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Microsoft

70-337 PRACTICE EXAM

Enterprise Voice & Online Services with Microsoft Lync Server 2013

Tootle Questions: 108/5Case Study

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
<input type="text"/>	<input type="text"/>

Answer Area

Record name	Target
<input type="text"/>	<input type="text"/>
Autodiscover.contoso.com	Sipdir.online.lync.com
Sip.contoso.com	Sipfed.online.lync.com
Lyncinternal.contoso.com	Online.lync.com
Lynceexternal.contoso.com	Contoso.onmicrosoft.com

Answer:

Answer Area

Record name	Target
<input type="text"/>	<input type="text"/>
Autodiscover.contoso.com	Sipdir.online.lync.com
Sip.contoso.com	Sipfed.online.lync.com
Lyncinternal.contoso.com	Online.lync.com
Lynceexternal.contoso.com	Contoso.onmicrosoft.com

Explanation:

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 signin 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: B

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.

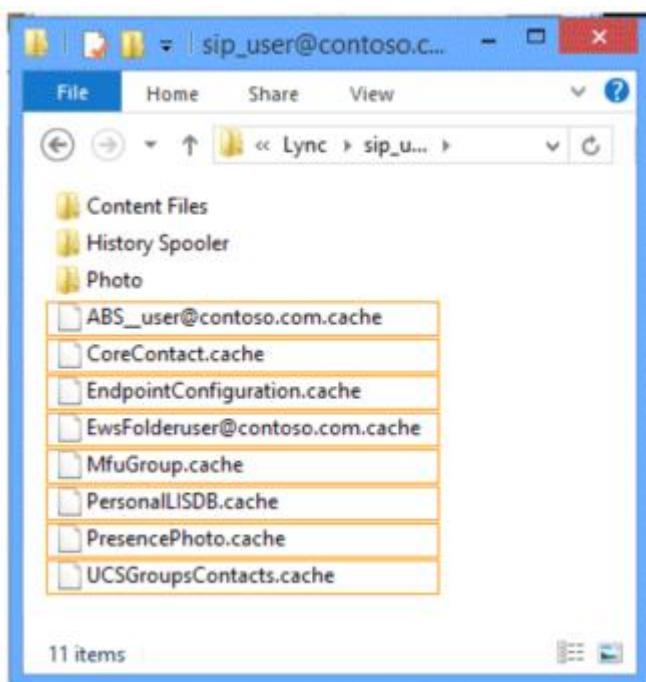
- D. From the Lync Server Control Panel, update the user SIP addresses of the users to @online.contoso.com.
E. From the Lync Online Control Panel, update the SIP addresses of the users to @online.contoso.com.

Answer: ABD

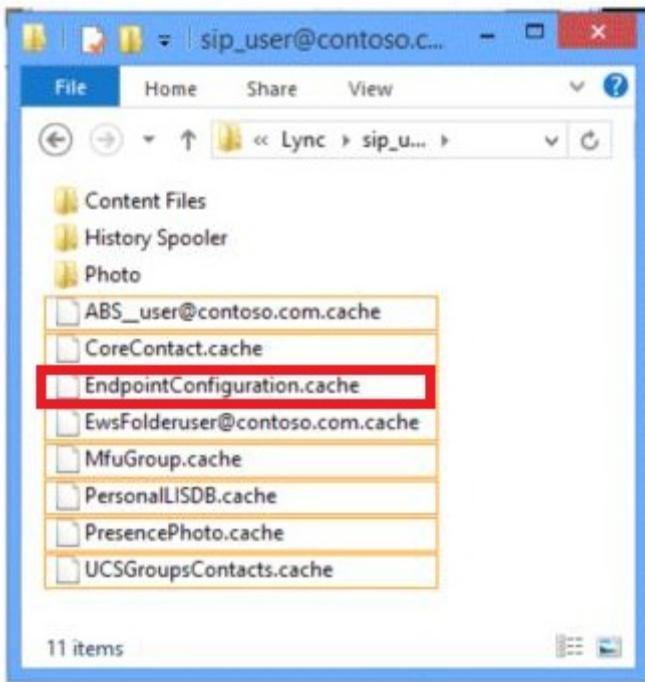
Question: 4

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 signin 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: AB

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 Executive 1. 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 Policy 1. 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	<input type="button" value="▼"/>
0884567890	<input type="button" value="▼"/>
Answer Area	
0881234567	<input type="button" value="▼"/> LegacyPBX1 LegacyPBX2 SIPTrunk1 SIPTrunk2
0884567890	<input type="button" value="▼"/> LegacyPBX1 LegacyPBX2 SIPTrunk1 SIPTrunk2

Answer:

Answer Area**Explanation:**

Note: The third translation rule is applied. The 0 digit is replaced with +31.

