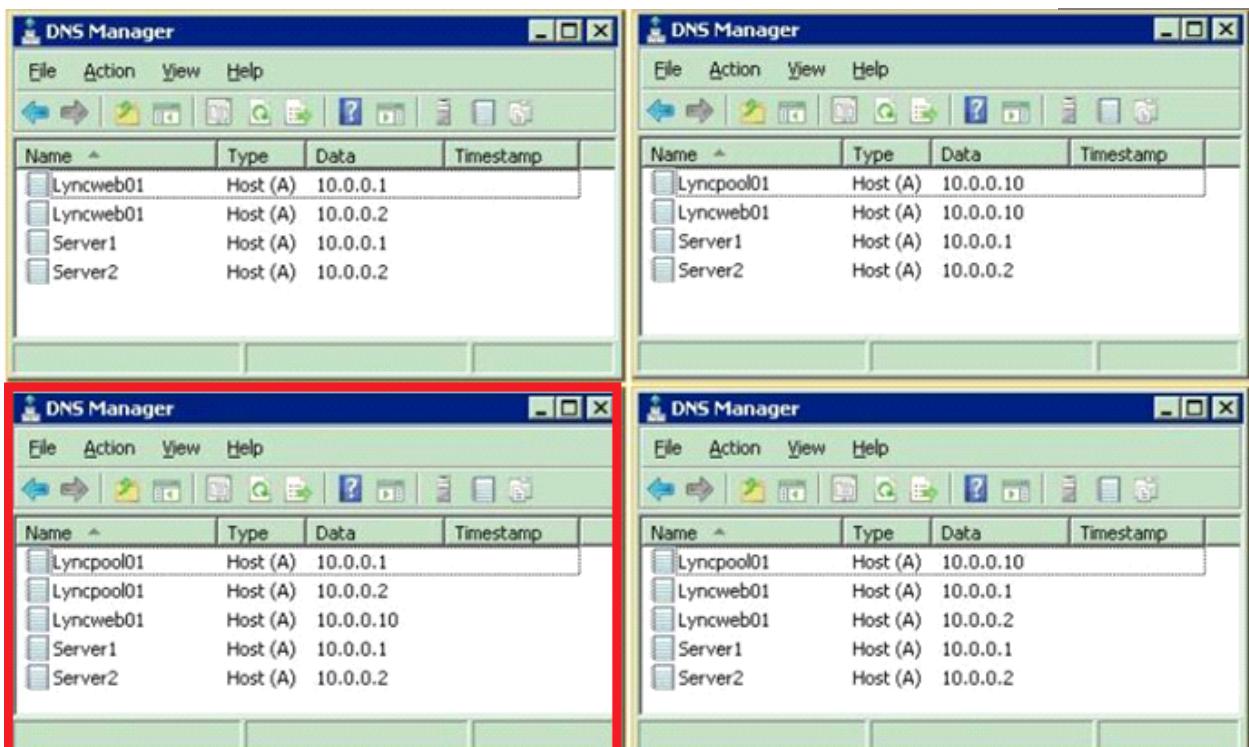
You need to identify which host (A) records must be created on the internal DNS servers to support the planned Lync Server 2013 deployment.

Which A record entries should you identify?

To answer, select the appropriate records in the answer area.



Answer:



Explanation:

Note: Before you can use DNS load balancing, you must do the following:

Override the internal Web Services pool FQDN.

Create DNS A host records to resolve the pool FQDN to the IP addresses of all the servers in the pool.

Create records for all member Front End Servers that will participate in DNS Load Balancing.

Enable IP Address randomization or, for Windows Server DNS, enable round robin.

Question: 3

Your company has a main office and a branch office. The main office is located in Amsterdam. The branch office is located in New York. Each office has a data center.

The offices connect to each other by using a high-bandwidth, low-latency WAN link.

You have a Lync Server 2013 infrastructure that contains 5,000 users.

You plan to deploy a persistent chat infrastructure.

You need to ensure that persistent chat rooms remain available if a Persistent Chat Server fails.

What should you do?

- A. Create one Persistent Chat Server pool that contains two active chat servers.
- B. Create two Persistent Chat Server pools that each contains one active chat server and one standby chat server.
- C. Create two Persistent Chat Server pools that each contains one active chat server.
- D. Create one Persistent Chat Server pool that contains one active chat server and one standby chat server.

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg398500.aspx>

Question: 4

You plan to deploy Lync Server 2013.

Your company uses only certificates that are purchased from a third-party certification authority (CA).

The company uses the following domain names to generate email addresses for users:

Adatum.com

Contoso.com

Fabrikam.com

Wingtiptoys.com

You plan to configure simple URLs for the planned deployment.

You need to recommend which meeting URLs to use. The solution must minimize the cost of purchasing certificates.

Which names should you include in the recommendation?

- A. <https://meet.contoso.com>
<https://meet.contoso.com/adatum.com>
<https://meet.contoso.com/fabrikam.com>
<https://meet.contoso.com/wingtiptoys.com>
- B.
<https://meet.contoso.com/contoso.com>
https://meet.contoso.com/*.com
- C. <https://meet.contoso.com>
<https://meet.adatum.com>
<https://meet.wingtiptoys.com>
<https://meet.fabrikam.com>
- D. <https://meet.contoso.com/contoso.com>
<https://meet.contoso.com/adatum.com>
<https://meet.contoso.com/fabrikam.com>
<https://meet.contoso.com/wingtiptoys.com>

Answer: C

Explanation:

<http://technet.microsoft.com/en-us/library/gg398287.aspx>

Question: 5

DRAG DROP

You have a Lync Server 2013 infrastructure.

You plan to provide remote users with the ability to establish the following:

Peer-to-peer calls between themselves and users on the internal network

Chat sessions from mobile devices

You need to recommend which components must be configured to provide the required access to the remote users.

Which components should you recommend?

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

Components	Answer Area	
the Access Edge service	Peer-to-peer calls between themselves and users on the internal network	Component
the A/V Edge service		Component
a reverse proxy		
the Web Conferencing Edge service	Chat sessions from mobile devices	Component
an XMPP Gateway		

Answer:

Box 1: the Access Edge service

Box 2: the A/V Edge Service

Box 3: a reverse proxy

Explanation:

Note:

* The Edge Servers send and receive network traffic for the services offered by internal deployment by external users.

The Edge Server runs the following services:

/Access Edge service The Access Edge service provides a single, trusted connection point for both outbound and inbound Session Initiation Protocol (SIP) traffic.

/Web Conferencing Edge service The Web Conferencing Edge service enables external users to join meetings that are hosted on your internal Lync Server 2013 deployment.

/A/V Edge service The A/V Edge service makes audio, video, application sharing, and file transfer available to external users. Your users can add audio and video to meetings that include external participants, and they can communicate using audio and/or video directly with an external user in point-to-point sessions. The A/V Edge service also provides support for desktop sharing and file transfer.

Authorized external users can access the Edge Servers in order to connect to your internal Lync Server 2013 deployment, but the Edge Servers do not provide a means for any other access to the internal network.

* the A/V Edge servers are able to accept connections for peer-to-peer calls and conference calls.

* The Reverse Proxy server is an optional, external component that is not a Lync Server role and is not defined in the Lync Topology. The reason this component is considered optional is because without it deployed an external Lync client can still connect to Lync and most features will function (IM, Presence, Calls, Desktop Sharing, etc) as will federated communications.

The reverse proxy is required for the following:

To allow users to connect to meetings or dial-in conferences using simple URLs

To enable external users to download meeting content

- To enable external users to expand distribution groups
- To allow the user to obtain a user-based certificate for client certificate based authentication
- To enable remote users to download files from the Address Book Server or to submit queries to the Address Book Web Query service
- To enable remote users to obtain updates to client and device software
- To enable mobile devices to automatically discover Front End Servers offering mobility services
- To enable push notifications to mobile devices from the Office 365 or Apple push notification services

Question: 6

DRAG DROP

You deploy a Lync Server 2013 infrastructure that contains an Edge Server named Server1. Server1 is configured as shown in the following table.

FQDN	Component	IP address
Sip.contoso.com	Access Edge service	131.107.1.1
Wc.contoso.com	Web Conferencing Edge service	131.107.1.2
Av.contoso.com	A/V Edge service	131.107.1.3

You plan to configure federation with your company's external partners.

You need to identify which ports must be allowed on the firewall to provide the instant messaging (IM), presence, and web conferencing features.

Which ports should you identify?

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

Ports	Answer Area	
	Destination	Ports to open
80	Sip.contoso.com	Port Port
443	Wc.contoso.com	Port
444		
3478		
5060		
5061		

Answer:

Sip.contoso.com:
 Box 1: 443
 Box 2: 5061
 Wc.contoso.com
 Box 3: 443
 Ref: <http://technet.microsoft.com/en-us/library/jj204756.aspx>

Question: 7

You plan to deploy a Lync Server 2013 infrastructure.

You plan to use a Microsoft SQL Server database mirror that has a witness.

A database administrator gives you a list of five servers that you can use for the deployment. The servers are configured as shown in the following table.

Server name	SQL Server version
SQL1	SQL Server 2008 Enterprise
SQL2	SQL Server 2008 R2 Standard
SQL3	SQL Server 2008 R2 Standard
SQL4	SQL Server 2008 Enterprise
SQL5	SQL Server 2008 R2 Enterprise

You need to identify which servers you must use for the SQL Server backend.

Which servers should you identify?

- A.
 - SQL2 and SQL3 for the mirror
 - SQL5 for the witness
- B.
 - SQL1 and SQL4 for the mirror
 - SQL5 for the witness
- C.
 - SQL2 and SQL3 for the mirror
 - SQL4 for the witness
- D.
 - SQL1 and SQL4 for the mirror
 - SQL2 for the witness

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg398990.aspx>

Question: 8

You are planning a Lync Server 2013 deployment.

You need to recommend which Lync Server 2013 components are required to meet the following requirements:

Presence, chat, and multiparty video conferencing features must be provided.

Quality of Experience (QoE) data and call detail recording (CDR) must be provided.

Lync Server services must be provided to internal users only.

Licensing costs must be minimized.

Which two components should you recommend? (Each correct answer presents part of the solution. Choose two.)

- A. A Director pool
- B. A Standard Edition server
- C. An Enterprise Edition pool
- D. An Edge pool
- E. A Microsoft SQL Server database

Answer: BE

Explanation:

This question only requires internal features, ("Lync Server Services must be provided to internal users only") and Edge is not required for this.

- . Presence, Chat, and Multiparty Video Conferencing features must be provided.
- . Quality of Experience (QoE) Data and Call Detail Recording (CDR) must be provided.
- . Lync Server Services must be provided to Internal Users only.
- . Licensing Costs must be minimized.

Question: 9**DRAG DROP**

Your company has several offices. The offices are located in one office building. The building is located in Seattle. The company has employees from Europe and North America.

The company has a phone at a security desk.

You implement Lync Server 2013 Enterprise Voice.

You need to implement call routing for emergency calls.

The solution must meet the following requirements:

If a user dials 112, the call must be routed to a phone extension of 0911.

If a user dials 0911, the call must be routed to the phone at the security desk.

The phone at the security desk must be used to forward calls to the emergency number in the Seattle offices only.

What should you use?

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

Technologies	Answer Area
a conferencing policy	If a user dials 112, the call must be routed to a phone extension of 0911. Technology
a Contact object	
Enterprise Voice-enabled users	If a user dials 0911, the call must be routed to the phone at the security desk. Technology
an external user access Policy	
a normalization rule	
a voice policy	
An unassigned number	The phone at the security desk must be used to forward calls to the emergency number in the Seattle offices only. Technology

Answer:

Box 1: a normalization rule

Box 2: a normalization rule

Box 3: a voice policy

Explanation:

Note:

* Normalization rules define how phone numbers expressed in various formats are to be routed for the named location. The same number string may be interpreted and translated differently, depending on the locale from which it is dialed. Normalization rules are necessary for call routing because users can, and do, use various formats when entering phone numbers in their Contacts lists.

Normalizing user-supplied phone numbers provides a consistent format that facilitates the following tasks:

* You can enable or disable the following call features for each voice policy:

/ Call forwarding enables users to forward calls to other phones and client devices. Enabled by default.

Etc.

Reference:

Question: 10

DRAG DROP

You have a Microsoft Office Communications Server 2007 R2 infrastructure that contains two servers. The servers are configured as shown in the following table.

Server name	Role
Server1	Standard Edition server
Server2	Edge Server

You plan to deploy Lync Server 2013.

You need to implement a pilot deployment of Lync Server 2013 for internal users.

You install a new server named Server3.

Which four actions should you perform next?

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

Actions	Answer Area
Install Lync Server 2013 on Server2.	
Install Lync Server 2013 on Server3.	
Create and publish the topology.	
Prepare the Active Directory infrastructure.	
Merge and publish the topology.	

Answer:

Box 1:

Prepare the Active Directory infrastructure.

Box 2:

Create and publish the topology.

Box 3:

Install Lync Server 2013 on Server3.

Box 4:

Merge and publish the topology.

Explanation:

Note:

* You use the Topology Builder Merge wizard to merge topology information. This tool collects information about your

Office Communications Server 2007 R2 environment, including Edge Server information, and publishes that information to a database shared with Lync Server 2013. After you publish the merged topology, Topology Builder is used to view the Office Communications Server 2007 R2 topology information and information about the newly deployed Lync Server 2013 topology.

Reference: Migration from Office Communications Server 2007 R2 to Lync Server 2013

Question: 11

DRAG DROP

You have a Lync Server 2013 infrastructure that contains two servers. The servers are configured as shown in the following table.

Server name	Role
Server1	Front End Server
Server2	Microsoft SQL Server

You deploy two new servers. The servers are configured as shown in the following table.

Server name	Location
Server3	Internal network
Server4	Perimeter network

You need to recommend changes to the infrastructure to meet the following requirements:

Ensure that remote users can connect to the network by using Microsoft Lync 2013.

Ensure that Server3 authenticates the remote users before the users connect to a Front End Server.

Which Lync Server 2013 server role should you recommend deploying to each server?

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

Server Roles	Answer Area
Director	Server3 Sever role
Edge Server	Server4 Sever role
Front End Server	
Mediation Server	

Answer:

Box 1: Director

Box 2: Edge Server

Explanation:

Note:

* Edge Server enables your users to communicate and collaborate with users outside the organization's firewalls. These external users can include the organization's own users who are currently working offsite, users from federated partner organizations, and outside users who have been invited to join conferences hosted on your Lync Server deployment.

* A Director is a server running Lync Server 2013 that authenticates user requests, but does not home any user accounts. You optionally can deploy a Director in the following two scenarios:

/ If you enable access by external users by deploying Edge Servers, you should also deploy a Director. In this scenario, the Director authenticates the external users, and then passes their traffic on to internal servers. When a Director is

used to authenticate external users, it relieves Front End pool servers from the overhead of performing authentication of these users. It also helps insulate internal Front End pools from malicious traffic such as denial-of-service attacks. If the network is flooded with invalid external traffic in such an attack, this traffic ends at the Director. / If you deploy multiple Front End pools at a central site, by adding a Director to that site you can streamline authentication requests and improve performance. In this scenario, all requests go first to the Director, which then routes them to the correct Front End pool.

Reference: Overview of the Director

Question: 12

You have a Lync Server 2010 infrastructure.

You plan to migrate to Lync Server 2013.

You have four client computers. The client computers are configured as shown in the following table.

Client computer type	Operating system	Installed client
A	Windows 7	Microsoft Office Communicator 2007
B	Windows XP	Microsoft Office Communicator 2007 R2
C	Windows 7	Microsoft Office Communicator 2007 R2
D	Windows XP	Microsoft Lync 2010

You need to identify which client computer types can use audio conferencing hosted on Lync Server 2013 without installing any additional software on the client computers.

Which client computer types should you identify?

- A. A
- B. B
- C. C
- D. D

Answer: D

Explanation:

<http://technet.microsoft.com/en-us/library/jj204672.aspx>

Supported Clients from Previous Releases

Lync Server 2013 supports the following clients from previous server releases. You can make certain previous clients available to users when they join meetings. For details, see Configuring the Meeting Join Page in the Deployment documentation.

- **Lync 2010** Lync 2010 provides a full desktop experience, including IM, enhanced presence, voice, video, sharing, and telephony. However, none of the new features introduced in Lync Server 2013 will be available until the user's client is upgraded to Lync 2013.
- **Lync 2010 Mobile** Lync Server 2013 supports all of the Microsoft Lync 2010 Mobile mobile apps. Microsoft Lync 2010 Mobile provides IM, enhanced presence, and telephony for users in your organization who are connecting from a smartphone or a phone running a Professional edition of Windows Mobile. You can instruct your users to install Microsoft Lync 2010 Mobile by directing them to the app marketplace for their mobile phone. For details, see "Planning for Mobile Clients" in the Lync Server 2010 documentation at <http://go.microsoft.com/fwlink/p/?LinkId=235955>.
- **Lync Phone Edition** Lync Phone Edition software for intelligent IP phones (for example, USB-attached phones) has not been updated for Lync Server 2013. Lync Phone Edition continues to be supported in for placing and receiving calls, enhanced presence, and client audio capabilities for conferences.
- **Lync 2010 Attendant** The Microsoft Lync 2010 Attendant integrated call-management program enables a receptionist to manage multiple conversations at the same time through rapid call handling, IM, and onscreen routing.

Client Interoperability in Lync 2013

This topic discusses the ability of Microsoft Lync Server 2013 clients to coexist and interact with clients from earlier versions

of Lync Server and Office Communications Server.

Server and Client Compatibility. The following table shows the supported combinations of client versions and server versions. This table indicates

whether sign-in is supported when the client attempts to connect to the server indicated. Lync Server 2013 supports the previous client version. Also, unlike previous releases, Lync Server 2010 supports the new Lync 2013 clients. This allows organizations who are upgrading from Lync Server 2010 to roll out new clients independent of Lync Server upgrades.

⁴The presence and IM features in Office Communicator 2007 R2 are compatible with Lync Server 2013, but conferencing features are not. During migration from Office Communications Server 2007 R2, Office Communicator 2007 R2 is suitable for presence and IM interoperability, but users should use Lync Web App 2013 to join Lync Server 2013 meetings.

Client	Lync Server 2013	Lync Server 2010	Office Communications Server 2007 R2
Lync 2013	Supported	Supported	Not Supported
Lync 2013 Basic	Supported	Supported	Not Supported
Lync Web App 2013	Supported	Not Supported	Not Supported
Lync 2010	Supported	Supported	Not Supported
Lync 2010 Attendant	Supported	Supported	Not Supported
Lync 2010 Group Chat	Supported ¹	Supported ²	Not Applicable
Lync Web App 2010	Not Supported	Supported	Not Supported
Lync 2010 Attendee	Not Supported ³	Supported	Not Supported
Office Communicator 2007 R2	Interoperable ⁴	Supported	Supported
Microsoft Office Communications Server 2007 R2 Attendant	Not Supported	Supported	Supported
Office Communicator 2007	Not Supported	Supported	Supported
Office Live Meeting 2007	Not Supported	Supported	Supported

¹For details, see [Migration from Lync Server 2010, Group Chat or Office Communications Server 2007 R2 Group Chat to Lync Server 2013, Persistent Chat Server](#).

²In Microsoft Lync Server 2010, group chat functionality was available with Group Chat Server, a third-party trusted application for Lync Server 2010. Lync 2013 clients are not compatible with Lync Server 2010, Group Chat.

³Lync Web App 2013 now provides a full in-meeting experience, including computer audio and video, and is considered the replacement for Lync 2010 Attendee. Lync 2010 Attendee will connect to Lync Server 2013 only when you are using an unsupported browser (Internet Explorer 6 or Internet Explorer 7) and Windows XP.

⁴The presence and IM features in Office Communicator 2007 R2 are compatible with Lync Server 2013, but conferencing features are not. During migration from Office Communications Server 2007 R2, Office Communicator 2007 R2 is suitable for presence and IM interoperability, but users should use Lync Web App 2013 to join Lync Server 2013 meetings.

Interoperability among Clients

With the Lync Server 2013 release, various client versions can interact seamlessly in both peer-to-peer and conferencing scenarios. This section discusses feature availability when users interact with other users who are using different versions of clients and servers.

Peer-to-Peer Feature Support

Peer-to-peer features are supported for users who are based on different versions of the server and who are using different client versions. The end-user experience and available features are consistent with the capabilities of the user's client and the version of the server the user is signed in to. In other words:

If a user is signed in to Lync Server 2013 with an older client, the user will have the same experience he or she is used to. None of the new features introduced in Lync Server 2013 will be available until the user's client is upgraded.

If a user is signed in to Lync Server 2010 with a Lync 2013 client, any new features not supported by Lync Server 2010 will be unavailable until the user is moved to Lync Server 2013.

The following table compares feature availability in peer-to-peer sessions where the client is signed in to either Lync Server 2013 or Lync Server 2010.

Note:

Lync Web App and Lync 2010 Attendee are meeting-only clients and aren't included in this table.

Client	Instant Messaging	Presence	Voice	Video	Application Sharing	File Transfer
Lync 2013	Yes	Yes	Yes	Yes	Yes	Yes
Lync 2013 Basic	Yes	Yes	Yes	Yes	Yes	Yes
Lync 2010	Yes	Yes	Yes	Yes	Yes	Yes
Lync 2010 Attendant	Yes	Yes	Yes			
Lync 2010 Mobile	Yes	Yes				
Lync Phone Edition	Yes	Yes	Yes			
Office Communicator 2007 R2	Yes	Yes	Yes	Yes	Yes ¹	Yes
Public IM (AOL, Yahoo!)	Yes	Yes				
Public IM (MSN, Windows Live Messenger)	Yes	Yes	Yes	Yes		
◆ Important:						
<ul style="list-style-type: none"> As of September 1st, 2012, the Microsoft Lync Public IM Connectivity User Subscription License (PIC USL) is no longer available for the purchase for new or renewing agreements. Customers with active licenses will be able to continue to federate with Yahoo! Messenger until the service shutdown date (exact date is still to be decided, but no sooner than June 2013). The PIC USL is a per-user, per-month subscription license that is required for Lync Server or Office Communications Server to federate with Yahoo! Messenger. Microsoft's ability to provide this service has been contingent upon support from Yahoo!, the underlying agreement for which will not be renewed. More than ever, Lync is a powerful tool for connecting across organizations and with individuals around the world. Federation with Windows Live Messenger requires no additional user/device licenses beyond the Lync Standard CAL. Skype federation will be added to this list, enabling Lync users to reach hundreds of millions of people through IM and voice. 						
¹ In Office Communicator 2007 R2, only desktop sharing (and not program sharing) is available.						

Conferencing Feature Support

In Lync Server 2013 meetings, conferencing features are supported for users who are homed on different versions of the server and who are using different clients and client versions. When clients join a Lync Server 2013 meeting, users have access to the features and capabilities shown in this table.

Client	Peer-to-peer IM	Voice	Video	Application Sharing	PowerPoint	File Transfer	Whiteboard	Polling
Lync 2013	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lync 2013 Basic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lync Web App	Yes	Yes	Yes	Yes	Yes ²	Yes	Yes	Yes
Lync 2010	Yes	Yes	Yes	Yes	Yes ³	Yes	Yes	Yes
Office Communicator 2007 R2 ⁴	Yes							

1. In Office Communicator 2007 R2, only desktop sharing (and not program sharing) is available.
2. Lync Server 2013 uses an updated mechanism for uploading PowerPoint files. Lync Web App users who join a meeting that was originally scheduled on Lync Server 2010 can view and navigate PowerPoint presentations, but cannot upload PowerPoint files.
3. If the meeting was scheduled on Lync Server 2013 and PowerPoint slides were uploaded by a Lync 2013 client, Lync 2010 users have view-only access to the slides. Conversely, if the PowerPoint slides were uploaded by a Lync 2010 user, Lync Server 2013 users will be able to view and slides and, if Office Web Apps Server is configured, access new capabilities such as higher resolution display, animations, slide transitions, and embedded video. For more information, see Configuring Integration with Office Web Apps Server and Lync Server 2013.

4. The presence and IM features in Office Communicator 2007 R2 are compatible with Lync Server 2013, but conferencing features are not. During migration from Office Communications Server 2007 R2, Office Communicator 2007 R2 is suitable for presence and IM interoperability, but users should use Lync Web App 2013 to join Lync Server 2013 meetings.

Scheduling Add-in Support

Server support for the various scheduling add-ins is consistent with server and client version compatibility. In general, the following scheduling add-ins are supported on Lync Server 2013. However, previous versions of add-ins do not provide new Lync 2013 add-in features, such as the option to mute all attendee audio and video upon meeting entry.

Online Meeting Add-in for Lync 2013 Provides the same features as the Online Meeting Add-in for Lync 2010, with the addition of attendee mute controls, which allow meeting organizers to schedule conferences that have attendee audio and video muted by default. Administrators can also customize the organization's meeting invitations by adding a custom logo, a support URL, a legal disclaimer URL, or custom footer text.

Online Meeting Add-in for Lync 2010 Provides scheduling for Lync meetings and removes the capability to schedule Office Live Meeting conferences.

Office Communicator 2007 R2 Conferencing Add-in Provides scheduling for both Office Live Meeting conferences and Office Communicator 2007 R2 conferences.

Note:

Live Meeting conferences cannot be scheduled on Lync Server 2013.

Scheduling Client	Lync Server 2013	Lync Server 2010	Office Communications Server 2007 R2
Online Meeting Add-in for Lync 2013 (can be used with Office 2013, Outlook 2010, and Outlook 2007)	Supported	Supported (new add-in features not available)	Not Supported
Lync 2013 Web Scheduler	Supported	Not Supported	Not Supported
Online Meeting Add-in for Lync 2010	Supported	Supported	Not Supported
Office Communicator 2007 R2 Conferencing Add-in	Not Supported	Supported	Supported

Support for Joining Meetings

All of the clients that Lync Server 2013 supports are allowed to join Lync 2013 meetings. Because Lync Web App is a web component of the server, in cases where Lync Web App is used to join a Lync Server 2013 meeting, the newer version of Lync Web App is always used.

Lync 2013 clients can join meetings hosted on Lync 2010 and Office Communications Server 2007 R2 with scaled-down functionality. In-meeting features are limited by the version of the server on which the meeting is hosted.

Question: 13

DRAG DROP

You have a Lync Server 2013 infrastructure.

You need to configure Lync Server 2013 to meet the following conferencing requirements:

Ensure that a legal disclaimer is added to all meeting invitations.

Ensure that only Microsoft Lync 2013 clients can be used to join conferences.

Ensure that meeting organizers manually admit remote meeting attendees who are users in your company.

Which cmdlets should you run?

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

Cmdlets	Answer Area
Set-CsConferencingPolicy	Ensure that a legal disclaimer is added to all meeting invitations.
Set-CsMeetingConfiguration	Ensure that only Microsoft Lync 2013 clients can be used to join conferences.
Set-CsConferencingConfiguration	Ensure that meeting organizers manually admit remote meeting attendees who are users in your company.
Set-CsExternalAccessPolicy	
Set-CsClientVersionPolicy	

Answer:

Box 1: Set-CsMeetingConfiguration

Box 2: Set-CsClientVersionPolicy

Box 3: Set-CsExternalAccessPolicy

Explanation:

Note:

* Set-CsMeetingConfiguration enables you to modify the meeting configuration settings currently in use in your organization. Meeting configuration settings help dictate the type of meetings (also called conferences) that users can create, and also control how (or even if) anonymous users and dial-in conferencing users can join these meetings. Note that these settings only affect scheduled meetings; they do not affect ad-hoc meetings created by clicking the Meet Now option in Microsoft Lync.

* Set-CsClientVersionPolicy

Modifies an existing client version policy. Client version policies enable you to specify which clients (such as Microsoft Office Communicator 2007 R2) will be allowed to log on to your Lync Server system.

* Set-CsExternalAccessPolicy

Enables you to modify the properties of an existing external access policy. External access policies determine whether or not your users can: 1) communicate with users who have Session Initiation Protocol (SIP) accounts with a federated organization; 2) communicate with users who have SIP accounts with a public instant messaging (IM) provider such as MSN; and, 3) access Lync Server over the Internet, without having to log on to your internal network.

* Incorrect: Set-CsConferencingPolicy

Modifies an existing conferencing policy. Conferencing policies determine the features and capabilities that can be used in a conference; this includes everything from whether or not the conference can include IP audio and video to the maximum number of people who can attend a meeting.

* Incorrect: Set-CsConferencingConfiguration

Modifies an existing collection of conferencing configuration settings. Conference settings determine such things as the maximum allowed size for meeting content and handouts; the content grace period (that is, the amount of time content will be stored before being deleted); and the URLs for the internal and external downloads of the supported client.

Question: 14

You have a Lync Server 2013 infrastructure.

Your company has a sales department and a research department.

You deploy persistent chat.

You need to configure persistent chat to meet the following requirements:

Users in the sales department must be prevented from viewing the names of the rooms used by the research department.

Users in the research department must be able to discover all of the rooms used by their department. What should you do?

A.

- Create a user-level Persistent Chat Policy named Sales.
- Apply the Sales policy to the sales and research users.
- Create persistent chat rooms for each department and set the privacy to Secret.

B.

- Create a category named ResearchRooms.
- Add the research users as Allowed members to the ResearchRooms category.
- Add the sales users as Denied members to the ResearchRooms category.
- Create persistent chat rooms for each department and set the privacy to Closed.

C.

- Create a category named ResearchRooms.
- Add the research users as Allowed members to the ResearchRooms category.
- Add the sales users as Denied members to the ResearchRooms category.
- Create persistent chat rooms for each department and set the privacy to Secret.

D.

- Create a user-level Persistent Chat Policy named Sales.
- Apply the Sales policy to the sales and research users.
- Create persistent chat rooms for each department and set the privacy to Open.

Answer: C

Explanation:

<http://technet.microsoft.com/en-us/library/jj204859.aspx>

<http://technet.microsoft.com/en-us/library/jj205166.aspx>

Question: 15

DRAG DROP

Your network contains the servers that are configured as shown in the following table.

Server name	Pool name	Role
Server1.contoso.com	Server1.contoso.com	Microsoft Office Communications Server 2007 R2 Standard Edition
Server2.contoso.com	Lyncpool.contoso.com	Lync Server 2013 Front End Server
Server3.contoso.com	Server3.contoso.com	Lync Server 2013 Edge Server

You move all users to Lync Server 2013. You need to decommission Office Communications Server 2007 R2.

Which four actions should you perform?

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

Actions	Answer Area
On Server2, move the conference directories.	
On Server1, move the conference directories.	
On Server1, uninstall the Office Communications Server 2007 R2 components.	
On Server1, remove the BackCompatSite.	
On Server1, deactivate all of the Office Communications Server 2007 R2 components.	
On Server2, remove the BackCompatSite.	

