

Number: 400-051
Passing Score: 825
Time Limit: 120 min
File Version: 1.0



Cisco Exam 400-051

CCIE Collaboration

[Total Questions: 371]

Sections

1. Section 1: Cisco Collaboration Infrastructure
2. Section 2: Telephony Standards & Protocols
3. Section 3: Cisco Unified Communications Manager (CUCM)
4. Section 4: Cisco IOS UC Applications & Features
5. Section 5: Quality of Service & Security In Cisco Collaboration Solutions
6. Section 6: Cisco Unity Connection 19
7. Section 7: Cisco Unified Contact Center Express
8. Section 8: Cisco Unified IM & Presence
9. Section 9: Mix Questions
10. Section 10: New Mix Questions

Exam A**QUESTION 1**

Which four attributes are needed to determine the time to complete a TFTP file transfer process? (Choose four.)

- A. file size
- B. file type
- C. network interface type
- D. round-trip time
- E. packet loss percentage
- F. response timeout
- G. network throughput

Correct Answer: ADEF

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Four attributes that are needed to determine the time to complete TFTP file transfer process is:

File Size

Round-trip time

Packet loss percentage

Response timeout

Reference:

http://www.cisco.com/en/US/prod/collateral/voicesw/ps6882/ps6884/white_paper_c11-583891_ps10451_Products_White_Paper.html

QUESTION 2

Which protocol does the Cisco Prime LAN Management Solution application use to communicate with Cisco EnergyWise domain members?

- A. UDP broadcast
- B. Cisco Discovery Protocol
- C. UDP unicast
- D. TCP
- E. multicast

Correct Answer: D

Section: Section 1: Cisco Collaboration Infrastructure
Explanation

Explanation/Reference:

Explanation:

Cisco Prime LMS 4.1 uses TCP port 43440.

QUESTION 3

Which statement about Cisco EnergyWise domain member neighbor formation is true?

- A. Cisco EnergyWise supports static neighbors, but the neighbor relationship is only possible if a noncontiguous domain member and a contiguous domain member have a static neighbor entry pointing to each other.
- B. Cisco EnergyWise static neighbors can be formed even if domain members are not physically contiguous.
- C. Static neighbors can be manually defined on Cisco EnergyWise domain members, but TCP protocols must be used.
- D. Static neighbors can be manually defined on Cisco EnergyWise domain members, but they have a lower priority compared to the autodiscovered members.
- E. Static neighbors can be manually defined on Cisco EnergyWise domain members and the TCP or UDP protocol can be used.

Correct Answer: B

Section: Section 1: Cisco Collaboration Infrastructure
Explanation

Explanation/Reference:

Reference:

http://www.cisco.com/en/US/docs/solutions/Enterprise/Borderless_Networks/Energy_Management/energywisedg.html?referring_site=smartnavRD#wp554384

QUESTION 4

Refer to the exhibit.

A Composite Solution With Just One Click - Certification Guaranteed 4



Assuming that the administrator has never performed any manual custom uploads, which two file types can be found when you choose Software Upgrades, followed by TFTP File Management on the Cisco Unified Operating System Administration web page? (Choose two.)

- A. IP phone configuration files
- B. sample music-on-hold audio files
- C. Identity Trust List files
- D. IP phone license files
- E. Mobile Voice Access audio files
- F. softkey template files

Correct Answer: CE

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

We get option for Identity Trust list Files and Mobile Voice Access audio files.

QUESTION 5

Which two statements about the Cisco UC on UCS specs-based virtualization support model are true? (Choose two.)

- A. It has a configuration-based approach.

- B. It has a rule-based approach.
- C. It has less hardware flexibility compared to the third-party server specs-based support model.
- D. It has less hardware flexibility compared to the UC on UCS TRC support model.
- E. VMware vCenter is optional with this support model.

Correct Answer: BC

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Reference:

http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware#UC_on_UCS_Testing_Reference_Configurations

QUESTION 6

Which definition is included in a Cisco UC on UCS TRC?

- A. storage arrays such as those from EMC or NetApp, if applicable
- B. configuration of virtual-to-physical network interface mapping
- C. step-by-step procedures for hardware BIOS, firmware, drivers, and RAID setup
- D. server model and local components (CPU, RAM, adapters, local storage) at the part number level
- E. configuration settings and patch recommendations for VMware software

Correct Answer: D

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

What does a TRC definition include?

Definition of server model and local components (CPU, RAM, adapters, local storage) at the orderable part number level.

Required RAID configuration (e.g. RAID5, RAID10, etc.) - including battery backup cache or SuperCap - when the TRC uses DAS storage

Guidance on hardware installation and basic setup (e.g. click here). Design, installation and configuration of external hardware is not included in TRC definition, such as:

Configuration settings, patch recommendations or step by step procedures for VMware software are not included in TRC definition.

Infrastructure solutions such as Vblock from Virtual Computing Environment may also be leveraged for configuration details not included in the TRC definition.

Reference:

http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware#UC_on_UCS_Testing_Reference_Configurations

QUESTION 7

Which statement describes a disadvantage of using the Cisco TFTP service to serve IP phone load files?

- A. The Cisco TFTP services can run on only one Cisco Unified Communications Manager server in a cluster.
- B. Because TFTP operates on top of UDP, there is a high risk of corrupted load file delivery at the completion of the TFTP process due to undetected data loss in the network.
- C. If a response is not received in the timeout period, the TFTP server will not resend the data packet.
- D. Packet loss can significantly increase the TFTP session completion time.
- E. Because TFTP operates with an adaptive timeout period, the time to complete the file transfer is unpredictable.

Correct Answer: D

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Voice traffic cannot recapture lost packets. Rather than retransmitting a lost network connection, the phone resets and attempts to reconnect its network connection.

Reference:

http://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/6921_6941_6961/7_1_2/english/admin/guide/6921trb.html#wp1031181

QUESTION 8

Which definition is included in a Cisco UC on UCS TRC?

- A. required RAID configuration, when the TRC uses direct-attached storage
- B. configuration of virtual-to-physical network interface mapping
- C. step-by-step procedures for hardware BIOS, firmware, drivers, and RAID setup
- D. configuration settings and patch recommendations for VMware software
- E. server model and local components (CPU, RAM, adapters, local storage) by name only; part numbers are not included because they change over time

Correct Answer: A

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Definition of server model and local components (CPU, RAM, adapters, local storage) at the orderable part number level. Required RAID configuration (e.g. RAID5, RAID10, etc.) - including battery backup cache or SuperCap - when the TRC uses DAS storage Guidance on hardware installation and

basic setup.

Design, installation and configuration of external hardware is not included in TRC definition, such as: Configuration settings, patch recommendations or step by step procedures for VMware software are not included in TRC definition. Infrastructure solutions such as Vblock from Virtual Computing Environment may also be leveraged for configuration details not included in the TRC definition.

QUESTION 9

Which statement about the Cisco UC on UCS TRC and the third-party server specs-based virtualization support model is true?

- A. Both the UC on UCS TRC and the third-party servers spec-based support models have rule-based approaches.
- B. The UC on UCS TRC support model has a rule-based approach and the third-party servers spec-based support model has a configuration-based approach.
- C. The UC on UCS TRC support model requires a high level of virtualization experience while the third-party server spec-based support model requires a low to medium level virtualization experience.
- D. VMware vCenter is mandatory for the UC on UCS TRC support model but it is optional for the third-party server spec-based support model.
- E. VMware vCenter is optional for the UC on UCS TRC support model but it is mandatory for the third-party server spec-based support model.

Correct Answer: E

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

VMware vCenter is

optional when deploying on UC on UCS Tested Reference Configuration hardware mandatory when deploying on UC on UCS Specs-based and Third-party Server Specs-based hardware.

vCenter Statistics Level 4 logging is mandatory so that Cisco TAC is able to provide effective support.

Click here for how to configure VMware vCenter to capture these logs. If not configured by default, Cisco TAC may request enabling these settings in order to provide effective support.

Also note that enablement of specific VMware vSphere management features may require vCenter and/or a higher feature Edition of vSphere ESXi.

Cisco Collaboration does not require its own dedicated vCenter. Note that when VMware vCenter is not required and is not used, then VMware vSphere ESXi's default management interface is its free/included VMware vSphere Client (formerly branded VI Client).

Reference: http://docwiki.cisco.com/wiki/Unified_Communications_VMware_Requirements

QUESTION 10

Which capability is supported by LLDP-MED but not by Cisco Discovery Protocol?

- A. LAN speed discovery
- B. network policy discovery

- C. location identification discovery
- D. power discovery
- E. trust extension

Correct Answer: A

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

LLDP-MED supports both LAN speed and duplex discovery. Cisco Discovery Protocol supports duplex discovery only, but this limited support is not seen as a problem because if there is a speed mismatch, LLDP-MED and Cisco Discovery Protocol cannot be exchanged and thus cannot be used to detect the mismatch.

QUESTION 11

In a Cisco EnergyWise domain, which two terms describe a Cisco IP phone? (Choose two.)

- A. endpoint
- B. domain member
- C. child domain member
- D. EnergyWise agent
- E. Cisco power distribution unit

Correct Answer: AC

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Reference:

http://www.cisco.com/en/US/docs/switches/lan/energywise/phase2_5/ios/configuration/guide/one_ent.html

QUESTION 12

Refer to the exhibit.



Assuming that the administrator has never performed any manual custom uploads, which two file types can be found when you choose Software Upgrades, followed by TFTP File Management on the Cisco Unified Operating System Administration web page for Cisco Unified Communications Manager? (Choose two.)

- A. IP phone configuration files
- B. announcement audio files
- C. ringer files
- D. IP phone license files
- E. sample music-on-hold audio files
- F. softkey template files

Correct Answer: BC

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

The two file types that we get are Announcement Audio Files and Ringer Files.

QUESTION 13

What is the maximum number of call-processing subscribers in a standard deployment of a Cisco Unified Communications Manager Session Management Edition cluster?

- A. 3
- B. 4
- C. 5
- D. 8
- E. 16

Correct Answer: D

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

There is no deployment difference between CUCM & CUCM session management Edition cluster. The only difference is that CUCM SME is designed to support a large number of trunk to trunk connections. Thus, 8 subscribers.

QUESTION 14

Which two statements about using the Load Server option for IP phone firmware distribution are true? (Choose two.)

- A. This option must be enabled on at least two servers in a Cisco Unified Communications Manager cluster.
- B. This option must be enabled on Cisco Unified Communications Manager service parameters for Cisco TFTP.
- C. Phone firmware must be manually copied to any applicable load servers.
- D. The load server will not function if its IP address is not in the same subnet as the IP phones.
- E. This option is only available for newer IP phone models.
- F. This option does not accommodate falling back to Cisco TFTP on error.

Correct Answer: CF

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Choosing the Right Distribution Method

Which of the three different image-distribution methods discussed so far is the best for a customer deployment? Each method has advantages and disadvantages, and they are summarized in Table 1.

Table 1. Summary of Distribution Models

Peer Firmware Sharing

Load Server

Traditional TFTP

Advantages

- Hierarchy is automatic
- One download per phone model on a subnet
- Uses TCP
- Fails back to TFTP
- Speeds up LAN upgrades
- Reduces TFTP CPU load during upgrade
- Has same download time as LAN image distribution
- Distributes TFTP load over multiple TFTP servers
- Proven distribution
- Default behavior

Disadvantages

- Must be enabled on each phone
- Hierarchy is formed for each phone model
- Hierarchy is limited to subnet
- IP must be set on each phone
- Administrator must manually file copy to load server · No failback to TFTP on error
- More prone to user error
- High-bandwidth requirements
- Multiple requests for same file
- High CPU usage on TFTP server

Reference:

http://www.cisco.com/en/US/prod/collateral/voicesw/ps6882/ps6884/white_paper_c11-583891.pdf

A Composite Solution With Just One Click - Certification Guaranteed 12



Cisco 400-051 : Practice Test

QUESTION 15

Company ABC is planning to migrate from MCS-hosted Cisco Unified Communications Manager applications to Cisco UC on UCS B-Series servers. Which statement about installation media support is true for this migration?

A. The install log can be written to a USB flash drive that is attached to the UCS server.

- B. The answer file that is generated by the Answer File Generator (platformConfig.xml) can be read from a USB flash drive to perform an unattended installation on the UCS server.
- C. The Cisco Music on Hold USB audio sound card can be mapped to a virtual USB port on a VMware virtual machine on the UCS server.
- D. The answer file that is generated by the Answer File Generator (platformConfig.xml) can be read from an FLP image that is mounted in a virtual floppy drive.
- E. The Cisco Music on Hold USB audio sound card can be mapped to a virtual serial port on a VMware virtual machine on the UCS server.

Correct Answer: D

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Using the AFG will allow you to get this license mac before even touching the server. It is provided after filling in the main form of the AFG but it can also be found by looking at the last few lines of your platformconfig.xml file.

Once you have the xml files, you will need to map those to the floppy drive of the VM (no usb support on the VM OVA). There are many ways to do this. I simply use a freeware virtual floppy app that I drop the platformconfig.xml file on and then copy the *.flp image out to the datastore. I'll end up with a directory on my datastore called AFG that has the host named *.flp images that I will use during install. It also serves as archival of these files in the event the server needs to be re-imaged. This is important because the license mac will change if every parameter is not entered exactly as it was prior. If the license mac changes, you will have to go through the process of requesting new license files to be generated.

Reference: <http://angryciscoguy.com/jello/cisco-answer-file-generator-to-the-rescue/>

QUESTION 16

Which two mechanisms does Cisco EnergyWise use for neighbor discovery? (Choose two.)

- A. multicast
- B. LLDP-MED
- C. UDP broadcast
- D. Cisco Discovery Protocol
- E. TCP

Correct Answer: CD

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Cisco EnergyWise Neighbor Discovery Process

The Cisco EnergyWise neighbor discovery process is the mechanism by which domain members discover each other and populate their Cisco EnergyWise neighbor tables. Cisco EnergyWise queries can subsequently be distributed to all domain members using the neighbor relationships to monitor and control the power usage of devices within a domain. Cisco EnergyWise domain members automatically discover their neighbors through one of two mechanisms:

Cisco EnergyWise UDP broadcast packet

Cisco EnergyWise CDP packets

UDP broadcast packets are automatically sent out switch ports which support Cisco EnergyWise, regardless of whether the interfaces are configured with the no energywise interface-level command. CDP packets are sent when CDP is configured for the switch ports.

Reference:

http://www.cisco.com/en/US/docs/solutions/Enterprise/Borderless_Networks/Energy_Management/energywisedg.html?referring_site=smartnavRD#wp555927

QUESTION 17

Which capability is supported by Cisco Discovery Protocol but not by LLDP-MED?