Question: 9

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 Manager 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 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 checked="" type="checkbox"/>
Modify the phone number of an agent	<input type="checkbox"/>	<input type="checkbox"/>

Explanation:

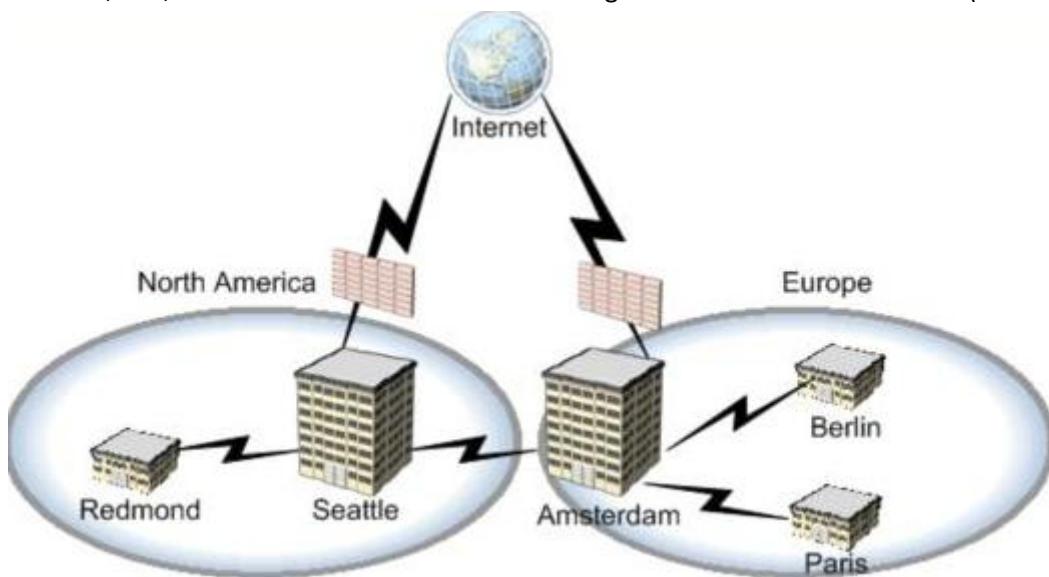
Note: Lync Server 2013 introduces a new Response Group Manager role. Now there are two management roles for response groups: Response Group Manager and Response Group Administrator. While Response Group Administrators can still configure any element for any response group, Managers can configure only 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 trunkmg 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: Bandwidth
9,500 Kbps	Seattle SIP trunk: Bandwidth
10,000 Kbps	
10,500 Kbps	
12,500 Kbps	

Answer:

Bandwidth	Answer Area
8,500 Kbps	Amsterdam SIP trunk: 9,500 Kbps
9,500 Kbps	Seattle SIP trunk: 9,500 Kbps
10,000 Kbps	
10,500 Kbps	
12,500 Kbps	

Explanation:

Box 1: 9,500 Kbps

Box 2: 9,500 Kbps

Note:

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 128kbps 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:
E.164
SIP URI
Telephone extension

VoIP security:
Secured
SIP Secured
Unsecured

Answer:

Answer Area

URI type:

SIP URI

Telephone extension

VoIP security:

Secured

SIP Secured

Unsecured

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.)

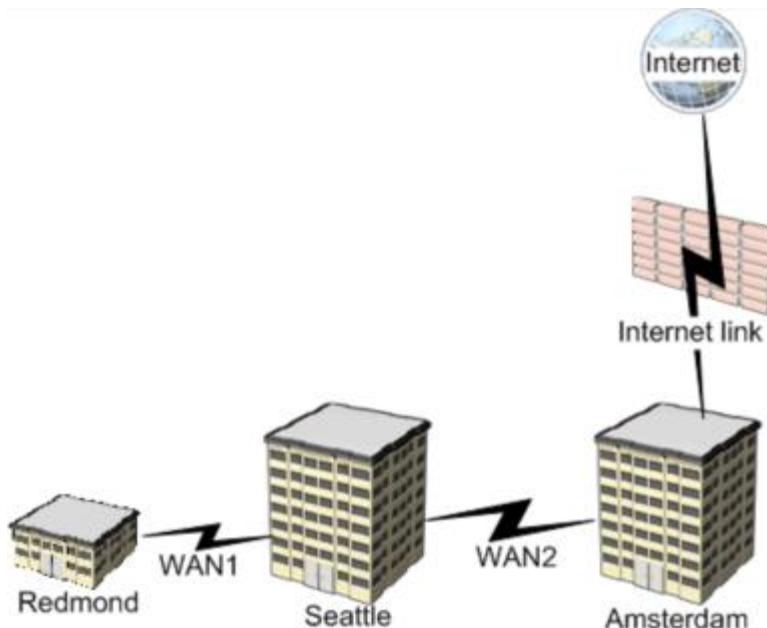
- A. From the Microsoft Lync Server 2013 Control Panel, select Use sites and region configuration.
- B. Associate the wireless subnets to the new site.
- C. From the Microsoft Lync Server 2013 Control Panel, select Enable bypass for non-mapped sites.
- D. Create a new network site.
- E. From the Microsoft Lync Server 2013 Control Panel, select Enable call admission control.
- F. Associate the wired subnets to the new site.