Answer:

On Server2, move the conference directories.

On Server1, deactivate all of the Office Communications Server 2007 R2 components.

On Server1, uninstall the Office Communications Server 2007 R2 components.

On Server2, remove the BackCompatSite.

Explanation:

Note:

* Decommission Legacy Site, main steps:

Move Conference Directories

Update DNS SRV Records

Decommissioning Servers and Pools

Remove BackCompatSite

* Move Conference Directories

Before decommissioning a pool, you need to perform the following procedure for each conference directory in your Office Communications Server 2007 R2 pool.

Move a conference directory to Lync Server 2013

* After all pools are deactivated and all Edge Servers have been uninstalled, run the Topology Builder Merge wizard to remove the BackCompatSite.

* Before decommissioning a Standard Edition server or a server in an Enterprise pool, do the following:

Provide users with sufficient notice to ensure that they can plan for the down time.

Deactivate the server roles on the weekend or holiday, or during other off-peak hours.

Reference: Decommission Legacy Site

Question: 16

Your company has a main office and a branch office. The main office has 3,000 users. The branch office has 100 users. The offices are connected via a WAN link.

You have a Lync Server 2013 infrastructure. The main office has a pool named Pool1 that contains two Enterprise Edition Front End Servers. The branch office only contains an Active Directory domain controller and a file server.

You need to recommend a high-availability solution to ensure that users can establish calls if one of the following components fails:

- A Front End Server
- A PSTN gateway
- A WAN router

The solution must minimize deployment and maintenance costs.

What should you recommend?

- A. In the branch office, deploy a second Enterprise Edition pool named Pool2. Configure Pool1 to use Pool2 as a backup pool. Configure one trunk in Pool1. Configure one trunk in Pool2.
- B. In the branch office, deploy an SBA named SBA1. Configure SBA1 to use Pool1 as a backup registrar. Configure two trunks in Pool1. Configure one trunk in SBA1.
- C. In the main office, deploy a second Enterprise Edition pool named Pool2. In the branch office, deploy an SBA named SBA1. Configure SBA1 to use Pool2 as a backup registrar. Configure two trunks in Pool1. Configure two trunks in SBA1.
- D. In the branch office, deploy a second Enterprise Edition pool named Pool2. Configure Pool1 to use Pool2 as a backup pool. Configure two trunks in Pool1. Configure two trunks in Pool2.

Answer: B

Question: 17

You deploy a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Role
Lync1	Enterprise Edition Front End Server
Lync2	Standard Edition Front End Server
Lync3	Mediation Server
Lync4	Office Web Apps Server

You need to deploy a Persistent Chat pool. The solution must use the least amount of servers.
On which server should you install the Persistent Chat Server role?

- A. Lync1
- B. Lync2
- C. Lync3
- D. Lync4
- E. A new server

Answer: B

Question: 18

You have a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Role
Lync1.contoso.com	Standard Edition
Lync2.contoso.com	Standard Edition
Lync3.contoso.com	Edge Server
Sql1.contoso.com	Microsoft SQL Server SQL Server Reporting Services (SSRS)

You run the Get-CsManagementStoreReplicationStatus cmdlet and discover the following replication issue:

```
UpToDate : True
ReplicaFqdn : Lync1
LastStatusReport : 12/9/2012 12:09:09 PM
LastUpdateCreation : 12/9/2012 12:09:03 PM
ProductVersion :
```

```
UpToDate : True
ReplicaFqdn : Lync2
LastStatusReport : 12/9/2012 12:09:09 PM
LastUpdateCreation : 12/9/2012 12:09:03 PM
ProductVersion :
```

```
UpToDate : False
ReplicaFqdn : Lync3
LastStatusReport :
LastUpdateCreation : 9/9/2012 12:09:03 PM
ProductVersion :
```

From Telnet, you verify that you can connect to Lync3 over TCP ports 443, 4443, 5061, and 5062. You republish the topology successfully and you restart Lync3.

You need to identify what is causing the replication issue.

What should you identify?

- A. A firewall issue
- B. A failed service
- C. A share permission issue
- D. A certificate issue
- E. A routing issue

Answer: D

Explanation:

Not Firewall issue as you can telnet to the ports

Not a Failed Service as you can telnet to the ports

Not a Share Permissions issue as replication is working with the other 2 servers.

Not Routing Issue, routing is working as telnet is functional.

Question: 19

You have two servers named Lync1 and Lync2 that have Lync Server 2013 Standard Edition deployed. The servers are located in different buildings. Lync1 hosts response groups.

You need to ensure that Lync2 can host the response groups if Lync1 fails.

Which cmdlet should you run first?

- A. Export-CsConfiguration
- B. Export-CsRgsConfiguration
- C. Backup-CsPool
- D. Move-CsRgsConfiguration

Answer: B

<http://technet.microsoft.com/en-us/library/jj205011.aspx>

Reference: Export-CsRgsConfiguration

NOTE

Export-CsRgsConfiguration cmdlet and the **Import-CsRgsConfiguration** cmdlet are **designed to work only with Lync Server 2013**.

If you want to **Migrate Response Group Data from Microsoft Lync Server 2010 to Lync Server 2013**, you should **use the Move-CsRgsConfiguration cmdlet instead**.

Export-CsRgsConfiguration

Detailed Description

The Export-CsRgsConfiguration cmdlet and the Import-CsRgsConfiguration cmdlet enable you to export data about your current implementation of the Response Group application (including such things as workflows, queues, agent groups, holiday sets and business hours, as well as audio files and service configuration settings) and then later import (or re-import) that information. This can be extremely useful in a disaster recovery scenario (for example, in a case where the server hosting the Response Group application has failed) or if you simply need to transfer the Response Group application to a different pool.

Note that the Export-CsRgsConfiguration cmdlet and the Import-CsRgsConfiguration cmdlet are designed to work only with Lync Server 2013.

If you want to migrate Response Group data from Microsoft Lync Server 2010 to Lync Server 2013, you should use the Move-CsRgsConfiguration cmdlet instead.

Export-CsRgsConfiguration -Source "ApplicationServer:atl-rgs-001.litwareinc.com" -FileName "C:\Exports\Rgs.zip"

To return a list of all the role-based access control (RBAC) roles this cmdlet has been assigned to (including any custom RBAC roles you have created yourself), run the following command from the Windows PowerShell command-line interface prompt:

Get-CsAdminRole | Where-Object {\$_.Cmdlets –match "Export-CsRgsConfiguration"}

Lync Server Control Panel: The functions carried out by the Export-CsRgsConfiguration cmdlet are not available in the Lync Server Control Panel.

Question: 20

DRAG DROP

You have a Lync Server 2013 infrastructure.

You need to recommend which tools must be used to gather information to troubleshoot issues related to the following:

Routing calls between internal users

Routing outbound calls handled by Lync Server 2013

Which tool should you recommend?

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

Tools	Answer Area
OCSLogger	Routing calls between internal users
ClsController	Tool
Snooper	Routing outbound calls handled by Lync Server 2013
Enterprise Voice Route Helper	Tool

Answer:

Box 1: ClsController

Box 2: ClsController

Explanation:

Note:

* Microsoft Lync Server 2013 Debugging Tools is a collection of additional tools for use by IT Admins to aid in troubleshooting Lync Server 2013 deployments. The collection of tools include:

Snooper

OCSLogger

OCSTracer

ClsController.psm

* The Lync Server Centralized Logging Service Agent service (also known as ClsAgent) is running on all Lync 2013 servers in the deployment. The purpose of the agent is to respond to requests to enable/disable logging and to respond to search requests.

Reference: Overview of the Centralized Logging Service

<http://technet.microsoft.com/en-us/library/jj688145.aspx>

Overview of the Centralized Logging Service

The Centralized Logging Service is designed to provide a means for controlled collection of data—with a broad or narrow scope. You can collect data from all servers in the deployment concurrently, define specific elements to trace, set trace flags and return search results from a single computer or an aggregation of all data from all servers. The Centralized Logging Service runs on all servers in your deployment. The architecture of the Centralized Logging Service is comprised of the following agents and services:

Question: 21

You have a Lync Server 2013 infrastructure that is configured for audio/video conferencing and Enterprise Voice.

Users report that they cannot connect to audio conferences from a branch office. The branch office is secured and has limited connectivity to other offices.

The users can connect to audio conferences from other offices.

You need to configure the port range used by Microsoft Lync 2013 clients for audio conferencing.

Which cmdlet should you run?

- A. Set-CsExternalAccessPolicy
- B. Set-CsNetworkConfiguration
- C. Set-CsConferencingConfiguration
- D. Set-CsMediaConfiguration

Answer: C

Explanation:

<http://technet.microsoft.com/en-us/library/gg412969.aspx>

Question: 22

HOTSPOT

You have a Lync Server 2013 infrastructure. The infrastructure has monitoring reports and Call Admission Control (CAC) deployed.

A user named User1 reports poor audio quality during web conferences. You need to identify whether User1 uses the Siren codec for audio conferences.

Which monitoring report should you use from the Microsoft Lync Server 2013 Control Panel?

To answer, select the appropriate report in the answer area.

Answer Area

Monitoring Reports

[Dashboard](#) | [Help](#)

Version : 5.0.8132.0

System Usage Reports

[User Registration Report](#)

[Peer-to-Peer Activity Summary Report](#)

[Conference Summary Report](#)

[PSTN Conference Summary Report](#)

[Response Group Usage Report](#)

[IP Phone Inventory Report](#)

[Call Admission Control Report](#)

Call Diagnostic Reports

[Call Diagnostic Summary Report](#)

[Peer-to-Peer Activity Diagnostic Report](#)

[Conference Diagnostic Report](#)

[Conference Join Time Report](#)

[Top Failures Report](#)

[Failure Distribution Report](#)

Call Diagnostic Reports (per-user)

[User Activity Report](#)

Media Quality Diagnostic Reports

[Media Quality Summary Report](#)

[Media Quality Comparison Report](#)

[Server Performance Report](#)

[Location Report](#)

[Device Report](#)

Answer:

Answer Area

Monitoring Reports[Dashboard](#) | [Help](#)

Version : 5.0.8132.0

System Usage Reports

- [User Registration Report](#)
- [Peer-to-Peer Activity Summary Report](#)
- [Conference Summary Report](#)
- [PSTN Conference Summary Report](#)
- [Response Group Usage Report](#)
- [IP Phone Inventory Report](#)
- [Call Admission Control Report](#)

Call Diagnostic Reports

- [Call Diagnostic Summary Report](#)
- [Peer-to-Peer Activity Diagnostic Report](#)
- [Conference Diagnostic Report](#)
- [Conference Join Time Report](#)
- [Top Failures Report](#)
- [Failure Distribution Report](#)

Call Diagnostic Reports (per-user)

- [User Activity Report](#)

Media Quality Diagnostic Reports

- [Media Quality Summary Report](#)
- [Media Quality Comparison Report](#)
- [Server Performance Report](#)
- [Location Report](#)
- [Device Report](#)

Explanation:

The User Activity Report provides a detailed list of the peer-to-peer and conferencing sessions carried out by your users in a given time period. Unlike many of the Monitoring Reports, the User Activity Report ties each call to individual users. For example, peer-to-peer sessions specify the SIP URIs of the person who initiated the call (the From user) and the person who was being called (the To user). If you expand the information for a conference, you'll see a list of all the conference participants and the role they held for that conference.

The User Activity Report is sometimes referred to as the "help desk" report. That's because the report is often used by help desk personnel to retrieve session information for a specific user. You can filter for calls made to or made by an individual user simply by typing the user's SIP URI in the User URL prefix box.

Question: 23

DRAG DROP

Your network contains a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization. You have three distribution groups. The groups are configured as shown in the following table.

Group name	Members
Team1@contoso.com	Users who work on Team1
Team2@contoso.com	Users who work on Team2
AllTeams@contoso.com	All users from Team1 and Team2

You need to ensure that all of the users on Team1 and Team2 can answer calls that are in the same queue. The users must be able to choose when they want to participate in the queue.

Which three actions should you perform?

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

Actions	Answer Area
Create a new informal response group.	
Create a new workflow.	
Create a new response group queue.	
Create a new formal response group.	
Create a voice policy.	

Answer:

Box 1: Create a new formal response group.

Box 2: Create a new response group queue

Box 3: Create a new workflow

Explanation:

Note:

- * The Response Group application in Lync Server 2010 provides for treatment, queuing, and routing of inbound calls.
- * Formal agents are considered active when they manually sign in to the Response Group application web sign in page. Informal agents are considered active when they login to the Lync client, because they are automatically signed in to their Response Groups when they login.
- * A workflow defines the behavior of a call from the time that the phone rings to the time that someone answers the call. The workflow specifies the queue to use for holding the call, and specifies the routing method to use for hunt groups or the questions and answers to use for interactive response groups. A workflow also defines settings such as a welcome message, music on hold, business hours, and holidays.

You use the Response Group Configuration Tool to create workflows. You can access the Response Group Configuration Tool from the Response Group page of Lync Server Control Panel.

Reference: Create Response Group Workflows

Question: 24

DRAG DROP

You have a Lync Server 2013 infrastructure that contains four Front End pools. The pools are configured as shown in the following table.

Pool name	Location	Users
Pool1	Site1	Users in the sales department
Pool2	Site2	Users in the research department
Pool3	Site1	Users in the marketing department
Pool4	Site2	Users in the sales department

You configure three archiving policies as shown in the following table.

Policy name	Archive setting	Applies to
Policy1	Archive internal instant messaging (IM)	Sales users
Policy2	Archive external instant messaging (IM)	Site1
Policy3	Archive external and internal IM instant messaging (IM)	Site2

You need to identify which archiving setting will apply each group of users.

Which archiving settings should you identify?

Archiving Settings	Answer Area
Archive internal IM only	Sales users in Site1 Archiving setting
Archive external IM only	Sales users in Site2 Archiving setting
Archive external and internal IM	Research users in Site2 Archiving setting
	Marketing users in Site1 Archiving setting

Answer:

- Box 1: Archive internal IM only
Policy1 (user policy) overrides site policy.
- Box 2: Archive internal IM only
Policy1 (user policy) overrides site policy.
- Box 3: Archive external and internal IM
Site policy applies.
- Box 4: Archive external IM only
Site policy applies.

Explanation:

Note:

* A user-level Archiving policy overrides the global policy and any site policies, but only for the users and user groups to whom the policy is applied.

For example, if you disable Archiving for internal and external communications in your global policy, create a site-level policy in which you enable Archiving for internal and external communications, and then create a user-level policy in which you disable Archiving for external communications, the communications would be archived for both external and internal communications for all site users except that, for the users to whom you apply the user-level policy, only internal communications would be archived.

* If a user has been enabled for Lync Server 2013 and you have created one or more user policies for archiving for users homed on Lync Server 2013, you can implement archiving support for specific users by applying the appropriate policies to those users or user groups.

* The following Archiving policies:

A global policy that is created by default when you deploy Lync Server 2013.

Optional site-level and user-level policies that you can create and use to specify how archiving is implemented for specific sites or users.

Reference: How Archiving Works

Question: 25

DRAG DROP

You have a Lync Server 2013 infrastructure that contains one Standard Edition Front End Server named Lyncl.

You use an account named Admin1 to sign in to Lync 2013.

You need to modify the Line URI of some users. The solution must ensure that updated Line URI information is available in your address book as quickly as possible.

You sign out of Lync 2013.

Which three actions should you perform next?

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

Actions	Answer Area
On Lync1, run the Set-CsUser cmdlet.	
On Lync1, run the Update-CsUserDatabase cmdlet.	
On Lync1, run the Sync-CsUserData cmdlet.	
On your client computer, delete the GalContacts.db file and sign in to Lync 2013.	
On Lync1, run the Update-CsAddressBook cmdlet.	
On your client computer, delete the file named ABS_admin1@contoso.com.cache and sign in to Lync 2013.	

Answer:

Box 1:

On Lync1, run the **Set-CsUser** cmdlet.

Box 2:

On Lync1, run the **Update-CsUserDatabase** cmdlet.

Box 3:

On Lync1, run the **Update-CsAddressBook** cmdlet.

Explanation:

Note:

* Set-CsUser

Modifies Lync Server properties for an existing user account. Properties can be modified only for accounts that have been enabled for use with Lync Server.

* Update-CsAddressBook for Address Book Management

Forces the specified Address Book servers to synchronize their contents with the User database.

* Update-CsUserDatabase

Forces the back-end user database to clear its replication status with Active Directory. This causes the database to re-read all the user-related information stored in Active Directory Domain Services (AD DS).

* Sync-CsUserData

Synchronizes user data between a pair of Microsoft Lync Server 2013 pools.

Question: 26

You have a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Role
Lync1.contoso.com	Standard Edition
Lync2.contoso.com	Standard Edition
Lync3.contoso.com	Edge Server
SQL1.contoso.com	Microsoft SQL Server SQL Server Reporting Services (SSRS)

After a network failure, you restore Lync3.

You need to force replication between the servers.

What should you do?

- A. On Lync1, run the `Invoke-CsManagementStoreReplication` cmdlet.
- B. On Lync1, run the `Invoke-CsBackupServiceSync` cmdlet.
- C. On Lync3, run the `Invoke-CsManagementStoreReplication` cmdlet.
- D. On Lync3, run the `Invoke-CsBackupServiceSync` cmdlet.

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg413060.aspx>

Question: 27

You have a Lync Server 2013 infrastructure. You plan to deploy an archiving solution.

Your company has a compliance policy that has the following requirements:

Instant messaging (IM) conversations between external users and the members of a group named Traders must be archived.

IM conversations between external users and the members of a group named HR must be archived.

The internal IM conversations of all other users must be archived.

You need to configure archiving policies to meet the compliance policy requirements.

Which three actions should you perform? (Each correct answer presents part of the solution. Choose three.)

- A. Configure the global archiving policy to archive internal and external IM conversations.
- B. Create a site-level archiving policy that is configured to archive internal and external IM conversations.
- C. Create a user-level archiving policy that is configured to archive external IM traffic. Assign the policy to the Traders group.
- D. Create a user-level archiving policy that is configured to archive internal and external IM traffic. Assign the policy to the HR group.
- E. Configure the global archiving policy to archive internal IM conversations.

Answer: C, D, E

Question: 28

DRAG DROP

You have a Lync Server 2013 infrastructure.

You need to identify which cmdlets must be used to troubleshoot issues related to the following:

Client sign in

Communication when using IM Conferencing

Connectivity when using instant messaging (IM) on mobile clients

Which cmdlets should you identify?

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

Cmdlets	Answer Area
	Client sign in Cmdlet
Test-CsGroupIM	
Test-CsIM	
Test-CsPresence	
Test-CsRegistration	
Test-McxP2PIM	
	Communication when using IM Conferencing Cmdlet
	Connectivity when using instant messaging (IM) on mobile clients Cmdlet

Answer:

Box 1: Test- CSRegistration

Box 2: Test-CsGroupIM

Box 3: Test-McxP2PIM

Explanation:

Note:

* Test-CSRegistration

Tests the ability of a user to log on to Lync Server. Test-CsRegistration is a "synthetic transaction": a simulation of common Lync Server activities used for health and performance monitoring.

* Test-CSGroupIM

Tests the ability of two users to conduct an instant messaging (IM) conference. Test-CsGroupIM is a "synthetic transaction": a simulation of common Lync Server activities used for health and performance monitoring.

* Test-McxP2PIM

Test-CsMCXP2PIM (MCXP2PIM)

Confirms that mobile device users are able to register and send instant messages.

Reference: Installing and Configuring Watcher Nodes

Question: 29

Your network contains the servers shown in the following table.

Server name	Role	FQDN	IP address
OCS1	Microsoft Office Communications Server 2007 R2 Standard Edition	ocs1.contoso.com	192.168.1.10
Lync1	Lync Server 2013 Standard Edition	lync1.contoso.com	192.168.1.20

You move all users to Lync1 and remove OCS1 from the network.

A user named User1 reports that he cannot sign in to the Lync 2013 client. Before the migration, User1 signed in successfully. Other users can sign in to the Lync 2013 client.

You run nslookup.exe from the client computer of User1 and obtain the result shown in the following window.

```

> set type=srv
> _sipinternalts._tcp.contoso.com
Server: UnKnown
Address: 192.168.30.20

_sipinternalts._tcp.contoso.com          SRV service location:
    priority      = 0
    weight        = 0
    port          = 5061
    svr hostname = lync1.contoso.com
lync1.contoso.com   internet address = 192.168.1.20
>

```

You verify that the client computer of User1 trusts the certificate on lync1.contoso.com.

You need to ensure that User1 can sign in to Lync 2013.

What should you do?

- A. Configure the Lync 2013 client to use automatic configuration.
- B. Modify the client policy for User1.
- C. Modify the hosts file on the client computer of User1.
- D. Modify the service location (SRV) record.

Answer: A

Question: 30

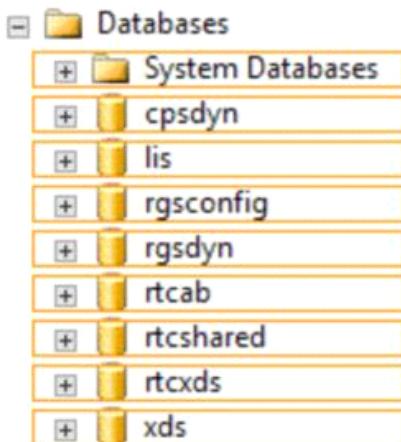
HOTSPOT

You have a server that has Lync Server 2013 Standard Edition deployed. You need to back up the database of the Central Management store.

Which database should you back up?

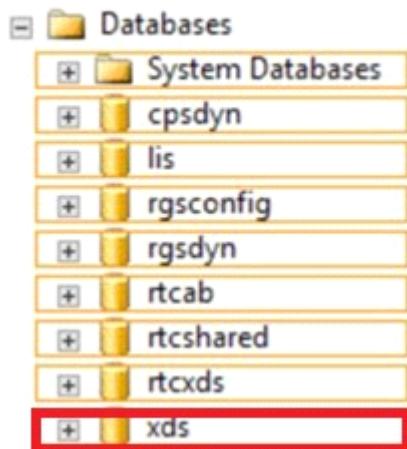
To answer, select the appropriate object in the answer area.

Answer Area



Answer:

Answer Area



Explanation:

Note: The name of the actual database on the Central Management Server and the local replica is the XDS, which is made up of the xds.mdf and xds.ldf files.

Question: 31

You have a Lync Server 2010 infrastructure that contains an Edge Server named Edge1. Five hundred remote users connect to Edge1 from the Internet.

Each user has a SIP address that uses a suffix of @contoso.com.

You deploy an Edge Server named Edge2 that has Lync Server 2013 deployed.

You create a host (A) record that points to edge2.contoso.com.

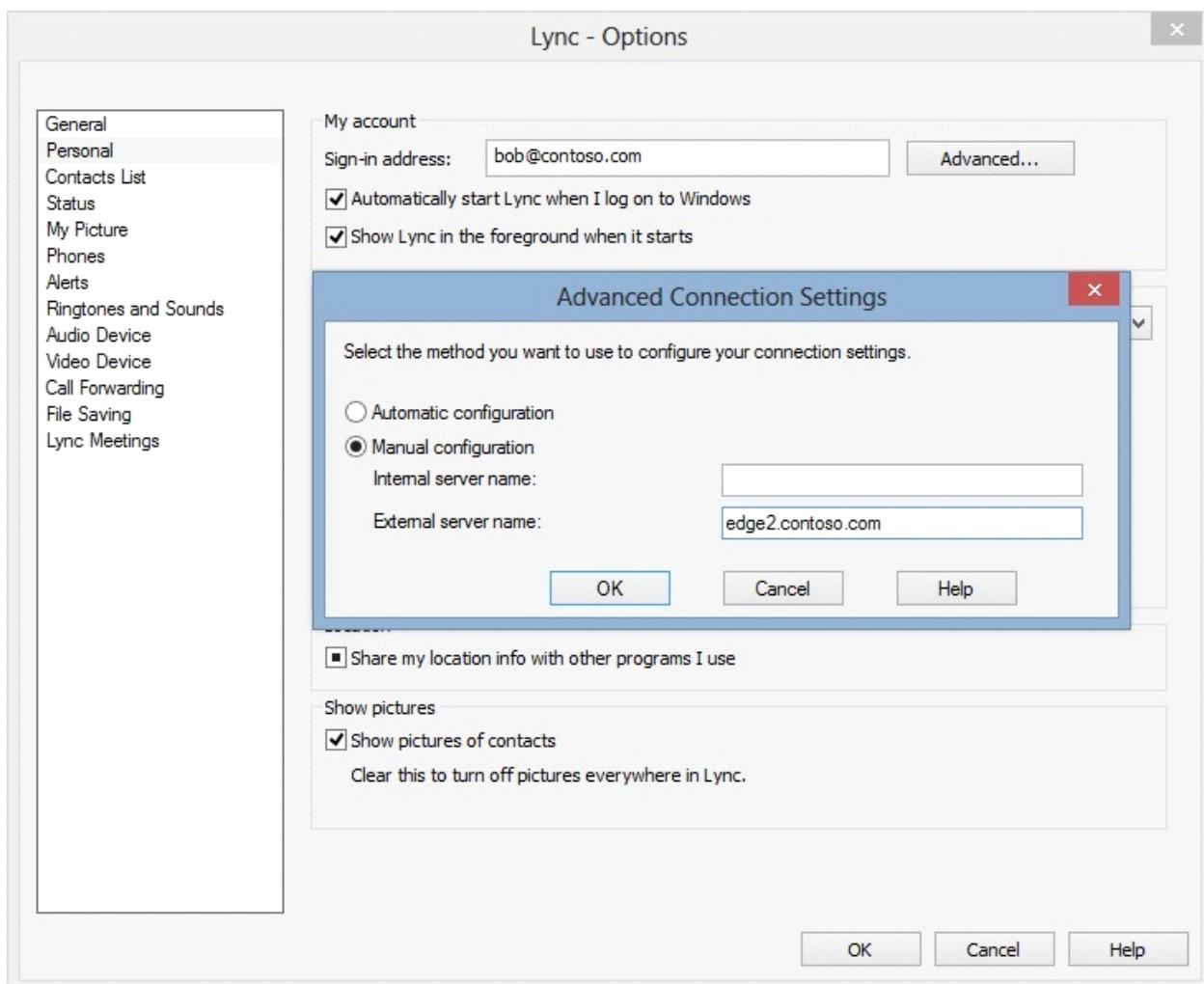
You need to ensure that 20 remote users connect to Edge2. All other remote users must continue to connect to Edge1.

What should you do?

- A. Instruct the users to modify the sign-in address of the Microsoft Lync client.
- B. Instruct the users to modify the Advanced Connection Settings of their Microsoft Lync client.
- C. Create a service location (SRV) record that points to edge2.contoso.com.
- D. Create an alias (CNAME) record that points to edge2.contoso.com.

Answer: B

Explanation:



Question: 32

You migrate a user named User1 from a Microsoft Office Communications Server 2007 R2 infrastructure to a Lync Server 2013 infrastructure.

The Lync Server 2013 infrastructure has a Front End pool named pool01.contoso.com.

The next day, User1 reports that he cannot schedule a web conference by using Microsoft Outlook 2010.

You need to ensure that User1 can schedule a web conference immediately.

What should you instruct User1 to do?

- A. Open the URL of <https://pool01.contoso.com/reach>.
- B. From Outlook 2010, use the Scheduling Assistant.
- C. Open the URL of <https://pool01.contoso.com/scheduler>.
- D. From Outlook 2010, modify the properties of the Conferencing Add-in.

Answer: C

Question: 33

Your company has offices in New York and Santiago. Each office has a server that has Lync Server 2013 Standard Edition deployed.

Each office has a dedicated help desk. Each help desk maintains a web site that provides users with localized help and

training resources.

You need to ensure that when the users sign in to Microsoft Lync 2013, a link to the help desk in their respective office appears on the Help menu.

What should you use?

- A. Location policies
- B. Client policies
- C. Client policy entries
- D. Client version policies

Answer: B

Explanation:

<http://technet.microsoft.com/en-us/library/gg398300.aspx>

Question: 34

DRAG DROP

You have a Lync Server 2013 infrastructure. You have a Virtual Desktop Infrastructure (VDI) that uses Hyper-V.

You use VDI templates based on Windows 7 Service Pack 1 (SP1).

All thin clients run Windows 7 SP1. Each thin client has a Lync-certified headset.

You need to prepare all of the thin clients and all of the VDI templates so that users can place calls by using the headset.

Which components should you install on the thin clients and the VDI templates?

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

Components	Answer Area
Microsoft Lync 2010 Phone Edition	Thin clients
Microsoft Lync 2013	Thin clients
Microsoft Lync 2013 VDI plug-in	VDI templates
Windows 8 RDS client	Thin clients
Windows 7 synthetic driver	VDI templates

Answer:

Box 1: Windows 8 RDS client

Box 2: Microsoft Lync 2013 VDI plug-in

Box 3: Microsoft Lync 2013

Explanation:

Note:

* If the local computer is running Windows 7 with SP1, install the latest Windows 8 version of the Remote Desktop Services client

* Microsoft Lync VDI 2013 plug-in enables you to experience local like audio and video in peer-to-peer calls and conference calls when using Microsoft Lync 2013 in a Virtual Desktop Infrastructure (VDI) Environment.

* The Lync 2013 client now supports audio and video in a Virtual Desktop Infrastructure (VDI) environment. A user can

connect an audio or video device (for example, a headset or a camera) to the local computer (for example, a thin client or repurposed computer). The user can connect to the virtual machine, sign in to the Lync 2013 client that is running on the virtual machine, and participate in real-time audio and video communication as though the client is running locally.

Reference: Lync VDI Plug-in Prerequisites

Question: 35

You have a Lync Server 2013 infrastructure.

You create a new common area phone.

You need to configure the common area phone for hot desking. The solution must enable hot desking for the common area phone only.

What should you do?

- A. Modify the global client policy.
- B. Create a per-user voice policy and assign the policy to a Phone object.
- C. Create a per-user client policy and assign the policy to a Phone object.
- D. Modify the global voice policy.

Answer: C

Explanation:

<http://blog.schertz.name/2011/04/common-area-phone-configuration-in-lync/>

Question: 36

You plan to deploy a Lync Server 2013 Edge Server.

You need to identify which operating systems can be used to deploy the Edge Server.

Which operating systems should you identify? (Each correct answer presents a complete solution. Choose all that apply.)