- A. LAN speed and duplex discovery
- B. Network policy discovery
- C. Location identification discovery
- D. Power discovery
- E. Trust extension

Correct Answer: E

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Cisco Discovery Protocol provides an additional capability not found in LLDP-MED that allows the switch to extend trust to the phone. In this case, the phone is now trusted to mark the packets received on the PC port accordingly. This feature can be used to off-load the switch because now it does not need to police the information being received from the phone.

QUESTION 18

Which two statements about the Peer Firmware Sharing option for IP phone firmware distribution are true? (Choose two.)

- A. This option uses a parent-child hierarchy in which a firmware image is downloaded by a parent phone to up to three directly associated child phones.
- B. This option must be enabled on Cisco Unified Communications Manager service parameters for Cisco TFTP.
- C. This option mandates that the parent phone and child phones be identical, selected phone models.
- D. This option allows firmware transfers between phones in different subnets, as long as the round-trip delay is less than 5 milliseconds.
- E. This option uses a parent-child hierarchy that must be manually defined by the Cisco Unified Communications Manager administrator.

F. This option allows falling back to the TFTP server in the Cisco Unified Communications Manager cluster.

Correct Answer: CF

Section: Section 1: Cisco Collaboration Infrastructure

Explanation

Explanation/Reference:

Explanation:

Peer Firmware Sharing works by setting up a parent-child hierarchy of the phones in which a firmware image is downloaded by the parent phone to a child phone. The advantage of using Peer Firmware Sharing is that instead of all phones individually retrieving a software image, they pass the image along from one phone to another phone on the same subnet.

Advantage of PFS:

Hierarchy is automatic

One download per phone model on a subnet

Uses TCP

Fails back to TFTP

Speeds up LAN upgrades

Reduces TFTP CPU load during upgrade

QUESTION 19

In a SIP REFER-based call transfer, which SIP message is being used by the recipient to notify the originator that the final recipient was successfully contacted?

- A. 200 OK
- B. NOTIFY with a message body of 200 OK
- C. 202 Accepted
- D. 100 Trying
- E. 200 BYE

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

The Refer method always begins within the context of an existing call and starts with the originator. The originator sends a Refer request to the recipient (user agent receiving the Refer request) to initiate a triggered Invite request. The triggered Invite request uses the SIP URL contained in the Refer-To header as the destination of the Invite request. The recipient then contacts the resource in the Refer-To header (final-recipient), and returns a SIP 202 (Accepted) response to the originator. The recipient also must notify the originator of the outcome of the Refer transaction--whether the final-recipient

was successfully or unsuccessfully contacted. The notification is accomplished using the Notify Method, SIP's event notification mechanism. A Notify message with a message body of SIP 200 OK indicates a successful transfer, while a body of SIP 503 Service Unavailable indicates an unsuccessful transfer. If the call was successful, a call between the recipient and the final-recipient results.

QUESTION 20

Refer to the exhibit.

```
Call-Info: <sip: address>; method="NOTIFY;Event=telephone-event;Duration=msec"
```

Which DTMF relay method is advertised when the originating SIP gateway sends an INVITE message with a Call-Info header shown?

- A. RFC 2833
- B. SIP INFO
- C. SIP NOTIFY
- D. SIP KPML
- E. In-band audio

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

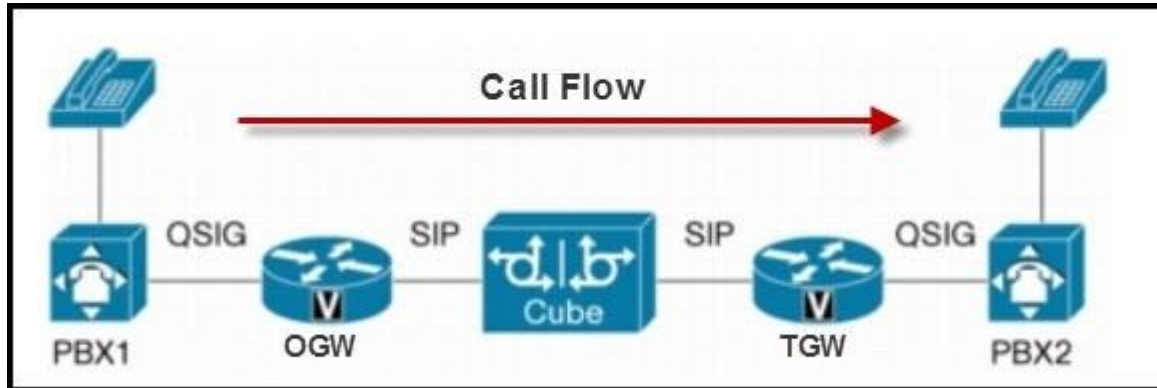
Explanation/Reference:

Explanation:

You can develop user-specific applications that reside on your network entity and have the ability to subscribe for event services supported by the IMG. If the network entity wants the ability to detect an entered DTMF digit (only telephone event of "###" are currently supported) from the TDM-side of a call to the IP side of a call, the entity can subscribe to the IMG for these events and receive SIP NOTIFY events containing the digit event.

QUESTION 21

Refer to the exhibit.



Which SIP message header is used to tunnel QSIG messages across the SIP network when the OGW receives a call bound for the TGW?

- A. Content-Type: application/sdp
- B. Content-Type: application/qsig
- C. Content-Type: message/ISUP
- D. Content-Type: message/external-body
- E. Content-Type: application/x-q931

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Tunneling over SIP

The Cisco gateway receives QSIG messages from the PBX side and then identifies the destination of the message (or call). The QSIG messages received from the PBX are encapsulated within SIP messages as Multipurpose Internet Mail Extensions (MIME) bodies and are sent (tunneled) across the IP network to the recipient gateway. When encapsulating a QSIG message (for switch type primary-qsig) inside a SIP message, Cisco gateways include the QSIG message in a MIME body of the SIP request or response using media type

application/QSIG:

Content-Type: application/QSIG

Reference:

http://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/empowered-branch-solution/white_paper_c11_459092.html

QUESTION 22

Which procedure uses H.225 messages to exchange H.245 Master-Slave Determination information?

- A. H.323 Fast Connect
- B. H.245 tunneling
- C. H.225 tunneling
- D. H.323 early media
- E. H.245 terminal capability set

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

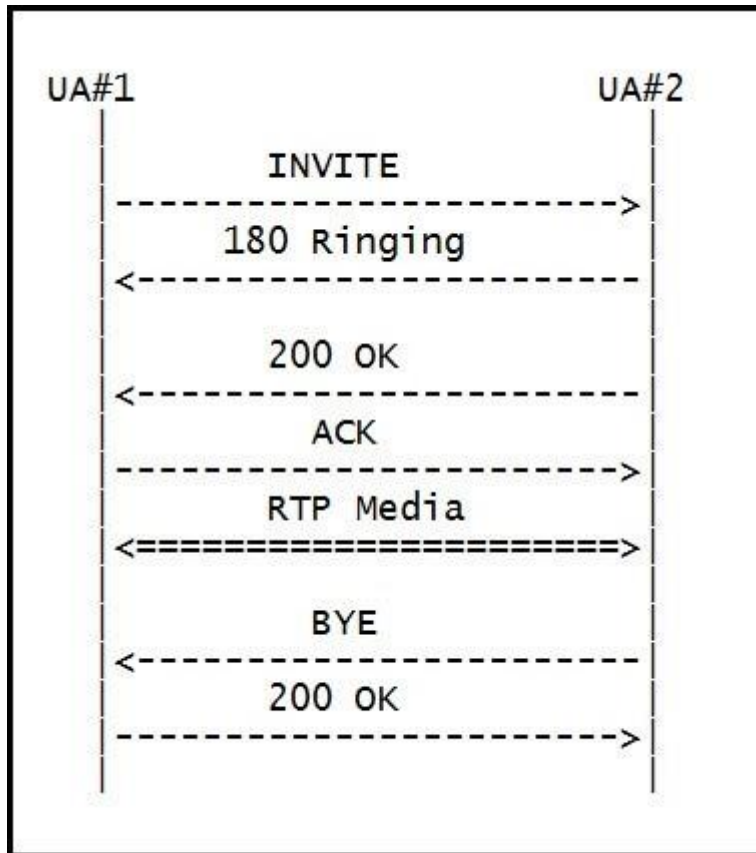
Explanation/Reference:

Explanation:

The H.245 protocol is a media control protocol that is a part of H.323 protocol suite. The H.245 protocol is used primarily to negotiate master-slave relationship between communicating endpoints. These endpoints exchange terminal capabilities and logical channel manipulations (open, close, modify). The H.245 messages can be encapsulated and carried between H.225 controlled endpoints within H.225 messages. This way of "piggy-backing" an H.245 message to H.225 message is referred to as H245 Tunneling. The H.245 Tunneling method is optional and negotiable between communicating H.323 endpoints. If both endpoints support this option, usually the H.245 Media Controlled messages are exchanged via the Tunneling method.

QUESTION 23

Refer to the exhibit.



How many SIP signaling transaction(s) took place in this SIP message exchange between two SIP user agents?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5
- F. 6

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

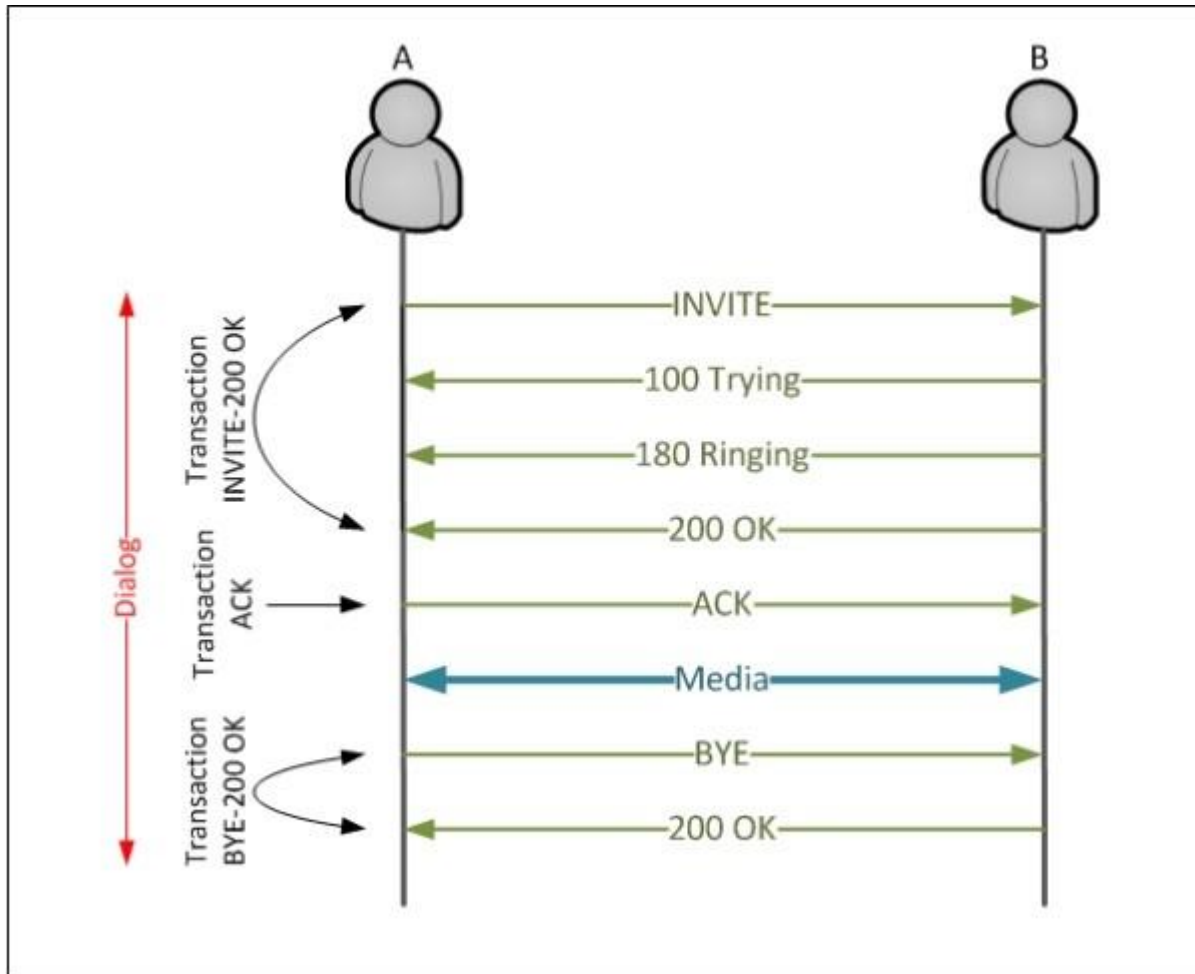
Explanation/Reference:

Explanation:

During the establishment, maintenance and termination of a SIP session, signaling messages are exchanged between the two SIP endpoints. There are two different kinds of signaling "conversations" that those messages take part in: transactions and dialogs.

A transaction is a SIP message exchange between two user-agents that starts with a request and ends with its final response (it can also contain zero or more provisional responses in between). For example, during the termination of a SIP session, one user releases the call by sending a BYE request and the other party replies back with a 200 OK response. This message exchange is called a transaction. But what happens in the case of the INVITE request? The establishment of a SIP session starts basically with an INVITE request and is considered as completed upon the receipt of the ACK. In this case, the transaction starts with the INVITE request and ends with the 200 OK, so the ACK is not part of the transaction. The ACK can be considered as a transaction on its own. However, when the final response to an INVITE is not a 2xx response, then the ACK is considered as part of the transaction. A dialog is a complete exchange of SIP messages between two user-agents. That means that transactions are actually parts of a dialog. For example, in the case of a SIP session establishment, a dialog starts with the INVITE-200 OK transaction, continues with the ACK and ends with the BYE-200 OK transaction.