Answer: BDE

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
Miami	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: <input type="text"/>
2,000 Kbps	WAN2: <input type="text"/>
5,000 Kbps	Internet link: <input type="text"/>
6,000 Kbps	
10,000 Kbps	
15,000 Kbps	

Answer:

Answer AreaWAN1: **1,000 Kbps**WAN2: **6,000 Kbps**Internet link: **2,000 Kbps****Explanation:**

Box 1: 1,000 Kbps

Box 2: 6,000 Kbps

Box 3: 2,000 Kbps

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

Answer:

Explanation:

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: ABC

Explanation:

[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

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: CD

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:	<input type="text" value="^(\d{7})\$"/> ^(\d{10})\$ ^+1(\d{10})\$ ^(10\d{10})\$ ^7(\d{212})\$
Long Distance within North America:	<input type="text" value="^(4\d{7})\$"/> ^+1(3\d{7})\$ ^1(\d{10})\$ ^1(\d{11})\$ ^011(\d{6}\d+)\$
International outside North America:	<input type="text" value="^(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: AB

Explanation:

<http://technet.microsoft.com/en-us/library/gg398283.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.

a. 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:

Settings		Answer Area	
		Caller action	Setting
Key mapping		Dials 0	Dialing rule entry
Operator extension			Operator extension
Dialing rule entry		Dials 1	Dialing rule entry
Normalization rule			Key mapping
		Waits	Dialing rule entry
			Key mapping

Explanation:

Dials 0

Box 1: Key Mapping

Box 2: Operator Extension

Dials 1

Box 3: Key Mapping

Box 4: Normalization rule

Waits

Box 5: Dialing rule entry

Box 6: Operator extension

Note:

* Operator Extension – Enter the extension you want callers to connect with when they press zero.

Could be an Auto Attendant, a specific person, or an external

* Dial-in conferencing users can press keys on the telephone keypad to perform dual-tone multifrequency (DTMF) commands. DTMF commands enable users who dial in to a conference to control conference settings (such as muting and unmuting themselves or locking and unlocking the conference) by using the keypad on their telephone. You can use cmdlets to modify the keys used for the DTMF commands.

number.

* A dialing rule entry is used to define the telephone numbers and number masks for incountry/ region and international calls that can be made by UM-enabled users who are associated with a UM mailbox policy. Each dialing rule determines the types of calls that users within a dialing rule group can make.

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: BC

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

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:	<input type="text" value="^(\d{7})\$
^+31(\d{6})\$
^(7\d{7})\$
^7(\d{3}120)\$
^7(\d{3}120)\d+\$"/>
Long Distance within the Netherlands:	<input type="text" value="^(4\d{6})\$
^+3(3\d{6})\$
^0(\d{9})\$
^1(\d{9})\$
^00(\d{3}1)\d+\$"/>
International:	<input type="text" value="^(00\d{7})\$
^+0(\d{11})\$
^*(\d{0}11)\$
^00(+1\d{10})\$
^00(\d{6})\d+\$"/>

Answer:

Local PSTN:	<input type="text" value="^(00\d{7})\$
^+31(\d{6})\$
^(7\d{7})\$
^7(\d{3}120)\$
^7(\d{3}120)\d+\$"/>
Long Distance within the Netherlands:	<input type="text" value="^(4\d{6})\$
^+3(3\d{6})\$
^0(\d{9})\$
^1(\d{9})\$
^00(\d{3}1)\d+\$"/>
International:	<input type="text" value="^(00\d{7})\$
^+0(\d{11})\$
^*(\d{0}11)\$
^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 pool1.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:

Actions	Answer Area
<p>Create a new trunk configuration for mg2.contoso.com and set the Encryption support level to Not Supported.</p>	<p>From the Topology Builder, create a new PSTN gateway.</p>
<p>Set the Encryption support level of the global trunk configuration to Required.</p>	<p>Publish the topology.</p>
	<p>Create a new trunk configuration for mg2.contoso.com and set the Encryption support level to Required.</p> <p>Add the trunk to the existing voice routes.</p>

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: D

Explanation:

<http://technet.microsoft.com/en-us/library/jj215714.aspx>

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	<p data-bbox="562 413 959 496">Users must use the same credentials for on-premises Exchange Server and Office 365.</p>	Technology
the Conferencing Add-in for Outlook		Technology
a Microsoft Lync client	<p data-bbox="562 592 959 675">Users must be able to invite other company users to online meetings by using Microsoft Outlook 2010.</p>	Technology
Microsoft Online Services Directory Synchronization		
Microsoft Online Services Sign-in Assistant		

Answer:

Technologies	Answer Area	
	<p data-bbox="562 1032 959 1124">Users must use the same credentials for on-premises Exchange Server and Office 365.</p>	Active Directory Federation Services (AD FS) 2.0
a Microsoft Lync client		Microsoft Online Services Directory Synchronization
Microsoft Online Services Sign-in Assistant	<p data-bbox="562 1212 959 1295">Users must be able to invite other company users to online meetings by using Microsoft Outlook 2010.</p>	the Conferencing Add-in for Outlook

Explanation:

Box 1: Active Directory Federation Services (AD FS) 2.0

Box 2: Microsoft Online Services Directory Synchronization

Box 3: the Conferencing Add-on for Outlook

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.
Microsoft Online Services Diagnostics and Logging (MOSDAL) Support Toolkit	Verify the DNS records for the Lync Online mobile clients.
Office 365 Lync Online Transport Reliability IP Probe (TRIPP) tool	Test the connection quality to the Lync Online data center.
Snooper utility	Collect the client system configurations and the application configurations.

Answer:

View the Microsoft Lync client tracing logs.	Snooper utility
Verify the DNS records for the Lync Online mobile clients.	Microsoft Office Communications Server Remote Connectivity Analyzer
Test the connection quality to the Lync Online data center.	Office 365 Lync Online Transport Reliability IP Probe (TRIPP) tool
Collect the client system configurations and the application configurations.	Microsoft Online Services Diagnostics and Logging (MOSDAL) Support Toolkit

Explanation:

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

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?

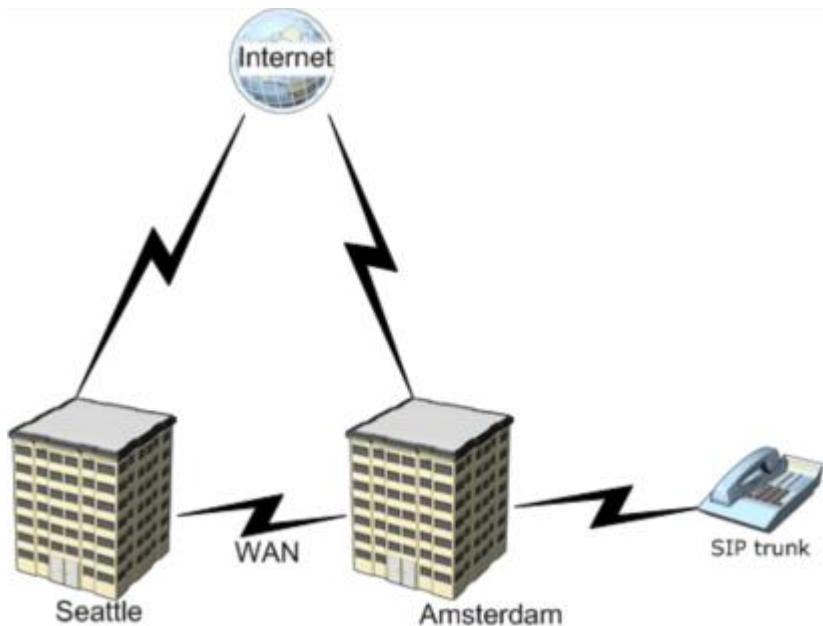
- A. Publish-CsLISConfiguration
- B. Export-CsLISConfiguration
- C. Publish-CsTopology
- D. Set-CsNetworkSubnet

Answer: A

Question: 35

DRAG DROP

Your company has two main offices. The offices 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:

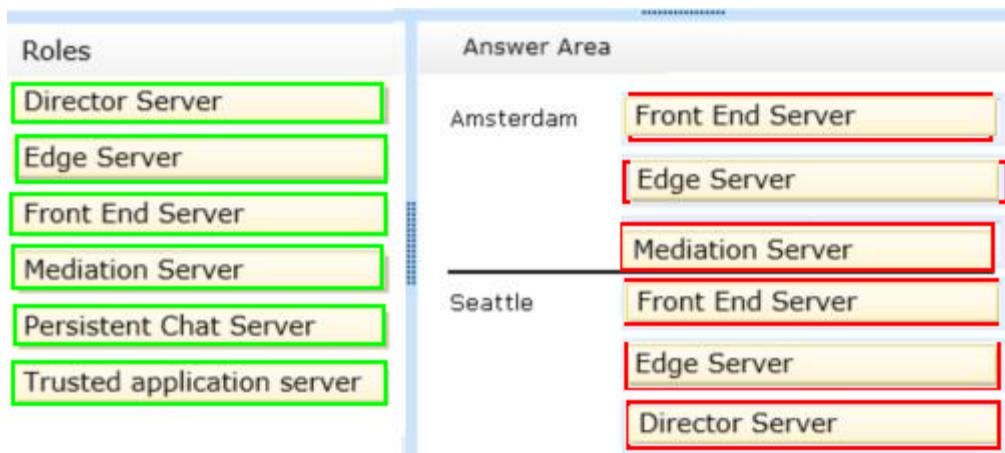
- Remote users must have access to the Lync Server infrastructure.
- Users must be able to place calls to the PSTN if a trunk fails.
- Federation with a business partner must be enabled.
- The amount of WAN traffic must be minimized.