- A. a full installation of Windows Server 2012 Standard
- B. a full installation of Windows Server 2012 Datacenter
- C. a Server Core installation of Windows Server 2008 R2 Service Pack 1 (SP1) Standard
- D. a Server Core installation of Windows Server 2012 Enterprise
- E. a full installation of Windows Server 2008 Service Pack 2 (SP2) Enterprise
- F. a full installation of Windows Server 2008 R2 Service Pack 1 (SP1) Standard

Answer: A, B, F

Question: 37

HOTSPOT

You plan to deploy a Lync Server 2013 Edge Server infrastructure. The Edge Server deployment will be configured as shown in the following table.

Server name	FQDN	Component	IP address
Server1	Sip.contoso.com	Access Edge service	131.107.1.1
Server1	Wc.contoso.com	Web Conferencing Edge service	131.107.1.2
Server1	Av.contoso.com	A/V Edge service	131.107.1.3

You need to configure the DNS records for Server1 to support the following features:

Automatic client sign-in

Discovery of federated partners

Which DNS records should you configure?

To answer, configure the correct service, protocol, and host for each SRV record in the answer area.

Answer Area

Service	Domain	Protocol	Port	Host
<input type="button" value="▼"/>	Contoso.com	<input type="button" value="▼"/>	5061	<input type="button" value="▼"/>
<input type="button" value="▼"/>	Contoso.com	<input type="button" value="▼"/>	443	<input type="button" value="▼"/>

Answer Area

Service	Domain	Protocol	Port	Host
<input type="button" value="▼"/> _sip _sipfederationtls _sipfederationtcp	Contoso.com	<input type="button" value="▼"/> _tcp _tls	5061	<input type="button" value="▼"/> Av.contoso.com Sip.contoso.com Wc.contoso.com
<input type="button" value="▼"/> _sip _sipfederationtls _sipfederationtcp	Contoso.com	<input type="button" value="▼"/> _tcp _tls	443	<input type="button" value="▼"/> Av.contoso.com Sip.contoso.com Wc.contoso.com

Answer:

Answer Area

Service	Domain	Protocol	Port	Host
<input type="button" value="▼"/> _sip _sipfederationtls _sipfederationtcp	Contoso.com	<input type="button" value="▼"/> tcp _tls	5061	<input type="button" value="▼"/> Av.contoso.com Sip.contoso.com Wc.contoso.com
<input type="button" value="▼"/> _sip _sipfederationtls _sipfederationtcp	Contoso.com	<input type="button" value="▼"/> tcp _tls	443	<input type="button" value="▼"/> Av.contoso.com Sip.contoso.com Wc.contoso.com

Explanation:

Note:

* the Edge generally only listens on port 5061 if you have Federation enabled

* Port, protocol and firewall requirements for federation with Microsoft Lync Server 2013, Lync Server 2010 and Office Communications Server are similar to those for the deployed Edge Server. Clients initiate communication with the Access Edge service over TLS/SIP/TCP 443. Federated partners however, will initiate communications to the Access Edge service over MTLS/SIP/TCP 5061.

Reference: Port Summary - Lync Server and Office Communications Server Federation

Question: 38

HOTSPOT

You plan to deploy Lync Server 2013. The deployment will have two sites named Site1 and Site2.

Site1 will contain the following components:

One Persistent Chat Server pool that has compliance enabled

Two Enterprise Edition Front End pools

One Edge pool

Site2 will contain the following components:

One Enterprise Edition Front End pool

One Standard Edition Front End pool

One Edge pool

You need to identify the minimum number of SQL Server servers that must be deployed to each site to support the planned Lync Server 2013 deployment.

How many servers should you identify for each site?

To answer, configure the appropriate number of SQL Server servers for each site in the answer area.

Answer Area

Number of SQL Server servers for Site1:

Number of SQL Server servers for Site2:

Answer Area

Number of SQL Server servers for Site1:

0
1
2
3
4
5

Number of SQL Server servers for Site2:

0
1
2
3
4
5

Answer:

Number of SQL Server server for Site1: 2

Number of SQL Server server for Site2: 1

Note: Each Enterprise Edition Front End Pool requires a separate SQL Server.

Question: 39

HOTSPOT

Your company has two main offices. The main offices are located in Tokyo and Athens.

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

The offices connect to each other by using a WAN link. Each office connects directly to the Internet.

You plan to deploy a Lync Server 2013 infrastructure that has federation enabled.

You need to recommend a Lync Server 2013 topology for the planned deployment. The solution must ensure that each office uses its local Internet connection for federated communications with the company's external partners.

What is the minimum number of Edge Servers, Federation routes, SIP domains, and Sites that you should you recommend?

To answer, select the appropriate number of Edge Servers, Federation routes, SIP domains, and Sites in the answer area.

Answer Area

Edge Servers: 

Federation routes: 

SIP Domains: 

Sites: 

Answer Area

Edge Servers:

0
1
2
3
4

Federation routes:

0
1
2
3
4

SIP Domains:

0
1
2
3
4

Sites:

0
1
2
3
4

Answer:

Edge servers: 2

Federation Routes: 2

SIP Domains: 1

Sites: 2

Question: 40

You have a Lync Server 2013 infrastructure that contains three Enterprise Edition Front End pools named Pool1, Pool2, and Pool3. Pool1 and Pool2 are located in a data center in Montreal. Pool3 is located in a data center in Seattle.

You need to recommend changes to the Lync Server 2013 infrastructure to ensure that all users can access Lync services if a data center fails.

What should you recommend?

- A. Pair Pool1 and Pool3. Pair Pool2 and Pool3.
- B. Create a new pool named Pool4 in the Seattle data center. Pair Pool2 and Pool4. Pair Pool1 and Pool3.
- C. Create a new pool named Pool4 in the Seattle data center. Pair Pool3 and Pool4. Pair Pool1 and Pool2.

D. Pair Pool1 and Pool2. Pair Pool2 and Pool3.

Answer: B

Explanation:

<http://technet.microsoft.com/en-us/library/jj204697.aspx>

Question: 41

HOTSPOT

You have a Lync Server 2013 infrastructure that is used for conferencing and Enterprise Voice.

Only users who are enabled for Enterprise Voice can use the callback feature. Other users report that they cannot use the callback feature.

You need to ensure that all of the users who are NOT enabled for Enterprise Voice can use the callback feature.

What should you use from the Microsoft Lync Server 2013 Control Panel?

To answer, select the appropriate object in the answer area.

Lync Server 2013 Preview

Lync Administrator | Sign out
5.0.8132.0

Home
Users
Topology
IM and Presence
Persistent Chat
Voice Routing
Voice Features
Response Groups
Conferencing
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Federation and External Access
Monitoring and Archiving
Network Configuration

User Information

Welcome, Lync Administrator
View your roles

Top Actions

Enable users for Lync Server
Edit or move users
View topology status
View Monitoring reports

Resources

Getting Started
First Run Checklist
Using Control Panel
Microsoft Lync Server 2013 (Preview)

Using Office 365

Getting Help

Downloadable Documentation
Online Documentation on TechNet Library
Lync Server Management Shell
Lync Server Management Shell Script Library
Lync Server Resource Kit Tools

Community

Forums
Blogs

Answer:

The screenshot shows the Lync Server 2013 Preview Control Panel. On the left, a vertical navigation menu lists various administrative tasks: Home, Users, Topology, IM and Presence, Persistent Chat, Voice Routing, Voice Features, Response Groups, Conferencing (which is highlighted with a red box), Clients, Federation and External Access, Monitoring and Archiving, and Network Configuration. The main content area is divided into sections: 'User Information' (Welcome, Lync Administrator, View your roles), 'Top Actions' (Enable users for Lync Server, Edit or move users, View topology status, View Monitoring reports), 'Resources' (Getting Started, Using Control Panel, Microsoft Lync Server 2013 (Preview), Using Office 365), and 'Getting Help' (Downloadable Documentation, Online Documentation on TechNet Library, Lync Server Management Shell, Lync Server Management Shell Script Library, Lync Server Resource Kit Tools). The 'Community' section includes links to Forums and Blogs.

Explanation:

Note: Configure callback through Conferencing

Question: 42

You have a Microsoft Office Communications Server 2007 R2 infrastructure that contains the following components:

- One Edge Server
- One XMPP Gateway
- One Archiving Server
- Two media gateways
- One Monitoring Server
- Two Mediation Servers
- One Group Chat Server
- One Standard Edition Front End Server

You plan to migrate the infrastructure to Lync Server 2013.

You need to identify the minimum number of Lync Server 2013 servers required to maintain the functionality of the existing infrastructure.

How many servers should you identify?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

Question: 43

DRAG DROP

You have a Lync Server 2013 infrastructure that contains two servers. The servers are configured as shown in the following table.

Server name	Role
Lync1.contoso.com	Front End Server
Lync2.contoso.com	Mediation Server

You deploy a new server named lync3.contoso.com.

You plan to install the Edge Server role on Lync3.

You need to identify which tasks must be performed to install the Edge Server role on Lync3.

Which four actions should you identify?

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

Actions	Answer Area
On Lync3, install Lync Server 2013.	
From Lync1, modify the topology by using the Topology Builder.	
From Lync3, run the Import-CsConfiguration cmdlet.	
From Lync1, publish the topology by using the Topology Builder.	
From Lync1, run the Export-CsConfiguration cmdlet.	

Answer:

Box 1:

From Lync1, modify the topology by using the Topology Builder.

Box 2:

From Lync1, publish the topology by using the Topology Builder.

Box 3:

From Lync1, run the **Export-CsConfiguration** cmdlet.

Box 4:

On Lync3, install Lync Server 2013.

Explanation:

Note:

You install Lync Server 2013 on Edge Servers by using Lync Server Deployment Wizard. By running the Deployment Wizard on each Edge Server, you can complete most of the tasks required to set up the Edge Server. In order to deploy Lync Server 2013 on an Edge Server, you must have already run Topology Builder (see note 2 below) to define and publish your Edge Server topology, and exported it to media that is available from the Edge Server.

To install an Edge Server

Log on to the computer on which you want to install your Edge Server as a member of the local Administrators group or an account with equivalent user rights and permissions.

Ensure that the topology configuration file you created using Topology Builder, and then exported and copied to external media, is available on the Edge Server (for example, access to the USB drive onto which you copied the topology configuration file, or verify access to the network share where you copied the file).

Start the Deployment Wizard.

In the Deployment Wizard, click Install or Update Lync Server System.

After the wizard determines the deployment state, for Step 1. Install Local Configuration Store, click Run and then do the following:

- * In the Configure Local Replica of Central Management Store dialog box, click Import from a file (Recommended for Edge Servers), go to the location of the exported topology configuration file, select the .zip file, click Open, and then click Next.

- * The Deployment Wizard reads the configuration information from the configuration file and writes the XML configuration file to the local computer.

- * After the Executing Commands process is finished, click Finish.

Etc.

Note 2: To define the topology for a single Edge Server

Start Topology Builder: Click Start, click All Programs, click Microsoft Lync Server 2013, and then click Lync Server Topology Builder.

In the console tree, expand the site in which you want to deploy an Edge Server.

Right-click Edge pools, and then click New Edge Pool.

In Define the New Edge Pool, click Next.

In Define the Edge pool FQDN,

Note 3: Export-CsConfiguration

Exports your Lync Server topology, policies, and configuration settings to a file. Among other things, this file can then be used to restore this information to the Central Management store after an upgrade, a hardware failure, or some other issue has resulted in data loss. This cmdlet was introduced in Lync Server 2010.

Reference: Install Edge Servers; Define Your Edge Topology; Export-CsConfiguration

Question: 44

You have a Lync Server 2013 infrastructure that contains seven servers. The servers are configured as shown in the following table.

Server name	Pool name	Role
Server1	Pool01.contoso.com	Front End Server
Server2	Pool01.contoso.com	Front End Server
Server3	Pool02.contoso.com	Front End Server
Server4	Pool02.contoso.com	Front End Server
SQL1	Pool01.contoso.com	Microsoft SQL Server
SQL2	Pool01.contoso.com	Microsoft SQL Server
SQL3	Pool02.contoso.com	Microsoft SQL Server

You configure pool pairing and SQL Server database mirroring.

SQL1 fails.

You discover that an automatic failover fails to occur.

You need to force a failover of the database.

Which command should you run?

- A. invoke-csdatabasefailover -poolfqdn pool01.contoso.com -databasetype user -newprincipal primary
- B. Invoke-csdatabasefailover -poolfqdn pool02.contoso.com -databasetype user -newprincipal mirror
- C. Invoke-csdatabasefailover -poolfqdn pool02.contoso.com -databasetype user -newprincipal primary
- D. Invoke-csdatabasefailover -poolfqdn pool01.contoso.com -databasetype user -newprincipal mirror

Answer: D

Explanation:

<http://technet.microsoft.com/en-us/library/jj204744.aspx>

Question: 45

HOTSPOT

Your network contains an Active Directory domain named contoso.com. The domain contains a Lync Server 2013 infrastructure that has the Persistent Chat feature configured.

Persistent Chat is hosted by a Front End pool named pcpool.

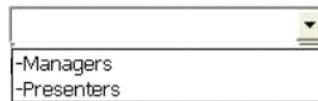
You need to configure a chat room named Announcements to meet the following requirements:

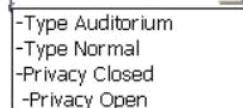
Only a user named user1@contoso.com can post messages to Announcements.

Users from a group named group1 can view the messages in Announcements.

What should you run? (To answer, configure the appropriate parameters for the PowerShell command in the answer area.)

Set-CsPersistentChatRoom -Identity pcpool.contoso.com\Announcements

@{Add="sip:user1@contoso.com"} 



-Members @ {Add="CN=group1,DC=contoso,DC=com"}

Box 1: -Presenters

Box 2: -Type Auditorium

Answer:

Question: 46

You have a Lync Server 2013 infrastructure. The infrastructure contains two sites. The sites are located in New York and Rome. Each site has Enterprise Voice deployed and contains separate dial plans and voice policies.

You plan to deploy dial-in conferencing to both sites.

In each site, you create a dedicated conferencing policy. You assign the conferencing policies to the respective users in each site.

You create a dial-in conferencing access number.

When you attempt to assign a region to the number, you discover that the regions are unavailable.

You need to ensure that you can add a region to the dial-in conferencing access number.

What should you modify?

- A. The conferencing policies
- B. The meeting configuration settings
- C. The voice policies

D. The dial plans

Answer: D

Question: 47

You plan to deploy a Lync Server 2013 infrastructure.

The planned infrastructure will contain client computers that run Windows 8 and the Lync Windows Store app.

You need to ensure that the computers can use the automatic client sign-in feature for the Lync Windows Store app. Which DNS records should you create?

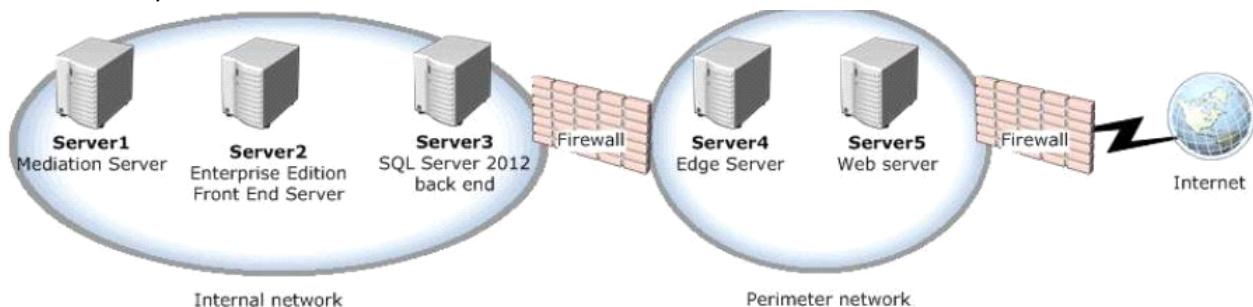
- A. sipinternal.contoso.com and sipexternal.contoso.com
- B. sip.contoso.com and sipinternal.contoso.com
- C. lyncdiscover.contoso.com and lyncdiscoverinternal.contoso.com
- D. _sipinternalts._tcp.contoso.com and _sip._tls.contoso.com

Answer: C

Question: 48

HOTSPOT

You have a Lync Server 2013 infrastructure as shown in the exhibit.



The infrastructure contains an Enterprise Edition Front End pool.

You plan to deploy Persistent Chat.

You need to identify the placement of the components required for Persistent Chat. The solution must minimize the deployment of additional servers whenever possible.

Where should you deploy the Persistent Chat components? (To answer, select the appropriate server to deploy each component in the answer area.)

Persistent Chat Front End Server:

Server1
Server2
Server4
Server5
a new server on the internal network
a new server on the perimeter network

Persistent Chat Server Store:

Server1
Server2
Server3
Server4
Server5
a new server on the internal network
a new server on the perimeter network

Answer:

Persistent Chat Front End Server:

Server1
Server2
Server4
Server5
a new server on the internal network
a new server on the perimeter network

Persistent Chat Server Store:

Server1
Server2
Server3
Server4
Server5
a new server on the internal network
a new server on the perimeter network

Question: 49

HOTSPOT

Your network contains an internal network and a perimeter network.

You have a Lync Server 2013 infrastructure. The infrastructure contains four servers. The servers are configured as shown in the following table.

Server name	Role	Network
Lync01	Front End Server	Internal
Lync02	Front End Server	Internal
Lync03	Edge Server	Perimeter
Lync04	Edge Server	Perimeter

You plan to implement end-to-end logging by using the Centralized Logging Service.

You need to configure the firewall rule required for the Centralized Logging Service.

How should you configure the firewall rule? (To answer, configure the appropriate options in the answer area.)

Protocol:

TCP
 UDP

Port:

443
 3478
 5061
 5350 to 5389
 50001 to 50003

Direction:

Inbound to the internal network
 Outbound to the perimeter network

Answer:

Protocol:

TCP

UDP

Port:

443
 3478
 5061
 5350 to 5389

50001 to 50003

Direction:

Inbound to the internal network

Outbound to the perimeter network

Question: 50

HOTSPOT

You have a Lync Server 2013 infrastructure.

You plan to deploy Persistent Chat features to meet the following requirements:

Support up to 50,000 concurrent users.

Enable the Persistent Chat Server Compliance service.

Ensure that all of the features are automatically available if a single server fails.

You need to identify the minimum number of Front End Servers and Microsoft SQL Server Back End Servers that are required for the planned deployment.

How many servers should you identify? (To answer, select the appropriate number of servers for each component in the answer area.)

Persistent Chat Front End Servers

4
5
6
7
8

SQL Server Back End Servers

1
2
3
4

Answer:

Persistent Chat Front End Servers

4
5
6
7
8

SQL Server Back End Servers

1
2
3
4

Question: 51

You have a Lync Server 2013 infrastructure. The infrastructure contains two servers. The servers are configured as shown in the following table.

Server name	Pool name	Role
Lyncfe01	Lyncfe01.contoso.com	Standard Front End Server
Lyncfe02	Lyncfe02.contoso.com	Standard Front End Server

Pool pairing is configured between lyncfe01 and lyncfe02. Currently, the Central Management store is hosted on lyncfe01.

A hardware failure occurs on Lyncfe01.

You manually perform a failover of all the user services and the Central Management store to Lyncfe02.

You resolve the hardware issue on Lyncfe01.

- You need to restore all of the user services and the Central Management store to Lyncfe01. Which three commands should you run? (Each correct answer presents part of the solution. Choose three.)
- A. Invoke-CsPoolFailback -PoolFQDN lyncfe02.contoso.com
 - B. Invoke-CsManagementServerFailover -BackupSqlServerFQDN lyncfe01.contoso.com BackupSqlInstanceName RTC -Force
 - C. Install CSDatabase -CentralManagementDatabase -SqlServerFqdn lyncfe01.contoso.com -SQLInstanceName RTC -Clean
 - D. Invoke-CsPoolFailback -PoolFQDN lyncfe01.contoso.com
 - E. Move-CsManagementServer

Answer: CDE

Explanation:

The pool named lyncfe01.contoso.com is the pool that failed over to LyncFE02 when LyncFE01 failed. Therefore, we need to fail back pool lyncfe01.contoso.com to the recovered server.

* **Install CSDatabase**

Install CSDatabase.

* Lync Server makes extensive use of SQL Server databases, ranging from the Central Management store to the Archiving database. As a general rule, these databases are set up at the same time you install Lync Server or at the same time you install a Lync Server role (such as Monitoring Server) that requires a database back end. After installation has taken place these databases typically will not need to be reinstalled or moved to new locations.

On rare occasions, however, you might need to manually install a Lync Server database; this could be because you need to move a database to another server, or because a setup-related problem failed to install the database for you. The **Install-CsDatabase** cmdlet provides a way for you to install any of the SQL Server databases used by Lync Server.

* **Invoke-CsPoolFailback**

Invokes the failback process for a Lync Server 2013 pool. Failback is used after a pool has failed over and the users of that pool have been "failed over" to a backup pool. (That simply means users who were signed on to the failed pool are automatically signed on to the backup pool.) When the failed pool has been restored, the fail back process signs the failed-over users back to their original pool.

***Move-CsManagementServer**

Moves the Central Management Server from one pool to another.

Reference: To use Windows PowerShell cmdlets to configure the SQL Server Central Management store

Question: 52

You have a Lync Server 2013 infrastructure.

You deploy mobility features.

You need to ensure that mobile clients can establish IP video calls only when they connect to a wireless access point (WAP).

Which cmdlet should you run?

- A. Set-CsConferencingPolicy
- B. Set-CsLocationPolicy
- C. Set-CsNetworkBandwidthPolicyProfile
- D. Set-CsMobilityPolicy
- E. Set-CsClientPolicy

Answer: D

Explanation:

Mobility policies can also be used to require Wi-Fi connections when making or receiving calls

Ref: <http://technet.microsoft.com/en-us/library/hh690021.aspx>

Question: 53

You have a Lync Server 2010 and Lync Server 2013 infrastructure. The infrastructure contains Front End pools.

Currently, all users use the Lync Server 2010 Front End pool.

An administrator migrates a user to the Lync Server 2013 Front End pool.

After the migration, the user can no longer access the whiteboards, the attachments, the poll data, and the Microsoft PowerPoint presentations that were uploaded to the meeting before the migration.

You need to ensure that the PowerPoint presentations, the whiteboards, the attachments, and the poll data are moved when users migrate from Lync Server 2010 to Lync Server 2013.

What should you do?

- A. Run the Move-CsUser cmdlet and specify the -ProxyPool parameter.
- B. Run the Move-CsLegacyUser cmdlet before you migrate the users.
- C. Run the Move-CsConferenceDirectory cmdlet before you migrate the users.
- D. Run the Move-CsUser cmdlet and specify the -MoveConferenceData parameter.

Answer: D

Question: 54

HOTSPOT

You have a Lync Server 2013 infrastructure. The infrastructure contains four Standard Edition Front End Servers and an Edge Server.

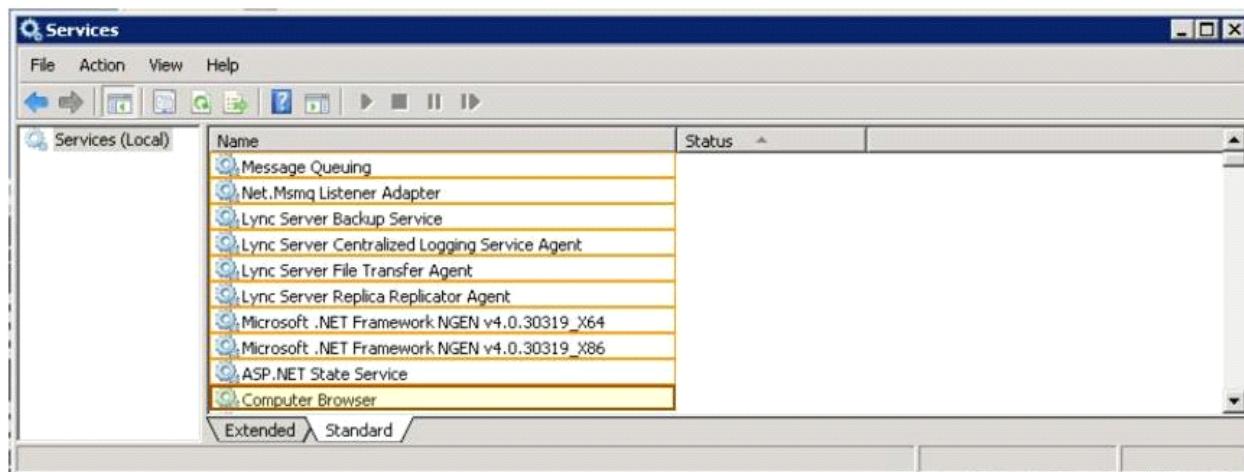
You run Get-CsManagementStoreReplicationStatus | ft ReplicaFQDN, UpToDate and you receive the following output:

ReplicaFqdn	UpToDate
edge01.contoso.com	False
lyncfe01.contoso.com	False
lyncfe02.contoso.com	False
lyncfe03.contoso.com	False
lyncfe04.contoso.com	False

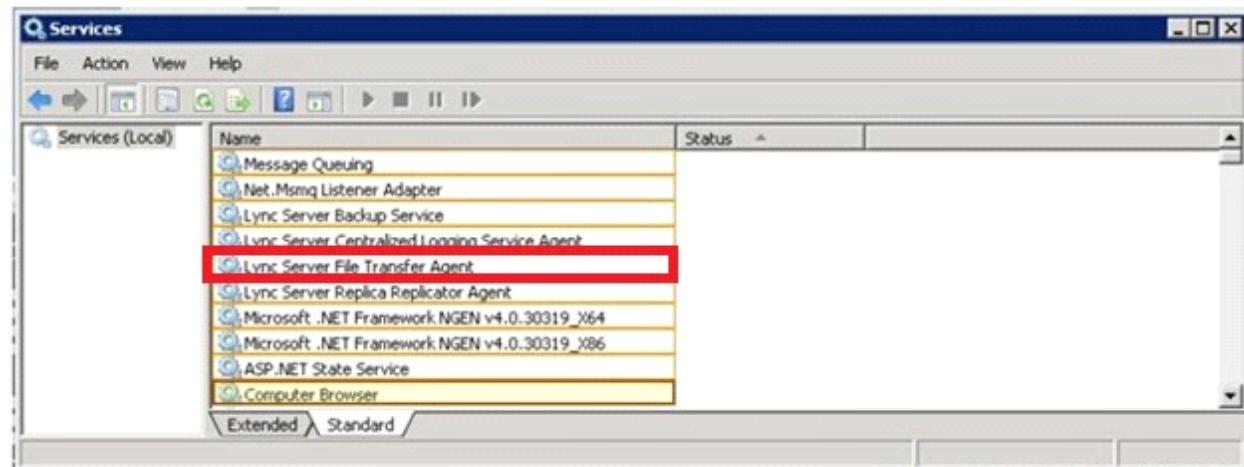
On the server responsible for the replication of the Central Management store, you discover that several services have stopped.

You need to enable the replication of the Central Management store.

Which service should you start? (To answer, select the appropriate service in the answer area.)



Answer:



Case Study: 7

Litware, Inc Case A

Overview

Litware, Inc., is an international air transportation company that has 700 employees.

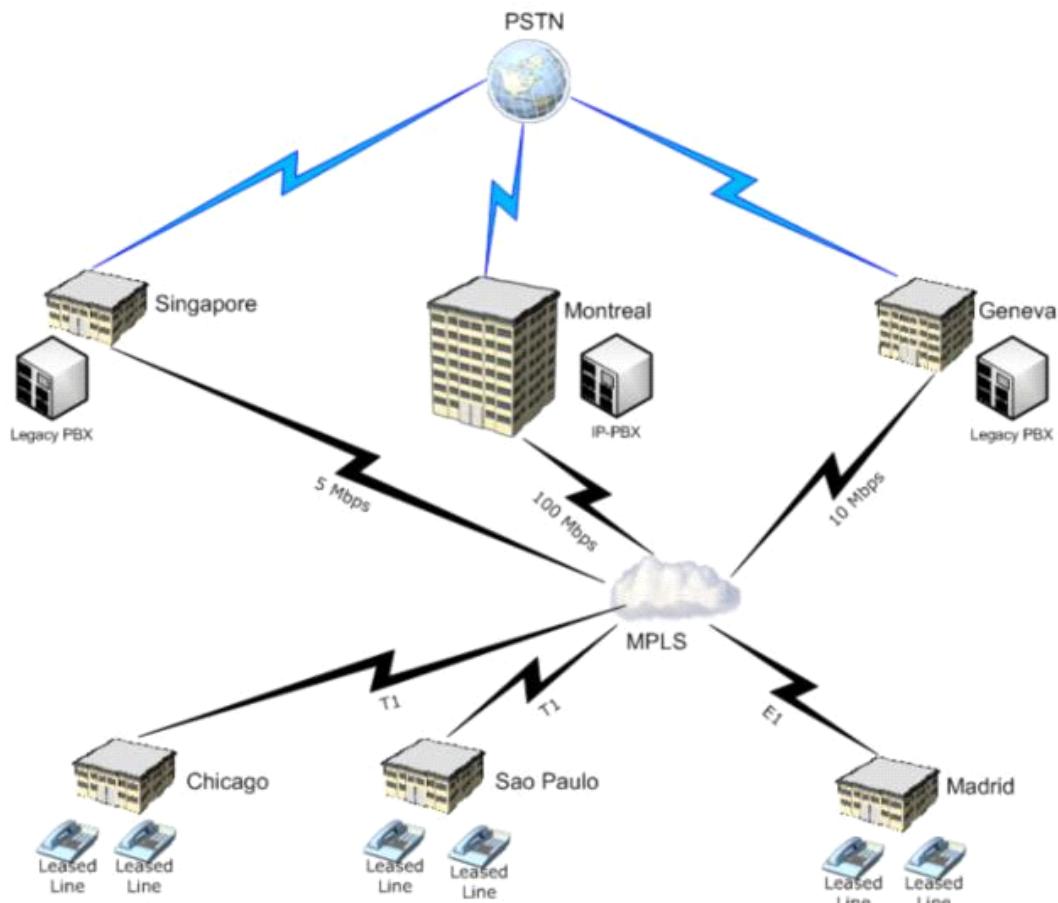
Litware has several offices worldwide. The main office is located in Montreal.

The Montreal office has 125 users.

Existing Environment

Network Infrastructure

The network is configured as shown in the exhibit. (Click the Exhibit button.)



The company has an Active Directory forest named `litwareinc.com` that contains a single domain.

Lync Server and Exchange Server Infrastructure

The company has a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization that contains four servers. The servers are configured as shown in the following table.