The picture below depicts the dialog and transactions that take place during the establishment of a SIP session:

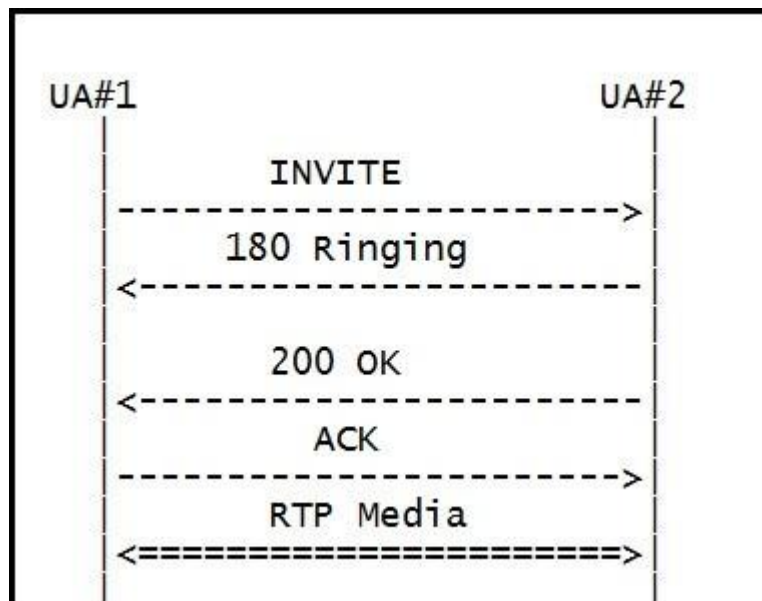


Note: There can also be subsequent requests that belong to the same dialog, such as a BYE or a re-INVITE message. As out-of-dialog requests are considered messages such as an initial INVITE request for a new session or an OPTIONS message for checking capabilities. There are different SIP headers/parameters that identify the dialogs and transactions, and they will be analyzed in later posts.

Reference: <https://telconotes.wordpress.com/2013/03/13/sip-transactions-vs-dialogs/>

QUESTION 24

Refer to the exhibit.



If this SIP call is initiated using delayed offer, which SIP message will UA#1 use to communicate its media capability to UA#2?

- A. INVITE
- B. 180 Ringing
- C. 200 OK
- D. ACK
- E. RTP Media

Correct Answer: D

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

In the Delayed Offer process, the calling does not send its offer in the SIP INVITE Message. The callee sends the offer within the SDP fields of its answer (SIP 200 OK). The calling answers within the ACK message.

QUESTION 25

Which statement about G.722.1 codec support on Cisco Unified Communications Manager is true?

- A. It is always preferred by Cisco Unified Communications Manager over G.711.
- B. It is a high-complexity wideband codec.
- C. It operates at bit rates of 15.2 and 13.3 kb/s.
- D. It is supported for SIP and SCCP devices.
- E. It is supported for SIP and H.323 devices.

Correct Answer: E

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

G.722.1 is a low-complexity wideband codec operating at 24 and 32 kb/s. The audio quality approaches that of G.722 while using at most half the bit rate. As it is optimized for both speech and music, G.722.1 has slightly lower speech quality than the speech-optimized iSAC codec. G.722.1 is supported for SIP and H.323 devices.

QUESTION 26

Which two statements describe characteristics of Binary Floor Control Protocol? (Choose two.)

- A. Its binary encoding is designed to work in high-bandwidth environments.
- B. It is designed for audio or video conference sessions of three or more participants.
- C. It enables management of shared content resources independent of video streams.
- D. It supports TLS-based authentication.
- E. It supports SIP as well as H.323.

Correct Answer: CD

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

BFCP is a deliverable developed as part of the Internet Engineering Task Force (IETF) XCON Centralized Conferencing working group. The IETF XCON working group was formed to focus on delivering a standards-based approach to managing IP conferencing while promoting broad interoperability between software and equipment vendors.

QUESTION 27

Which SIP response is considered a final response?

- A. 183 Session in Progress
- B. 199 Early Dialog Terminated
- C. 200 OK
- D. 180 Ringing
- E. 100 Trying

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

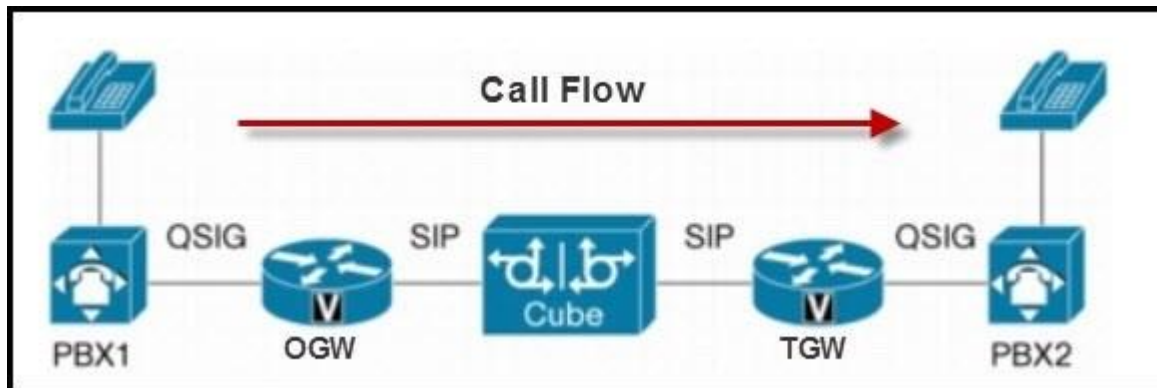
Explanation/Reference:

Explanation:

200 OK Indicates the request was successful. Whether other options state the request is still in progress or request is initiated.

QUESTION 28

Refer to the exhibit.



Which SIP response message should the TGW send if it cannot process the tunneled QSIG messages from the OGW?

- A. 405 Method Not Allowed
- B. 406 Not Acceptable
- C. 412 Conditional Request Failed
- D. 415 Unsupported Media Type
- E. 485 Ambiguous

Correct Answer: D

Section: Section 2: Telephony Standards & Protocols
Explanation

Explanation/Reference:
Explanation:

Fallback from QSIG Tunneling

In some situations, QSIG tunneling will fail or need to fall back:

- Remote party does not support multipart MIME body: In this case, the remote side sends a "415 Media Not Supported" response. Upon receiving this response, OGW will fall back to normal mode and send an INVITE request without any tunneled content. This procedure helps ensure that at least the basic call will work normally.
- Remote party does not understand tunneled content: If the remote side does not support the tunneled content, it should drop the tunneled content and continue as a normal call; because all essential parameters are present in the original INVITE, the call can go through without the need for fallback.

Reference: http://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/empowered-branch-solution/white_paper_c11_459092.html

QUESTION 29

Which two data frame lengths are supported by iLBC? (Choose two.)

- A. 10 milliseconds
- B. 20 milliseconds
- C. 30 milliseconds
- D. 40 milliseconds
- E. 50 milliseconds
- F. 60 milliseconds

Correct Answer: BC

Section: Section 2: Telephony Standards & Protocols
Explanation

Explanation/Reference:
Explanation:

iLBC-Internet Low Bit Rate Codec (iLBC) provides audio quality between that of G.711 and G.729 at bit rates of 15.2 and 13.3 kb/s, while allowing for graceful speech quality degradation in a lossy network due to the speech frames being encoded independently. By comparison, G.729 does not handle packet loss, delay, and jitter well, due to the dependence between speech frames. iLBC is supported for SIP, SCCP, H323, and MGCP devices.

QUESTION 30

Which two SCCP call signaling messages are sent by an IP phone to Cisco Unified Communications Manager? (Choose two.)

- A. SoftKeyEvent

- B. OpenReceiveChannelAck
- C. StartMediaTransmission
- D. SelectSoftKeys
- E. CloseReceiveChannel
- F. StopTone

Correct Answer: AB

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

This message indicates which soft key was pressed. Upon receipt of this message, CallManager invokes the action associated with the pressed soft key. For example, if Hold was the pressed soft key, CallManager places the active call on user hold. In some trace files you might see a soft key number without the corresponding description. The following list defines each soft key number.

QUESTION 31

How are DTMF digits transported in RFC 2833?

- A. In the RTP stream with the named telephone events payload format.
- B. In the RTP stream with the regular audio payload format.
- C. In SIP NOTIFY messages.
- D. In SIP INFO messages.
- E. In SIP SUBSCRIBE messages.

Correct Answer: A

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

DTMF digits and named telephone events are carried as part of the audio stream, and MUST use the same sequence number and time-stamp base as the regular audio channel to simplify the generation of audio waveforms at a gateway. The default clock frequency is 8,000 Hz, but the clock frequency can be redefined when assigning the dynamic payload type.

QUESTION 32

Refer to the exhibit.

```
Jan 19 17:02:49.998: MGCP Packet received from 10.1.1.1:2427--->  
CRCX 83 S0/SU1/DS1-0/2@Router1.CiscoCustomer.com MGCP 0.1  
C: D0000000027aef6f000001F500000003  
X: 17  
L: p:20, a:PCMU, s:off, t:b8, fxr/fx:t38  
M: recvnly  
R: D/[0-9ABCD*#]  
Q: process,loop
```

You received this debug output to troubleshoot a Cisco IOS MGCP gateway problem at a customer site. Which statement about this endpoint on the Cisco MGCP gateway is true?

- A. This endpoint is on a T1 Controller 0/1/0.
- B. This endpoint is on an E1 Controller 0/1/0.
- C. This endpoint is on a T1 Controller 0/1/1.
- D. This endpoint is on an E1 Controller 0/1/2.
- E. This endpoint is on an T1 Controller 0/1/2.

Correct Answer: A

Section: Section 2: Telephony Standards & Protocols

Explanation

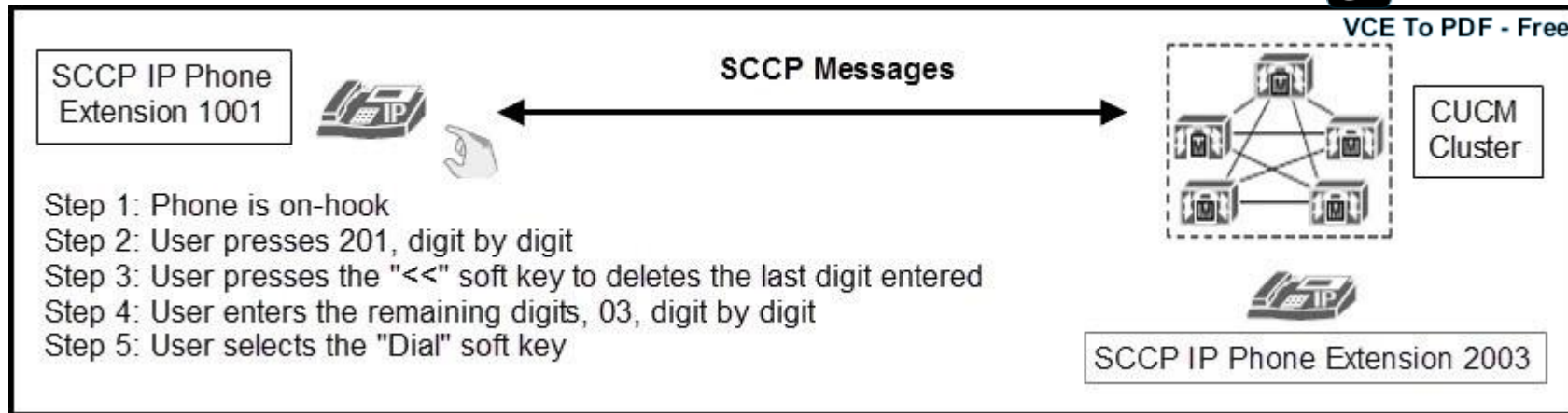
Explanation/Reference:

Explanation:

The s0/Su1/DS1-0 refers to the slot and port information (0/1/0). It is also a DS1 as shown by this output, which means it is a T1 not an E1.

QUESTION 33

Refer to the exhibit.



A user is going through a series of dialing steps on an SCCP IP phone (extension 1001) to call another SCCP IP phone (extension 2003). Both phones are registered to the same Cisco Unified Communications Manager cluster. Which user inputs are sent from the calling IP phone to the Cisco Unified Communications Manager, in forms of SCCP messages, after the user pressed the Dial softkey? Note that the commas in answer choices below are logical separators, not part of the actual user input or SCCP messages.

- A. A separate SCCP message is sent to Cisco Unified Communications Manager for each of the following user inputs: 2, 0, 0, 3.
- B. A separate SCCP message is sent to Cisco Unified Communications Manager for each of the following user inputs: 2, 0, 1, <<, 0, 3.
- C. A single SCCP message is sent to Cisco Unified Communications Manager to report that digits 2003 have been dialed.
- D. A single SCCP message is sent to Cisco Unified Communications Manager to report that digits 201<<03 have been dialed.
- E. A separate SCCP message is sent to Cisco Unified Communications Manager for each of the following user inputs: 2, 0, 1, <<, 2, 0, 0, 3.

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

After the user delete phone stop the digit by digit dialing and send it as a whole setup.

QUESTION 34

Which two VoIP protocols use SDP to describe streaming media sessions? (Choose two.)

- A. SCCP
- B. H.323
- C. SIP

- D. MGCP
- E. RAS
- F. cRTP

Correct Answer: CD

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

The Session Description Protocol (SDP), defined in RFC 2327, describes the content of sessions, including telephony, Internet radio, and multimedia applications. SDP includes information about [8]:

-

Media streams: A session can include multiple streams of differing content. SDP currently defines audio, video, data, control, and application as stream types, similar to the MIME types used for Internet mail.

-

Addresses: SDP indicates the destination addresses, which may be a multicast address, for a media stream.

-

Ports: For each stream, the UDP port numbers for sending and receiving are specified.

-

Payload types: For each media stream type in use (for example, telephony), the payload type indicates the media formats that can be used during the session.

-

Start and stop times: These apply to broadcast sessions, for example, a television or radio program. The start, stop, and repeat times of the session are indicated.

-

Originator: For broadcast sessions, the originator is specified, with contact information. This may be useful if a receiver encounters technical difficulties.

QUESTION 35

Which ITU-T recommendation defines the procedures for using more than one video channel in H.320-based systems?