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:



Explanation:

Box 1: Front End Server

Box 2: Edge Server

Box 3: Mediation server

For PSTN.

Box 4: Front End Server

Box 5: Edge Server

Box 6: Director Server

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.

- * Directors can authenticate Lync Server user requests, but they do not home user accounts or provide presence or conferencing services. Directors are most useful to enhance security in deployments that enable external user access. The Director can authenticate requests before sending them on to internal servers. In the case of a denial-of-service attack, the attack ends with the Director and does not reach the Front End servers.

- * We recommend that you deploy a Director or Director pool in each central site that supports external user access and in each central site in which you deploy one or more Front End pools.

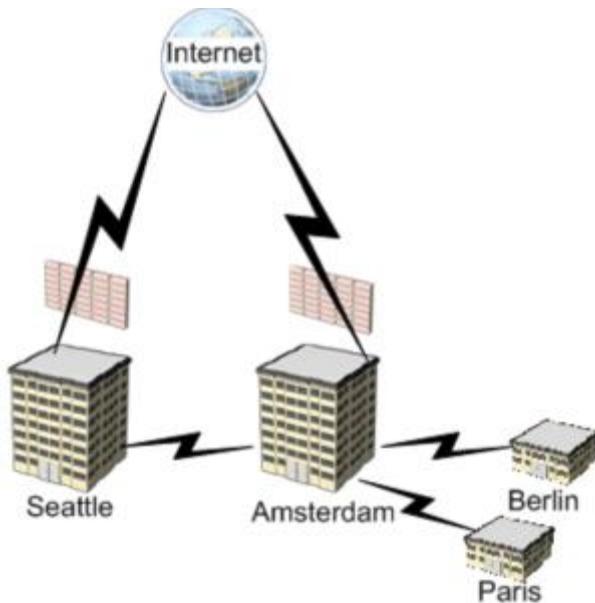
- * We recommend that you deploy a Director or Director pool in each central site that supports external user access and in each central site in which you deploy one or more Front End pools.

- * 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 EMEA. 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: ABD

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="text"/>	<input type="text"/>
Firewall2	<input type="text"/>	<input type="text"/>

Answer Area

Firewall name	Allowed port	Destination
Firewall1	<input type="text"/> 5061 5062 5269 23456	<input type="text"/> 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="text"/> 5061 5062 5269 23456	<input type="text"/> 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="text"/> 5061 5062 5269 23456	<input type="text"/> 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="text"/> 5061 5062 5269 23456	<input type="text"/> 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

Explanation:

<http://technet.microsoft.com/en-us/library/gg425891.aspx>

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)

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:
0
1
2
3
6
9

Dial plans:
0
1
2
3
6
9

Answer:

Answer Area

Access numbers:
0
1
2
3
6
9

Dial plans:
0
1
2
3
6
9

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

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	
	Translation pattern	Match pattern
^(5\d{2})\$	+31201234\$1	Match pattern
^([57]\d{2})\$	+14255551\$1	Match pattern
^([57])(\d{2})\$		
^(2\d{2})\$		
^12(\d{2})\$		
^1(2\d{2})\$		

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="text"/> Clientdiscover.contoso.com <input type="text"/> Lyncdiscover.contoso.com <input type="text"/> Sip.contoso.com <input type="text"/> Sipfederationtls.contoso.com	<input type="text"/> Push.Lync.com <input type="text"/> Sip.online.lync.com <input type="text"/> Sipdir.online.lync.com <input type="text"/> Webdir.online.lync.com
Provide users with the ability to sign in automatically by using the Lync mobile application.	<input type="text"/> Clientdiscover.contoso.com <input type="text"/> Lyncdiscover.contoso.com <input type="text"/> Sip.contoso.com <input type="text"/> Sipfederationtls.contoso.com	<input type="text"/> Push.Lync.com <input type="text"/> Sip.online.lync.com <input type="text"/> Sipdir.online.lync.com <input type="text"/> 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="text"/> Clientdiscover.contoso.com Lyncdiscover.contoso.com Sip.contoso.com Sipfederationtls.contoso.com	<input type="text"/> Push.Lync.com Sip.online.lync.com Sipdir.online.lync.com Webdir.online.lync.com
Provide users with the ability to sign in automatically by using the Lync mobile application.	<input type="text"/> Clientdiscover.contoso.com Lyncdiscover.contoso.com Sip.contoso.com Sipfederationtls.contoso.com	<input type="text"/> Push.Lync.com Sip.online.lync.com Sindir.online.lync.com 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: ACE**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

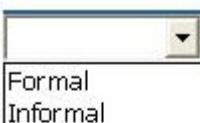
Your company plans to deploy a response group workflow for the sales department.

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.)