Server name	Location	Role
EXCH1	Montreal	Mailbox server Client Access server Hub Transport server
EXCH-EDGE1	Montreal	Edge Transport server
EXCH2	Geneva	Mailbox server Client Access server Hub Transport server
EXCH3	Singapore	Mailbox server Client Access server Hub Transport

The company has a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Location	Role
LYNC1	Montreal	Standard Edition Front End Server
LYNC-EDGE1	Montreal	Standard Edition Edge Server
LYNC2	Geneva	Standard Edition Front End Server
LYNC3	Singapore	Standard Edition Front End Server

The Lync Server infrastructure contains the components shown in the following table.

Component name	Location	Component
LYNCSBA1	Madrid	SBA
LYNCSBA2	Sao Paulo	SBA
LYNCSBA3	Chicago	SBA
LYNGATE1	Montreal	IP-PBX
LYNGATE2	Geneva	PSTN gateway
LYNGATE3	Singapore	PSTN gateway

All audio conferences dial in to LYNGATE1.

LYNC_EDGE1 is configured for External Access.

LYNC2 and LYNC3 are configured to place and receive calls through their local PBX and PSTN gateway.

The Montreal office has a phone number range of +1-514-555-0100 to +1-514-555-0250. Phone number ranges from +1-514-555-0226 to +1-514-555-0250 are unused.

Problem Statements

The company identifies the following issues:

- Users in the Madrid office report that their customers fail to reach the audio bridge.
- Remote users outside of North America report poor audio quality during conferences.
- Users report that they cannot invite people into their audio conferences by using the Invite by name or phone number feature.
- The finance department reports that fees for phone number ranges in the Montreal office have increased by 200 percent during the last five years.

Requirements

Business Goals

The company plans to replace all of its legacy phone systems and devices within a year.

Planned Changes

The company plans to implement the following changes:

- Replace all of the voice mail systems with Exchange Server 2010 Unified Messaging (UM).
- Provide E911 services to users from the United States offices.
- Replace the phone number ranges in the Montreal office with extensions to a single phone number range.
- Provide a Microsoft Lync Online account to several contractors that uses the @contractors.litwareinc.com suffix.

- The contractors will use their mobile phone to place and receive calls.

Business Requirements

The company identifies the following business requirements for the planned deployment:

- Minimize hardware and software acquisition costs.
- Minimize the cost of placing long distance calls to Europe.
- Minimize the cost of placing long distance calls to North America.

Technical Requirements

The company identifies the following technical requirements for the planned deployment:

- Ensure that all users can place and receive calls if a single server fails.
- Ensure that all users can place and receive calls if a WAN link fails.
- Automatically provide E911 information to a national emergency call center in the United States.
- Limit the use of E911 services to users in United States offices only.
- Ensure that all users can find all of the company employees in the Lync Address Book.
- Ensure that users in a partner company can add a Litware employee to their contact list without any intervention by an administrator at Litware.

Security Requirements

The corporate security policy states that only the main phone number of the company must be displayed when users call external customers.

Phone Number Requirements

The company identifies the following requirements for the phone numbers:

- If a caller dials a phone number range that is unassigned, the call must be transferred to an operator.
- If a caller dials a phone number in a range that was replaced by an extension, the caller must hear the extension format, and then the call must be transferred to the generic phone number range of +15145550100.
- The costs associated with phone number ranges must be reduced.
- Callers to the company must always be able to reach an employee, an operator, or a UM auto attendant.

UM Requirements

The company plans to deploy UM with Exchange Server 2010 to meet the following requirements:

- All users must be able to use the Play on Phone feature in Microsoft Outlook.
- UM administrators must be able to configure calls to be redirected to external phone numbers.
- Users must be prevented from navigating the voice mail system menu by using their voice.

Question: 1

You need to configure the Lync Server 2013 infrastructure to meet the technical requirements for E911.

You create the network and subnets for each office.

Which three tasks should you perform next? (Each correct answer presents part of the solution. Choose three.)

- A. Create a client policy.
- B. Configure the location database
- C. Create location policies.
- D. Create a response group.
- E. Create a voice route.
- F. Create a normalization rule.

Answer: B, C, E

Question: 2

You are evaluating the planned changes for the contractors.

You need ensure that the contractors can access Outlook Voice Access and receive voice mails from callers.
Which cmdlet should you run?

- A. New-CsExUmContact
- B. New-CsSipDomain
- C. New-CsVoicemailReroutingConfiguration
- D. New-CsSipProxyCustom

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg398139.aspx>

Question: 3

You need to recommend a solution to meet the security requirement.

What should you include in the recommendation?

- A. An outbound translation rule
- B. A response group
- C. A voice policy
- D. A private phone line

Answer: A

Explanation:

<http://tsoorad.blogspot.com/2012/10/lync-2013-calling-party-number.html>

Question: 4

DRAG DROP

You decommission the legacy PBX in the Singapore office. You configure all users in the Singapore office to route calls through their local Lync Server 2013 servers.

You need to identify the tasks that must be performed in each office to ensure that calls from Singapore meet the business requirements and the technical requirements.

Which task should you identify for each requirement?

To answer, drag the appropriate actions to the correct requirements in the answer area. Each action may be used

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

Actions	Answer Area
Configure pool pairing.	Minimize the cost of placing long distance calls to Europe.
Create a trunk between LYNC3 and LYNC_GATE1.	Minimize the cost of placing long distance calls to North America.
Create a trunk between LYNC3 and LYNC_GATE2.	
Create a trunk between LYNC3 and LYNC_GATE3.	Ensure that all users can place and receive calls if a single server fails.

Answer:

Minimize the cost of placing long distance calls to Europe.	Create a trunk between LYNC3 and LYNC_GATE2.
Minimize the cost of placing long distance calls to North America.	Create a trunk between LYNC3 and LYNC_GATE1.
Ensure that all users can place and receive calls if a single server fails.	Configure pool pairing.

Explanation:

Note:

* Lyncgate2 (Geneva) for calls to Europe

* Lyncgate1 (Montreal) for calls to North America

* For the best disaster recovery abilities in Lync Server 2013, deploy pairs of Front End pools across two geographically dispersed sites. Each site contains a Front End pool which is paired with a corresponding Front End pool in the other site. Both sites are active, and the Lync Server Backup Service provides real-time data replication to keep the pools synchronized. The Backup Service is a new feature in Lync Server 2013, designed to support the disaster recovery solution. It is installed on a Front End pool when you pair the pool with another Front End pool.

Question: 5

You need to prepare the Enterprise Voice infrastructure for E911.

Which two cmdlets should you run? (Each correct answer presents part of the solution. Choose two.)

- A. Set-CsPstnUsage
- B. Enable-CSPublicProvider
- C. Set-CsVoiceConfiguration
- D. New-CsVoiceRoute
- E. New-CsVoiceRoutingPolicy

Answer: A, D

Explanation:

<http://technet.microsoft.com/en-us/library/gg398496.aspx>

Question: 6

You need to prepare the environment for the planned Lync Online solution of the contractors. The solution must meet the business requirements and technical requirements.

What two technologies should you deploy? (Each correct answer presents part of the solution. Choose two.)

- A. Active Directory Rights Management Services (AD RMS)
- B. Active Directory Lightweight Directory Services (AD LDS)
- C. The Inter-Organization Replication tool
- D. Active Directory Federation Services (AD FS) 2.0
- E. Microsoft Online Services Directory Synchronization
- F. Microsoft Online Services Sign-in Assistant

Answer: D, E

Question: 7

You are evaluating the planned changes for the contractors.

You need to identify which client application the contractors will be able to use to schedule online meetings.

Which client application should you identify?

- A. Lync Web App
- B. Windows Phone devices
- C. Outlook 2010
- D. Outlook Web App

Answer: C

Question: 8

DRAG DROP

You need to implement a solution to meet the phone number requirements.

Which four actions should you perform?

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

Actions	Answer Area
Create two announcement number ranges.	
Import two announcement files.	
Create two announcements.	
Modify the TEL URI of the users.	

Answer:

Box 1:

Import two announcement files.

Box 2:

Create two announcements.

Box 3:

Create two announcement number ranges.

Box 4:

Modify the TEL URI of the users.

Explanation:

Note:

* Announcement Deployment Process

Configure Announcement settings

Create the announcement by recording and uploading audio files or by using text-to-speech (TTS).

Configure the unassigned number ranges in the unassigned number table and associate them with the appropriate announcement.

* To create a new announcement, you need to perform the following steps:

For audio prompts, record the audio file by using your favorite audio recording application.

For audio prompts, run the Import-CsAnnouncementFile cmdlet to import the contents of the audio file to File Store.

Run the New-CsAnnouncement cmdlet to create and name the announcement. Perform this step to create announcements with an audio prompt, a text-to-speech (TTS) prompt, or no prompt.

Assign the new announcement to a number range in the unassigned number table.

Reference:

Question: 9

You need to ensure that the users in all of the offices can dial in to conferences by using a local phone number. What should you create?

- A. An additional dial plan
- B. Five conferencing policies

- C. Five dial-in numbers
- D. Five additional call routes

Answer: C

Question: 10

DRAG DROP

You need to configure UM to meet the UM requirements.

Which UM component should you use to meet each requirement?

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

Components	Answer Area	
an auto attendant	All users must be able to use the Play on Phone feature in Microsoft Outlook.	Component
a dial plan	UM administrators must be able to configure calls to be redirected to external phone numbers.	Component
a UM IP gateway		
a UM mailbox policy	Users must be prevented from navigating the voice mail system menu by using their voice.	Component
a UM mailbox setting		

Answer:

Box 1: a UM mailbox policy

Box 2: a dial plan

Box 3: a UM mailbox setting

Explanation:

Note:

* You can enable or disable the Play on Phone feature for users associated with the Unified Messaging (UM) mailbox policy. This option is enabled by default and allows users to play their voice mail messages over a phone. The phone can be any phone, including an office or a mobile phone.

* A Unified Messaging (UM) dial plan is created using an organization-wide scope and contains configuration information related to your telephony network. A UM dial plan establishes a link from the telephone extension number of a Microsoft Exchange Server 2010 recipient in Active Directory to a UM-enabled mailbox.

* Manage Voice Mail Settings for a User

You can view or set the Unified Messaging (UM) and voice mail features and configuration settings for a user that's been enabled for UM and voice mail. For example, you can do the following:

Reset their Outlook Voice Access PIN.

Add a personal operator extension number.

Add other extension numbers.

Enable or disable Automatic Speech Recognition (ASR).

Enable or disable Call Answering Rules.

Enable or disable access to their email or calendar.

* You can create a Unified Messaging (UM) mailbox policy to apply a common set of UM policy settings, such as PIN policy settings or dialing restrictions, to a collection of UM-enabled mailboxes. UM mailbox policies link a UM-enabled user with a UM dial plan and apply a common set of policies or security settings to a collection of UM-enabled mailboxes. UM mailbox policies are useful for applying and standardizing UM configuration settings for UM-enabled users.

* Incorrect: After you create a Unified Messaging (UM) auto attendant, incoming calls to an external telephone number that a human operator would ordinarily answer are answered by the auto attendant.

Case Study: 8

Wingtip Toys

Overview

Wingtip Toys is a toy manufacturer and distributor in North America. The company has a main office and two branch offices. The main office is located in New York. The branch offices are located in Boston and Chicago.

The number of users in each office is shown in the following table.

Office	Number of users
New York	4,000
Boston	200
Chicago	300

Existing Environment

Network Infrastructure

The network contains an Active Directory forest named wingtiptoys.com.

The New York and Boston offices connect to each other by using a 100-megabit per second (Mbps) WAN link. The New York and Chicago offices connect to each other by using a 40-Mbps WAN link.

Exchange Server Infrastructure

The company has a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization. All of the users in the New York and Chicago offices have Exchange Server mailboxes. The users in the Boston offices do not have mailboxes.

The Exchange Server organization contains two servers. The servers are configured as shown in the following table.

Server name	Office	Role
Exch1	New York	Mailbox server Client Access server Hub Transport server
Exch2	New York	Unified Messaging server

Lync Server 2010 Environment

The company has a Lync Server 2010 infrastructure that contains four components. The components are configured as shown in the following table.

Component name	Office	Role
Pool1	New York	Enterprise Edition Front End pool
Lync1	New York	Enterprise Edition Front End Server in a pool named Pool1
Lync2	New York	Enterprise Edition Front End Server in a pool named Pool1
Lync3	Chicago	Standard Edition Front End Server

All of the New York and Chicago users use Lync services. The Boston users only use IP-PBX phones. Only the New York users are configured for on-premises Exchange Server Unified Messaging (UM).

Voice Infrastructure

The hardware components of the current voice infrastructure are configured as shown in the following table.

Component name	Office	Component
Pstn1	New York	PSTN gateway
Pstn2	New York	PSTN gateway
PBX1	New York	IP-PBX (certified)
PBX2	Boston	IP-PBX (certified)

At any given time, a maximum of 25 percent of the users in the New York office are on the phone. A maximum of twenty percent of the calls are to the PSTN.

Lync Online

The company is evaluating Microsoft Lync Online.

The company moves 20 Chicago users to a Lync Online subscription. The subscription is configured to use a SIP domain of tailspintoys.com.

You did not implement directory synchronization or federation.

User Issues

Currently, all of the calls between the New York and Boston offices are routed through the PSTN.

User Issues

Currently, all of the calls between the New York and Boston offices are routed through the PSTN.

The audio and video quality during web conferences between the Lync users in the Chicago and New York offices often is poor.

Inbound and outbound PSTN calls from the New York office are not redundant. If a PSTN gateway fails, calls are not rerouted to another PSTN gateway.

Requirements

Planned Changes

The company plans to implement the following changes:

- Upgrade the Lync Server 2010 infrastructure to Lync Server 2013.
- Pilot Lync Online for 100 users in the Chicago office.
- Ensure that Lync Online users can find on-premises Lync users in the Lync Address Book.
- Ensure that Lync on-premises users and Lync Online users can communicate with each other by using instant messaging (IM).

Lync Server Requirements

The company identifies the following Lync Server requirements:

- Ensure that the New York users and the Boston users who have IP-PBX phones can call each other without using the PSTN.
- Improve the audio and video quality during the web conferences between the Chicago users and the New York users.

Unified Messaging Requirements

The company identifies the following Unified Messaging requirements:

- Pilot integrated voice mail in Microsoft Exchange Online for 100 New York users.
- Configure all users to have a five-digit extension.
- Ensure that users can retrieve their voice mail remotely by dialing +1 516 555 1212.
- Ensure that callers can reach the company directory by dialing +1 516 555 1213.
- Prevent users from receiving an email message when they miss a call.

Business Requirements

Three company executives require a second phone number for their existing Lync account. This second phone number must not appear in any Lync address books or contact lists generated from Active Directory. Any planned changes must minimize administrative and financial costs.

Network Requirements

You identify the following network requirements for the planned deployment of Lync Server 2013:

- Limit the total bandwidth of all audio and video sessions from the Chicago office.
- Reduce the network utilization of Mediation servers.
- Prioritize Lync audio traffic on the network.

Enterprise Voice Requirements

Voice call routing in the New York office must be redundant. All outbound or inbound PSTN call routes must not depend on a single component.

Question: 1

You implement synchronization between Active Directory and Microsoft Office 365.

You need to recommend which tool is required to manage the phone numbers of the Exchange Online pilot users.

What should you recommend?

- A. The Microsoft Online Services Module for Windows PowerShell
- B. The Office 365 Exchange Online Portal
- C. Active Directory Users and Computers
- D. The Office 365 Lync Online Portal

Answer: C

Explanation:

<http://technet.microsoft.com/en-us/library/hh852469.aspx>

Question: 2

You are planning the deployment of two Mediation Servers in the New York office.

You need to identify the minimum number of network ports that must be configured on each Mediation Server. The solution must meet the Enterprise Voice requirements.

How many ports should you identify?

To answer, configure the appropriate number of network ports for the component in the answer area.

Answer Area

Number of ports on each Mediation Server:

Answer Area

Number of ports on each Mediation Server:

1
2
3
4

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

Explanation:

<http://technet.microsoft.com/en-us/library/gg398399.aspx>

Note: The Mediation Server translates signaling and, in some configurations, media between your internal Lync Server 2013, Enterprise Voice infrastructure and a public switched telephone network (PSTN) gateway or a Session Initiation Protocol (SIP) trunk. On the Lync Server 2013 side, Mediation Server listens on a single mutual TLS (MTLS) transport address. On the gateway side, Mediation Server listens on all associated listening ports associated with trunks defined in the Topology document. All qualified gateways must support TLS, but can enable TCP as well. TCP is supported for gateways that do not support TLS.

The main functions of the Mediation Server are as follows:

Encrypting and decrypting SRTP on the Lync Server side

Translating SIP over TCP (for gateways that do not support TLS) to SIP over mutual TLS

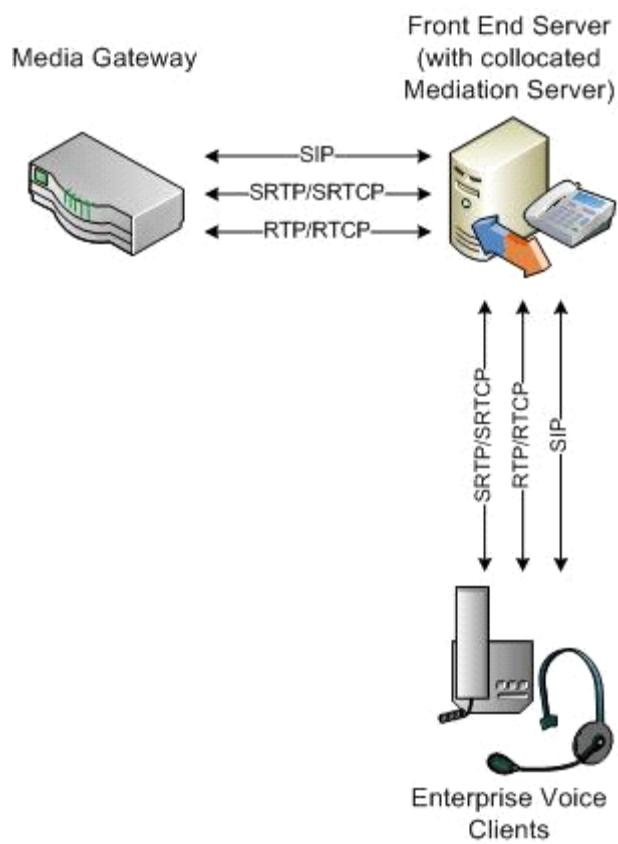
Translating media streams between Lync Server and the gateway peer of the Mediation Server

Connecting clients that are outside the network to internal ICE components, which enable media traversal of NAT and firewalls

Acting as an intermediary for call flows that a gateway does not support, such as calls from remote workers on an Enterprise Voice client

In deployments that include SIP trunking, working with the SIP trunking service provider to provide PSTN support, which eliminates the need for a PSTN gateway

The following figure shows the signaling and media protocols that are used by the Mediation Server when communicating with a basic PSTN gateway and the Enterprise Voice infrastructure.



Question: 3

You need to configure the second phone number for the executives. The solution must meet the business requirements.

What should you use?

- A. The Lync Server Control Panel
- B. The Set-CsUser cmdlet
- C. The Set-CsAdUser cmdlet
- D. The Topology Builder

Answer: B

Question: 4

DRAG DROP

You need to recommend a solution to meet the UM requirements.

What should you configure to meet each requirement?

To answer, drag the appropriate configurations to the correct requirements in the answer area.

Each configuration may be used once, more than once, or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.

Configurations	Answer Area
A UM dial plan	Configure all users to have a five-digit extension. Configuration
A UM mailbox policy	Ensure that users can retrieve their voice mail remotely by dialing +1 516 555 1212. Configuration
A UM auto attendant	Ensure that callers can reach the company directory by dialing +1 516 555 1213. Configuration
	Prevent users from receiving an email message when they miss a call. Configuration

Answer:

- Box 1: A UM Dial plan
 Box 2: A UM Dial plan
 Box 3: A UM auto attendant
 Box 4: A UM mailbox policy

Explanation:

Note:

- * A Unified Messaging (UM) dial plan is created using an organization-wide scope and contains configuration information related to your telephony network. A UM dial plan establishes a link from the telephone extension number of a Microsoft Exchange Server 2010 recipient in Active Directory to a UM-enabled mailbox.
- * You can create a Unified Messaging (UM) mailbox policy to apply a common set of UM policy settings, such as PIN policy settings or dialing restrictions, to a collection of UM-enabled mailboxes. UM mailbox policies link a UM-enabled user with a UM dial plan and apply a common set of policies or security settings to a collection of UM-enabled mailboxes. UM mailbox policies are useful for applying and standardizing UM configuration settings for UM-enabled users.
- * Incorrect: After you create a Unified Messaging (UM) auto attendant, incoming calls to an external telephone number that a human operator would ordinarily answer are answered by the auto attendant.

Question: 5

You need to recommend a solution to prevent calls to the Boston office from being routed over the PSTN. The solution must meet the Lync Server requirements.

What should you include in the recommendation?

- A. A Lync Server 2013 Director pool
- B. Two Lync Server 2013 trunks
- C. Two Lync Server 2013 Edge Servers
- D. A Lync Server 2010 A/V Conferencing pool

Answer: B**Question: 6**

You need to recommend a solution to integrate the planned on-premises Lync Server 2013 infrastructure and Lync Online.

Which two components should you include in the recommendation? (Each correct answer presents part of the

solution. Choose two.)

- A. A Lync Server 2013 partner application
- B. A new certificate issue by a trusted third-party certification authority (CA)
- C. The Microsoft Online Services Directory Synchronization tool
- D. A Session Border Controller
- E. A Lync Server 2013 Edge pool

Answer: C, E

Question: 7

You are evaluating whether the PSTN gateways must be upgraded to support the planned migration to Lync Server 2013.

You need to identify the minimum number of ports required for each PSTN gateway in the New York office. How many ports should you identify?

- A. 10
- B. 20
- C. 100
- D. 200

Answer: D

Explanation:

There are 4000 users in New York. 25% of those on the phone at any one time. 20% of those calls to the PSTN. Total = 200. There are two PSTN gateways so you could answer 100 each. However for redundancy, one PSTN gateway should be able to handle all calls so 200 is the answer.

Enterprise Voice Requirements

Voice call routing in the New York office must be redundant. All outbound or inbound PSTN call routes must not depend on a single component.

Question: 8

You need to recommend changes to the Exchange Server organization to ensure that callers can leave voice mails if a server fails.

Which component should you recommend?

- A. Two Edge servers that have Exchange Server 2010 deployed
- B. An additional UM IP gateway
- C. An additional Client Access server that has Exchange Server 2010 deployed
- D. An additional Unified Messaging server that has Exchange Server 2010 deployed

Answer: D

Question: 9

HOTSPOT

You are designing the Lync Server 2013 infrastructure.

You need to identify the minimum number of Lync Server 2013 Mediation Servers, Lync Server 2013 trunks, and PSTN gateways that must be added to the New York office. The solution must meet the Enterprise Voice requirements. What should you identify?

To answer, configure the appropriate number for each component in the answer area.

Answer Area

Lync Server 2013 Mediation Servers:

PSTN Gateways:

Lync Server 2013 Trunks:

Answer Area

Lync Server 2013 Mediation Servers:

0
1
2
3
4

PSTN Gateways:

0
1
2
3
4

Lync Server 2013 Trunks:

0
1
2
3
4

Answer: _____

Answer Area

Lync Server 2013 Mediation Servers:

0
1
2
3
4

PSTN Gateways:

0
1
2
3
4

Lync Server 2013 Trunks:

0
1
2
3
4

Explanation:<http://lync70337.freeforums.org/wingtip-lync-server-2013-infrastructure-t40.html>

2 Mediation server matches Enterprise Voice Requirement.

MUST not depend on a single component.

2 lync trunks are to Chicago and Boston

NY already has 2 gateways. No more need to be added.

Question: 10**DRAG DROP**

You need to identify which configurations must be implemented for the planned Lync Server 2013 deployment. The solution must meet the network requirements.

Which features should you use?

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

Features	Answer Area
Call Admission Control (CAC)	Limit the total bandwidth of all audio and video sessions from the Chicago office.
Differentiated Services (DiffServ)	Reduce the network utilization of Mediation servers.
Media bypass	Prioritize Lync audio traffic on the network.
Quality of Experience (QoE)	Feature

Answer:

Limit the total bandwidth of all audio and video sessions from the Chicago office.

Call Admission Control (CAC)

Reduce the network utilization of Mediation servers.

Media bypass

Prioritize Lync audio traffic on the network.

Differentiated Services (DiffServ)

Explanation:

Differentiated services

Note:

- * Real-time communications are sensitive to the latency and packet loss that can occur on congested networks. Call admission control (CAC) determines, based on available network bandwidth, whether to allow real-time communications sessions such as voice or video calls to be established.

- * Media bypass is a Lync Server capability that enables an administrator to configure call routing to flow directly between the user endpoint and the public switched telephone network (PSTN) gateway without traversing the Mediation Server. Media bypass improves call quality by reducing latency, unnecessary translation, possibility of packet loss, and the number of potential points of failure. Where a remote site without a Mediation Server is connected to a central site by one or more WAN links with constrained bandwidth, media bypass lowers the bandwidth requirement by enabling media from a client at a remote site to flow directly to its local gateway without first having to flow across the WAN link to a Mediation Server at the central site and back. This reduction in media processing also complements the Mediation Server's ability to control multiple gateways.

- * Differentiated Services code points (DSCPs) mark IP packets with the type of traffic that is contained in each packet. This information is used by QoS to determine the priority of the packet relative to other network traffic. If QoS is enabled on your network, you can take advantage of it by enabling DSCP marking on servers running Microsoft Lync Server and on Lync clients. Because Lync Server and Lync clients require that different media use different port ranges, the Windows or Windows Server operating system can identify the traffic type and apply the appropriate DSCP to each packet according to the port that it uses.

Case Study: 9

Contoso, Ltd Case A

Overview

General Overview

Contoso, Ltd. is a manufacturing company that has 4,000 employees. The company has a sales department, a marketing department, a research department, and a human resources department.

Physical Locations

The company has four offices. The offices are configured as shown in the following table.

Office location	Number of users	Extension prefix	Client subnet
New York	1,500	1	192.168.8.0/21
Miami	100	2	192.168.20.0/24
Los Angeles	400	3	192.168.30.0/23
Houston	200	4	192.168.40.0/24

The New York office contains the main data center. Communications for all of the offices is routed through the New York office.

All telephone calls from the Los Angeles office and the Miami office are routed through a PSTN gateway in the New York office.

All offices connect to each other by using a WAN link. Each office connects directly to the Internet.

Existing Environment

Active Directory Environment

The company has an Active Directory forest named contoso.com. The forest contains a single domain. All domain controllers run Windows Server 2008 R2.

Each office contains two domain controllers. Each office is configured as an Active Directory site.

Each office contains DHCP servers that run on 32-bit servers.

Lync Server Environment

The company has nine servers. The servers are configured as shown in the following table.

Server name	Office	Role	Software
Lync1.contoso.com	New York	Front End Server	Lync Server 2013
Lync2.contoso.com	New York	Front End Server	Lync Server 2013
Pool1.contoso.com	New York	Front End pool	n/a
Lync3.contoso.com	New York	Mediation Server	Lync Server 2013
Lync4.contoso.com	New York	Edge Server	Lync Server 2013
Gtwy1.contoso.com	New York	Media gateway	None
Gtwy2.contoso.com	Miami	Media gateway	None
Sba1.contoso.com	Houston	Survivable Branch Appliance	Lync Server 2013
Exch1.contoso.com	New York	Client Access Hub Transport Mailbox Unified Messaging	Microsoft Exchange Server 2010

The company uses a SIP domain of contoso.com. The voice infrastructure is configured as shown in the following table.

Office	Phone number range	User dialing habit
New York	+1 212 555 1000-3000	<ul style="list-style-type: none"> Local PSTN: 10-digit phone number Long distance within North America: 11-digit phone number International: 011 + phone number
Miami	+1 425 555 1000-1100	<ul style="list-style-type: none"> Local PSTN: 7-digit phone number Long distance within North America: 11-digit phone number International: 011 + phone number
Los Angeles	+1 310 555 4000-4500	<ul style="list-style-type: none"> Local PSTN: 10-digit phone number Long distance within North America: 11-digit phone number International: 011 + phone number
Houston	+1 713 555 4000-4200	<ul style="list-style-type: none"> Local PSTN: 10-digit phone number Long distance within North America: 11-digit phone number International: 011 + phone number

All users are enabled for Enterprise Voice.

The company also contains two Edge Servers that have Lync Server 2013 deployed. The servers are configured as shown in the following table.

Component	IP addressing	FQDN
A/V Edge service	131.107.100.3/24	Av.contoso.com
Access Edge service	131.107.100.1/24	Sip.contoso.com

The Miami office has a dial plan. The dial plan is configured as shown in the following table.

Normalization rule	Match pattern	Translation pattern
Internal New York	$^1(\d{4})$$	+1212555\$1
Internal Houston	$^4(\d{4})$$	+1713555\$1
Local 7 Digits	$^(555\d{4})$$	+1425\$1
Long Distance	$^(1\d{10})$$	+\$1
International	$^(011\d{2}\d{+})$$	+\$1

The Lync Server configuration has five routes. The routes are configured as shown in the following table.

Route name	Pattern to match	Description
LocalHouston	+1713	Local calls in Houston through the gateway in the Houston office
LocalLA	+1310	Local calls in Los Angeles through the gateway in the Los Angeles office
LDNY	+1	Long distance calls through the gateway in the New York office
LDHouston	+1	Long distance calls through the gateway in the Houston office
LDLA	+1	Long distance calls through the gateway in the Los Angeles office

The PSTN usage for the users in the Los Angeles office is configured as shown in the following table.

PSTN usage name	Description
LocalDialing	Local calls within the area code
PrimaryLongDistanceDialing	All long distance calls within North America
BackupLongDistanceDialing	Backup for all long distance calls if PrimaryLongDistanceDialing fails

Problem Statements

The company identifies the following issues with the current infrastructure:

- Los Angeles users report that the audio quality during calls to the New York office is poor and that the calls often disconnect.
- Users in the Miami office report that when their WAN link fails, they cannot establish calls to the PSTN.
- The Miami users report that they cannot call the Los Angeles users by using a five-digit internal phone number.

Requirements

Planned Changes

The company plans to implement the following changes:

- Provide voice resiliency in all of the offices if a WAN link fails.
- Implement Call Park.
- Implement an unassigned number range that has a voice announcement.
- Add an additional auto attendant.
- Implement a gateway in the Los Angeles office that uses the local PSTN.
- Migrate several users to Microsoft Lync Online. The users will use instant messaging (IM) with MSN users only. Client computers will use automatic configuration and open federation. The migrated users will use a SIP domain of cloud.contoso.com.
- Provide a backup route for each office if a gateway fails.
- Provide each office with access to the local PSTN.