- A. H.324

- B. H.230
- C. H.239
- D. H.264
- E. H.329

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

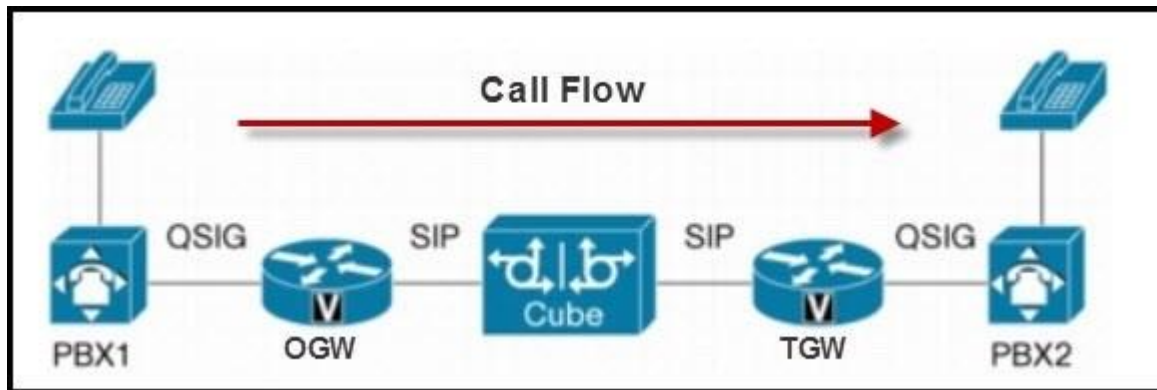
Explanation/Reference:

Explanation:

H.239 is the ITU standard for a second video channel; this is supported by all the major vendors, and is the only content channel standard supported by Cisco acquired Codian products or Cisco TelePresence Serial Gateway Series products on H.323 video calls. Cisco acquired Codian products need to be configured to enable H.239. Any H.323 endpoint that also supports the H.239 protocol can source this channel, as can a VNC connection, though some endpoints need to be configured to use H.239 instead of their proprietary solution.

QUESTION 36

Refer to the exhibit.



During a QSIG tunneling over SIP call establishment, which two types of SIP messages can the OGW use to tunnel a waiting QSIG message? (Choose two.)

- A. SIP re-INVITE
- B. SIP NOTIFY
- C. SIP INFO
- D. SIP OPTIONS

- E. SIP UPDATE
- F. SIP REFER

Correct Answer: AE

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

The TGW sends and the OGW receives a 200 OK response--the OGW sends an ACK message to the TGW and all successive messages during the session are encapsulated into the body of SIP INFO request messages. There are two exceptions:

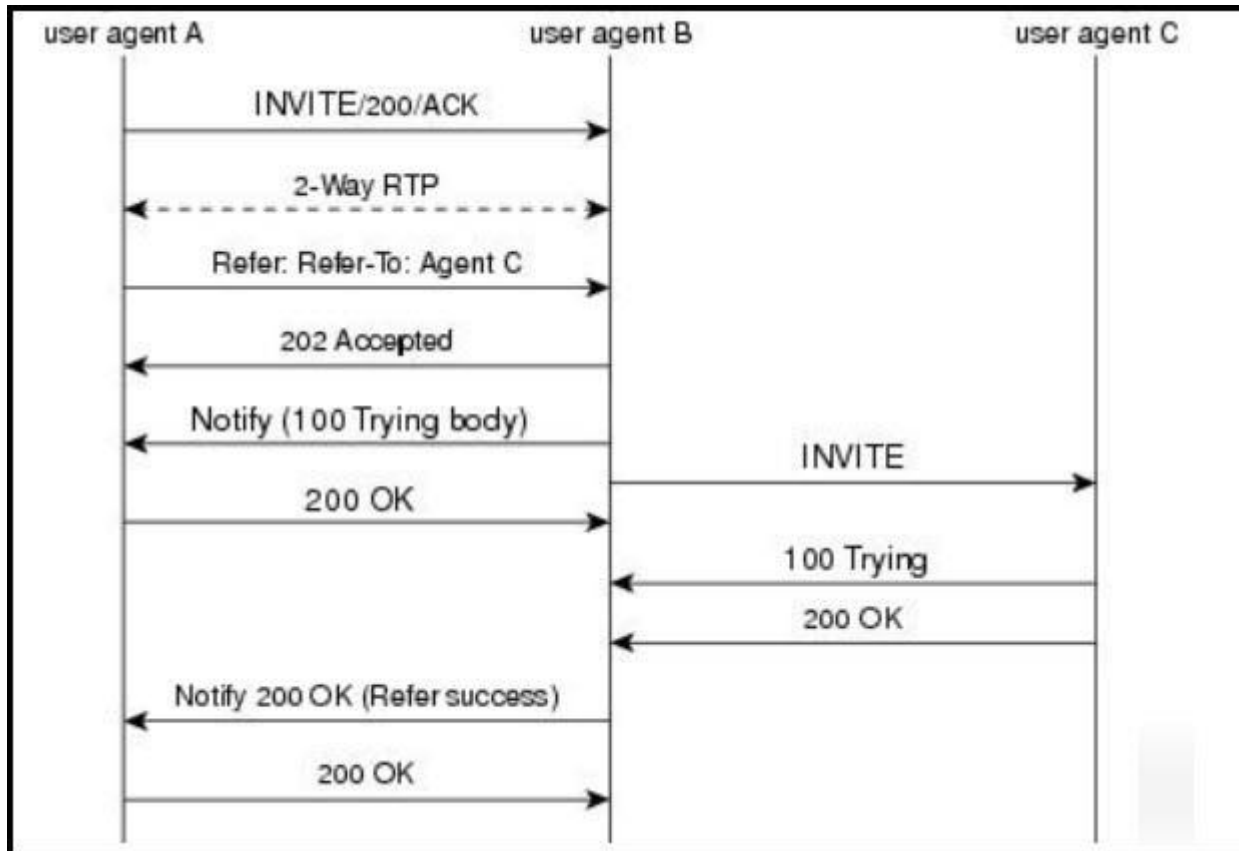
When a SIP connection requires an extended handshake process, renegotiation, or an update, the gateway may encapsulate a waiting QSIG message into a SIP re-INVITE or SIP UPDATE message during QSIG call establishment.

When the session is terminated, gateways send a SIP BYE message. If the session is terminated by notice of a QSIG RELEASE COMPLETE message, that message can be encapsulated into the SIP BYE message.

Reference: <http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/sip/configuration/15-mt/sip-config-15-mt-book/voi-sip-tdm.html>

QUESTION 37

Refer to the exhibit.



Which user agent has the recipient role in this SIP REFER call transfer?

- A. user agent A
- B. user agent B
- C. user agent C
- D. user agent B and C
- E. user agent A and B

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

The Refer method has three main roles:

- Originator--User agent that initiates the transfer or Refer request.
- Recipient--User agent that receives the Refer request and is transferred to the final-recipient.
- Final-Recipient--User agent introduced into a call with the recipient.

Reference: http://www.cisco.com/c/en/us/td/docs/ios_xr_sw/iosxr_r3-4/sbc/configuration/guide/sbc_c34/sbc34stx.pdf

QUESTION 38

Which SIP request method enables reliability of SIP 1xx response types?

- A. ACK
- B. PRACK
- C. OPTIONS
- D. CANCEL
- E. REGISTER

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

In order to achieve reliability for provisional responses, we do nearly the same thing. Reliable provisional responses are retransmitted by the TU with an exponentialbackoff. Those retransmissions cease when a PRACK message is received. The PRACK request plays the same role as ACK, but for provisional responses. There is an important difference, however. PRACK is a normal SIP message, like BYE. As such, its own

QUESTION 39

To which SIP response class do the SIP response codes 300 to 399 belong?

- A. Provisional
- B. Client Failure
- C. Server Failure
- D. Successful
- E. Redirection

Correct Answer: E

Section: Section 2: Telephony Standards & Protocols

Explanation

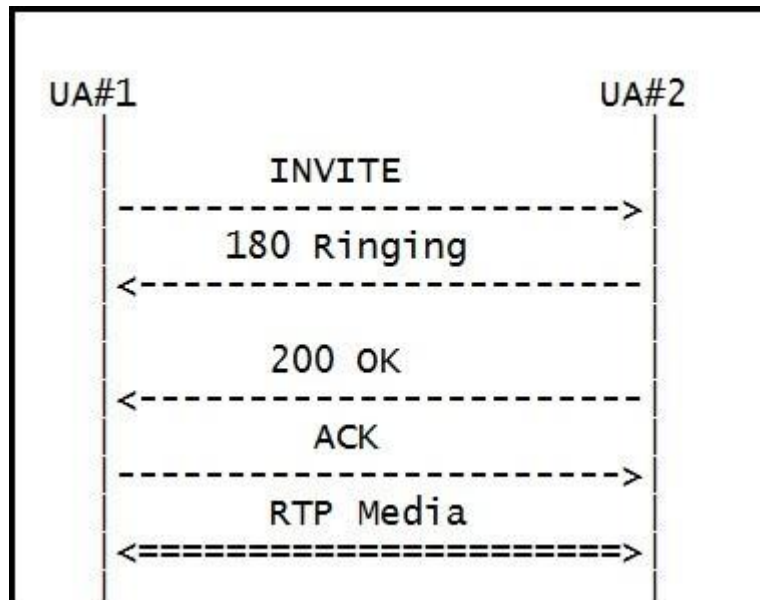
Explanation/Reference:

Explanation:

Redirection -- further action needs to be taken in order to complete the request. That is what this class implies.

QUESTION 40

Refer to the exhibit.



If this SIP call is initiated using delayed offer, which SIP message will UA#2 use to communicate its media capability to UA#1?

- A. INVITE
- B. 180 Ringing
- C. 200 OK
- D. ACK
- E. RTP Media

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

200 OK Indicates the request was successful.

QUESTION 41

Which two responses are examples of client error responses in SIP protocol? (Choose two.)

- A. 302 Moved Temporarily
- B. 404 Not Found
- C. 503 Service Unavailable
- D. 502 Bad Gateway
- E. 604 Does Not Exist Anywhere
- F. 408 Request Timeout

Correct Answer: BF

Section: Section 2: Telephony Standards & Protocols

Explanation

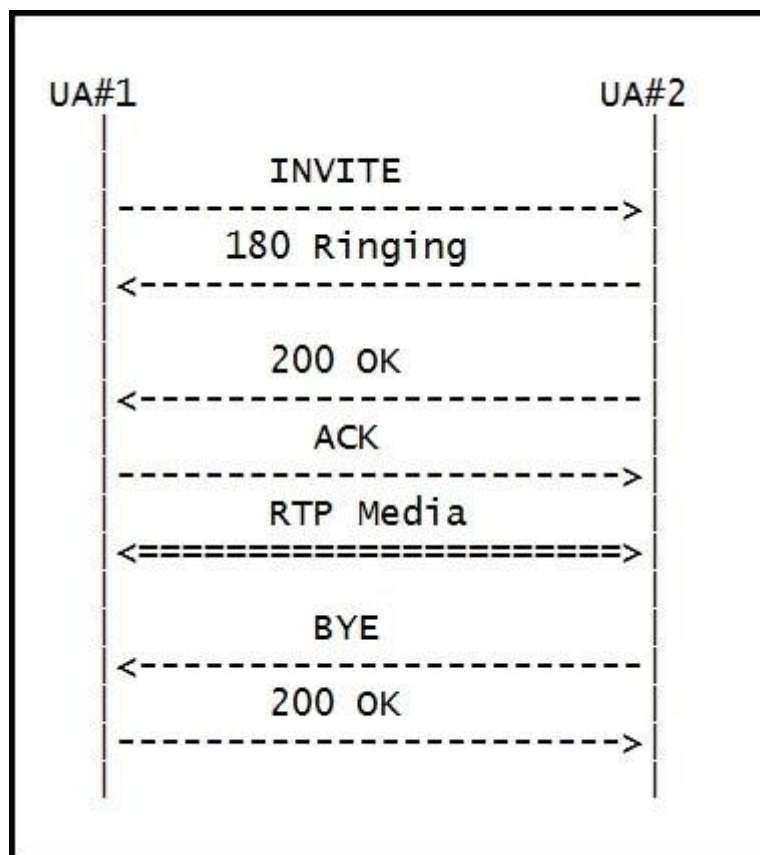
Explanation/Reference:

Explanation:

Client Error (400 to 499)--Request contains bad syntax or cannot be fulfilled at this server. This class of 400 to 499 contains only error messages.

QUESTION 42

Refer to the exhibit.



How many SIP signaling dialog(s) took place in this SIP message exchange between two SIP user agents?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5
- F. 6

Correct Answer: A

Section: Section 2: Telephony Standards & Protocols

Explanation

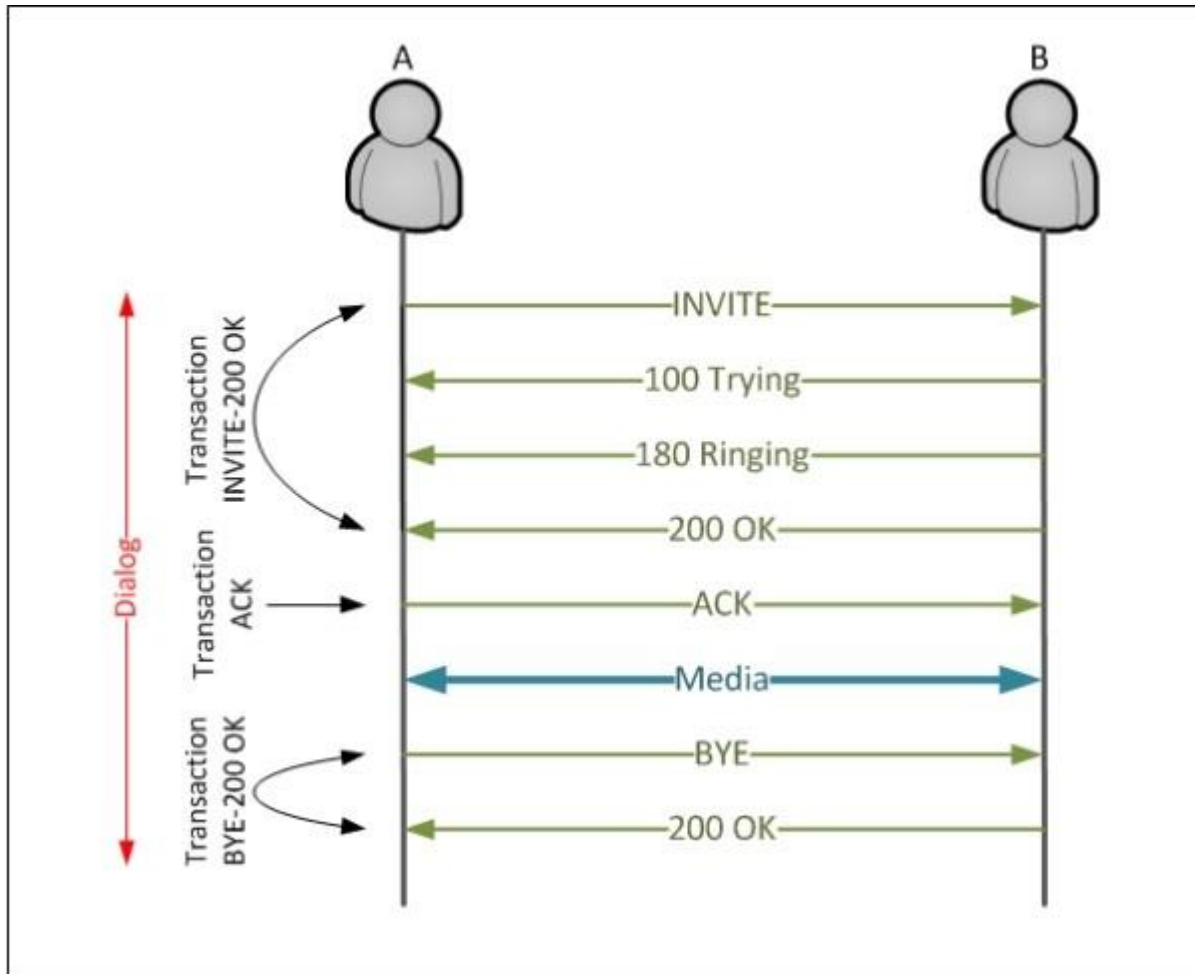
Explanation/Reference:

Explanation:

During the establishment, maintenance and termination of a SIP session, signaling messages are exchanged between the two SIP endpoints. There are two different kinds of signaling "conversations" that those messages take part in: transactions and dialogs.