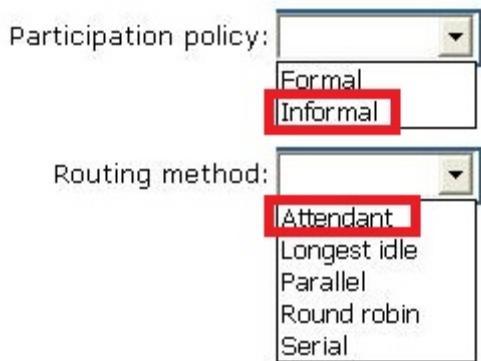
Participation policy:



Routing method:



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: D

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

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

Case Study 1

Litware, Inc

Overview

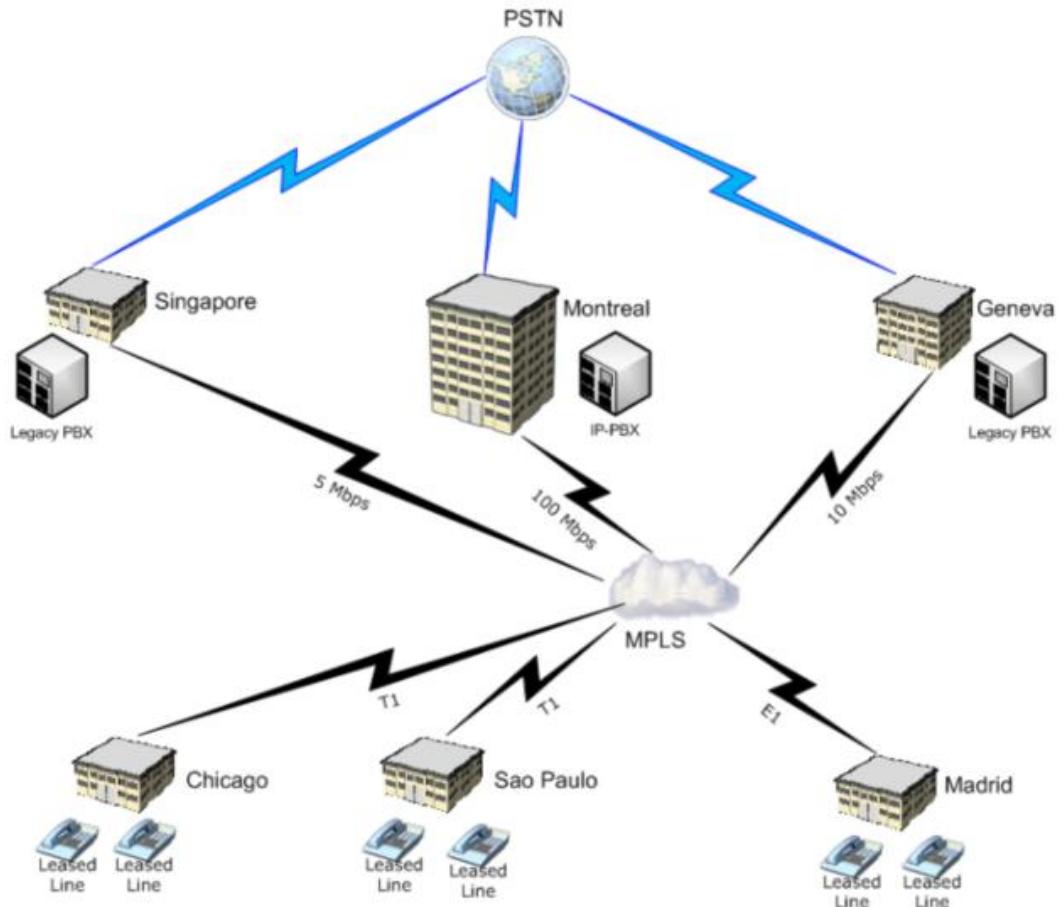
Litware, Inc., is an international air transportation company that has 700 employees. Litware has several offices worldwide. The main office is located in Montreal.

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(UK).
- 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: ABC

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

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

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 LYNCGATE1.	Minimize the cost of placing long distance calls to North America.
Create a trunk between LYNC3 and LYNCGATE2.	
Create a trunk between LYNC3 and LYNCGATE3.	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 LYNCGATE2.
Minimize the cost of placing long distance calls to North America.	Create a trunk between LYNC3 and LYNCGATE1.
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 recover

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: BD

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: AB

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:

Actions	Answer Area
Create two announcement number ranges.	Import two announcement files.
Import two announcement files.	Create two announcements.
Create two announcements.	Create two announcement number ranges.
Modify the TEL URI of the users.	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:

1. For audio prompts, record the audio file by using your favorite audio recording application.
2. For audio prompts, run the Import-CsAnnouncementFile cmdlet to import the contents of the audio file to File Store.
3. 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.
4. Assign the new announcement to a number range in the unassigned number table.