Technical Requirements

The company identifies the following technical requirements:

- Enable five-digit internal dialing that uses the site code and the last four digits of the phone number range.
- Configure the New York gateway as the backup route for the local gateway in each office.

Business Requirements

Changes to the infrastructure must minimize the number of new servers deployed.

Question: 1

HOTSPOT

You need to ensure that the Miami users can use a five-digit extension when they call the Los Angeles users.

What should you include in the normalization rule?

To answer, configure the appropriate match pattern and translation pattern in the dialog box in the answer area.

Normalization rule	Match pattern	Translation pattern
Internal Los Angeles		

Normalization rule	Match pattern	Translation pattern
Internal Los Angeles	<code>^1(\d{5})\$</code> <code>^2(\d{4})\$</code> <code>^3(\d{4})\$</code> <code>^3(\d{5})\$</code>	<code>+1\$1</code> <code>+1310\$1</code> <code>+1310555\$1</code> <code>+555\$1</code>

Answer:

Normalization rule	Match pattern	Translation pattern
Internal Los Angeles	<input type="text" value="^1(\d{5})\$"/> <input type="text" value="^2(\d{4})\$"/> <input checked="" type="text" value="^3(\d{4})\$"/> <input type="text" value="^3(\d{5})\$"/>	<input type="text" value="+1\$1"/> <input type="text" value="+1310\$1"/> <input checked="" type="text" value="+1425555\$1"/> <input type="text" value="+555\$1"/>

Explanation:

Note:

Normalization Rules Using .NET Framework Regular Expressions

Sample Rule:

`^5(\d{4})$`

Translates 5-digit extensions

Translation: +1425555\$1

Example: 50100 is translated to +14255550100

Reference: Dial Plans and Normalization Rules

Question: 2

DRAG DROP

You need to configure the unassigned numbers range to support the planned changes.

Which four actions should you perform?

To answer, move the four appropriate actions from the list of actions to the answer area and the correct order.

Actions	Answer Area
Create an unassigned number range.	
Create an .mp3 file that contains the announcement.	
Run the New-CsAnnouncement cmdlet.	
Create a .wav file that contains the announcement.	
Run the Set-CsApplicationServer cmdlet.	
Run the Import-CsAnnouncementFile cmdlet.	

Answer:

Box 1:

Create a .wav file that contains the announcement.

Box 2:

Run the **Import-CsAnnouncementFile** cmdlet.

Box 3:

Run the **New-CsAnnouncement** cmdlet.

Box 4:

Create an unassigned number range.

Explanation:

Note:

* You can use Windows Media audio (.wma) file format or wave (.wav) file format for unassigned number Announcements or for Response Group messages, on-hold music, or interactive voice response (IVR) questions.

* Announcement Deployment Process

Configure Announcement settings

Create the announcement by recording and uploading audio files or by using text-to-speech (TTS).

Configure the unassigned number ranges in the unassigned number table and associate them with the appropriate announcement.

* To create a new announcement, you need to perform the following steps:

For audio prompts, record the audio file by using your favorite audio recording application.

For audio prompts, run the Import-CsAnnouncementFile cmdlet to import the contents of the audio file to File Store.

Run the New-CsAnnouncement cmdlet to create and name the announcement. Perform this step to create announcements with an audio prompt, a text-to-speech (TTS) prompt, or no prompt.

Assign the new announcement to a number range in the unassigned number table.

Question: 3

The Los Angeles users have the following call statistics:

Peak call concurrency is 25 percent

Fifty percent of all placed calls are routed to the PSTN.

Thirty percent of all placed calls are internal calls to users in the other offices.

Twenty percent of all placed calls are conference calls.

The average bandwidth for peer-to-peer calls is 65 kilobits per second (Kbps).

The average bandwidth used for conference calls is 100 Kbps.

You need to identify the minimum amount of bandwidth required on the WAN link for the planned implementation of the media gateway in the Los Angeles office.

All calls to the PSTN will be routed through the local media gateway in the Los Angeles office.

- A. 10.00 megabits per second (Mbps)
- B. 7.20 megabits per second (Mbps)
- C. 3.95 megabits per second (Mbps)
- D. 2.25 megabits per second (Mbps)

Answer: C

Question: 4**HOTSPOT**

You need to design the Call Park solution.

Which Call Park design should you choose?

To answer, select the appropriate range and application server in the dialog box in the answer area.

Answer Area

Range:

Application server:

Answer Area

Range:

- 0-99
- 100-199
- 200-9999
- 999-10000

Application server:

- Lync1.contoso.com
- Lync2.contoso.com
- Lync3.contoso.com
- Pool1.contoso.com

Answer:

Range: 100-199

Application Server: Pool1.contoso.com

Explanation:

Note:

* Call Park enables an Enterprise Voice user to put a call on hold from one telephone and then retrieve the call later by dialing an internal number (known as a Call Park orbit) from any telephone.

The value of the beginning number of the range must be the same length as the ending number of the range.

100-199 is the only value where the beginning number and end number are the same length.

Ref: <http://technet.microsoft.com/en-us/library/gg398361.aspx>

Question: 5**DRAG DROP**

You need to create the DHCP options required for Lync Phone Edition devices.

Which three actions should you perform?

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

Actions	Answer Area
From a Lync Server 2013 server, run dhcpconfigscript.bat .	
Copy Dhcpcfgscript.bat to a DHCP server.	
From a DHCP server, run dhcpconfigscript.bat .	
From a Lync Server 2013 server, run dhcputil.exe .	
Copy Dhcpcfgscript.bat to a Lync Server 2013 server.	
From a DHCP server, run dhcputil.exe .	

Answer:

Box 1:

From a Lync Server 2013 server, run **dhcputil.exe**.

Box 2:

Copy Dhcpcfgscript.bat to a DHCP server.

Box 3:

From a DHCP server, run **dhcpconfigscript.bat**.

Note:

* DHCPUtil does not configure the DHCP servers by itself. It delegates that responsibility to a script which can be changed to suit the organization's need. After it calculates the values for various options, DHCPUtil passes these values to a script, which can then take appropriate action.

DHCPConfigScript.bat is one such script and is the one that ships with DHCPUtil

* DHCPConfigScript.bat cannot be used against any DHCP server other than the DHCP server feature included with Windows Server operating systems, unless you modify it.

Lync Server includes only the 64 bit version of DHCPUtil so we can't run it directly on the 32 bit DHCP server. We need to run it on a 64 bit server (the lync server) then copy the output file (DHCPConfigScript.bat) to the DHCP server.

Reference: Using DHCPUtil

Question: 6**DRAG DROP**

You need to plan the subnets for Call Admission Control (CAC) and media bypass.

Which subnet or subnets should you identify for each office?

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

Subnets	Answer Area	
192.168.0.0/16	New York	Subnet
192.168.8.0/21	Los Angeles	Subnet
192.168.20.0/24	Miami	Subnet
192.168.30.0/23	Houston	Subnet
192.168.40.0/24		
131.107.100.0/24		
131.107.100.1/32		
131.107.100.3/32		

Answer:

New York:

Box 1: 131.107.100.3/32

Box 2: 192.168.8.0/21

Los Angeles:

Box 3: 192.168.30.0/23

Miami:

Box 4: 192.168.20.0/24

Houston:

Box 5: 192.168.40.0/24

Explanation:

Note:

The 192.168.x.x configurations as per defined in scenario.

Then we need a public network address for New York.

Every subnet in your network must be associated with a network site, even if the network site is not bandwidth constrained. This is because call admission control uses subnet information to determine at which network site an endpoint is located. When the locations of both parties in the session are determined, call admission control can determine if there is sufficient bandwidth to establish a call. When a session is established over a link that has no bandwidth limits, an alert is generated.

If you deploy Audio/Video Edge Servers, the public IP addresses of each Edge Server must be associated with the network site where the Edge Server is deployed. Each public IP address of the A/V Edge Server must be added to your network configuration settings as a subnet with a subnet mask of 32.

Ref: <http://technet.microsoft.com/en-us/library/gg425827.aspx>

Question: 7

HOTSPOT

You need to identify which Lync Server 2013 components must be deployed to each office to support the planned changes for voice resiliency.

Which components should you identify for each office?

To answer, select the appropriate component for each office in the answer area.

Answer Area

New York

Miami

Los Angeles

Houston

Answer Area

New York

- A media gateway
- A Standard Edition Front End Server
- A Survivable Branch Appliance server
- No additional components

Miami

- A media gateway
- A Standard Edition Front End Server
- A Survivable Branch Appliance server
- No additional components

Los Angeles

- A media gateway
- A Standard Edition Front End Server
- A Survivable Branch Appliance server
- No additional components

Houston

- A media gateway
- A Standard Edition Front End Server
- A Survivable Branch Appliance server
- No additional components

Answer:

Answer Area

New York	<input type="checkbox"/> A media gateway <input type="checkbox"/> A Standard Edition Front End Server <input checked="" type="checkbox"/> A Survivable Branch Appliance server <input checked="" type="checkbox"/> No additional components
Miami	<input type="checkbox"/> A media gateway <input type="checkbox"/> A Standard Edition Front End Server <input checked="" type="checkbox"/> A Survivable Branch Appliance server <input type="checkbox"/> No additional components
Los Angeles	<input type="checkbox"/> A media gateway <input type="checkbox"/> A Standard Edition Front End Server <input checked="" type="checkbox"/> A Survivable Branch Appliance server <input type="checkbox"/> No additional components
Houston	<input type="checkbox"/> A media gateway <input type="checkbox"/> A Standard Edition Front End Server <input checked="" type="checkbox"/> A Survivable Branch Appliance server <input checked="" type="checkbox"/> No additional components

Explanation:

Note:

General:

* The Survivable Branch Appliance is a purpose-built appliance to increase voice resiliency in branch-office scenarios.

Scenario:

* Houston already has a Survivable Branch Appliance

* Miami and Los Angeles both need a Survivable Branch Appliance.

Question: 8

You need to create the new auto attendant contact object.

Which two tools can achieve the goal? (Each correct answer presents a complete solution. Choose two.)

- A. Ocsutil.exe
- B. New-ADUser
- C. New-MailContact
- D. Exchutil.ps1
- E. New-CsExUmContact

Answer: A, D

Question: 9

DRAG DROP

You are evaluating the implementation of the gateway in the Los Angeles office.

You need to ensure that least cost routing is used in the Los Angeles and Houston offices for local calls after the gateway is deployed. The solution must meet the technical requirements.

Which route should you assign to each PSTN usage?

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

Routes	Answer Area		
	LocalDialing	Route	Route
LocalHouston			
LocalLA	PrimaryLongDistanceDialing	Route	
LDNY	BackupLongDistanceDialing	Route	
LDHouston			
LDLA			

Answer:

Box 1: LocalLa

Box 2: LocalHouston

Box 3: LDLA

Box 4: LDNY

Question: 10

HOTSPOT

Your need to recommend which DNS records must be created to support the planned migration to Lync Online.

Which DNS records should you recommend creating?

To answer, configure the appropriate record name and target in the dialog box in the answer area.

Answer Area		
Record name	Port	Target
<input type="text"/>	443	<input type="text"/>
<input type="text"/>	5061	<input type="text"/>

Answer Area

Record name	Port	Target
_sip._tls.cloud.contoso.com sipfederationtls._tcp.cloud.contoso.com	443	Sip.contoso.com Sip.cloud.contoso.com Sipdir.online.lync.com Sipfed.online.lync.com
_sip._tls.cloud.contoso.com sipfederationtls._tcp.cloud.contoso.com	5061	Sip.contoso.com Sip.cloud.contoso.com Sipdir.online.lync.com Sipfed.online.lync.com

Answer:

Answer Area

Record name	Port	Target
sip._tls.cloud.contoso.com sipfederationtls._tcp.cloud.contoso.com	443	Sip.contoso.com Sip.cloud.contoso.com Sipdir.online.lync.com Sipfed.online.lync.com
_sip._tls.cloud.contoso.com sipfederationtls._tcp.cloud.contoso.com	5061	Sip.contoso.com Sip.cloud.contoso.com Sipdir.online.lync.com Sipfed.online.lync.com

Explanation:

Note:

- * the Edge generally only listens on port 5061 if you have Federation enabled
- * Port, protocol and firewall requirements for federation with Microsoft Lync Server 2013, Lync Server 2010 and Office Communications Server are similar to those for the deployed Edge Server. Clients initiate communication with the Access Edge service over TLS/SIP/TCP 443. Federated partners however, will initiate communications to the Access Edge service over MTLS/SIP/TCP 5061.

Reference: Port Summary - Lync Server and Office Communications Server Federation

Question: 11

You need to recommend a client configuration strategy to meet the requirements for the planned migration to Lync Online.

What should you recommend?

- A. Deploy a Group Policy object (GPO) that adds the msn.com domain to the Internet Explorer settings.
- B. Enable public IM connectivity for each user.

- C. Create a hosting provider for the msn.com domain,
- D. Enable federation for each user.

Answer: B

Case Study: 10

Litware, Inc Case B

Overview

General Overview

Litware, Inc. is a marketing company that has 20,000 users.

Physical Locations

Litware has a main office and a branch office. The main office is located in New York. The branch office is located in Montreal.

The offices connect to each other by using a WAN link. Each office connects directly to the Internet.

Each office has a firewall between the internal network and the perimeter network. Each office has a firewall between the perimeter network and the Internet.

Existing Environment

Active Directory Infrastructure

The network contains an Active Directory forest named litware.com. The forest contains a single domain. All domain controllers run Windows Server 2012.

Each office contains two domain controllers. Each office is configured as an Active Directory site.

Lync Server Infrastructure

The network contains a Lync Server 2013 infrastructure. The infrastructure contains 12 servers. The servers are configured as shown in the following table.

Server name	Server site	Network	Role	Pool name	IP address
LYNC01	New York	Internal	Enterprise Edition Front End Server	NYPOOL1	10.0.0.1
LYNC02	New York	Internal	Enterprise Edition Front End Server	NYPOOL1	10.0.0.2
LYNC03	New York	Internal	Enterprise Edition Front End Server	NYPOOL2	10.0.0.3
LYNC04	New York	Internal	Enterprise Edition Front End Server	NYPOOL2	10.0.0.4
PLYNC01	New York	Perimeter	Edge Server	NYPOOL3	131.107.0.1
PLYNC02	New York	Perimeter	Reverse proxy	Not applicable	131.107.0.2
LYNC11	Montreal	Internal	Enterprise Edition Front End Server	MOPOOL1	10.1.0.1
LYNC12	Montreal	Internal	Enterprise Edition Front End Server	MOPOOL1	10.1.0.2
LYNC13	Montreal	Internal	Enterprise Edition Front End Server	MOPOOL2	10.1.0.3
LYNC14	Montreal	Internal	Enterprise Edition Front End Server	MOPOOL2	10.1.0.4
PLYNC11	Montreal	Perimeter	Edge Server	MOPOOL3	131.107.1.1
PLYNC12	Montreal	Perimeter	Reverse proxy	Not applicable	131.107.1.2

Litware uses the following Lync features:

- Instant messaging (IM)
- A/V conferencing

The Lync Server 2013 infrastructure is configured to use federation with users at a partner company, which is named Contoso, Ltd. Contoso has a SIP domain named contoso.com. The users at Contoso use Microsoft Lync Online.

Litware has a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization. Unified Messaging (UM) and Lync Server 2013 are integrated.

Planned Changes

Litware plans to implement the following changes:

- Enable Enterprise Voice for all users.
- Add IP phones to the existing VLANs.
- Add a SIP trunk to each site.

Problem Statements

Litware identifies the following issues:

- The current firewall configurations allow all ports and all protocols to the Lync Server 2013 infrastructure.
- A change to the Lync services provider proxy URL recently caused the federation with contoso.com to become unavailable.

Requirements

Business Goals

Litware plans to minimize hardware and software purchasing costs.

Technical Requirements

Litware identifies the following technical requirements:

- The Enterprise Voice solution must ensure that calls to Canada are routed through the SIP trunk in the Montreal office. Litware identifies 39 area codes and a country code of 1 for Canada.
- The Enterprise Voice solution must ensure that calls to any country besides Canada are routed through the SIP trunk in the New York office. Litware identifies 269 area codes and a country code of 1 for the United States.
- If the SIP trunk in the New York office fails, users in the Montreal office must be able to place international calls.
- The provider of the New York SIP trunk requires that the 011 prefix be used to make all international calls. Rules exist to ensure that dialed numbers conform to E.164 standards.
- Application sharing for up to 200 simultaneous remote users and 100 simultaneous internal users in a single conference must be supported. Each application sharing session uses 500 Kbps. Only users on the internal network are presenters of the conferences.
- Users in the New York and Montreal offices must be able to dial a local number to access their voice mail remotely. Subscriber access must be available in French for the Montreal office users and in English and Spanish for the New York office users.
- Microsoft Lync Phone Edition devices must be supported.
- Users must be able to access their voice mail only from the Lync client by clicking Call Voice Mail.

Security Requirements

Allow only the required communications through the firewalls for the supported Lync services.

Response Group Requirements

Litware plans to create a response group for support calls to meet the following requirements:

- Incoming calls must be routed to any support staff who are online and available.
- If the support call is not answered by a support staff member, the call must be forwarded to the group of managers on call that day.
- Calls forwarded to the managers must be sent to the manager who has not answered a support call in the longest amount of time.

Question: 1

An administrator makes several security changes to the firewalls.

After you deploy Enterprise Voice, remote users report that they fail to access their voice mail by using the Call Voice Mail option in the Lync client.

You verify that the users can access their voice mail by dialing the subscriber access number.

You need to ensure that the users can access their voice mail by clicking Call Voice Mail.

Which two sets of ports should you open? (Each correct answer presents part of the solution. Choose two.)

- A. TCP 443 and UDP 3478 on the internal firewall
- B. TCP 443 and UDP 3478 on the external firewall
- C. TCP 5062 and 8057 on the internal firewall
- D. UDP 50,000 to 59,999 on the external firewall
- E. TCP 5062 and 8057 on the external firewall
- F. UDP 50,000 to 59,999 on the internal firewall

Answer: A, B

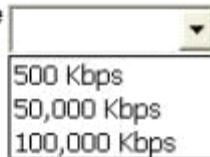
Question: 2

HOTSPOT

You need to identify the minimum amount of bandwidth required for each network connection to support the technical requirement for application sharing.

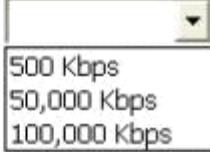
How much bandwidth should you identify? (To answer, select the appropriate amount of bandwidth for each network connection in the answer area.)

From the client computer of the conference presenter to a Front End pool:



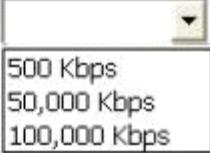
500 Kbps
50,000 Kbps
100,000 Kbps

From a Front End pool to an Edge Server:



500 Kbps
50,000 Kbps
100,000 Kbps

From an Edge Server to the Internet:



500 Kbps
50,000 Kbps
100,000 Kbps

Answer:

From the client computer of the conference presenter to a Front End pool:

500 Kbps
50,000 Kbps
100,000 Kbps

From a Front End pool to an Edge Server:

500 Kbps
50,000 Kbps
100,000 Kbps

From an Edge Server to the Internet:

500 Kbps
50,000 Kbps
100,000 Kbps

Question: 3

You need to identify the minimum number of voice routes that must be created to meet the technical requirements. How many voice routes should you identify?

- A. 1
- B. 2
- C. 4
- D. 40
- E. 270

Answer: B

Question: 4

HOTSPOT

You need to identify the minimum number of UM dial plans and access numbers required to support the technical requirement for subscriber access.

What should you identify? (To answer, select the appropriate number of UM dial plans and access numbers in the answer area.)

Number of UM dial plans:

0
1
2
3
4
5
6
7

Number of access numbers:

0
1
2
3
4
5
6
7

Answer:

Number of UM dial Plans: 3

Number of access numbers: 3

Question: 5

HOTSPOT

You plan to modify the firewall in the Montreal office that connects to the Internet.

You need to implement the inbound firewall rules to meet the security requirements for inbound A/V connections.

Which rules should you implement? (To answer, configure the appropriate firewall rules in the answer area.)

Rule	Source IP	Source Port	Destination IP	Destination Port
Rule1	<input type="button" value="▼"/> 10.0.1.1 131.107.1.1 131.107.1.2 ANY	<input type="button" value="▼"/> TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY	<input type="button" value="▼"/> 10.0.1.1 131.107.1.1 131.107.1.2 ANY	<input type="button" value="▼"/> TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY
Rule2	<input type="button" value="▼"/> 10.0.1.1 131.107.1.1 131.107.1.2 ANY	<input type="button" value="▼"/> TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY	<input type="button" value="▼"/> 10.0.1.1 131.107.1.1 131.107.1.2 ANY	<input type="button" value="▼"/> TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY

Answer:

Rule	Source IP	Source Port	Destination IP	Destination Port
Rule1	10.0.1.1 131.107.1.1 131.107.1.2 ANY	TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY	10.0.1.1 131.107.1.1 131.107.1.2 ANY	TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY
Rule2	10.0.1.1 131.107.1.1 131.107.1.2 ANY	TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY	10.0.1.1 131.107.1.1 131.107.1.2 ANY	TCP 443 TCP 50,000 to 59,999 UDP 3478 ANY

Explanation:

Note:

- * From scenario: IP address of the edge server is 131.107.1.1
- * The A/V Edge requirements for ports and protocol have changed in Microsoft Lync Server . Depending upon your requirements for federation with partner infrastructures and the configuration of your Edge Servers, the following ports should be considered:

UDP 3478

TCP 443

UDP 50,000–59,999

TCP 50,000–59,999

Question: 6

You need to create a rule to meet the technical requirements for international dialing from the SIP trunk in the New York office.

Which type of rule should you create?

- A. Called number translation
- B. Calling number translation
- C. Dialing
- D. Normalization

Answer: A

Question: 7

You need to configure DHCP to support the technical requirement for the Lync Phone Edition devices.

Which DHCP options should you include in the solution? (Each correct answer presents part of the solution. Choose all that apply.)

- A. 40
- B. 43
- C. 80
- D. 120
- E. 144

Answer: B, D

Explanation:

B: DHCP Option 43

Option 43 is not really a single option but a number of sub-options which tell the phone where to locate the Certificate Provisioning service on the Lync server.

D: DHCP Option 120

Once the certificate is downloaded to the phone then a valid Lync registrar server needs to be located. The value of Option 120 will be the FQDN of the Lync server which will handle authentication requests from the phones.

* From scenario:

Microsoft Lync Phone Edition devices must be supported.

Reference: Configuring Lync Server for Phone Edition Devices

Question: 8

You need to resolve the federation issue with contoso.com.

Which two Windows PowerShell cmdlets should you run? (Each correct answer presents part of the solution. Choose two.)

- A. New-CsHostingProvider
- B. Remove-CsAllowedDomain
- C. New CsAllowedDomain
- D. Set-CsAllowedDomain
- E. Remove-CsHostingProvider
- F. Set-CsHostingProvider

Answer: A, E

Explanation:

We cannot modify the proxyFQDN for the Hosting Provider so we need to remove it then add it again.

* New-CsHostingProvider

Creates a new hosting provider for use in your organization. A hosting provider is a private third-party organization that provides instant messaging, presence, and related services for a domain that you would like to federate with. Hosting providers, such as Microsoft Lync Online 2010, differ from public providers (such as Yahoo!, MSN, and AOL) in that their services are not offered to the general public.

From Scenario:

/ The Lync Server 2013 infrastructure is configured to use federation with users at a partner company, which is named Contoso, Ltd. Contoso has a SIP domain named contoso.com. The users at Contoso use Microsoft Lync Online.

/ A change to the Lync services provider proxy URL recently caused the federation with contoso.com to become unavailable.

Question: 9

You are implementing the Enterprise Voice solution.

You create the objects described as shown in the following table.

Object name	Object description
PSTN1	The PSTN usage record for international calls from the Montreal office
PSTN2	The PSTN usage record for international calls from the New York office
VR1	The voice route that uses the trunk in the Montreal office and is associated to PSTN1
VR2	The voice route that uses the trunk in the New York office and is associated to PSTN2
VP1	The voice policy for the Montreal office users
VP2	The voice policy for the New York office users

You need to recommend which action must be performed to meet the technical requirements for Enterprise Voice routing.

What should you add?

- A. PSTN1 to VP2
- B. PSTN1 to VP1
- C. PSTN2 to VP2
- D. PSTN2 to VP1

Answer: B

Question: 10

HOTSPOT

You plan to implement the response group for the support staff and to create the agent groups shown in the following table.

Group name	Group members
Group1	All IT support users
Group2	All on call managers

You need to configure the agent groups to meet the response group requirements.

How should you configure each agent group? (To answer, select the appropriate options for each group in the answer area.)

Group Name	Participation Policy	Routing Method
-------------------	-----------------------------	-----------------------

Group1	<input type="checkbox"/> Formal <input type="checkbox"/> Informal	<input type="checkbox"/> Attendant <input type="checkbox"/> Longest idle <input type="checkbox"/> Parallel <input type="checkbox"/> Round robin <input type="checkbox"/> Serial
Group2	<input type="checkbox"/> Formal <input type="checkbox"/> Informal	<input type="checkbox"/> Attendant <input type="checkbox"/> Longest idle <input type="checkbox"/> Parallel <input type="checkbox"/> Round robin <input type="checkbox"/> Serial

Answer:

Group Name	Participation Policy	Routing Method
-------------------	-----------------------------	-----------------------

Group1	<input type="checkbox"/> Formal <input checked="" type="checkbox"/> Informal	<input type="checkbox"/> Attendant <input type="checkbox"/> Longest idle <input checked="" type="checkbox"/> Parallel <input type="checkbox"/> Round robin <input type="checkbox"/> Serial
Group2	<input checked="" type="checkbox"/> Formal <input type="checkbox"/> Informal	<input type="checkbox"/> Attendant <input checked="" type="checkbox"/> Longest idle <input type="checkbox"/> Parallel <input type="checkbox"/> Round robin <input type="checkbox"/> Serial

Explanation:

<http://technet.microsoft.com/en-us/library/gg520969.aspx>
<http://technet.microsoft.com/en-us/library/jj205370.aspx>

Case Study: 11**Contoso Ltd****Overview****General Overview**

Contoso, Ltd. is an international manufacturing company that has 2,500 users.

Contoso has a sales department, a marketing department, a research department, and a human resources department.

Physical Locations

Contoso has a main office in Denver. All users work in the main office.

The Denver office consists of three buildings. Each building is configured as a separate network segment.

The Denver office connects directly to the Internet.

Existing Environment

Active Directory Infrastructure

The network contains an Active Directory forest named contoso.com. The forest contains a single domain.

All domain controllers run Windows Server 2008 R2.

Contoso has a standalone root certificate authority (CA) named CA1.

Lync Server Infrastructure

The network contains a Lync Server 2013 infrastructure. The infrastructure contains five servers in the Denver office. The servers are configured as shown in the following table.

Server name	Role
FE1	Enterprise Edition Front End Server
FE2	Enterprise Edition Front End Server
Edge1	Edge Server
Edge2	Edge Server
SQL1	Microsoft SQL Server

FE1 and FE2 are part of a pool named Pool1 that uses DNS load balancing and a hardware load balancer.

Edge1 and Edge2 are configured to use DNS load balancing.

The sequence of phone numbers at the Denver office is 720-555-5000 to 720-555-8000.

You have a response group named RG1.

Exchange Server Organization

Contoso has a Microsoft Exchange Server 2010 organization that contains three servers in the Denver office.

The servers are configured as shown in the following table.

Server name	Role
CAS1	Client Access
HT1	Hub Transport
MB1	Mailbox

All client computers run either Windows 7 Professional or Windows 8 Pro. All of the computers have Microsoft Lync 2013 and Microsoft Outlook 2010 installed.

Problem Statements

Users from other companies report that they fail to communicate with the users at Contoso by using federation.

Requirements Business Goals

During the next six months, Contoso plans to implement redundancy solutions to the existing Lync Server 2013 infrastructure.

Contoso plans to minimize hardware and software purchasing costs.

Planned Changes

Contoso plans to implement the following changes to the network:

- Establish new branch offices in New York and Montreal that connect to the Denver

office by using a WAN link. The New York office will have 2,000 users. The Montreal office will have 200 users.

- Provide secondary phone numbers for executives.
- Establish a pilot migration to Microsoft Office 365.
- Implement Unified Messaging (UM).

Contoso purchases another company named

A. Datum Corporation. The users at A. Datum will be hosted in an Office 365 subscription.

Contoso plans to implement a federated relationship with another company that runs Microsoft Office Communications Server 2007 R2. Users from the partner company must be able to have instant messaging (IM) conversations with the Contoso users if a single Edge Server on the Contoso network fails.

Technical Requirements

Contoso identifies the following technical requirements:

- Users from the New York office and the Montreal office must be able to use Enterprise Voice, response groups, IM, presence, and conferencing within their respective office if the WAN link to the Denver office fails.
- Users at A. Datum must be able to send and receive email by using the ©adatum.com SMTP suffix and must be able to create Lync Server conferences that use the adatum.com domain.
- Secondary phone numbers provided to the executives must not be published from the address book and must not be visible to users from Lync 2013.
- Callers from the New York and Montreal offices must be able to call the Denver office by dialing 3, and then the last four digits of a user's phone number.
- The best possible user experience for audio and video conferencing between the Lync 2013 clients in the Denver office must be provided.
- The A. Datum users must be able to view the presence information of the Contoso users and must be able to join Contoso conferences.
- RG1 must be used by the users in the New York office if the network in the Denver office is unavailable for an extended period of time.
- The number of ports configured on the hardware load balancers must be minimized.
- Administrators must be able to migrate from Contoso to A. Datum.
- Users must be prevented from simultaneously ringing the PSTN.
- UM and Lync Server 2013 must be integrated.

Question: 1

You need to implement the secondary phone numbers for the executives. The solution must meet the technical requirements.

Which Windows PowerShell cmdlet should you run?

- A. Set-CsRgsConfiguration
- B. New-CsVoiceNormalizationRule
- C. Set-CsUser
- D. Set-CsVoicePolicy

Answer: C

Question: 2

HOTSPOT

You need to recommend which Lync Server 2013 solution must be deployed to the New York and Montreal offices to support the planned changes. The solution must meet the business goals.

What should you recommend? (To answer, select the appropriate components for each office in the answer area.)