A transaction is a SIP message exchange between two user-agents that starts with a request and ends with its final response (it can also contain zero or more provisional responses in between). For example, during the termination of a SIP session, one user releases the call by sending a BYE request and the other party replies back with a 200 OK response. This message exchange is called a transaction. But what happens in the case of the INVITE request? The establishment of a SIP session starts basically with an INVITE request and is considered as completed upon the receipt of the ACK. In this case, the transaction starts with the INVITE request and ends with the 200 OK, so the ACK is not part of the transaction. The ACK can be considered as a transaction on its own. However, when the final response to an INVITE is not a 2xx response, then the ACK is considered as part of the transaction. A dialog is a complete exchange of SIP messages between two user-agents. That means that transactions are actually parts of a dialog. For example, in the case of a SIP session establishment, a dialog starts with the INVITE-200 OK transaction, continues with the ACK and ends with the BYE-200 OK transaction.

The picture below depicts the dialog and transactions that take place during the establishment of a SIP session:



Note: There can also be subsequent requests that belong to the same dialog, such as a BYE or a re-INVITE message. As out-of-dialog requests are considered messages such as an initial INVITE request for a new session or an OPTIONS message for checking capabilities. There are different SIP headers/parameters that identify the dialogs and transactions, and they will be analyzed in later posts.

Reference: <https://telconotes.wordpress.com/2013/03/13/sip-transactions-vs-dialogs/>

QUESTION 43

Which two compression formats for high-definition video have technical content that is identical to H.264? (Choose two.)

- A. MPEG-4 Part 10
- B. MPEG-4 Part 14
- C. MPEG-2 Part 7
- D. AVC
- E. VC3
- F. VP8

Correct Answer: AD

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

MPEG-4 Part 10, also known as MPEG-4 AVC (Advanced Video Coding), is actually defined in an identical pair of standards maintained by different organizations, together known as the Joint Video Team (JVT). While MPEG-4 Part 10 is a ISO/IEC standard, it was developed in cooperation with the ITU, an organization heavily involved in broadcast television standards. Since the ITU designation for the standard is H.264, you may see MPEG-4 Part 10 video referred to as either AVC or H.264. Both are valid, and refer to the same standard.

QUESTION 44

When a Cisco IOS gatekeeper receives an ARQ from a registered endpoint, what is the first step it will take in an attempt to resolve the destination address?

- A. Check to see if the destination address is locally registered.
- B. Check to see if the destination address matches the technology prefix.
- C. Check to see if the destination address matches the local zone prefix.
- D. Check to see if the destination address matches the remote zone prefix.
- E. Check to see if the destination address matches the default technology prefix.

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Admission Request (ARQ) and Location Request (LRQ) are the two H.225 Registration, Admission, Status (RAS) messages that trigger a gatekeeper to initiate the call routing decision process.

ARQ--Local zone messages that are sent by H.323 endpoints (usually gateways) to the Cisco gatekeeper. Gatekeepers receive ARQs from an endpoint if.

QUESTION 45

Refer to the exhibit.

```
Jul 31 18:12:16.640: MGCP Packet sent to 10.1.1.1:2427--->  
200 108 OK  
I: 2
```

```
v=0  
c=IN IP4 10.1.1.254  
m=audio 18630 RTP/AVP 0 100  
a=rtpmap:100 X-NSE/8000  
a=fmtp:100 192-194,200-202  
a=X-sqn:0  
a=X-cap: 1 audio RTP/AVP 100  
a=X-cpar: a=rtpmap:100 X-NSE/8000  
a=X-cpar: a=fmtp:100 192-194,200-202  
a=X-cap: 2 image udpt1 t38
```

You received this debug output to troubleshoot a Cisco IOS MGCP gateway media-related problem at a customer site. What is the purpose of this message?

- A. The MGCP gateway is responding to an RQNT message from Cisco Unified Communications Manager to poll the media capabilities on its endpoints.
- B. The MGCP gateway is responding to an AUPE message from Cisco Unified Communications Manager to poll the media capabilities on its endpoints.
- C. The MGCP gateway is responding to an AUCX message from Cisco Unified Communications Manager to poll the active calls on its endpoints.
- D. The MGCP gateway is responding to an MDCX message from Cisco Unified Communications Manager during a call setup.
- E. The MGCP gateway is responding to a CRCX message from Cisco Unified Communications Manager during a call setup.

Correct Answer: E

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

QUESTION 46

To which SIP response category does 301 Moved Permanently belong?

- A. Provisional
- B. Successful
- C. Redirection
- D. Client Failure
- E. Server Failure

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

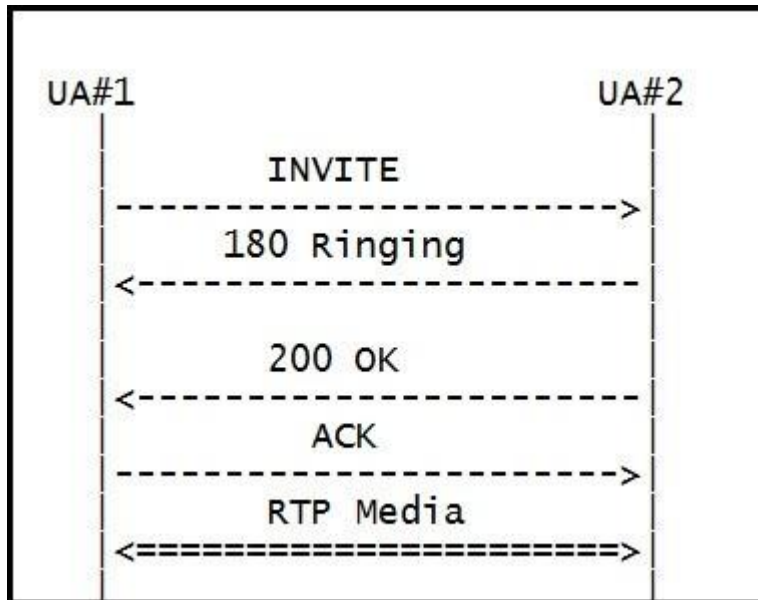
Explanation/Reference:

Explanation:

The 301 response from the Web server should always include an alternative URL to which redirection should occur. If it does, a Web browser will immediately retry the alternative URL. So you never actually see a 301 error in a Web browser, unless perhaps you have a corrupt redirection chain e.g. URL A redirects to URL B which in turn redirects back to URL A. If your client is not a Web browser, it should behave in the same way as a Web browser i.e. immediately retry the alternative URL.

QUESTION 47

Refer to the exhibit.



If this SIP call is initiated using early offer, which SIP message will UA#2 use to communicate its media capability to UA#1?

- A. INVITE
- B. 180 Ringing
- C. 200 OK
- D. ACK
- E. RTP Media

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

In Early offer, SIP Send SDP in the invite, the other node will send the SDP in the 200 message.

QUESTION 48

What is the minimum number of TCP sessions needed to complete a H.323 call between two H.323 gateways using slow start?

- A. 0

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

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

H.323 has two modes of operation: slow start and fast start. The initiation of a call may proceed in a slow start or fast start in H.323. In a slow start, H.323 signaling consists of Setup, Call Proceeding, Alerting, and Connect steps. After these steps, the H.245 media negotiation is performed. When a call is initiated in H.323 fast start, the H.245 media negotiation is performed within the initial Setup message. With slow start, multiple TCP connections are needed for an H.323 call, such as one H.225 signaling channel and one H.245 signaling channel if required (minimum of these two).

QUESTION 49

Which H.245 information is exchanged within H.225 messages in H.323 Fast Connect?

- A. Terminal Capability Set
- B. Open Logical Channel
- C. Master-Slave Determination
- D. Call Setup
- E. Call Progress

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

With the standard H.245 negotiation, the two endpoints need three round-trips before they agree on the parameters of the audio/video channels (1. master/slave voting, 2. terminal capability set exchange, and finally, 3. opening the logical channels). In certain situations and especially with high-latency network links, this can last too long and users will notice the delay.

QUESTION 50

When a Cisco IOS gatekeeper receives an LRQ, what is the first step it will take in an attempt to resolve the destination address?

- A. Check to see if the LRQ reject-unknown-prefix flag is set.

- B. Check to see if the destination address matches the technology prefix.
- C. Check to see if the destination address matches the hop-off technology prefix.
- D. Check to see if the destination address matches the remote zone prefix.
- E. Check to see if the LRQ forward-queries flag is set.

Correct Answer: B

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

LRQ -- These messages are exchanged between gatekeepers and are used for inter-zone (remote zone) calls. For example, gatekeeper A receives an ARQ from a local zone gateway requesting call admission for a remote zone device. Gatekeeper A then sends an LRQ message to gatekeeper B. Gatekeeper B replies to the LRQ message with either a Location Confirm (LCF) or Location Reject (LRJ) message, which depends on whether it is configured to admit or reject the inter-zone call request and whether the requested resource is registered.

QUESTION 51

What is the name of the logical channel proposal that is transmitted from the called entity to the calling entity in H.323 Fast Connect?

- A. Forward Logical Channel
- B. Backward Logical Channel
- C. Reverse Logical Channel
- D. Originator Logical Channel
- E. Destination Logical Channel

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Unlike the OpenLogicalChannel request used by H.323 for video uni-directional logical channels, the request used by H.324 for opening video bi-directional logical channels specifies the temporalSpatialTradeOff Capability in both the forward and reverse directions--in the forwardLogicalChannelParameters.dataType and reverseLogicalChannelParameters.dataType components, respectively. The semantics of temporalSpatialTradeOffCapability used in forward LogicalChannelParameters.dataType is described in the previous section. The semantics for its presence in the reverse direction is described in this section.

QUESTION 52

Refer to the exhibit.

```
Jul 31 17:51:25.676: MGCP Packet sent to 10.1.1.1:2427--->
200 96
I:
X: 0
L: p:10-20, a:PCMU;PCMA;G.nX64, b:64, e:on, gc:1, s:on, t:10, r:g, nt:IN;
  ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:10-220, a:G.729;G.729a;G.729b, b:8, e:on, gc:1, s:on, t:10, r:g, nt:IN;
  ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:10-110, a:G.726-16;G.728, b:16, e:on, gc:1, s:on, t:10, r:g, nt:IN;
  ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:10-70, a:G.726-24, b:24, e:on, gc:1, s:on, t:10, r:g, nt:IN;
  ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:10-50, a:G.726-32, b:32, e:on, gc:1, s:on, t:10, r:g, nt:IN;
  ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:30-270, a:G.723.1-H;G.723;G.723.1a-H, b:6, e:on, gc:1, s:on, t:10,
  r:g, nt:IN;ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
L: p:30-330, a:G.723.1-L;G.723.1a-L, b:5, e:on, gc:1, s:on, t:10,
  r:g, nt:IN;ATM;LOCAL, v:T;G;D;L;H;R;ATM;SST;FXR;PRE
M: sendonly, recvonly, sendrecv, inactive, loopback, contest, data, netwloop,
  netwtest
```

You received this debug output to troubleshoot a Cisco IOS MGCP gateway problem at a customer site. What is the purpose of this message?

- A. The MGCP gateway uses this message to respond to an RQNT message from Cisco Unified Communications Manager.
- B. The MGCP gateway uses this message to respond to an AUCX message from Cisco Unified Communications Manager.
- C. The MGCP gateway uses this message to respond to an AUEP message from Cisco Unified Communications Manager.
- D. The MGCP gateway uses this message to respond to a DLCX message from Cisco Unified Communications Manager.
- E. The MGCP gateway uses this message to respond to an NTFY message from Cisco Unified Communications Manager.

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

This message requests the status of an endpoint. Information that can be audited with this includes Requested Events, DigitMap, SignalRequests, RequestIdentifier, QuarantineHandling, Notified Entity, Connection Identifiers, Detect Events, Observed Events, Event States, Bearer Information, Restart Method, Restart Delay, ReasonCode, PackageList, Max MGCP Datagram, and Capabilities. The response will

include information about each of the items for which auditing info was requested.

QUESTION 53

Refer to the exhibit.

```
Jul 31 18:36:33.201: MGCP Packet sent to 10.1.1.1:2427--->  
250 125 OK  
P: PS=76, OS=12160, PR=75, OR=12000, PL=0, JI=7, LA=0
```

You received this debug output to troubleshoot a Cisco IOS MGCP gateway media-related problem at a customer site. What is the purpose of this message?

- A. The MGCP gateway is responding to an RQNT message from Cisco Unified Communications Manager to poll the media capabilities on its endpoints.
- B. The MGCP gateway is responding to an AUEP message from Cisco Unified Communications Manager to poll the media capabilities on its endpoints.
- C. The MGCP gateway is responding to an AUCX message from Cisco Unified Communications Manager to poll the active calls on its endpoints.
- D. The MGCP gateway is responding to an MDCX message from Cisco Unified Communications Manager during a call setup.
- E. The MGCP gateway is responding to a CRCX message from Cisco Unified Communications Manager during a call setup.

Correct Answer: D

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

See MGCP packet debugging examples and their meanings at the Reference link below.

Reference: Sample of Debug MGCP Packets

<http://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-communications-manager-callmanager/42104-debug-mgcp.html>

QUESTION 54

Which two SCCP call signaling messages are initiated by Cisco Unified Communications Manager to an IP phone? (Choose two.)

- A. SoftKeyEvent

- B. CloseReceiveChannelAck
- C. CallState
- D. KeypadButton
- E. OpenReceiveChannel
- F. Offhook

Correct Answer: CE

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Upon receiving an OpenReceiveChannelmessage, the IP phone selects the UDP port number it wants to use to receive RTP packets and reports this information to call manager.