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 addition 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.
a dial plan	UM administrators must be able to configure calls to be redirected to external phone numbers.
a UM IP gateway	
a UM mailbox policy	Users must be prevented from navigating the voice mail system menu by using their voice.
a UM mailbox setting	

Answer:

Components	Answer Area
an auto attendant	All users must be able to use the Play on Phone feature in Microsoft Outlook.
a dial plan	UM administrators must be able to configure calls to be redirected to external phone numbers.
a UM IP gateway	
a UM mailbox policy	Users must be prevented from navigating the voice mail system menu by using their voice.
a UM mailbox setting	

Explanation:

Box 1: a UM mailbox setting

Box 2: a dial plan

Box 3: a UM mailbox setting

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:

* 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 2

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

Question: 2

HOTSPOT

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

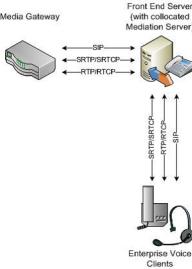
Answer: C**Explanation:**

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:

Configurations	Answer Area
A UM dial plan	Configure all users to have a five-digit extension. A UM dial plan
A UM mailbox policy	Ensure that users can retrieve their voice mail remotely by dialing +1 516 555 1212. A UM mailbox policy
A UM auto attendant	Ensure that callers can reach the company directory by dialing +1 516 555 1213. A UM dial plan
	Prevent users from receiving an email message when they miss a call. A UM auto attendant

Explanation:

- Box 1: A UM Dial plan
- Box 2: A UM mailbox policy
- Box 3: A UM Dial plan
- Box 4: A UM auto attendant

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 issued 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: CE

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: C

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:**Note:****From Scenario:**

- * Ensure that the New York users and the Boston users who have IP-PBX phones can call each other without using the PSTN.

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)	
Media bypass	Reduce the network utilization of Mediation servers.
Quality of Experience (QoE)	Prioritize Lync audio traffic on the network.

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 3

Contoso, Ltd

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	<i>None</i>
Gtwy2.contoso.com	Miami	Media gateway	<i>None</i>
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	<pre>^1(\d{5})\$ ^2(\d{4})\$ ^3(\d{4})\$ ^3(\d{5})\$</pre>	<pre>+1\$1 +1310\$1 +1310555\$1 +555\$1</pre>

Answer:

Normalization rule	Match pattern	Translation pattern
Internal Los Angeles	<pre>^1(\d{5})\$ ^2(\d{4})\$ ^3(\d{4})\$ ^3(\d{5})\$</pre>	<pre>+1\$1 +1310\$1 +1310555\$1 +555\$1</pre>

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:

Actions	Answer Area
	Create a .wav file that contains the announcement.
Create an .mp3 file that contains the announcement.	Run the Import-CsAnnouncementFile cmdlet.
	Run the New-CsAnnouncement cmdlet.
	Create an unassigned number range.
Run the Set-CsApplicationServer cmdlet.	

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:
1. For audio prompts, record the audio file by using your favorite audio recording application.
 2. For audio prompts, run the Import-CsAnnouncementFile cmdlet to import the contents of the audio file to File Store.
 3. 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.
 4. 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:**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

Explanation:

Range: 200-9999

Application Server: Pool1.contoso.com

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.

From Scenario:

- * 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.

(4000 users in New York Office. So $4000 * 0.25 * 0.20$ so maximum of 200 users can be put on hold. We need a range size of at least 200).

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:

Actions	Answer Area
From a Lync Server 2013 server, run dhcpconfigscript.bat .	Copy Dhcpcfgscript.bat to a DHCP server.
Copy Dhcpcfgscript.bat to a DHCP server.	From a DHCP server, run dhcputil.exe .
From a DHCP server, run dhcpconfigscript.bat .	From a DHCP server, run dhcputil.exe .
From a Lync Server 2013 server, run dhcputil.exe .	From a Lync Server 2013 server, run dhcputil.exe .
Copy Dhcpcfgscript.bat to a Lync Server 2013 server.	Copy Dhcpcfgscript.bat to a Lync Server 2013 server.
From a DHCP server, run dhcputil.exe .	From a DHCP server, run dhcputil.exe .

Explanation:

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.

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		
	New York	Subnet	Subnet
192.168.0.0/16			
192.168.8.0/21			
192.168.20.0/24			
192.168.30.0/23			
192.168.40.0/24			
131.107.100.0/24			
131.107.100.1/32			
131.107.100.3/32			

Answer:

Subnets	Answer Area		
	New York	Subnet	Subnet
192.168.0.0/16			
192.168.8.0/21			
192.168.20.0/24			
192.168.30.0/23			
192.168.40.0/24			
131.107.100.0/24			
131.107.100.1/32			
131.107.100.3/32			

Explanation:

New York:

Box 1: 131.107.100.0/24

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

Note:

The 192.168.x.x configurations as per defined in scenario.

Then we need a public network address for New York. We must not use the /32 network mask.