New York:

- a Standard Edition Server
- a Survivable Branch Appliance
- a Survivable Branch Server
- two Enterprise Edition Servers in a pool

Montreal:

- a Standard Edition Server
- a Survivable Branch Appliance
- a Survivable Branch Server
- two Enterprise Edition Servers in a pool

Answer:

New York:

- a Standard Edition Server
- a Survivable Branch Appliance
- a Survivable Branch Server
- two Enterprise Edition Servers in a pool

Montreal:

- a Standard Edition Server
- a Survivable Branch Appliance
- a Survivable Branch Server
- two Enterprise Edition Servers in a pool

Question: 3

HOTSPOT

You need to design the dial plans for the Montreal and New York offices. The plans must meet the technical requirements.

What should you include in the design? (To answer, select the appropriate pattern match and translation rule in the answer area.)

Pattern match:

<code>^(3\d{4})\$1</code>
<code>^3(\d{3})\$1</code>
<code>^3(\d{4})\$</code>
<code>^4(3\d{4})\$</code>

Translation rule:

<code>+1720553\$1</code>
<code>+17205554\$1</code>
<code>+1720555\$</code>
<code>+1720555\$1</code>

Answer:

Pattern match:

<code>^(3\d{4})\$1</code>
<code>^3(\d{3})\$1</code>
<code>^3(\d{4})\$</code>
<code>^4(3\d{4})\$</code>

Translation rule:

<code>+1720553\$1</code>
<code>+17205554\$1</code>
<code>+1720555\$</code>
<code>+1720555\$1</code>

Question: 4

You need to recommend changes to the Lync Server 2013 infrastructure to support the planned changes for federation.

Which two changes should you include in the recommendation? (Each correct answer presents part of the solution. Choose two.)

- A. In the public DNS zone, create a new alias (CNAME) record named sipfederation.contoso.com.
- B. In the public DNS zone, create a new service location (SRV) record named _sipfederationtls._tcp.contoso.com.
- C. Deploy a hardware load balancer to the perimeter network.
- D. Deploy a Director to the perimeter network.

Answer: B, C

Explanation:

* From scenario:

Problem Statements

Users from other companies report that they fail to communicate with the users at Contoso by using federation.

That's because there is no DNS record for sipinternatl in the external contoso.com DNS space.

SRV _sipfederationtls_tcp.contoso.com 5061 The federated partner is running OCS R2, which doesn't support DNS LB. And the requirements state that they must be able to communicate if an edge server fails. Only way around that is HLB. Also, question F7 references an HLB.

Question: 5

DRAG DROP

You need to recommend a solution to meet the technical requirements for RG1.

Which four actions should you recommend in sequence? (To answer, move the list of actions to the answer area and arrange them in the correct order.)

Actions	Answer Area
Instruct all of the members of RG1 who are configured as formal agents to sign in again.	
Run Export-ModuleMember .	
Run Import-CsRgsConfiguration .	
Run Import-ModuleMember .	
Run Export-CsConfiguration .	
Restore the Central Management store to a server in the New York office.	
Run Import-CsConfiguration .	
Instruct all of the members of RG1 who are configured as informal agents to sign in again.	
Run Export-CsRgsConfiguration .	

Answer:

Box 1: Run Export-CsRgsConfiguration

Box 2: Restore the Central Management store to a server in the New York Office.

Box 3: Run Import-CsRgsConfiguration.

Box 4: Instruct all of the members of RG1 who are configured as formal agents to sign in again.

Explanation:

Note:

* From scenario:

/ You have a response group named RG1.

/ RG1 must be used by the users in the New York office if the network in the Denver office is unavailable for an extended period of time.

/ Contoso plans to implement the following changes to the network:

Establish new branch offices in New York and Montreal that connect to the Denver office by using a WAN link

* (box 1, box 3) Export-CsRgsConfiguration

Exports data from an existing Response Group application configuration. This data, saved as a .ZIP file, can later be imported using the Import-CsRgsConfiguration cmdlet.

* (box 4) Formal agents are considered active when they manually sign in to the Response Group application web sign in page. Informal agents are considered active when they login to the Lync client, because they are automatically signed in to their Response Groups when they login.

An agent who does not sign in or out of the group is called an informal agent. Informal agents are automatically signed in to the group when they sign in to Lync Server, and they cannot sign out of the group.

Question: 6

DRAG DROP

You need to configure the Lync Server 2013 infrastructure for the planned integration of the

A. Datum users.

What should you configure from the Lync Server 2013 Control Panel? (To answer, drag the appropriate names to the correct locations. Each name may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Answer:

The screenshot shows the Lync Server 2013 management interface. On the left, there's a sidebar with various navigation options like Home, Users, Topology, etc. The main area is titled 'Answer Area' and shows the 'Lync Server 2013' dashboard. At the top of the dashboard, there are tabs for External Access Policy, Access Edge Configuration, SIP Federated Domains (which is currently selected), SIP Federated Providers, and XMPP Federated Partners. Below these tabs, a sub-dialog box is open titled 'New SIP Federated Domains'. It has two main input fields: 'Domain name (FQDN):' containing 'Adatum.com' and 'Access Edge service (FQDN):' containing 'Sipfed.online.lync.com'. There are 'Commit' and 'Cancel' buttons at the top of this dialog.

Question: 7

You need to recommend which ports must be configured on the hardware load balancer to meet the technical requirements.

Which TCP ports should you include in the recommendation?

- A. 443 and 4443
- B. 80 and 8080
- C. 80, 5060, and 5061
- D. 135, 443, and 8080

Answer: A

Question: 8

DRAG DROP

You need to configure the Lync Server 2013 infrastructure to meet the technical requirements for simultaneous ring. What should you include in the Windows PowerShell command? (To answer, select the appropriate PowerShell cmdlet and parameter in the answer area.)

PowerShell cmdlet:

New-CsClientPolicy
 New-CsDialPlan
 New-CsVoicePolicy
 New-CsVoiceRoutingPolicy

Parameter:

AllowPSTNReRouting
 AllowSimulRing
 CallForwardingSimulRingUsageTyp
 EnableMediaRedirection
 OptimizeDeviceDialing

Answer:

PowerShell cmdlet:

New-CsClientPolicy
 New-CsDialPlan
New-CsVoicePolicy
 New-CsVoiceRoutingPolicy

Parameter:

AllowPSTNReRouting
AllowSimulRing
 CallForwardingSimulRingUsageTyp
 EnableMediaRedirection
 OptimizeDeviceDialing

Question: 9

You are evaluating the migration of 20 pilot users to Office 365.

You need to recommend which actions must be performed to migrate the pilot users. The solution must ensure that the pilot users have only one SIP URI after they migrate.

Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

- A. Deploy Active Directory Federation Services (AD FS).
- B. Add a new SIP domain to the Lync Server 2013 infrastructure of Contoso.
- C. Create new Office 365 accounts.
- D. Install the Microsoft Online Services Directory Synchronization tool.
- E. Remove the users from the Lync Server 2013 infrastructure of Contoso.

Answer: B, D

Question: 10

DRAG DROP

You install a new server named UM1 that has Exchange Server 2010 deployed. UM1 has the Unified Messaging server role installed.

You need to recommend which actions must be performed to configure a certificate for UM1.

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

Actions	Answer Area
Run the Import-ExchangeCertificate cmdlet.	
Install the root certificate of CA1 in the Trusted Root Certificate Authorities store.	
Process the certificate request at CA1.	
Run the Enable-ExchangeCertificate cmdlet.	
Generate a certificate request that contains a subject name of um1.contoso.com.	

Answer:

Box 1: Install the root certificate of CA1 in the Trusted Root Certificate Authorities store.

Box 2: Generate a certificate request that contains a subject name of um1.contoso.com

Box 3: Process the certificate request at CA1.

Box 4: Run the Import-ExchangeCertificate cmdlet.

Box 5: Run the Enable-ExchangeCertificate cmdlet.

Explanation:

Note:

* **Enable-ExchangeCertificate**

Use the Enable-ExchangeCertificate cmdlet to enable an existing certificate in the local certificate store for Exchange services such as Internet Information Services (IIS), SMTP, POP, IMAP, and Unified Messaging (UM).

The Enable-ExchangeCertificate cmdlet enables certificates by updating the metadata stored with the certificate. To enable an existing certificate to work with additional Exchange services, use the Enable-ExchangeCertificate cmdlet and specify the additional services.

* **Import-ExchangeCertificate**

Use the Import-ExchangeCertificate cmdlet to import a certificate or chain of certificates.

You can use the Import-ExchangeCertificate cmdlet for the following purposes:

/ To import a certificate or chain of certificates from a PKCS #7 file that has been issued by a certification authority (CA).

/ To import an existing certificate and private key from a PKCS #12 (.pfx or .p12) file to the certificate store on the local computer.

Case Study: 12

Mix Questions

Question: 1

HOTSPOT

You have an Active Directory domain named contoso.com.

Your company has a Microsoft Office 365 subscription. Twenty users are enabled for Microsoft Lync Online. The users

frequently travel.

The users report that they receive the following error message when they attempt to sign in to Microsoft Lync from the office: "Cannot sign in because the server is temporarily unavailable. If the problem continues, please contact your support team."

You verify that the users can sign in to Lync when they connect from the Internet.

You need to ensure that all of the users can sign in to Lync.

Which alias (CNAME) record should you create in the internal DNS domain?

To answer, select the appropriate record name and the appropriate record target in the answer area.

Answer Area

Record name	Target

Answer Area

Record name	Target
Autodiscover.contoso.com	Sipdir.online.lync.com
Sip.contoso.com	Sipfed.online.lync.com
Lyncinternal.contoso.com	Online.lync.com
Lynxexternal.contoso.com	Contoso.onmicrosoft.com

Answer:

Answer Area

Record name	Target
Autodiscover.contoso.com	Sipdir.online.lync.com
Sip.contoso.com	Sipfed.online.lync.com
Lyncinternal.contoso.com	Online.lync.com
Lynxexternal.contoso.com	Contoso.onmicrosoft.com

Note:

- * The FQDN must be the primary on the cert or be a SAN entry for the cert. Usually, the FQDN would be sip.mydomain.com. Create a SRV record for sip to point to the real FQDN of the host.

- * The Lync 2013 Preview client can be set to use manual configuration to check whether the sign-in issue is related to DNS resolution issues. If manual configuration works and automatic configuration doesn't work, it usually indicates a problem with DNS resolution. This usually occurs because the DNS SRV records aren't present or are inaccessible from the client computer. To set Lync 2013 Preview to use manual configuration, follow these steps:

In the upper-right area of Lync 2013 Preview, click the Gear icon to open the Options page.

In the Lync - Options dialog box, click Personal.

Next to the sign-in address, click Advanced.

Make sure that Manual Configuration is selected and that the configuration values are exactly as follows:

Internal server name or IP address: sipdir.online.lync.com:443

External server name or IP address: sipdir.online.lync.com:443

Question: 2

Your network contains the servers shown in the following table.

Server name	Software	Role
Server1	Lync Server 2013	Standard Edition server
Server2	Lync Server 2013	Edge Server
Server3	Microsoft Exchange Server 2013	Mailbox server Client Access server

You configure the infrastructure to use hosted Exchange Unified Messaging (UM).

You need to create a new contact object for the hosted UM auto attendant.

What should you do?

- A. From Server1, run ocsutil.exe.
- B. From Server3, run the exchucutil.ps1 script.
- C. From Server3, run the New-MailContact cmdlet.
- D. From Server1, run the New-CsExUmContact cmdlet.

Answer: D

Explanation:

<http://technet.microsoft.com/en-us/library/gg412765.aspx>

http://lync70337.freeforums.org/viewtopic.php?forum_uri=you-need-to-create-a-new-contact-object-for-thehosted-um&t=24&start=&sid=ebad3f9a56566938c8375b22c005051e

Question: 3

You purchase a Microsoft Office 365 subscription and configure the pilot users to use the Ocontoso.onmicrosoft.com UPN suffix.

You need to ensure that the pilot users can perform the following actions:

Join meetings.

Use a SIP address that has the @online.contoso.com suffix.

Communicate with users who are hosted on Lync Server 2013.

Which three tasks should you perform? (Each correct answer presents part of the solution. Choose three.)

- A. From the Lync Online Control Panel, set up federation to contoso.com.
- B. From the Lync Server Control Panel, set up federation to online.contoso.com.
- C. From the Lync Server Control Panel, set up federation to contoso.onmicrosoft.com.
- D. From the Lync Server Control Panel, update the user SIP addresses of the users to @online.contoso.com.
- E. From the Lync Online Control Panel, update the SIP addresses of the users to @online.contoso.com.

Answer: A, C, D

Question: 4

HOTSPOT

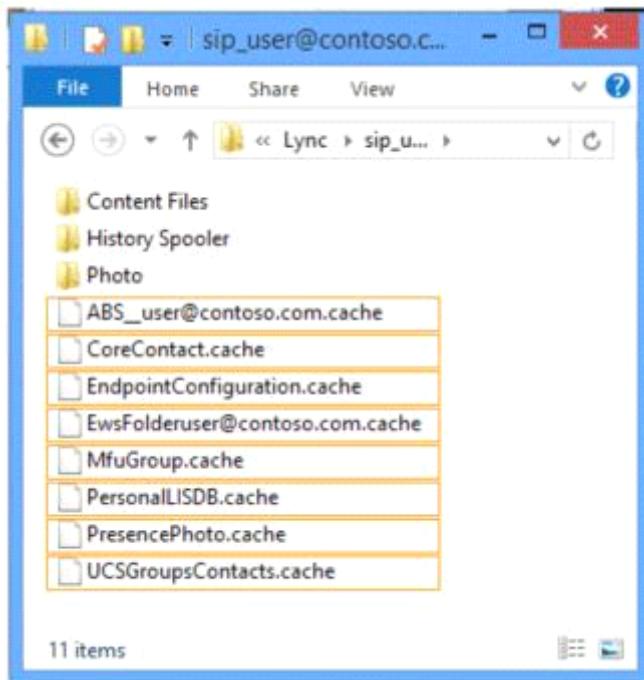
Your company has a Microsoft Office 365 subscription and uses Microsoft Lync Online.

After a long network outage, some users reports that they cannot sign in to the Microsoft Lync client and they receive the following error message:

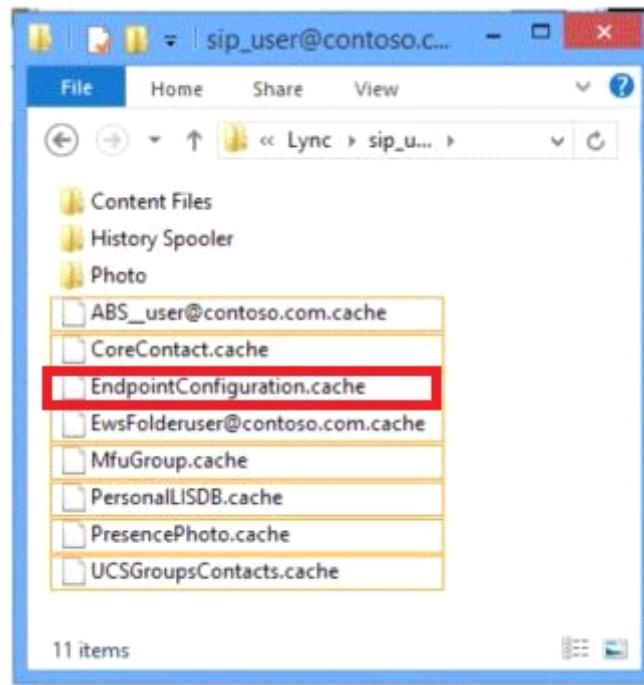
"Cannot sign in to Lync. You may have entered your sign-in address, user name, or password incorrectly, or the authentication service may be incompatible with this version of the program. If your sign-in information is correct and the problem persists, please contact your system administrator."

You confirm that other users can sign in successfully.

You need to ensure that all of the users can sign in to Lync Online.
 Which file should you delete on the users' client computer?
 To answer, select the appropriate file in the answer area.



Answer:



Explanation:

Note: EndPointConfiguration.Cache

When Lync 2010 connects to a specific front-end server, it caches that endpoint to make the sign-in process faster in the future. However, sometimes the endpoint can be changed. This can cause sign-in to fail. To delete the endpoint cache, follow these steps:

Locate the local application data folder:
 Windows Vista and Windows 7: %LOCALAPPDATA%\Microsoft\Communicator\<">sip_address@contoso.com>
 Windows XP: %USERPROFILE%\Local Settings\Application

Data\Microsoft\Communicator\<"sip_address@contoso.com>\

Delete the file that is named EndpointConfiguration.CACHE.

Restart Lync 2010, and then try to sign in to Lync Online.

Question: 5

Your company has a Microsoft Office 365 subscription. The company uses Microsoft Lync Online.

You need to ensure that Lync Online users can use dial-in conferencing. The solution must minimize costs.

What should you do?

- A. Deploy an Edge Server and add a hosting provider to the server.
- B. Deploy an Edge Server and configure the A/V Edge service on the server.
- C. Deploy an A/V Conferencing pool.
- D. Set up an account with a third-party audio conferencing provider.

Answer: D

Question: 6

You have a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Role	Average CPU utilization
Server1	Front End Server	60 percent
Server2	Front End Server	60 percent
Server3	SQL Server Back End	50 percent
Server4	SQL Server Back End	50 percent

The Lync Server infrastructure contains a hardware load balancer name HLB1.

The company has an IP-PBX. The IP-PBX supports media bypass. The IP PBX has a SIP trunk configured.

Each user has a desktop phone that connects to the IP-PBX.

Each laptop user has a Lync-certified headset.

The company plans to implement Enterprise Voice and to use existing SIP trunks.

You need to recommend a Mediation Server deployment that meets the following requirements:

- Remote users must be able to place calls to any desk phone if a single server fails.
- The degradation of call quality must be minimized during peak usage hours.

Which two solutions should you recommend? (Each correct answer presents a complete solution. Choose two.)

- A. Create a Mediation Server pool that contains HLB1.
- B. Install the Mediation Server role on Server1 and Server2.
- C. Install the Mediation Server role on Server3 and Server4.
- D. Create a Mediation Server pool that contains Server2 and Server4.
- E. Create a Mediation Server pool that contains two new servers.

Answer: B, E

Question: 7

You have a Lync Server 2013 infrastructure.

A user named Executive1 has an assistant named Assistant1. Assistant1 is configured as a delegate and receives all of the calls for Executive1.

You need to modify the current voice solution to meet the following requirements:

Ensure that some of the calls from other executives to Executive1 only ring on the Microsoft Lync 2013 client of Executive1.

Ensure that Executive1 can receive the calls from the other executives when his presence status is set to Do Not Disturb.

What should you configure?

- A. A private line
- B. Call Park
- C. Simultaneous ring
- D. A response group

Answer: A

Question: 8

HOTSPOT

You have a Lync Server 2013 infrastructure that contains a voice policy named Policy1. Policy1 contains local and national PSTN usages.

You have a dial plan named DialPlan1. DialPlan1 is configured as shown in the following table.

Pattern	Translation rule
^(\d{7})\$	+3120\$1
^0(6\d{8})\$	+31\$1
^0(([123457]\d{4,8} 88\d{7}))\$	+31\$1
^0?0([2-9]\d*)\$	+\$1

The Lync Server infrastructure contains four routes. The routes are configured as shown in the following table.

Route name	Pattern to match	PSTN usage	Trunk name
PBXUsers1	+\3120123	Local	LegacyPBX1
PBXUser2	+\3188(?: (123))	Local	LegacyPBX2
National1	+\31(?: (88))	National	SIPTrunk1
National2	+31	National	SIPTrunk2

You create a test user who has the following configurations:

Line URI: +31201234567

Voice policy: Policy1

Dial plan: DialPlan1

You need to identify which trunks will be used when the following numbers are dialed by the test user:

0881234567

0884567890

Which trunk should you identify for each number?

To answer, select the appropriate trunk for each number in the answer area.

Answer Area

0881234567

0884567890

Answer Area

0881234567

LegacyPBX1
LegacyPBX2
SIPTrunk1
SIPTrunk2

0884567890

LegacyPBX1
LegacyPBX2
SIPTrunk1
SIPTrunk2

Answer:

Answer Area

0881234567

LegacyPBX1
LegacyPBX2
SIPTrunk1
SIPTrunk2

0884567890

LegacyPBX1
LegacyPBX2
SIPTrunk1
SIPTrunk2

Explanation:

Note: The third translation rule is applied. The 0 digit is replaced with +31.

Question: 9

HOTSPOT

You need to identify which tasks can be performed by users who have the Response Group Administrator role and the Response Group Manager role.

Which tasks should you identify?

To answer, select the appropriate tasks for each role in the answer area.

	Response Group Administrator role	Response Group Manage role
Configure agents	<input type="checkbox"/>	<input type="checkbox"/>
Delete agent groups	<input type="checkbox"/>	<input type="checkbox"/>
Disable a Lync user	<input type="checkbox"/>	<input type="checkbox"/>
Create a response group	<input type="checkbox"/>	<input type="checkbox"/>
Modify the phone number of a response group	<input type="checkbox"/>	<input type="checkbox"/>
Modify the phone number of an agent	<input type="checkbox"/>	<input type="checkbox"/>

Answer:

	Response Group Administrator role	Response Group Manage role
Configure agents	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delete agent groups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Disable a Lync user	<input type="checkbox"/>	<input type="checkbox"/>
Create a response group	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modify the phone number of a response group	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modify the phone number of an agent	<input type="checkbox"/>	<input type="checkbox"/>

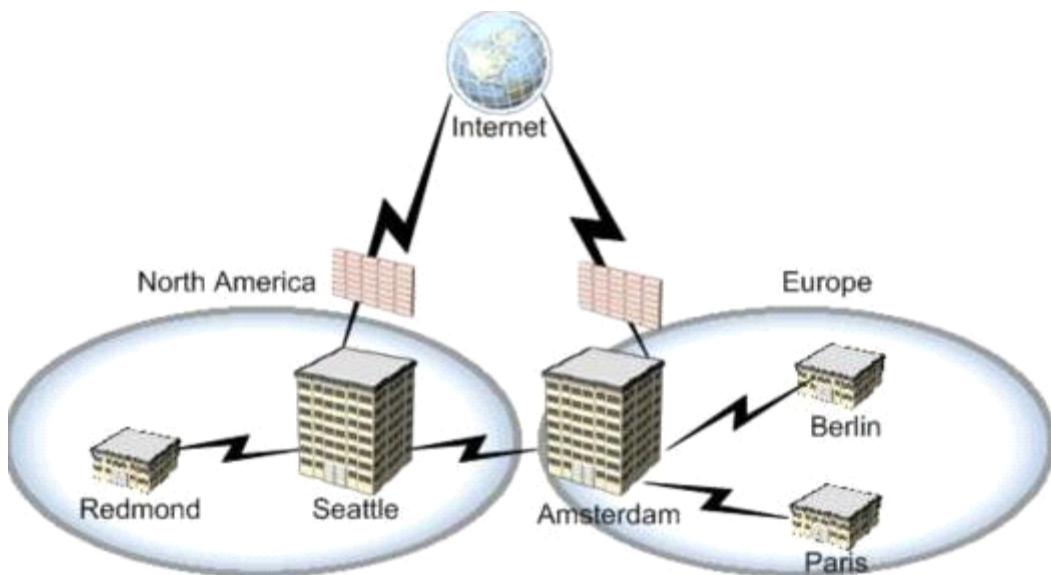
Explanation:

Note: Lync Server 2013 introduces a new Response Group Manager role. Now there are two management roles for response groups: Response Group Manager and Response Group Administrator. While Response Group Administrators can still configure any element for any response group, Managers can configure only certain elements, only for response groups they own.

This improvement in the administration model benefits Response Group scalability, especially for large deployment scenarios.

Question: 10**DRAG DROP**

Contoso, Ltd., has five offices. The offices are configured as shown in the exhibit. (Click the Exhibit button.)



Each office has a local connection to the PSTN.

The peak usage statistics are shown in the following table.

Office	Number of calls	Percentage of calls to North America	Percentage of calls to Europe
Los Angeles	10	50 percent	50 percent
Seattle	100	80 percent	20 percent
Amsterdam	50	20 percent	80 percent
Berlin	20	0 percent	100 percent
Paris	20	50 percent	50 percent

Every audio call consumes 100 kilobits per second (Kbps).

You plan to replace the PSTN connection with a centralized SIP trunking service. The service will contain a SIP trunk in the Seattle office and a SIP trunk in the Amsterdam office. The solution will use least cost routing.

You need to identify the maximum amount of bandwidth that will be used by each SIP trunk.

What should you identify?

Bandwidth	Answer Area
8,500 Kbps	Amsterdam SIP trunk: <input type="text"/>
9,500 Kbps	Seattle SIP trunk: <input type="text"/>
10,000 Kbps	
10,500 Kbps	
12,500 Kbps	

Answer: _____

Bandwidth	Answer Area
8,500 Kbps	Amsterdam SIP trunk: 9,500 Kbps
10,000 Kbps	Seattle SIP trunk: 10,500 Kbps
12,500 Kbps	

Explanation:

<http://lync70337.freeforums.org/exam-a-q-identify-the-maximum-amount-of-bandwidth-t21.html>

Since both SEA and ASD have SIP trunk to internet.

NA calls: Redmond $10 * 0.5 = 5$

Seattle: $100 * 0.8 = 80$

Amsterdam: $50 * 0.2 = 10$

Berlin: $20 * 0 = 0$

Paris: $20 * 0.5 = 10$

Total: $105 * 100K = 10,500$ kbps

Eu calls: Redmond $10 * 0.5 = 5$

Seattle: $100 * 0.2 = 20$

Amsterdam: $50 * 0.8 = 40$

Berlin: 20

Paris: $20 * 0.5 = 10$

Total: $95 * 100K = 9,500$ kbps

Dump4Certs says:

Box 1: 9,500 Kbps

Box 2: 9,500 Kbps

Transatlantic calls:

Amsterdam: 10

Berlin: 0

Paris: 10

Seattle: 20

Los Angeles: 5

Total number of transatlantic calls: 45

Total bandwidth needed: 5760 Kbps ($45 * 128$ kbps)

Amsterdam: Amsterdam+ Berlin+ Paris calls to north America: 50 calls $\times 20\%$ (calls to N.A) $\times 128$ kbps + + (berlin)+ $20 \times 50 \times 128$ kbps equals 1280 Kbps + 1280 Kbps equals 2560 Kbps

Seattle: 100 calls $\times 20\%$ (calls to Europe) $\times 128$ kbps equals 2560 Kbps

Question: 11

HOTSPOT

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization.

You enable Enterprise Voice for all users.

You plan to implement Unified Messaging (UM).

You need to configure a dial plan to ensure that all communication between Exchange Server 2013 and Lync Server 2013 is encrypted.

How should you configure the URI type and the VoIP security in the dial plan?

To answer, select the appropriate URI type and the VoIP security in the answer area.

Answer Area

URI type:

VoIP security:

Answer Area

URI type:

VoIP security:

Answer:

Answer Area

URI type:

VoIP security:

Explanation:

Note: The URI Type must be set to SIP URI and the VOIP Security was set to Secured.

Reference: Lync and Exchange UM Integration

Question: 12

You have a Lync Server 2013 infrastructure.

Your network contains a single site. The site contains a Standard Edition server and multiple network segments. Each segment is associated to a different subnet. Some of the network segments are wireless and some are wired.

You enable Enterprise voice and deploy a Lync Server 2013 media gateway.

You configure media bypass. You set media bypass to Always bypass. Call Admission Control (CAC) is disabled.

Users on the wireless network report poor audio quality during calls to external phone numbers. The users report good audio quality during calls to other Lync Server 2013 users.

You need to recommend changes to the infrastructure to improve the audio quality of calls for the wireless network users.

Which three actions should you recommend? (Each correct answer presents part of the solution. Choose three.)

- A. From the Microsoft Lync Server 2013 Control Panel, select Use sites and region configuration.

- B. Associate the wireless subnets to the new site.
- C. From the Microsoft Lync Server 2013 Control Panel, select Enable bypass for non-mapped sites.
- D. Create a new network site.
- E. From the Microsoft Lync Server 2013 Control Panel, select Enable call admission control.
- F. Associate the wired subnets to the new site.

Answer: A, D, F

Explanation:

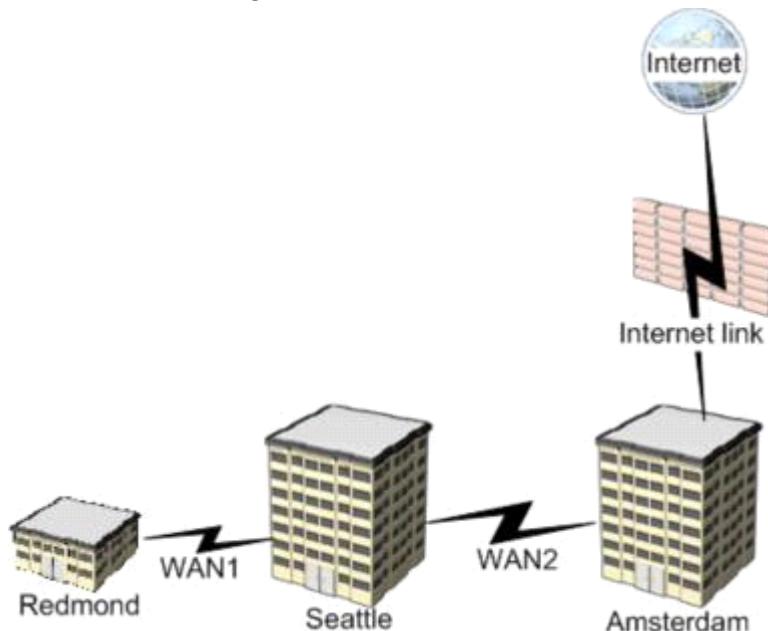
<http://technet.microsoft.com/en-us/library/gg412740.aspx>

Question: 13

DRAG DROP

Your company has three offices.

The network is configured as shown in the exhibit. (Click the Exhibit button.)



You have a Lync Server 2013 infrastructure. All of the Lync Server components are located in the Amsterdam office. You need to identify how much bandwidth will be used on each link during a conference call. The conference call will contain the attendees shown in the following table.

Attendee location	Number of attendees
Seattle	50
Redmond	10
Amsterdam	100
Internet (Remote)	20

Each audio call consumes 100 kilobits per second (Kbps).

How much bandwidth should you identify for each link?

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

Bandwidths**Answer Area**

1,000 Kbps

WAN1: Bandwidth

2,000 Kbps

WAN2: Bandwidth

5,000 Kbps

Internet link: Bandwidth

6,000 Kbps

10,000 Kbps

15,000 Kbps

Answer:

Box 1: 1,000 Kbps

Box 2: 6,000 Kbps

Box 3: 2,000 Kbps

Explanation:

Note:

* Wan 1: 10 attendees; 1000 Kbps

* Wan 2: 10 + 50 attendees; 6000 Kbps

* Internet: 20 attendees; 2000 Kbps

Question: 14**HOTSPOT**

You have a Lync Server 2013 infrastructure that has conferencing and Enterprise.