With the SCCP protocol architecture, the majority of the H.323 processing power resides in an H.323 proxy -- the Cisco CallManager. The end stations (IP phones) run the Skinny client, which consumes less processing overhead. The client communicates with CallManager using connection-oriented (TCP/IP-based) communication to establish a call with another H.323-compliant end station. Once Cisco CallManager has established the call, the two H.323 end stations use connectionless (UDP/IP-based) communication for audio transmissions.

QUESTION 55

Which RAS message is used between two gatekeepers to resolve an alias address?

- A. GRQ
- B. ARQ
- C. IRQ
- D. LRQ
- E. RRQ

Correct Answer: D

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

LRQ -- These messages are exchanged between gatekeepers and are used for inter-zone (remote zone) calls. For example, gatekeeper A receives an ARQ from a local zone gateway requesting call admission for a remote zone device. Gatekeeper A then sends an LRQ message to gatekeeper B. Gatekeeper B replies to the LRQ message with either a Location Confirm (LCF) or Location Reject (LRJ) message, which depends on whether it is configured to admit or reject the inter-zone call request and whether the requested resource is registered.

QUESTION 56

Refer to the exhibit.

```
Jul 31 18:12:16.640: MGCP Packet sent to 10.1.1.1:2427--->
200 108 OK
I: 2

v=0
c=IN IP4 10.1.1.254
m=audio 18630 RTP/AVP 0 100
a=rtpmap:100 X-NSE/8000
a=fmtp:100 192-194,200-202
a=X-sqn:0
a=X-cap: 1 audio RTP/AVP 100
a=X-cpar: a=rtpmap:100 X-NSE/8000
a=X-cpar: a=fmtp:100 192-194,200-202
a=X-cap: 2 image udpt1 t38
```

You received this debug output to troubleshoot a Cisco IOS MGCP gateway call quality issue at a customer site. Which statement about this message is true?

- A. The MGCP gateway is responding to an RQNT message from Cisco Unified Communications Manager to poll the call statistics of an active call.
- B. The MGCP gateway is responding to an AUPE message from Cisco Unified Communications Manager to poll the call statistics of a terminating call.
- C. The MGCP gateway is responding to an MDCX message from Cisco Unified Communications Manager during a call setup.
- D. The MGCP gateway is responding to an AUCX message from Cisco Unified Communications Manager about an active call.
- E. The MGCP gateway is responding to a DLCX message from Cisco Unified Communications Manager about a terminating call.

Correct Answer: E

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

DeleteConnection -- used by a call agent to instruct a gateway to delete an existing connection. DeleteConnection can also be used by a gateway to release a connection that can no longer be sustained.

QUESTION 57

Which device is the initiator of a StationInit message in a Cisco Unified Communications Manager SDI trace?

- A. Cisco Unified Communications Manager
- B. MGCP gateway
- C. Cisco Music on Hold server
- D. SCCP IP phone
- E. SIP Proxy Server

Correct Answer: D

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Station Init means that an inbound Transmission Control Protocol (TCP) message from a Skinny station reached CallManager. A Skinny station is any endpoint that uses the Skinny protocol to communicate with CallManager.

QUESTION 58

Which two types of devices on Cisco Unified Communications Manager support iSAC? (Choose two.)

- A. MGCP
- B. SIP
- C. SCCP
- D. Music on Hold server
- E. H.323

Correct Answer: BC

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

iSAC-Internet Speech Audio Codec (iSAC) is an adaptive wideband audio codec, specially designed to deliver wideband sound quality with low delay in both low and medium-bit rate applications. Using an adaptive bit rate of between 10 and 32 kb/s, iSAC provides audio quality approaching that of G.722 while using less than half the bandwidth. In deployments with significant packet loss, delay, or jitter, such as over a WAN, iSAC audio quality is superior to that of G.722 due to its robustness. iSAC is supported for SIP and SCCP devices. The Cisco Unified Communications Manager IP Voice Media Streaming App (IPVMSApp), which includes Media Termination Point, Conference Bridge, Music on Hold Server, and Annunciator does not support

iSAC. MGCP devices are not supported.

QUESTION 59

Which two SDP content headers can be found in a SIP INVITE message? (Choose two.)

- A. Expires
- B. Contact
- C. Connection Info
- D. Media Attributes
- E. Allow
- F. CSeq

Correct Answer: CD

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Connection info is optional field in SDP whether Media attributes decide the codec and media type for that call.

QUESTION 60

Which statement about the iSAC on Cisco Unified Border Element is true?

- A. It is a narrow-band codec.
- B. It has a fixed frame of 30 milliseconds.
- C. It has an adaptive frame of up to 60 milliseconds.
- D. It is designed to deliver wideband sound quality in high-bit-rate applications only.
- E. It is not yet supported on the Cisco Unified Border Element (CUBE)
- F. It is not yet supported on Cisco Unified Border Element.

Correct Answer: C

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

iSAC-Internet Speech Audio Codec (iSAC) is an adaptive wideband audio codec, specially designed to deliver wideband sound quality with low delay in both low and medium-bit rate applications. Using an adaptive bit rate of between 10 and 32 kb/s, iSAC provides audio quality approaching that of G.722

while using less than half the bandwidth. In deployments with significant packet loss, delay, or jitter, such as over a WAN, iSAC audio quality is superior to that of G.722 due to its robustness. iSAC is supported for SIP and SCCP devices. The Cisco Unified Communications Manager IP Voice Media Streaming App (IPVMSApp), which includes Media Termination Point, Conference Bridge, Music on Hold Server, and Annunciator does not support iSAC. MGCP devices are not supported.

QUESTION 61

Which element was added to H.225 messages to enable Fast Connect in H.323 version 2?

- A. fastStart
- B. fastConnect
- C. H.245 PDU
- D. User-User Information
- E. Connection Information

Correct Answer: A

Section: Section 2: Telephony Standards & Protocols

Explanation

Explanation/Reference:

Explanation:

Fast start allows for H323 media connections to be started at the beginning of a call. This is helpful for ringback scenarios, and also reduces the amount of time calls take to establish media. H245 is still negotiated later, but the actual media can be done earlier through H225 messages.

Topic 3, Cisco Unified Communications Manager (CUCM)

QUESTION 62

A queued call has reached the maximum wait time configured for a Cisco Unified Communications Manager native call queue.

Which statement about what happens to this queued call is true?

- A. Calls are handled according to the Forward Hunt No Answer settings on the Hunt Pilot configuration page.
- B. Calls are handled according to the When Maximum Wait Time Is Met settings on the Hunt Pilot Configuration page.
- C. Calls are handled according to the When Maximum Wait Time Is Met settings in Cisco Unified Communications Manager Service Parameters.
- D. Calls are handled according to the Not Available Hunt Option settings on the Line Group Configuration page.
- E. Calls are handled according to the When Queue Is Full settings on the Hunt Pilot Configuration page.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

There are three main scenarios where alternate numbers are used:

When queue is full

When maximum wait time is met

When no hunt members are logged in or registered

When queue is full

Call Queuing allows up to 100 callers to be queued per hunt pilot (the maximum number of callers allowed in queue on a hunt pilot page). Once this limit for new callers been reached on a particular hunt pilot, subsequent calls can be routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Destination When Queue is Full" settings).

When maximum wait time is met

Each caller can be queued for up to 3600 seconds per hunt pilot (the maximum wait time in queue). Once this limit is reached, that caller is routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Maximum wait time in queue" settings).

When no hunt members are logged in or registered

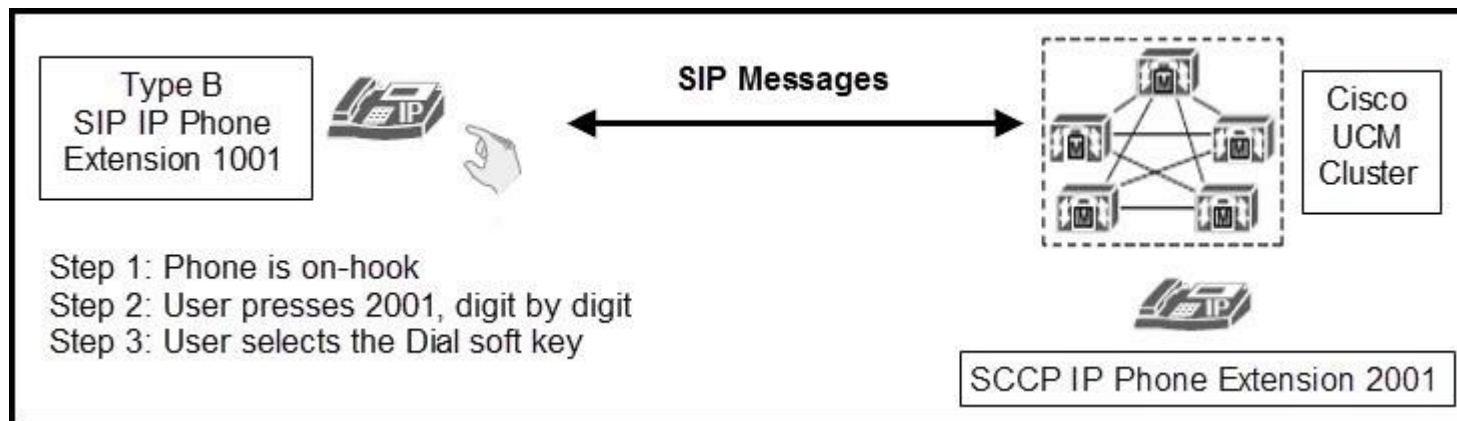
In a scenario where none of the members of the hunt pilot are available or registered at the time of the call, hunt pilot configuration provides an alternate number field (through the "When no hunt members are logged in or registered" settings) where calls can be routed. For Call Queuing, a hunt pilot member is considered available if that member has both deactivated do not disturb (DND) and logged into the hunt group. In all other cases, the line member is considered unavailable or logged off.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmfeat/CUCM_BK_CEF0C471_00_cucm-features-services-guide-90/CUCM_BK_CEF0C471_00_cucm-features-and-services-guide_chapter_0111.html

QUESTION 63

Refer to the exhibit.



A user is going through a series of dialing steps on a SIP Type B IP phone to call a SCCP IP phone. Both phones are registered to the same Cisco

Unified Communications Manager cluster. Assume that the calling SIP phone is associated with a SIP dial rule with a pattern value of "2001"

Which statement about how digits are forwarded to the Cisco Unified Communications Manager for further call processing is true?

- A. As each digit is pressed on the SIP IP phone, it is sent to the Cisco Unified Communications Manager in a SIP NOTIFY message as a KPML event.
- B. The SIP IP phone waits for the inter-digit timer expiry and then sends each digit to the Cisco Unified Communications Manager as a separate KPML event in a SIP NOTIFY message.
- C. As soon as the user selects the Dial soft key, the SIP IP phone forwards all digits to the Cisco Unified Communications Manager in a SIP INVITE message.
- D. As soon as the Dial soft key is selected, the SIP IP phone forwards the first digit in a SIP INVITE and the subsequent digits in SIP INFORMATION messages.
- E. The SIP IP phone waits for the inter-digit timer expiry, and then sends all digits to the Cisco Unified Communications Manager in a SIP INVITE message.

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Reference: <https://supportforums.cisco.com/document/87236/working-concept-sccp-sip-phones-and-dial-rules>.

QUESTION 64

On a Cisco Unified Communications Manager SIP trunk with a single remote device and OPTIONS ping feature enabled, which response from the SIP remote peer causes the trunk to be marked as "Out of Service"?

- A. 401 Unauthorized
- B. 505 Version Not Supported
- C. 406 Not Acceptable
- D. 408 Request Timeout
- E. 500 Server Internal Error

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

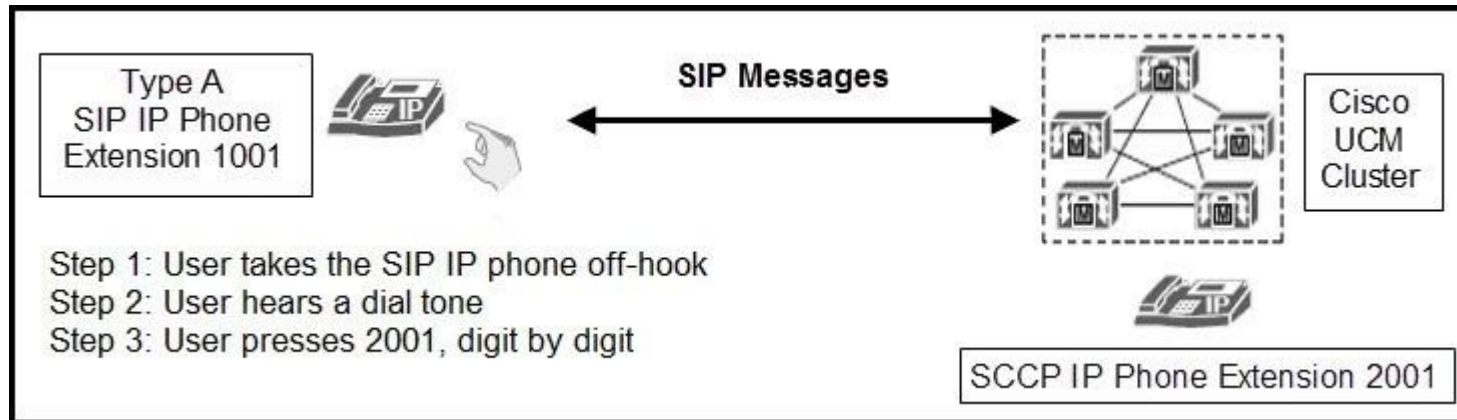
408 Request Timeout

Couldn't find the user in time. The server could not produce a response within a suitable amount of time, for example, if it could not determine the location of the user in time. The client MAY repeat the request without modifications at any later time

Reference: http://en.wikipedia.org/wiki/List_of_SIP_response_codes

QUESTION 65

Refer to the exhibit.



A user is going through a series of dialing steps on a SIP Type A IP phone to call a SCCP IP phone. Both phones are registered to the same Cisco Unified Communications Manager cluster. Assume that the calling SIP phone is not associated with any SIP dial rules.

Which statement about how digits are forwarded to the Cisco Unified Communications Manager for further call processing is true?