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	<input type="text"/>
Miami	<input type="text"/>
Los Angeles	<input type="text"/>
Houston	<input type="text"/>

Answer Area	
New York	<input type="text"/> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components
Miami	<input type="text"/> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components
Los Angeles	<input type="text"/> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components
Houston	<input type="text"/> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components

Answer:

Answer Area

New York	<input type="button" value="▼"/> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components </div>
Miami	<input type="button" value="▼"/> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components </div>
Los Angeles	<input type="button" value="▼"/> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components </div>
Houston	<input type="button" value="▼"/> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> A media gateway A Standard Edition Front End Server A Survivable Branch Appliance server No additional components </div>

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: BC

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		Route	
LDNY			
LDHouston		Route	
LDLA			

Answer:

Routes	Answer Area		
	LocalDialing	Route	Route
LocalHouston	LocalDialing	LocalLA	LDLA
LocalLA	PrimaryLongDistanceDialing	LocalHouston	
LDNY	BackupLongDistanceDialing	LDNY	
LDHouston			
LDLA			

Explanation:

- Box 1: LocalLa
- Box 2: LocalHouston
- Box 3: LDNY
- Box 4: LDLA

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.

Record name	Port	Target
	443	
	5061	

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:

Record name	Port	Target
	443	Sip.contoso.com Sip.cloud.contoso.com Sipdir.online.lync.com Sipfed.online.lync.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: 4

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	<i>Not applicable</i>	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	<i>Not applicable</i>	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 0 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: AC

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

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:

Number of access numbers:

Answer:

Number of UM dial plans:

Number of access numbers:

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="text" value="10.0.1.1"/> <input type="text" value="131.107.1.1"/> <input type="text" value="131.107.1.2"/> <input type="text" value="ANY"/>	<input type="text" value="TCP 443"/> <input type="text" value="TCP 50,000 to 59,999"/> <input type="text" value="UDP 3478"/> <input type="text" value="ANY"/>	<input type="text" value="10.0.1.1"/> <input type="text" value="131.107.1.1"/> <input type="text" value="131.107.1.2"/> <input type="text" value="ANY"/>	<input type="text" value="TCP 443"/> <input type="text" value="TCP 50,000 to 59,999"/> <input type="text" value="UDP 3478"/> <input type="text" value="ANY"/>
Rule2	<input type="text" value="10.0.1.1"/> <input type="text" value="131.107.1.1"/> <input type="text" value="131.107.1.2"/> <input type="text" value="ANY"/>	<input type="text" value="TCP 443"/> <input type="text" value="TCP 50,000 to 59,999"/> <input type="text" value="UDP 3478"/> <input type="text" value="ANY"/>	<input type="text" value="10.0.1.1"/> <input type="text" value="131.107.1.1"/> <input type="text" value="131.107.1.2"/> <input type="text" value="ANY"/>	<input type="text" value="TCP 443"/> <input type="text" value="TCP 50,000 to 59,999"/> <input type="text" value="UDP 3478"/> <input type="text" value="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

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: BD

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: AC

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

Case Study: 5**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:

- ^(3\d{4})\$1**
- ^3(\d{3})\$1
- ^3(\d{4})\$
- ^4(3\d{4})\$

Translation rule:

- +1720553\$1
- +17205554\$1
- +1720555\$
- +1720555\$1

Answer:

Pattern match:

`^(3\d{4})$1`
`^3(\d{3})$1`
`^3(\d{4})$`
`^4(3\d{4})$`

Translation rule:

`+1720553$1`
`+17205554$1`
`+1720555$`
`+1720555$1`

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: AB**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 a 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:

Actions	Answer Area
	Instruct all of the members of RG1 who are configured as formal agents to sign in again.
Run Import-CsRgsConfiguration .	Run Export-ModuleMember .
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 .	

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.)

Names

- Adatum.com
- Contoso.com
- Push.lync.com
- Sip.online.lync.com
- Sip.outlook.com
- Sipfed.online.lync.com

Answer Area

Lync Server 2013

Administrator | Sign out
5.0.8308.0 | Privacy statement

External Access Policy Access Edge Configuration SIP Federated Domains SIP Federated Providers XMPP Federated Partners

New SIP Federated Domains

Commit Cancel

Allowed domain
Domain name (or FQDN):
Name

Access Edge service (FQDN):
Name

Comment:

Answer:

Names

- Contoso.com
- Push.lync.com
- Sip.online.lync.com
- Sip.outlook.com

Answer Area

Lync Server 2013

Administrator | Sign out
5.0.8308.0 | Privacy statement

External Access Policy Access Edge Configuration SIP Federated Domains SIP Federated Providers XMPP Federated Partners

New SIP Federated Domains

Commit Cancel

Allowed domain
Domain name (or FQDN):
Name

Access Edge service (FQDN):
Name

Comment:

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: BD

Question: 10

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:

Actions	Answer Area
	Install the root certificate of CA1 in the Trusted Root Certificate Authorities store.
	Process the certificate request at CA1.
	Run the Enable-ExchangeCertificate cmdlet.
	Run the Import-ExchangeCertificate cmdlet.
Generate a certificate request that contains a subject name of um1.contoso.com.	