You plan to optimize the traffic on the network for Enterprise Voice. You add information about the network sites and the network subnets. You need to enable media bypass for several of the network sites.

Which node should you use from the Microsoft Lync Server 2013 Control Panel?

To answer, select the appropriate node in the answer area.

Lync Server 2013 Preview

Lync Administrator | Sign out
5.0.8132.0

User Information

Welcome, Lync Administrator
View your roles

Top Actions

Enable users for Lync Server
Edit or move users
View topology status
View Monitoring reports

Resources

Getting Started

- First Run Checklist
- Using Control Panel
- Microsoft Lync Server 2013 (Preview)

Using Office 365

Getting Help

- Downloadable Documentation
- Online Documentation on TechNet Library
- Lync Server Management Shell
- Lync Server Management Shell Script Library
- Lync Server Resource Kit Tools

Community

- Forums
- Blogs

Answer:

Lync Server 2013 Preview

Lync Administrator | Sign out
5.0.8132.0

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- Online Documentation on TechNet Library
- Lync Server Management Shell
- Lync Server Management Shell Script Library
- Lync Server Resource Kit Tools

Community

- Forums
- Blogs

Note: To configure a network site and associate it with a network region, you can either use the Network Configuration section of Lync Server Control Panel, or run the Lync Server Management Shell New-CsNetworkSite or Set-CsNetworkSite cmdlets.

Question: 15

Your company has two offices. One office is located in New York. The other office is located in Seattle. Each office has a media gateway that supports media bypass. Media bypass is enabled.

The offices contain five subnets. The subnets are configured as shown in the following table.

Office	Floor	Subnet	Subnet mask
New York	First	172.16.1.0	255.255.255.0
New York	Second	172.16.2.0	255.255.255.0
New York	Third	172.16.3.0	255.255.255.0
Seattle	First	172.16.4.0	255.255.255.0
Seattle	Second	172.16.5.0	255.255.255.0

You have a Lync Server 2013 infrastructure. All client computers have Microsoft Lync 2013 deployed.

Monitoring reports show that the client computers are not using media bypass.

You run the Get-CsNetworkSubnet cmdlet and you receive the following result:

```
Identity: 172.16.0.0
MaskBits: 22
Description: New York
NetworkSiteID: New York
SubnetID: 172.16.0.0
```

```
Identity: 172.16.4.0
MaskBits: 23
Description: Seattle
NetworkSiteID: Seattle
SubnetID: 172.16.4.0
```

You need to ensure that all of the client computers use media bypass.

What should you do?

- A. Delete the existing subnets. Create a single subnet entry for North America that uses a 16-bit mask.
- B. Configure the subnet in the New York office and the subnet in the Seattle office to use a 24-bit mask.
- C. Delete the existing subnets. Create five subnet entries that each uses a 24-bit mask.
- D. Delete the existing subnets. Create five subnet entries that each uses a 16-bit mask.

Answer: C

Explanation:

<http://technet.microsoft.com/en-us/library/gg412804.aspx>

Question: 16

You are planning a Lync Server 2013 Edge Server deployment.

A network administrator gives you nine public IP addresses for the planned deployment. You need to recommend an Edge Server deployment that meets the following requirements:

Remote users must be able to access conferences.

A different public IP address must be assigned to each Edge service.

Users must be able to sign in from a Microsoft Lync mobile client.

Users must be able to communicate with partners who are enabled for XMPP.

Remote users must be able to access the Lync Server infrastructure if an Edge Server fails.

What should you include in the recommendation?

- A. Two Edge Servers that use DNS load balancing
- B. Three Edge Servers that use DNS load balancing
- C. Three Edge Servers that use hardware load balancing
- D. Two Edge Servers that use hardware load balancing

Answer: A

Explanation:

<http://technet.microsoft.com/en-us/library/gg425716.aspx>

Question: 17

You have a server named Lync1 that has Lync Server 2013 Standard Edition deployed. Lync1 has Web Conferencing enabled. All client computers have Microsoft Lync 2013 deployed.

The network supports Differentiated Services (DiffServ).

The company plans to implement Quality of Service (QoS) for all Lync Server audio traffic.

You need to identify which tasks must be performed to configure QoS.

Which three tasks should you identify? (Each correct answer presents part of the solution. Choose three.)

- A. Configure Lync 2013 to use a specific port range for audio.
- B. Configure a QoS policy to use a specific port range for audio.
- C. Create a voice policy and a location policy.
- D. Set the Differentiated Services Code Point (DSCP) values used for audio as a priority.
- E. Configure Call Admission Control (CAC) for all subnets that contain Lync 2013 clients.

Answer: A, B, D

Explanation:

[http://technet.microsoft.com/en-us/library/gg405413\(v=ocs.14\).aspx](http://technet.microsoft.com/en-us/library/gg405413(v=ocs.14).aspx)

[http://technet.microsoft.com/en-us/library/gg405407\(v=ocs.14\).aspx](http://technet.microsoft.com/en-us/library/gg405407(v=ocs.14).aspx)

Question: 18

Your network contains four servers. The servers are configured as shown in the following table.

Server name	Software	Role
Server1	Lync Server 2013	Front End Server
Server2	Lync Server 2013	Edge Server
Server3	Microsoft Exchange Server 2010 Service Pack 2 (SP2)	Edge Transport Server
Server4	Microsoft Exchange Server 2010 Service Pack 2 (SP2)	Mailbox server Client Access server Hub Transport server Unified Messaging server

You need to configure backend integration between Lync Server 2013 and Exchange Server 2010 Unified Messaging (UM).

You create a dial plan and an auto attendant in the Exchange Server organization.

What should you do next?

- A. On Server1, run ocsutil.exe.
- B. On Server2, run ocsutil.exe.
- C. On Server3, run exchucutil.ps1.
- D. On Server4, run exchucutil.ps1.

Answer: D

Question: 19

You have a Lync Server 2013 infrastructure that has Enterprise Voice enabled.

When a caller dials an unassigned number, the caller hears a custom message, and then the caller is forwarded to a user named User1.

Several months later, User1 leaves the company.

You need to ensure that when a caller dials an unassigned number, the caller hears the custom message and is forwarded to a user named User2.

Which cmdlet should you run?

- A. Set-CsUnassignedNumber
- B. Set-CsAnnouncement
- C. Set-CsUser
- D. Set-CsVoice Route

Answer: B

Explanation:

<http://technet.microsoft.com/en-us/library/gg425752.aspx>

Question: 20

Users frequently travel between the offices.

The company plans to deploy Lync Server 2013 and Enterprise Voice. A pool will be deployed to each office.

You need to ensure that if a user dials 911 from any of the offices, the call is routed to the local emergency services provider for that office.

What should you do?

- A. From the Lync Server 2013, Topology Builder, create a central site for each office. Deploy one pool to each site. From the Microsoft Lync Server 2013 Control Panel, create a location policy for each location.
- B. From the Lync Server 2013, Topology Builder, create one central site. Deploy all pools to the central site. From the Microsoft Lync Server 2013 Control Panel, create a single location policy.
- C. From the Lync Server 2013, Topology Builder, create a central site for each office. Deploy one pool to each site. From the Microsoft Lync Server 2013 Control Panel, create a user-level location policy for each location. Assign the respective user-level location policy to the users in each office.
- D. From the Lync Server 2013, Topology Builder, create one central site. Deploy all pools to the central site. From the Microsoft Lync Server 2013 Control Panel, modify the global location policy.

Answer: A

Question: 21

You have a Lync Server 2013 infrastructure.

You need to prevent the users in the legal department from forwarding calls. Other users must be able to forward calls.

Which two cmdlets should you run? (Each correct answer presents part of the solution. Choose two.)

- A. Grant-CsMobilityPolicy
- B. New-CsVoicePolicy
- C. Grant-CsVoicePolicy
- D. New-CsMobilityPolicy
- E. Set-CsVoicePolicy

Answer: B, C

Question: 22

HOTSPOT

Your company has two offices. The offices are located in New York and Amsterdam. The dialing habits of the users in each office are shown in the following table.

Office	Phone number range	Dialing habit
New York	+1 212 555 1000 - 3000	<ul style="list-style-type: none"> • Local PSTN: 10-digit phone number • Long distance calls within North America: 1 + 10-digit phone number • International calls outside of North America: 011 + phone number
Amsterdam	+31 20 1234 500 - 510	<ul style="list-style-type: none"> • Local PSTN: 7-digit phone number • Long distance calls within the Netherlands: 0 + 9-digit phone number • International: 00 + phone number

You need to create a dial plan for the users in the New York office.

Which match patterns should you use in the normalization rules? To answer, select the appropriate match patterns in the answer area.

Answer Area

Local PSTN:

Long Distance within
North America:

International outside
North America:

Answer Area

Local PSTN:

`^\d{7}$`

`^\d{10}$`

`^+1\d{10}$`

`^(10\d{10})$`

`^7\d{212}$`

Long Distance within
North America:

`^(4\d{7})$`

`^+1(3\d{7})$`

`^1\d{10}$`

`^1\d{11}$`

`^011(\d{6}\d+)$`

International outside
North America:

`^(00\d{7})$`

`^+0(\d{11})$`

`^(*\d{011})$`

`^(011\d{*})$`

`^011(\d{6}\d+)$`

Answer:

Answer Area

Local PSTN:

`^\d{7}$`

`^\d{10}$`

`^+1\d{10}$`

`^(10\d{10})$`

`^7\d{212}$`

Long Distance within
North America:

`^(4\d{7})$`

`^+1(3\d{7})$`

`^1\d{10}$`

`^1\d{11}$`

`^011(\d{6}\d+)$`

International outside
North America:

`^(00\d{7})$`

`^+0(\d{11})$`

`^(*\d{011})$`

`^(011\d{*})$`

`^011(\d{6}\d+)$`

Explanation:

Note:

`* ^(\d{10})$`

Translates 10-digit numbers in the United States (local PSTN)

- * ^1(\d{10})\$
Translates numbers with long distance prefixes in the United States
- * ^011(\d*)\$ (similar)
Translates numbers with international prefixes in the United States

Question: 23

You have a Lync Server 2013 infrastructure that has Enterprise Voice enabled.

You need to ensure that users can place a call on hold, and can then retrieve the call later by dialing a number from any phone. The solution must ensure that if a call is on hold for four minutes, the call is automatically forwarded to the receptionist.

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

- A. Create a Call Park orbit.
- B. Modify the global voice policy.
- C. Modify the global dial plan.
- D. Modify the Call Park settings.
- E. Create a static route.

Answer: A, D

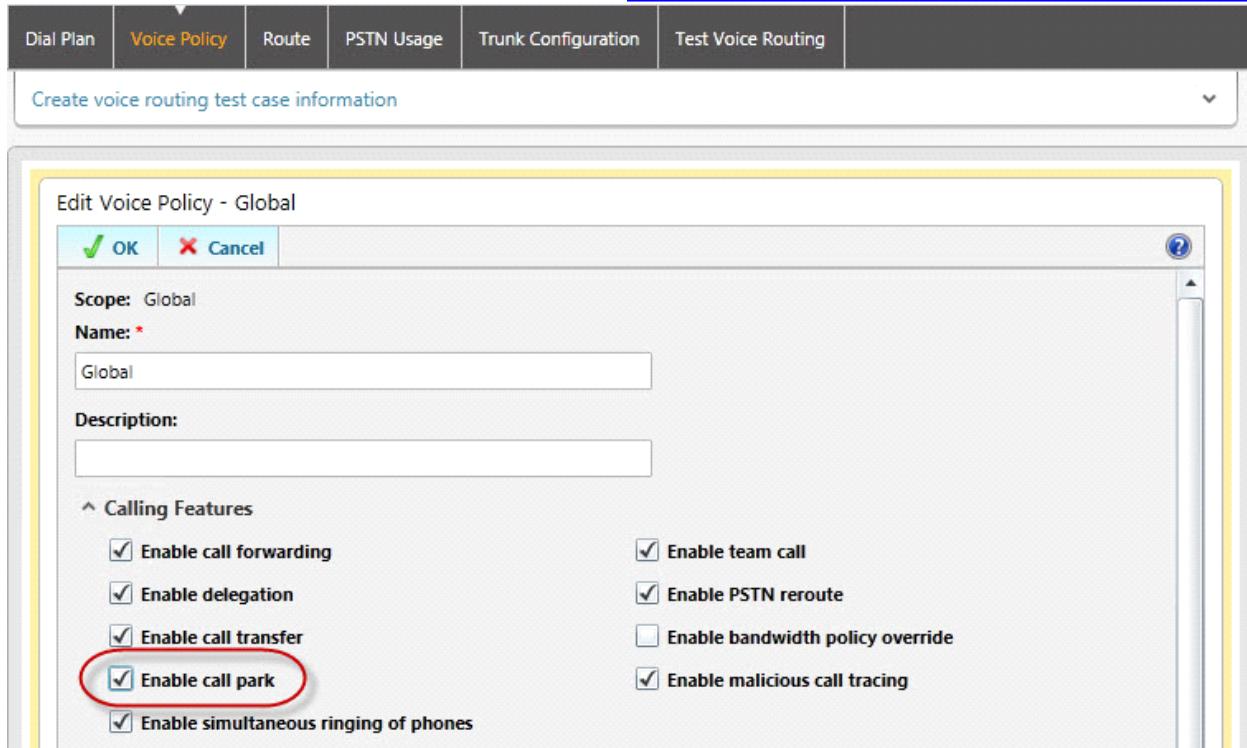
Explanation:

<http://technet.microsoft.com/en-us/library/gg398283.aspx>

<http://technet.microsoft.com/en-us/library/gg425886.aspx>

<http://technet.microsoft.com/en-us/library/gg412721.aspx> is where we see that you need to set the Call Park Service settings in order to change the timeout from the default 1:30 to 4:00

Although Call Park needs to be enabled as well. See <http://technet.microsoft.com/en-us/library/gg182611.aspx>

**Question: 24**

DRAG DROP

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization. All users are enabled for Enterprise Voice and Unified Messaging (UM). Lync Server and Exchange Server are configured to use DTMF only.

Your company owns a phone number range of 1 (425) 555-5001 to 1 (425) 555-5999.

You have normalization rules that transform four-digit and 10-digit numbers.

You need to ensure that when callers call the company's main phone number, the following occurs:

If a caller dials 0, the call is transferred to the receptionist.

If a caller dials 1, the call is transferred to extension number 5001.

If a caller waits on the line without dialing a number, the call is automatically transferred to the receptionist.

Which settings should you configure?

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

Settings		Answer Area	
		Caller action	Setting
Key mapping		Dials 0	Setting
			Setting
Operator extension		Dials 1	Setting
			Setting
Dialing rule entry		Waits	Setting
			Setting
Normalization rule			

Answer:

Dials 0:

Box 1: Key mapping

Box 2: Operator extension

Dials 1

Box 1: Key mapping

Box 2: Normalization rule

Waits

Box 1: Dialing rule entry

Box 2: Operator extension

Question: 25

Your company has a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization.

The Lync Server 2013 infrastructure has Enterprise Voice enabled and uses a global four-digit dial plan.

The Exchange Server organization has Unified Messaging (UM) enabled and uses a four-digit UM dial plan named

DialPlan1. All dialing restrictions are set to allow All.

You need to ensure that only the users in the research department can use the Play on Phone feature. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Modify the default UM mailbox policy.
- B. Modify DialPlan1.
- C. Create a new hunt group.
- D. Create a new UM mailbox policy.
- E. Create a new UM dial plan.

Answer: A, D

Explanation:

<http://lync70337.freeforums.org/play-on-phone-feature-t14.html>

Question: 26

You are the administrator of a Lync Server 2013 infrastructure. You need to add a private line for an Enterprise Voice-enabled user.

Which cmdlet should you run?

- A. Grant-CsVoicePolicy
- B. Set-CsUser
- C. Enable-CsUser
- D. New-CSAnalogDevice

Answer: B

Explanation:

<http://technet.microsoft.com/en-us/library/gg398510.aspx>

Question: 27

HOTSPOT

Your company has two offices. The offices are located in New York and Amsterdam.

The dialing habits of the users in each office are shown in the following table.

Office	Phone number range	Dialing habit
New York	+1 212 555 1000 - 3000	<ul style="list-style-type: none">• Local PSTN: 10-digit phone number• Long distance calls within North America: 1 + 10-digit phone number• International calls outside of North America: 011 + phone number
Amsterdam	+31 20 1234 500 - 510	<ul style="list-style-type: none">• Local PSTN: 7-digit phone number• Long distance calls within the Netherlands: 0 + 9-digit phone number• International: 00 + phone number

You need to create a dial plan for the users in the Amsterdam office.

Which match patterns should you use in the normalization rules? To answer, select the appropriate match patterns in the answer area.

Answer Area

Local PSTN:

Long Distance within
the Netherlands:

International:

Answer Area

Local PSTN:

```
^(\d{7})$  
^+31(\d{6})$  
^(7\d{7})$  
^7(\d{3120})$  
^7(\d{3120}\d+)$
```

Long Distance within
the Netherlands:

```
^(4\d{6})$  
^+3(3\d{6})$  
^0(\d{9})$  
^1(\d{9})$  
^00(\d{31}\d+)$
```

International:

```
^(00\d{7})$  
^+0(\d{11})$  
^(*\d{011})$  
^00(+1\d{10})$  
^00(\d{6}\d+)$
```

Answer:**Answer Area**

Local PSTN:

```
^(d{7})$  
^+31(\d{6})$  
^(7\d{7})$  
^7(\d{3120})$  
^7(\d{3120}\d+)$
```

Long Distance within
the Netherlands:

```
^(4\d{6})$  
^+3(3\d{6})$  
^0(\d{9})$  
^1(\d{9})$  
^00(\d{31}\d+)$
```

International:

```
^(00\d{7})$  
^+0(\d{11})$  
^(*\d{011})$  
^00(+1\d{10})$  
^00(\d{6}\d+)$
```

Explanation:

Note:

- * ^(\d{7})\$
local seven-digit number
- * ^0(\d{9})\$
Long distance within Netherlands. Add prefix 0.
- *
- International. Add prefix 00

Question: 28

DRAG DROP

You have a Lync Server 2013 infrastructure.

You have one Enterprise Edition pool named pooll.contoso.com. Enterprise Voice is enabled for all users.

You have a PSTN gateway named mg1.contoso.com that does not support secure signaling. The Encryption support level of the global trunk configuration is set to Not Supported.

You add a second PSTN gateway named mg2.contoso.com. The SIP General parameters for mg2.contoso.com are configured as shown in the following table.

Setting	Value
SIP Transport Type	TLS
SIP UDP Local Port	5,060
SIP TCP Local Port	5,060
SIP TLS Local Port	5,067
Enable SIPS	Disable

On mg2.contoso.com, you generate and install a certificate from an internal certification authority (CA).

You need to ensure that Lync Server 2013 can use both PSTN gateways to make calls on the PSTN.

Which four actions should you perform?

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

Actions	Answer Area
From the Topology Builder, create a new PSTN gateway.	
Create a new trunk configuration for mg2.contoso.com and set the Encryption support level to Not Supported .	
Publish the topology.	
Add the trunk to the existing voice routes.	
Set the Encryption support level of the global trunk configuration to Required .	
Create a new trunk configuration for mg2.contoso.com and set the Encryption support level to Required .	

Answer:

Box 1:

From the Topology Builder, create a new PSTN gateway.

Box 2:

Publish the topology.

Box 3:

Create a new trunk configuration for mg2.contoso.com and set the Encryption support level to **Required**.

Box 4:

Add the trunk to the existing voice routes.

Explanation:

Note:

* When defining a PSTN gateway in Topology Builder, you must define a root trunk to successfully add the PSTN gateway to your topology.

The root trunk cannot be removed until the associated PSTN gateway is removed.

Reference:

Question: 29

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization.

Enterprise Voice and Unified Messaging (UM) are enabled for all users.

You plan to hire several new employees.

You need to configure a personal auto attendant for the new employees.

Which cmdlet should run?

- A. New-InboxRule
- B. New-UmAutoAttendant
- C. New-UMMailboxPolicy
- D. New-UMCallAnsweringRule

Answer: B

Question: 30

DRAG DROP

Your company has an Active Directory forest named contoso.com. All users log in to the forest by using their UPN.

You have a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization.

You purchase a Microsoft Office 365 subscription.

You need to enable Microsoft Lync Online to meet the following requirements:

Users must use the same credentials for on-premises Exchange Server and Office 365.

Users must be able to invite other company users to online meetings by using Microsoft Outlook 2010.

What should you deploy?

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

Technologies	Answer Area
Active Directory Federation Services (AD FS) 2.0	Users must use the same credentials for on-premises Exchange Server and Office 365. Technology
the Conferencing Add-in for Outlook	Technology
a Microsoft Lync client	Technology
Microsoft Online Services Directory Synchronization	Users must be able to invite other company users to online meetings by using Microsoft Outlook 2010.
Microsoft Online Services Sign-in Assistant	

Answer:

Box 1: Active Directory Federation Services (AD FS) 2.0

Box 2: Microsoft Online Services Directory Synchronization

Box 3: Conferencing Add-on for Outlook

Explanation:

Note:

- * Active Directory Federation Services (AD FS) 2.0 helps simplify access to applications and other systems with an open and interoperable claims-based model.

- * ADFS or Active directory Federation Service is to deploy a new AD FS 2.0 infrastructure to provide your Active Directory users, who are logged on to computers located physically on the corporate network or that are logged on remotely to the corporate network, with single sign-on access to Office 365 services using their corporate domain credentials. Once you have deployed your AD FS 2.0 production environment on-premises, you will need to establish a relying party trust relationship between the AD FS 2.0 federation server farm and Office 365. This relying party trust acts as a secure channel where authentication tokens can safely pass between your organization and Office 365 in order to facilitate single sign-on access to Office 365.

- * The Microsoft Online Services Directory Synchronization tool is an application that runs Active Directory synchronization for Microsoft Office 365 for enterprises. An administrator should install this tool and run it on only one computer on your company's local network.

- * With the Microsoft Conferencing Add-in for Microsoft Office Outlook, you can do the following without leaving the Office Outlook messaging and collaboration client:

Schedule a meeting in the same way that you book a conference room and invite attendees to other meetings.

Set Live Meeting service Meeting Options

Schedule a conference call

Question: 31**HOTSPOT**

You have a Lync Server 2013 infrastructure.

You plan to configure Exchange Online to host voice mail. You need to identify where to perform the following actions:

Configure the hosted voice mail policy.

Set the external access number for the voice mail.

Enable a user for Unified Messaging (UM).

Configure the Contact object used for the hosted voice mail.

Define a Unified Messaging (UM) IP gateway.

Which environment should you identify for each action?

To answer, select the appropriate environment for each task in the answer area.

Answer Area

Configure the hosted voice mail policy.

Set the external access number for the voice mail.

Enable a user for Unified Messaging (UM).

Configure the Contact object used for the hosted voice mail.

Define a Unified Messaging (UM) IP gateway.

Answer Area

Configure the hosted voice mail policy.

Lync Server 2013
Exchange Online

Set the external access number for the voice mail.

Lync Server 2013
Exchange Online

Enable a user for Unified Messaging (UM).

Lync Server 2013
Exchange Online

Configure the Contact object used for the hosted voice mail.

Lync Server 2013
Exchange Online

Define a Unified Messaging (UM) IP gateway.

Lync Server 2013
Exchange Online

Answer:

Answer Area

Configure the hosted voice mail policy.

Lync Server 2013
 Exchange Online

Set the external access number for the voice mail.

Lync Server 2013
 Exchange Online

Enable a user for Unified Messaging (UM).

Lync Server 2013
 Exchange Online

Configure the Contact object used for the hosted voice mail.

Lync Server 2013
 Exchange Online

Define a Unified Messaging (UM) IP gateway.

Lync Server 2013
 Exchange Online

Explanation:

Note:

Lync Server 2010 on-premises supports interoperability with Exchange Online in the following ways:

Calendar data and Out of Office messages

Instant Messaging (IM) and presence interoperability in Outlook Web App

Voice mail interoperability

Question: 32

HOTSPOT

You are evaluating the use of Microsoft Lync Online and Lync Server 2013.

Your company has a sales department, a marketing department, and a research department. Each department gives you a list of required features as shown in the following table.

Department	Feature
Sales	A room-based video system
Marketing	Enterprise Voice Online Meeting
Research	Web conferencing with federated partners

You need to identify which type of Lync deployment can be used for each department.

What should you identify?

To answer, select the valid type of Lync deployments for each department in the answer area.

Department	On-premises Lync Server 2013	Lync Online
Sales	<input type="checkbox"/>	<input type="checkbox"/>
Marketing	<input type="checkbox"/>	<input type="checkbox"/>
Research	<input type="checkbox"/>	<input type="checkbox"/>

Answer:

Department	On-premises Lync Server 2013	Lync Online
Sales	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Marketing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Research	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

Note:

* Lync Online

Connect with others through instant messaging (IM), video calls, online meetings, and phone calls.

Features

Get real-time presence information—including photos, availability status, and location—and enhanced instant messaging (IM) to connect efficiently and effectively.

Make voice calls through your computer to other Lync users in your organization or in other organizations that use Lync.

Create, moderate, and join pre-planned and on-the-fly audio, video, and web meetings with people inside and outside your organization.

Enhance online presentations with screen-sharing and virtual whiteboards.

Let customers participate in your Lync conference calls even if they are not Office 365 customers.

Make and receive calls to any phone number via partner calling service with Lync-to-phone

Question: 33

DRAG DROP

You have a Microsoft Office 365 subscription. Microsoft Lync Online is enabled for all users.

You need to identify which tools must be used to perform the following actions:

View the Microsoft Lync client tracing logs.

Verify the DNS records for the Lync Online mobile clients.

Test the connection quality to the Lync Online data center.

Collect the client system configurations and the application configurations.

Which tools should you identify?

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

Tools	Answer Area
Microsoft Office Communications Server Remote Connectivity Analyzer	View the Microsoft Lync client tracing logs. <input type="checkbox"/> Tools
Microsoft Online Services Diagnostics and Logging (MOSDAL) Support Toolkit	Verify the DNS records for the Lync Online mobile clients. <input type="checkbox"/> Tools
Office 365 Lync Online Transport Reliability IP Probe (TRIPP) tool	Test the connection quality to the Lync Online data center. <input type="checkbox"/> Tools
Snooper utility	Collect the client system configurations and the application configurations. <input type="checkbox"/> Tools

Answer:

Box 1: Snooper utility

Box 2: Microsoft Office Communications Server Remote Connectivity Analyzer

Box 3: Office 365 Lync Online Transport Reliability IP Probe (TRIPP) tool

Box 4: Microsoft Online Service Diagnostics and Logging (MOSDAL) Support Toolkit

Explanation:

Note:

* Lync Online - Transport Reliability IP Probe (TRIPP Tool)

This reliability tool tests your Internet connection to a Microsoft Lync Online Service data center and measures the response times, bandwidth, allowed ports, route taken, and overall connection quality with respect to Real Time Media. The results can help you evaluate your network configuration for potential use with the Microsoft Lync Online Service. This tool does not engage any of the offerings from Microsoft Lync Online Service.

* Microsoft Office Communications Server Remote Connectivity Analyzer

The Office Communications Server Remote Connectivity Analyzer is a great tool for performing testing, troubleshooting, and diagnostics on Communications Server 2007 and Communications Server 2007 R2 deployments, and should serve as your initial stop when attempting to troubleshoot a Communications Server Edge Server connectivity issue.

The Office Communications Server Remote Connectivity Analyzer is a web site that Communications Server administrators can use to validate and diagnose end-to-end Communications Server scenarios. The site simulates multiple Office Communications Server client access scenarios from outside the customer's infrastructure and reports whether the test was successful. If the test fails, the tool informs you exactly where in the process the test failed, as well as provides troubleshooting tips about resolving the issue.

* The Microsoft Online Services Diagnostics and Logging (MOSDAL) Support Toolkit performs network diagnostics and collects system configuration, network configuration, and logging information for applications that are used to connect to Microsoft Business Productivity Online Standard Suite (BPOS-S) or to Microsoft Office 365. The logs and diagnostic information that the tool generates provide data that helps technical support professionals troubleshoot configuration, network, installation, and other service-related issues. The MOSDAL Support Toolkit collects log files, registry keys, and configuration settings that would otherwise require time-consuming and labor-intensive collection by using separate tools.

Question: 34

You have a Lync Server 2013 infrastructure.

You plan to deploy E911 services.

You configure Lync Server to require that each user has a location. You configure a location for each subnet.

Users report that when they sign in to Microsoft Lync 2013 on the internal network, they are prompted for their location information.

You need to prevent the users from being prompted for their location information when they sign in to Lync on the internal network.

Which cmdlet should you run?

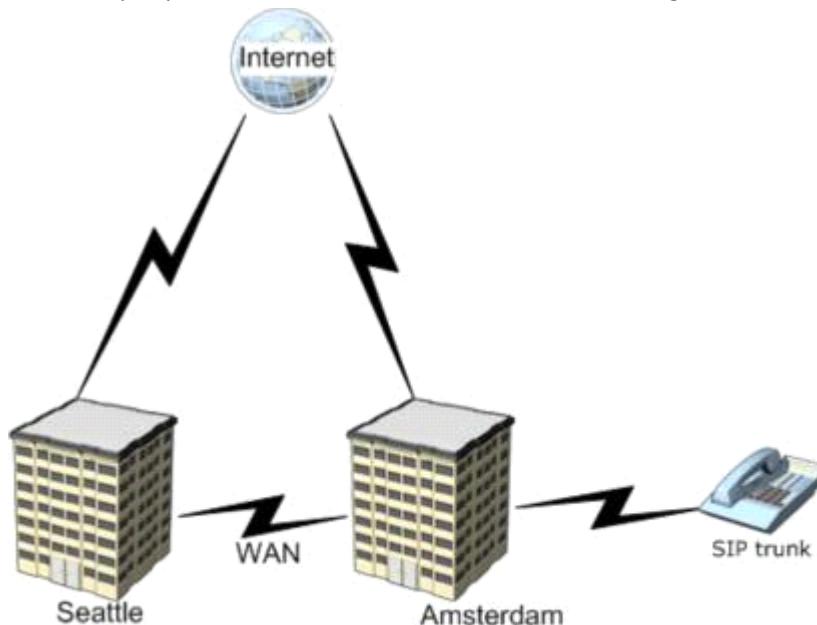
- A. Publish-CsLISConfiguration
- B. Export-CsLISConfiguration
- C. Publish-CsTopology
- D. Set-CsNetworkSubnet

Answer: A

Question: 35

DRAG DROP

Your company has two main offices. The office are configured as shown in the exhibit. (Click the Exhibit button.)