- A. As each digit is pressed on the SIP IP phone, it is sent to the Cisco Unified Communications Manager in a SIP NOTIFY message as a KPML event.
- B. The SIP IP phone waits for the inter-digit timer expiry and then sends each digit to the Cisco Unified Communications Manager as a separate KPML event in a SIP NOTIFY message.
- C. The SIP IP phone waits for the inter-digit timer expiry or for the Dial soft key to be selected before it sends all digits to the Cisco Unified Communications Manager in a SIP INVITE message.
- D. The SIP IP phone waits for the inter-digit timer expiry, or for the Dial soft key to be selected before it sends the first digit in a SIP INVITE and the subsequent digits in SIP NOTIFY messages.
- E. The SIP IP phone sends all digits to the Cisco Unified Communications Manager in a SIP INVITE message as soon as the fourth digit is pressed.

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Because Type A SIP phone with no SIP dial rules sends digit in Enbloc style. All digits are sent to CUCM after the user completes the dialing and press the Dial softkey.

Reference: <https://supportforums.cisco.com/document/87236/working-concept-sccp-sip-phones-and-dial-rules>.

QUESTION 66

Which two call processing features have a lower priority than the Do Not Disturb settings on a Cisco IP phone? (Choose two.)

- A. park reversion for a locally parked call
- B. hold reversion
- C. intercom
- D. pickup notification
- E. terminating side of a call back
- F. originating side of a call back

Correct Answer: DE

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

For the DND Ringer Off option, only visual notification gets presented to the device. For the DND Call Reject option, no notification gets presented to the device. For the terminating side of the call, Do Not Disturb overrides call back:

When the phone that terminates the call uses DND Ringer Off, the Callback Available screen will be displayed on the phone after the terminating side goes off hook and on hook.

When the phone that terminates the call has DND Call Reject enabled but the phone becomes available (goes off hook and on hook), a new screen will be presented to the originating device as "<Extension> has become available but is on DND-R". Callback available notification will be sent only after the terminating side disables DND Call Reject.

QUESTION 67

Which two applications must be connected to a leaf cluster in a Cisco Unified Communications Manager Session Management Edition deployment? (Choose two.)

- A. Cisco Unified Meeting Place
- B. Cisco Unified Contact Center Express
- C. H.323-based video conferencing systems
- D. Cisco Unity
- E. Cisco Unified Communications Manager
- F. fax servers

Correct Answer: BE

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

The deployment of a Unified CM Session Management Edition enables commonly used applications, such as conferencing or videoconferencing to connect directly to the session management cluster, which reduces the overhead of managing multiple trunks to leaf systems.

Unified CM Session Management Edition supports the following applications:

Meeting Place, Meeting Place Express

SIP and H.323-based video conferencing systems

Third Party voice mail systems

Fax servers

Cisco Unified Mobility

The following applications must connect to the leaf cluster:

Unified Contact Centre, CUCM, Unified Contact Centre Express

Cisco Unified Presence Server

Attendant Console

Manager Assistant

IP IVR Cisco Voice Portal

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/session_mgmt/deploy/8_5_1/overview.html

QUESTION 68

You have implemented 5-digit forced authorization codes to all international route patterns on Cisco Unified Communications Manager. Your users report that after entering the FAC codes, they must wait for more than 10 seconds before the call is routed.

Which procedure eliminates the wait time?

- A. Check and eliminate any existing route patterns that overlap with the international route pattern.
- B. Go to the Cisco Unified Communications Manager Service Parameters and reduce the T-304 number to 5000 milliseconds.
- C. Request your long distance telephone service provider to reduce the call setup time to 5 seconds.
- D. Configure a # (hash) sign to the end of the forced authorization codes to signal the end of dialing.
- E. Educate the users to press # (hash) after entering the forced authorization codes.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

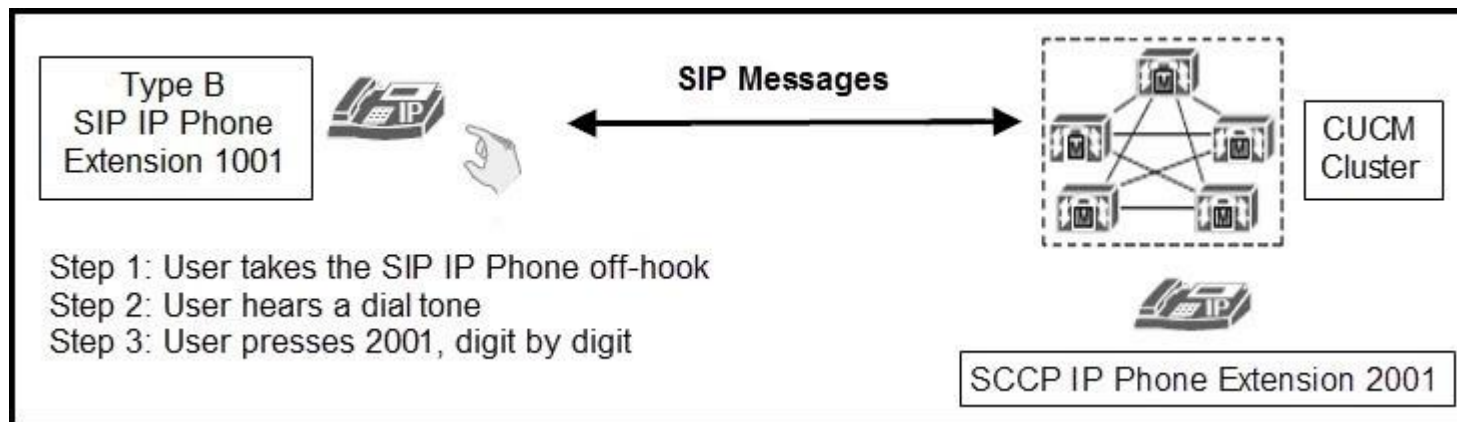
Explanation:

Because it immediately stops taking digits and route the digits to CUCM, otherwise the call occurs after the interdigit timer expire which is 15 seconds by default.

Reference: <http://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-communications-manager-callmanager/81541-fac-config-ex.html>

QUESTION 69

Refer to the exhibit.



A user is going through a series of dialing steps on a SIP Type B IP phone (for example, a Cisco 7975) to call an SCCP IP phone. Both phones are registered to the same Cisco Unified Communications Manager cluster. Assuming that the calling SIP phone is not associated with any SIP dial rules,

which statement about how digits are forwarded to Cisco Unified Communications Manager for further call processing is true?

- A. Each digit is sent to Cisco Unified Communications Manager in a SIP NOTIFY message KPML event, at the time that the user enters the digit on the keypad.
- B. The SIP IP phone will wait for the interdigit timer to expire, or for the Dial softkey to be selected before sending each digit to Cisco Unified Communications Manager as a separate KPML event in a SIP NOTIFY message.
- C. The SIP IP phone will wait for the interdigit timer to expire, or for the Dial softkey to be selected before sending all digits to Cisco Unified Communications Manager in a SIP INVITE message.
- D. The SIP IP phone will wait for the interdigit timer to expire or for the Dial softkey to be selected before sending the first digit in a SIP INVITE and the subsequent digits in SIP INFORMATION messages.
- E. The SIP IP phone will send all digits to Cisco Unified Communications Manager in a SIP INVITE message as soon as the fourth digit is pressed.

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

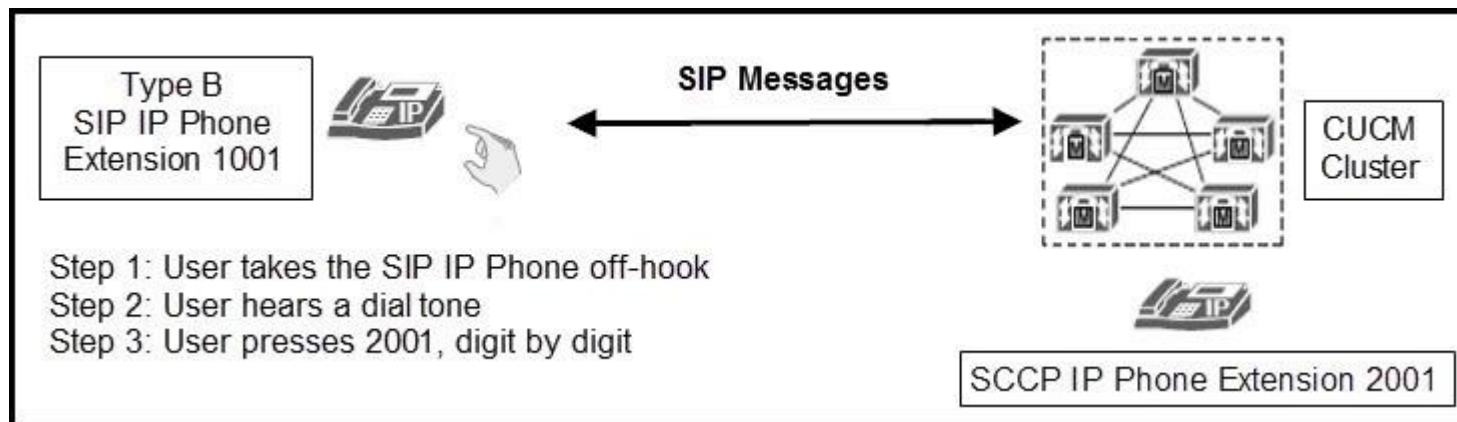
Explanation/Reference:

Explanation:

KPML procedures use a SIP SUBSCRIBE message to register for DTMF digits. The digits themselves are delivered in NOTIFY messages containing an XML encoded body. And it is Out of Band DTMF

QUESTION 70

Refer to the exhibit.



A user is going through a series of dialing steps on a SIP Type B IP phone (for example, a Cisco 7975) to call an SCCP IP phone. Both phones are registered to the same Cisco Unified Communications Manager cluster. Assuming the calling SIP phone is associated with a SIP dial rule with a pattern

value of 2001, which statement about how digits are forwarded to Cisco Unified Communications Manager for further call processing is true?

- A. As each digit is pressed on the SIP IP phone, it is sent to Cisco Unified Communications Manager in a SIP NOTIFY message as a KPML event.
- B. The SIP IP phone will wait for the interdigit timer to expire, and then send each digit to Cisco Unified Communications Manager as a separate KPML event in a SIP NOTIFY message.
- C. The SIP IP phone will wait for the interdigit timer to expire, or for the Dial softkey to be selected before sending all digits to Cisco Unified Communications Manager in a SIP INVITE message.
- D. The SIP IP phone will wait for the interdigit timer to expire, or for the Dial softkey to be selected before sending the first digit in a SIP INVITE and the subsequent digits in SIP INFORMATION messages.
- E. The SIP IP phone will wait for the interdigit timer to expire, and then send all digits to Cisco Unified Communications Manager in a SIP INVITE message.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Type B SIP Phones offer functionality based SIP INVITE Message. Every key the end user presses triggers an individual SIP message. The first event is communicated with a SIP INVITE, but subsequent messages use SIP NOTIFY messages. The SIP NOTIFY messages send KPML events corresponding to any buttons or soft keys pressed by the user. Cisco Type B SIP IP Phones with SIP dial rules operate in the same manner as Cisco Type A phones with dial rules.

QUESTION 71

What is the maximum number of option 66 IP addresses that a Cisco IP SCCP phone will accept and use from a DHCP server?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Reference: <http://www.techtronicssolution.com/blog/?p=1201>

QUESTION 72

Which Call Admission Control mechanism is supported for the Cisco Extension Mobility Cross Cluster solution?

- A. Location CAC
- B. RSVP CAC
- C. H.323 gatekeeper
- D. intercluster Enhanced Location CAC
- E. visiting cluster's LBM hub

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Configuring extension mobility cross cluster (EMCC) is nothing you should take lightly. EMCC requires a lot of configuration parameters including the exporting and importing of each neighbor cluster's X.509v3 digital certificates. EMCC is supported over SIP trunks only. Presence is another feature that's only supported over SIP trunks. If you want to be able to perform scalable Call Admission Control (CAC) in a distributed multi-cluster call processing model, you will need to point an H.225 or Gatekeeper controlled trunk to an H.323 Gatekeeper for CAC... but if you want to support presence and EMCC between clusters and maintain CAC.

QUESTION 73

Which Call Control Discovery function allows the local Cisco Unified Communications Manager to listen for advertisements from remote call-control entities that use the SAF network?

- A. CCD advertising service
- B. CCD requesting service
- C. SAF forwarder
- D. SAF enabled trunks
- E. CCD registration service

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

SAF and CCD will allow large distributed multi-cluster deployments to have the directory number (DN) ranges of each call routing element advertised dynamically over SAF. Cisco routers act as SAF Forwarders (SAFF), while the call routing elements (e.g. CUCM) act as clients that register with the routers to advertise their DN ranges and listen to the advertisements of other routers.

QUESTION 74

Which Device Pool configuration setting will override the device-level settings only when a device is roaming within a device mobility group?

- A. Region
- B. Location
- C. SRST Reference
- D. Calling Party Transformation CSS
- E. Media Resource Group List

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Device Mobility Related Settings:

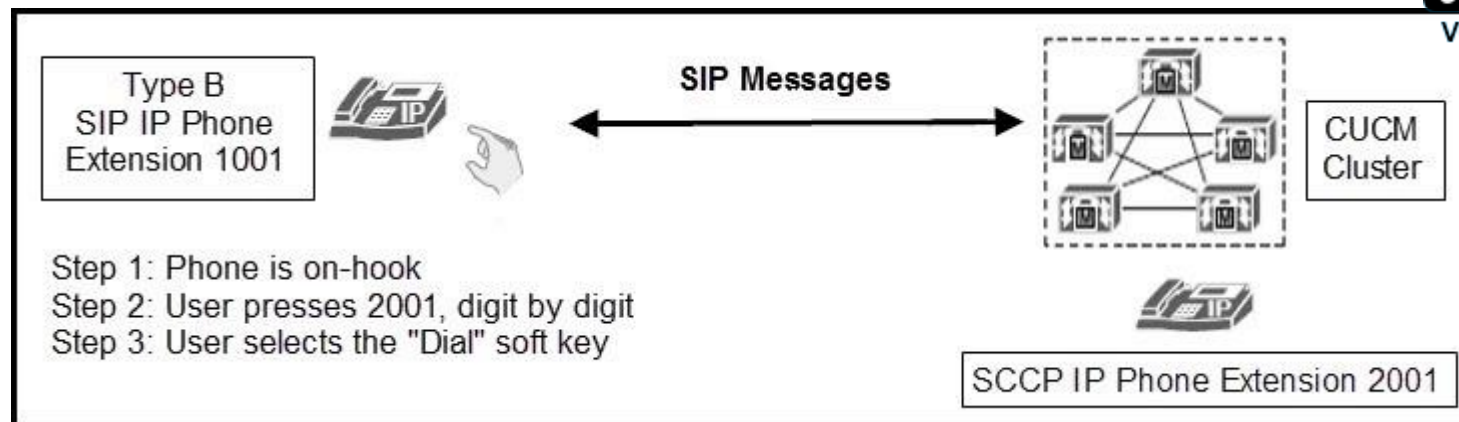
The parameters under these settings will override the device-level settings only when the device is roaming within a Device Mobility Group. The parameters included in these settings are:

- Device Mobility Calling Search Space
- AAR Calling Search Space
- AAR Group
- Calling Party Transformation CSS
- Called Party Transformation CSS

The device mobility related settings affect the dial plan because the calling search space dictates the patterns that can be dialed or the devices that can be reached.