You need to recommend which Lync Server 2013 roles must be deployed to meet the following requirements:

Remote users must have access to the Lync Server infrastructure.

Users must be able to place calls to the PSTN if a trunk fails.

Federation with a business partner must be enabled.

The amount of WAN traffic must be minimized.

Which roles should you recommend?

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

Roles	Answer Area	
Director Server	Amsterdam	Role
Edge Server		Role
Front End Server		Role
Mediation Server	Seattle	Role
Persistent Chat Server		Role
Trusted application server		Role

Answer:

Box 1: Front End Server

Box 2: Edge Server

Box 3: Mediation server

Box 4: Front End Server

Box 5: Edge Server

Box 6: Mediation server

Explanation:

Note:

* In Lync Server Enterprise Edition, the Front End Server is the core server role, and runs many basic Lync Server functions. The Front End Server, along with the Back End Servers, are the only server roles required to be in any Lync Server Enterprise Edition deployment.

A Front End pool is a set of Front End Servers, configured identically, that work together to provide services for a common group of users.

* Edge Server or Edge pool in your perimeter network, if you want your deployment to support federated partners, public IM connectivity, an extensible messaging and presence protocol (XMPP) gateway, remote user access, participation of anonymous users in meetings, or Exchange Unified Messaging (UM).

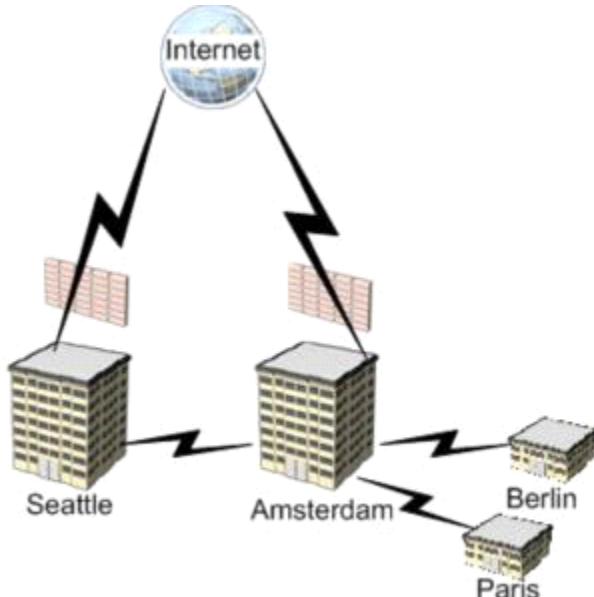
* Mediation Server is a necessary component for implementing Enterprise Voice and dial-in conferencing. Mediation Server translates signaling, and, in some configurations, media between your internal Lync Server infrastructure and a public switched telephone network (PSTN) gateway, IP-PBX, or a Session Initiation Protocol (SIP) trunk. You can run Mediation Server collocated on the same server as Front End Server, or separated into a stand-alone Mediation Server pool.

* To enable support for XMPP federation, the Edge Federation must be enabled.

Reference: Lync Server 2013, Server Roles

Question: 36

Your company has four offices. The offices are configured as shown in the exhibit. (Click the Exhibit button.)



You have a Lync Server 2013 infrastructure that has the following configurations:

- Two regions named EMEA and US. The Paris, Berlin, and Amsterdam offices are assigned to EME
- A. The Seattle office is assigned to US.
- A bandwidth policy named Policy1 that has a limit of 1,024 kilobits per second (Kbps) for audio and video.
- A bandwidth policy named Policy2 that has a limit of 2,048 Kbps for audio and video.

You need to configure Call Admission Control (CAC) to meet the following requirements:

- Limit the Lync Server-related WAN traffic between the Seattle and Amsterdam offices to 2,048 Kbps.
- In the Paris office, limit the Lync Server-related WAN traffic for audio to 1,024 Kbps and limit the Lync Server-related WAN traffic for video to 1,024 Kbps.

Which three actions should you perform? (Each correct answer presents part of the solution. Choose three.)

- A. Create a region link and assign Policy2 to the region link.
- B. Modify region EMEA and region US to enable an Audio/Video alternate path.
- C. Assign Policy1 to the network in the Paris office.
- D. Assign Policy2 to the network in the Amsterdam office,
- E. Create a region route.

F. Assign Policy2 to the network in the Seattle office.

Answer: A, C, E

Explanation:

<http://lync70337.freeforums.org/post140.html>

Question: 37

HOTSPOT

Your network has a perimeter network and an internal network. A firewall named Firewall1 separates the perimeter network from the Internet. A firewall named Firewall2 separates the internal network from the perimeter network. You have a Lync Server 2013 infrastructure that contains an Edge Server and a reverse proxy server in the perimeter network.

You plan to deploy XMPP federation.

You need to identify which firewall rules must be created for the planned deployment.

Which rule should you identify for each firewall?

To answer, configure the appropriate rules in the dialog box in the answer area.

Answer Area

Firewall name	Allowed port	Destination
Firewall1	<input type="button" value="..."/>	<input type="button" value="..."/>
Firewall2	<input type="button" value="..."/>	<input type="button" value="..."/>

Answer Area

Firewall name	Allowed port	Destination
Firewall1	<input type="button" value="..."/> 5061 5062 5269 23456	<input type="button" value="..."/> External interface of the Edge Server Internal interface of the Edge Server External interface of the reverse proxy serv Internal interface of the reverse proxy serv
Firewall2	<input type="button" value="..."/> 5061 5062 5269 23456	<input type="button" value="..."/> External interface of the Edge Server Internal interface of the Edge Server External interface of the reverse proxy serv Internal interface of the reverse proxy serv

Answer:

Answer Area

Firewall name	Allowed port	Destination
Firewall1	<input type="button" value="5061"/> <input type="button" value="5062"/> <input checked="" type="button" value="5269"/> <input type="button" value="23456"/>	External interface of the Edge Server Internal interface of the Edge Server External interface of the reverse proxy serv Internal interface of the reverse proxy serv
Firewall2	<input type="button" value="5061"/> <input type="button" value="5062"/> <input type="button" value="5269"/> <input checked="" type="button" value="23456"/>	External interface of the Edge Server Internal interface of the Edae Server External interface of the reverse proxy serv Internal interface of the reverse proxy serv

Explanation:

Note:

* If you plan to support the extensible messaging and presence protocol (XMPP) for your deployment, select the Enable XMPP federation (port 5269) check box (for the external edge server interface).

* The number 5269 and 23456 that is passed to findstr as a parameter instructs findstr to search the output of netstat for the strings 5269 and 23456. If XMPP is correctly configured, the result of the commands should result in listening and established connections, both on the external (port 5269) and the internal (port 23456) interfaces of the Edge Server.

Reference: Setting Up XMPP Federation

Question: 38

HOTSPOT

Your company has two offices. One office is located in New York. The other office is located in Seattle. The offices contain five subnets. The subnets are configured as shown in the following table.

Office	Floor	Subnet	Subnet mask
New York	First	172.16.1.0	255.255.255.0
New York	Second	172.16.2.0	255.255.255.0
New York	Third	172.16.3.0	255.255.255.0
Seattle	First	172.16.4.0	255.255.255.0
Seattle	Second	172.16.5.0	255.255.255.0

You have a Lync Server 2013 infrastructure. All client computers have Microsoft Lync 2013 deployed. You plan to deploy Call Admission Control (CAC).

You need to identify which network topology must be deployed for the planned deployment. The solution must ensure that different bandwidth policies can be applied to each floor of each office.

What is the minimum number of required regions, sites, and subnets?

To answer, select the appropriate number of regions, sites, and subnets in the answer area.

Answer Area

Regions:

Sites:

Subnets:

Answer Area

Regions:
1
2
3
4
5

Sites:
1
2
3
4
5

Subnets:
1
2
3
4
5

Answer:

Answer Area

Regions:

1
2
3
4
5

Sites:

1
2
3
4
5

Subnets:

1
2
3
4
5

Question: 39

You have a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization and a Lync Server 2013 infrastructure. You need to design a Unified Messaging (UM) solution to meet the following requirements:
Support a peak concurrency of 500 calls.
Connect to two Lync Server 2013 pools.
What is the minimum number of UM servers required?

- A. 1
- B. 2
- C. 3
- D. 5

Answer: C

Explanation:

[http://technet.microsoft.com/en-us/library/aa997637\(v=exchg.141\).aspx](http://technet.microsoft.com/en-us/library/aa997637(v=exchg.141).aspx)
[http://technet.microsoft.com/en-us/library/ee332331\(v=exchg.141\).aspx](http://technet.microsoft.com/en-us/library/ee332331(v=exchg.141).aspx)

Question: 40

Your company has a Lync Server 2013 infrastructure that contains four servers. The servers are configured as shown in the following table.

Server name	Role	Average CPU utilization
Server1	Front End Server	70 percent
Server2	Front End Server	50 percent
Server3	SQL Server Back End	60 percent
Server4	SQL Server Back End	50 percent

The Lync Server infrastructure contains a hardware load balancer named HLB1.

The company has an IP-PBX. The IP PBX does not support media bypass. The IP-PBX has a SIP trunk configured.

Each user has a desktop phone that connects to the IP-PBX.

Each laptop user has a Lync-certified headset.

The company plans to implement Enterprise Voice and to relocate the SIP trunks to the Lync Server infrastructure.

You need to recommend a Mediation Server deployment to meet the following requirements:

Internal users must be able to place outbound calls from their desktop phone if a single server fails.

Remote users must be able to place calls to any desktop phone if a single server fails.

The degradation of call quality must be minimized during peak usage hours.

What should you recommend?

- A. Install the Mediation Server role on Server3 and Server4.
- B. Install the Mediation Server role on Server1 and Server2.
- C. Create a Mediation Server pool that contains two new servers.
- D. Create a Mediation Server pool that contains HLB1 and one new server.

Answer: C

Question: 41

HOTSPOT

Your company has two offices. The offices are located in Amsterdam and Seattle. The company has the phone number ranges shown in the following table.

Office	Total phone number range
Amsterdam	+31 20 1234 5 00 to +31 20 1234 5 99
Seattle	+1 425 555 1200 to +1 425 555 1299

The range used for each office is shown in the following table.

Office	Used phone number range
Amsterdam	+31 20 1234 5 01 to +31 20 1234 5 55
Seattle	+1 425 555 1201 to +1 425 555 1240

You plan to implement Lync Server 2013 and include an unassigned number range for each office.

You need to identify which unassigned number ranges must be included. The solution must use the minimum amount of administrative effort when users are added to or removed from the infrastructure.

Which number range should you use for each unassigned number range?

Answer Area

Amsterdam unassigned
number range

Seattle unassigned number
range

Answer Area

Amsterdam unassigned number range

+31201234500 - +31201234599
+31201234501 - +31201234555
+31201234556 - +31201234599

Seattle unassigned number range

+14255551200 - +14255551299
+14255551201 - +14255551240
+14255551241 - +14255551299

Answer:**Answer Area**

Amsterdam unassigned number range

+31201234500 - +31201234599
+31201234501 - +31201234555
+31201234556 - +31201234599

Seattle unassigned number range

+14255551200 - +14255551299
+14255551201 - +14255551240
+14255551241 - +14255551299

Question: 42**HOTSPOT**

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2010 Service Pack 2 (SP2) organization that has Unified Messaging (UM) enabled.

You plan to configure the infrastructure to support three languages for Subscriber Access.

You need to identify the minimum number of access numbers and dial plans required for the planned configuration.

How many access numbers and dial plans should you identify?

To answer, select the appropriate number of access numbers and dial plans in the answer area.

Answer Area

Access numbers:

Dial plans:

Answer Area

Access numbers:

A dropdown menu containing the following options: 0, 1, 2, 3, 6, and 9.

Dial plans:

A dropdown menu containing the following options: 0, 1, 2, 3, 6, and 9.

Answer:

Answer Area

Access numbers:

A dropdown menu containing the following options: 0, 1, 2, 3, 6, and 9. The number 3 is highlighted with a red box.

Dial plans:

A dropdown menu containing the following options: 0, 1, 2, 3, 6, and 9. The number 3 is highlighted with a red box.

Explanation:

Note:

* Languages are associated with dial-in access numbers. If you support geographical areas that have multiple languages, you should decide how you want to define regions to support the multiple languages. For example, you might define multiple regions based on a combination of geography and language, or you might define a single region based on geography and have a different dial-in access numbers for each language.

Question: 43

DRAG DROP

You have a Lync Server 2013 infrastructure that contains two offices. The offices are located in Amsterdam and Seattle. The offices have the phone number ranges shown in the following table.

Office	Total phone number range
Amsterdam	+31 20 1234 5 00 to +31 20 1234 5 99
Amsterdam	+31 20 1234 7 00 to +31 20 1234 7 99
Seattle	+1 425 555 1200 to +1 425 555 1299

You plan to deploy Enterprise Voice.

You also plan to use a global dial plan that will use three-digit dialing.

You need to create the normalization rules for the planned deployment.

Which match patterns should you use to create the normalization rules?

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

Match Patterns	Answer Area
^(5\d{2})\$	
^([57]\d{2})\$	
^([57])(\d{2})\$	
^(2\d{2})\$	
^12(\d{2})\$	
^1(2\d{2})\$	
Translation pattern	Match pattern
+31201234\$1	Match pattern
+14255551\$1	Match pattern

Answer:

Translation pattern	Match pattern
+31201234\$1	^([57]\d{2})\$
+14255551\$1	^(2\d{2})\$

Explanation:

Note:

* First match pattern: 5 or 7 followed by any two numbers.

* Second match pattern: 2 followed by any two numbers.

Question: 44

You have an IP-PBX that uses four-digit extensions. You plan to deploy Enterprise Voice. You implement a SIP trunk between the Lync Server infrastructure and the IP-PBX.

You configure all users to use the following LineURI:

tel:+3120123 <4digitextension>;ext=<4digitextension>

You need to ensure that the IP-PBX only receives the four-digit extension of a user when a call is placed to the IP-PBX.

What should you do?

- A. Modify the trunk configuration.

- B. Modify the voice policy.
- C. Forward the P-Asserted-Identity data.
- D. Enable media bypass.

Answer: A

Question: 45

HOTSPOT

You plan to deploy a Microsoft Lync Online subscription that will contain a single SIP domain named contoso.com. You need to identify which DNS records must be created to meet the following requirements:

Provide users with the ability to sign in automatically by using Microsoft Lync 2013.

Provide users with the ability to sign in automatically by using the Lync mobile application.

Which DNS records should you identify? (To answer, select the appropriate record name and destination for each requirement in the answer area.)

Requirement	Record name	Destination
Provide users with the ability to sign in automatically by using Microsoft Lync 2013.	<input type="checkbox"/> Clientdiscover.contoso.com <input type="checkbox"/> Lyncdiscover.contoso.com <input type="checkbox"/> Sip.contoso.com <input type="checkbox"/> Sipfederationtls.contoso.com	<input type="checkbox"/> Push.Lync.com <input type="checkbox"/> Sip.online.lync.com <input type="checkbox"/> Sipdir.online.lync.com <input type="checkbox"/> Webdir.online.lync.com
Provide users with the ability to sign in automatically by using the Lync mobile application.	<input type="checkbox"/> Clientdiscover.contoso.com <input type="checkbox"/> Lyncdiscover.contoso.com <input type="checkbox"/> Sip.contoso.com <input type="checkbox"/> Sipfederationtls.contoso.com	<input type="checkbox"/> Push.Lync.com <input type="checkbox"/> Sip.online.lync.com <input type="checkbox"/> Sipdir.online.lync.com <input type="checkbox"/> Webdir.online.lync.com

Answer:

Requirement	Record name	Destination
Provide users with the ability to sign in automatically by using Microsoft Lync 2013.	<input type="checkbox"/> Clientdiscover.contoso.com <input type="checkbox"/> Lyncdiscover.contoso.com <input checked="" type="checkbox"/> Sip.contoso.com <input type="checkbox"/> Sipfederationtls.contoso.com	<input type="checkbox"/> Push.Lync.com <input type="checkbox"/> Sip.online.lync.com <input checked="" type="checkbox"/> Sipdir.online.lync.com <input type="checkbox"/> Webdir.online.lync.com
Provide users with the ability to sign in automatically by using the Lync mobile application.	<input checked="" type="checkbox"/> Clientdiscover.contoso.com <input checked="" type="checkbox"/> Lyncdiscover.contoso.com <input type="checkbox"/> Sip.contoso.com <input type="checkbox"/> Sipfederationtls.contoso.com	<input type="checkbox"/> Push.Lync.com <input type="checkbox"/> Sip.online.lync.com <input checked="" type="checkbox"/> Sipdir.online.lync.com <input checked="" type="checkbox"/> Webdir.online.lync.com

Question: 46

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2010 organization.

You have a SIP domain and an SMTP domain named contoso.com.

You recently migrated the on-premise Exchange Server 2010 organization to Microsoft Office 365.

You need to ensure that you can use Unified Messaging (UM) features between the Lync Server 2013 infrastructure and the Office 365 subscription.

Which three actions should you perform? (Each correct answer presents part of the solution. Choose three.)

- A. From the Exchange Management Console, create an accepted domain.
- B. From the Lync Server 2013 Control Panel, add a hosting provider named exap.um.outlook.com.
- C. In the public DNS zone, create a service location (SRV) record named _sipfederationtls._tcp.contoso.com.
- D. From the Lync Server 2013 Control Panel, add a hosting provider named exap.um.lync.com.
- E. In the public DNS zone, create a service location (SRV) record named _sip._tls.contoso.com.
- F. From the Lync Server 2013 Control Panel, click the Enable Communications with Federated Users check box.

Answer: A, C, E

Explanation:

A:

* An accepted domain is any SMTP namespace for which a cloud-based e-mail organization sends or receives e-mail.
C, E: To get Office 365 Lync to work with your federated domain, you will need to add some DNS entries. These entries should normally be added to your external DNS. Granted it can also be added to your internal DNS zone if you are doing split brain DNS. To allow your federated domain users to automatically signon to Lync Online you will need 4 DNS records for each of the domains you federate.

First you will need 2 SRV dns records created.

_sip._tls.<domain> -> pointing to -> sipdir.online.lync.com

_sipfederationtls._tcp.<domain> -> pointing to -> sipfed.online.lync.com

Next you will need 2 CNAME records created.

sip.<domain> -> pointing to -> sipdir.online.lync.com

lyncrediscover.<domain> -> pointing to -> webdir.online.lync.com

Reference: What DNS records are required for Office 365 Lync

Question: 47

HOTSPOT

You have a Lync Server 2013 infrastructure. The infrastructure contains three servers. The servers are configured as shown in the following table.

Server name	Role
Lync01	Standard Edition server
Lync02	Mediation Server
OWA01	Office Web Apps Server

You plan to provide users with the ability to use desktop sharing and to display Microsoft PowerPoint presentations during conferences.

You need to identify the firewall rules that must be created in Windows Firewall.

Which firewall rules should you identify? (To answer, select the appropriate servers and ports for each feature in the answer area.)

Feature	Server	Ports
Desktop Sharing	<input type="button" value="Lync01"/> <input type="button" value="Lync02"/> <input type="button" value="OWA01"/>	<input type="button" value="443"/> <input type="button" value="5061"/> <input type="button" value="5350 to 5389"/> <input type="button" value="49,152 to 65,535"/>
Display PowerPoint presentations	<input type="button" value="Lync01"/> <input type="button" value="Lync02"/> <input type="button" value="OWA01"/>	<input type="button" value="443"/> <input type="button" value="5061"/> <input type="button" value="5350 to 5389"/> <input type="button" value="49,152 to 65,535"/>

Answer:

Feature	Server	Ports
Desktop Sharing	<input type="button" value="Lync01"/> <input type="button" value="Lync02"/> <input type="button" value="OWA01"/>	<input type="button" value="443"/> <input type="button" value="5061"/> <input type="button" value="5350 to 5389"/> <input type="button" value="49,152 to 65,535"/>
Display PowerPoint presentations	<input type="button" value="Lync01"/> <input type="button" value="Lync02"/> <input type="button" value="OWA01"/>	<input type="button" value="443"/> <input type="button" value="5061"/> <input type="button" value="5350 to 5389"/> <input type="button" value="49,152 to 65,535"/>

Question: 48**HOTSPOT**

Your company has two main offices. The offices are located in Denver and New York. The offices connect to each other by using a WAN link.

You have a Lync Server 2013 infrastructure.

You have a conference that has 10 participants homed in the Denver office and 15 participants homed in the New York office. The user who organized the conference is homed in the Denver office. The audio codec for the conference requires 101 Kbps per stream.

You need to identify how much bandwidth is used on the WAN link when a single participant speaks during the conference.

What should you identify? (To answer, select the appropriate bandwidth amounts in the answer area.)

Bandwidth used from Denver to New York:

101 Kbps
1,010 Kbps
1,515 Kbps
2,525 Kbps

Bandwidth used from New York to Denver:

101 Kbps
1,010 Kbps
1,515 Kbps
2,525 Kbps

Answer:

Bandwidth used from Denver to New York:

101 Kbps
1,010 Kbps
1,515 Kbps
2,525 Kbps

Bandwidth used from New York to Denver:

101 Kbps
1,010 Kbps
1,515 Kbps
2,525 Kbps

Question: 49

You have a Lync Server 2013 infrastructure.

A user named Executive1 has an assistant named Assistant1. Assistant1 is configured as a delegate and receives all of the calls for Executive1.

You need to modify the current voice solution to meet the following requirements:

Ensure that some of the calls from other executives to Executive1 only ring on the Microsoft Lync 2013 client of Executive1.

Ensure that Executive1 can receive the calls from the other executives when his presence status is set to Do Not Disturb.

What should you configure?

- A. Call Park
- B. A private line
- C. Simultaneous ring
- D. A response group

Answer: B

Question: 50

You have a Lync Server 2013 infrastructure. The infrastructure contains two sites and is configured for Enterprise Voice. The sites are located in Chicago and Toronto.

Each site has a distinct voice policy, PSTN usage, voice route, and trunk translation rule as shown in the following table.

Site name	Dial plan name	Voice policy name	PSTN usage name	Voice route name	Trunk name
Toronto	Toronto-DP	Toronto-VP	Toronto-Usage	Toronto-AllCalls	Toronto-PSTN
Chicago	Chicago-DP	Chicago-VP	Chicago-Usage	Chicago-AllCalls	Chicago-PSTN

The voice policy of each site contains the PSTN usage record of its respective site. The voice route of each site uses the trunk assigned to its respective site. The voice route of each site is assigned to the PSTN usage of its respective site. You need to ensure that all outbound voice calls to the PSTN from the users in the Toronto site are routed through the trunk at the Toronto site. Calls must use the Mediation Server at the Chicago site if the Mediation Server at the Toronto site is unavailable.

What should you do?

- A. Add the Chicago-AllCalls voice route to the Toronto-Usage PSTN usage record.
- B. Add the Chicago-Usage PSTN usage record to the Toronto-VP voice policy.
- C. Add the Chicago-PSTN trunk to the Toronto-AllCalls voice route.
- D. Add the Chicago-Usage PSTN usage record to the Toronto-PSTN trunk.

Answer: B

Question: 51

HOTSPOT

Your company plans to deploy a response group workflow for the sales department.

You need to create a response group workflow that meets the following requirements:

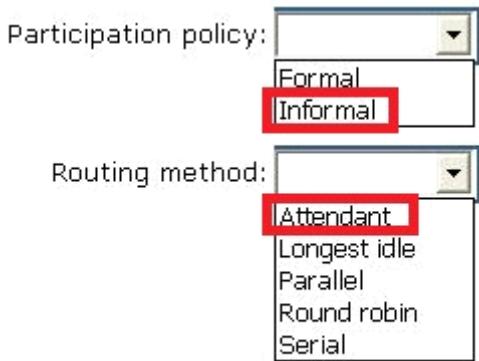
The users in the sales department must be signed in to the response group automatically when they sign in to Lync Server 2013.

Incoming calls to the sales department must ring all sales department users concurrently, even if a user is already on a call.

How should you configure the response group? (To answer, configure the appropriate participation policy and routing method in the answer area.)

Participation policy:	<input type="button" value="▼"/> <div style="border: 1px solid black; padding: 5px; width: 150px; height: 100px; margin-top: -10px;"> Formal Informal </div>
Routing method:	<input type="button" value="▼"/> <div style="border: 1px solid black; padding: 5px; width: 150px; height: 100px; margin-top: -10px;"> Attendant Longest idle Parallel Round robin Serial </div>

Answer:

**Question: 52**

You have a Lync Server 2013 infrastructure and a Microsoft Exchange Server 2013 organization.

Unified Messaging (UM) integration is enabled.

You need to prevent the use of call answering rules.

Which Windows PowerShell command should you run?

- A. Set-CSVoicePolicy
- B. Set-UMMailboxPolicy
- C. Remove-UMCallAnsweringRule
- D. Set-UMDialPlan

Answer: D

Question: 53

Your company has a subscription to Microsoft Lync Online.

All users connect to Lync Online by using Microsoft Lync 2013.

You discover that several users experience a high amount of jitter during A/V conferences.

You need to verify the quality of the connection from the users' Lync 2013 client to Lync Online.

What should you use?

- A. The Test-CsASConference cmdlet
- B. The Microsoft Remote Connectivity Analyzer
- C. The Transport Reliability IP Probe
- D. The Test-Connection cmdlet

Answer: C

Explanation:

"The tool performs three tests: VoIP: This probe measures your expected VoIP quality by measuring UDP loss and jitter. It uses UDP/50021 and UDP/50022 to simulate audio streams with G722 codec at 50pps."

Test-CsAsConference merely tests that users can join a conference. <http://technet.microsoft.com/en-us/library/jj205227.aspx>

Test-Connection is nothing more than a ping test. While it can show latency, it doesn't show jitter. <http://technet.microsoft.com/en-us/library/hh849808.aspx>

<http://blogs.technet.com/b/fmustafa/archive/2012/07/28/lync-online-transport-reliability-ip-probe-tripp-tool.aspx>

Question: 54

You have a Lync Server 2013 infrastructure. The infrastructure contains one central site. The infrastructure contains a Standard Edition server that has the Mediation Server role installed and is located in the central site.

You configure a trunk to an IP-PBX. The IP-PBX is on the Unified Communications Open Interoperability program.

You have 300 users who are enabled for Enterprise Voice.

You need to provide PSTN services to the Enterprise Voice users if the IP-PBX fails.

What should you do?

- A. Install a PSTN gateway that connects directly to the PSTN. Configure a new trunk to the new PSTN gateway. Create a new route and a new PSTN usage. Add the route to the PSTN usage and add the PSTN usage to the voice policy.
- B. Install a Survivable Branch Server that connects directly to the PSTN. Configure a new trunk and add the trunk to the existing route. Add the route to the PSTN usage and add the PSTN usage to the voice policy.
- C. Install a new trunk to a certified SIP trunk provider. Add the trunk to the existing PSTN usage. Add the PSTN usage to the voice policy.
- D. Install an additional IP-PBX that connects directly to the PSTN. Configure the existing trunk to use both IP-PBXs in resiliency mode.

Answer: A

Question: 55

HOTSPOT

Your company has one office. The office is located in the United States.

The phone numbers in the United States have a country code of 1 followed by 10 digits.

You have a Lync Server 2013 infrastructure configured for Enterprise Voice. All normalization rules ensure that dialed numbers conform to E.164 standards.

You need to create a called number translation rule that meets the following requirements:

Eleven-digit numbers that start with 1 must have the 1 removed before they are routed to the PSTN.

All other phone numbers must not be modified by the rule.

Which pattern match and translation rule should you use? (To answer, select the appropriate pattern match and translation rule in the answer area.)

Pattern match:

1(\d{10})
^1(\d{10})\$
\+1(\d{10})
^\+1(\d{10})\$
^\+1(\d\d\d)(\d{7})\$

Translation rule:

\$1
\$2\$3
+\$1
+\$1\$10

Answer:

Pattern match:

```
1(\d{10})
^1(\d{10})$
```

\+1(\d{10})

^\+1(\d{10})\$

```
^\+1(\d\d\d)(\d{7})$
```

Translation rule:

\$1

```
$2$3
+$1
+$1$10
```

Question: 56

HOTSPOT

Your company has a main office and a branch office.

The offices connect to each other by using a WAN link. The WAN link has limited bandwidth and experiences packet loss.

The branch office contains several users only.

You have a Lync Server 2013 infrastructure.

You identify the bandwidth requirements for the codecs as shown in the following table.

Codec name	Bandwidth requirement without forward error correction (FEC)	Bandwidth requirement with forward error correction (FEC)
RTAudio (8kHz)	50 Kbps	60 Kbps
RTAudio (16kHz)	70 Kbps	100 Kbps
G.711	100 Kbps	160 Kbps

Some users in the branch office report that they experience very slow access to shared folders in the main office.

Some users in the branch office report that they experience very slow access to shared folders in the main office.

You need to create a bandwidth policy that meets the following requirements:

Uses the least amount of bandwidth for audio calls.

Minimizes the impact of packet loss on audio call quality.

Supports up to 10 concurrent audio calls from the branch office users to the users in the main office.

How should you configure the bandwidth policy? (To answer, select the appropriate audio limit and audio session limit in the answer area.)

Audio limit:

500 Kbps
600 Kbps
1,200 Kbps
1,600 Kbps
2,000 Kbps

Audio session limit:

50 Kbps
60 Kbps
70 Kbps
100 Kbps
160 Kbps

Answer:

Audio limit:

500 Kbps
500 Kbps
1,200 Kbps
1,600 Kbps
2,000 Kbps

Audio session limit:

50 Kbps
50 Kbps
70 Kbps
100 Kbps
160 Kbps

Question: 57**HOTSPOT**

Your network contains an Active Directory domain. The domain contains a Lync Server 2013 infrastructure. The infrastructure uses the default ports.

You plan to implement a Quality of Service (QoS) solution.

You need to recommend which port ranges must be tagged for QoS.

Which port range should you recommend for each service? (To answer, select the appropriate port range for each service in the answer area.)

Audio:

49,152 to 57,500
50,000 to 59,999
57,501 to 65,535

Video:

49,152 to 57,500
50,000 to 59,999
57,501 to 65,535

Answer:

Audio:

49,152 to 57,500
50,000 to 59,999
57,501 to 65,535

Video:

49,152 to 57,500
50,000 to 59,999
57,501 to 65,535

Explanation:

<http://technet.microsoft.com/en-us/library/jj204872.aspx>