QUESTION 75

Refer to the exhibit.



A user is going through a series of dialing steps on a SIP Type B IP phone (for example, a Cisco 7975) to call an SCCP IP phone. Both phones are registered to the same Cisco Unified Communications Manager cluster. Assuming the calling SIP phone is associated with a SIP Dial Rule with a pattern value of 2001, which statement about the call setup process of this call is true?

- A. Each digit will arrive at Cisco Unified Communications Manager in a SIP NOTIFY message as a KPML event, and Cisco Unified Communications Manager will extend the call as soon as the collected digits match the extension of the SCCP IP phone, bypassing class of service configuration on both IP phones.
- B. Each digit will arrive at Cisco Unified Communications Manager in a SIP NOTIFY message as a KPML event. When the collected digits match the extension of the SCCP IP phone, Cisco Unified Communications Manager will extend the call only if the class of service configuration on both phones permits this action.
- C. As soon as the user selects the Dial softkey, the SIP IP phone will forward all digits to Cisco Unified Communications Manager in a SIP INVITE message. Cisco Unified Communications Manager will extend the call as soon as the collected digits match the extension of the SCCP IP phone, bypassing class of service configuration on both IP phones.
- D. As soon as the user selects the Dial softkey, the SIP IP phone will forward all digits to Cisco Unified Communications Manager in a SIP INVITE message. Cisco Unified Communications Manager will extend the call only if class of service configuration on both phones permits this action.
- E. The SIP IP phone will wait for the interdigit timer to expire, and then send all digits to Cisco Unified Communications Manager in a SIP INVITE message. Cisco Unified Communications Manager will extend the call as soon as the collected digits match the extension of the SCCP IP phone, bypassing class of service configuration on both IP phones.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Type B SIP Phones offer functionality based SIP INVITE Message. Every key the end user presses triggers an individual SIP message. The first

event is communicated with a SIP INVITE, but subsequent messages use SIP NOTIFY messages. The SIP NOTIFY messages send KPML events corresponding to any buttons or soft keys pressed by the user. Cisco Type B SIP IP Phones with SIP dial rules operate in the same manner as Cisco Type A phones with dial rules.

QUESTION 76

What does a period accomplish when it is used in a SIP Dial Rule pattern that is associated with a Cisco 9971 IP Phone that is registered to Cisco Unified Communications Manager?

- A. It matches any single digit from 0 to 9.
- B. It matches one or more digits from 0 to 9.
- C. It is a delimiter and has no significant dialing impact.
- D. It matches any single digit from 0 to 9, or the asterisk (*) or pound (#) symbols.
- E. It matches one or more digits from 0 to 9, or the asterisk (*) or pound (#) symbols.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Asterisk (*) matches one or more characters. The * gets processed as a wildcard character. You can override this by preceding the * with a backward slash (\) escape sequence, which results in the sequence *. The phone automatically strips the \, so it does not appear in the outgoing dial string. When * is received as a dial digit, it gets matched by the wildcard characters * and period (.).

QUESTION 77

When the Cisco Unified Communications Manager service parameter "Auto Call Pickup Enabled" is selected, which two softkeys on an IP phone connect you to an incoming call? (Choose two.)

- A. Pickup
- B. Gpickup
- C. CallBack
- D. Select
- E. Join

Correct Answer: AB

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Pickup softkey is used to receive a call that is ringing in another phone within the same pickup group and Gpickupsoftkey is used to receive calls that are ringing but that phone is another pickup group.

QUESTION 78

Which device is the initiator of a StationD message in a Cisco Unified Communications Manager SDI trace?

- A. SCCP IP phone
- B. SIP IP phone
- C. Cisco Unified Communications Manager
- D. MGCP analog gateway
- E. digital voice gateway

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

All messages to and from a skinny device are preceded by either the words StationD or StationInit. StationD messages are sent from call manager to IP phone. Skinny message transmission such as this between the IP phone and CallManger occurs for every action undertaken by the IP phone, including initialization, registration, on-hook, off-hook, dialing of the digits, key press on the phone, and so much more.

QUESTION 79

Which two host portion format conditions are true for directory URI on Cisco Unified Communications Manager? (Choose two.)

- A. It is case sensitive.
- B. It cannot start with a hyphen.
- C. It must have at least one character.
- D. It supports IPv4 or IPv6 addresses, or fully qualified domain names.
- E. It cannot end with a hyphen.
- F. It supports the & character.

Correct Answer: BE

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified Communications Manager supports the following formats in the host portion of a directory URI (the portion after the @ symbol):

Supports IPv4 addresses or fully qualified domain names. Accepted characters are a-z, A-Z ,0-9, hyphens, and dots.

The host portion cannot start or end with a hyphen.

The host portion cannot have two dots in a row.

Minimum of two characters.

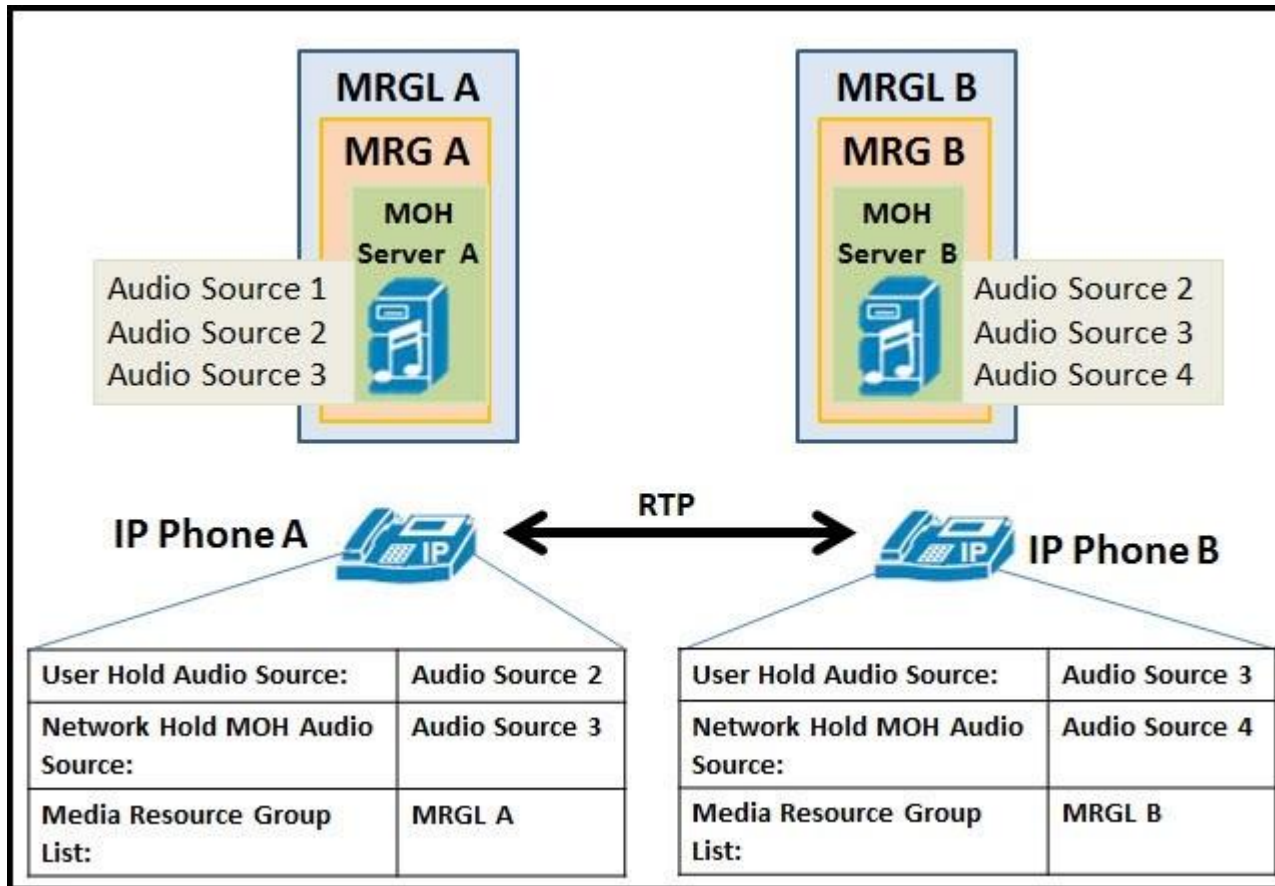
The host portion is not case sensitive.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/bat/9_1_1/CUCM_BK_C271A6_9D_00_cucm-bulk-administration-guide-91/CUCM_BK_C271A69D_00_cucm-bulk-administration-guide-91_chapter_01001110.html

QUESTION 80

Refer to the exhibit.



All displayed devices are registered to the same Cisco Unified Communications Manager server and the phones are engaged in an active call. Assume that the provided configurations exist at the phone line level and multicast MOH is disabled cluster wide.

Which description of what will happen when the user of IP phone A presses the Hold soft key is true?

- A. IP phone B receives audio source 2 from MOH server A.
- B. IP phone B receives audio source 3 from MOH server A.
- C. IP phone B receives audio source 2 from MOH server B.
- D. IP phone B receives audio source 3 from MOH server B.
- E. IP phone B receives audio source 1 from MOH server A.

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Because audio source 2 is in top of the MRGL List and it will be selected locally first.

QUESTION 81

Which two user portion format conditions are true for directory URI on Cisco Unified Communications Manager 9.1 or later? (Choose two.)

- A. It supports the \$ character.
- B. It support space between characters.
- C. It has a maximum length of 50 characters.
- D. It has a maximum length of 254 characters.
- E. It is always case-sensitive.
- F. It cannot be a directory number.

Correct Answer: AB

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

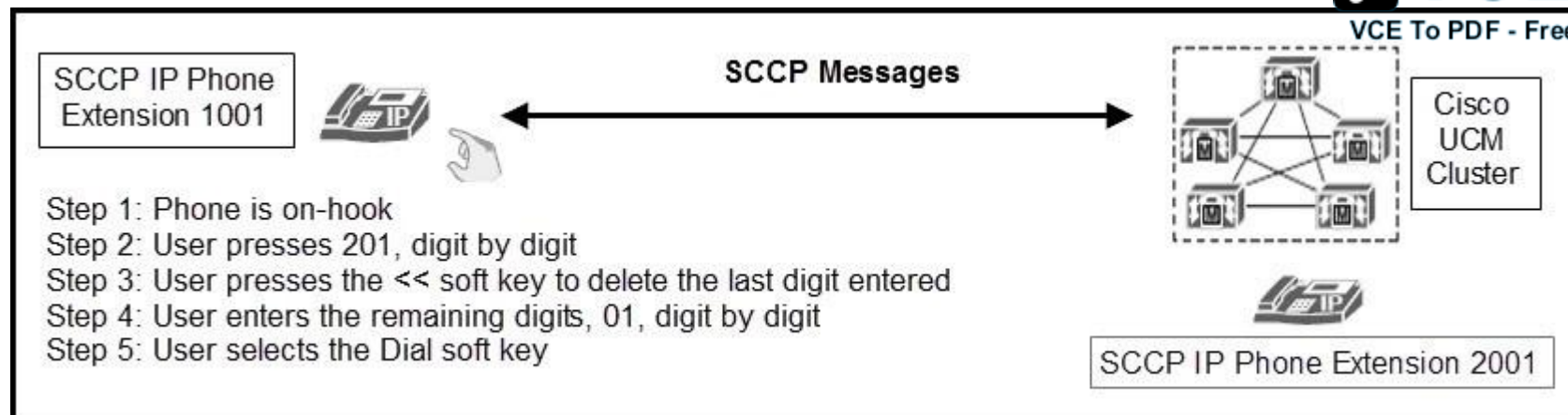
Cisco Unified Communications Manager supports the following formats in the user portion of a directory URI (the portion before the @ symbol): Accepted characters are a-z, A-Z, 0-9, !, \$, %, &, *, _, +, ~, -, =, \, ?, \, ', ,, ., /. The user portion has a maximum length of 47 characters. The user portion accepts percent encoding from %2[0-9A-F] through %7[0-9A-F]. For some accepted characters, Unified CM automatically applies percent encoding. See below for more information on percent encoding. The user portion is case-sensitive or case-insensitive depending on the value of the URI Lookup Policy enterprise parameter. The default value is case-sensitive.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/bat/9_1_1/CUCM_BK_C271A6_9D_00_cucm-bulk-administration-guide-91/CUCM_BK_C271A69D_00_cucm-bulk-administration-guide-91_chapter_01001110.html

QUESTION 82

Refer to the exhibit.



A user is performing a series of dialing steps on a SCCP IP phone (extension 1001) to call another SCCP IP phone (extension 2003). Both phones are registered to the same Cisco Unified Communications Manager cluster.

Which user inputs are sent from the calling IP phone to the Cisco Unified Communications Manager, in the form of SCCP messages, after the user takes the phone off-hook?

(The commas in the options are logical separators, not part of the actual user input or SCCP messages.)

- A. A separate SCCP message is sent to the Cisco Unified Communications Manager for each of these user inputs: 2, 0, 0, 3.
- B. A separate SCCP message is sent to the Cisco Unified Communications Manager for each of these user inputs: 2, 0, 1, <<, 0, 3.
- C. The IP phone collects all keypad and soft key events until user inputs stops, then it sends a single SCCP message to report that 2003 has been dialed.
- D. The IP phone collects all keypad and soft key events until user inputs stops, then it sends a single SCCP message to report that 201<<03 has been dialed.
- E. A separate SCCP message is sent to the Cisco Unified Communications Manager for each of these user inputs: 2, 0, 1, <<, 2, 0, 0, 3.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Because sccp phones send digits DIGIT-by-DIGIT i.e. it sends each digit in real time.

Link:-<https://supportforums.cisco.com/document/87236/working-concept-sccp-sip-phones- and-dial-rules>

QUESTION 83

Which two applications can connect directly with a Cisco Unified Communications Manager Session Management Edition cluster? (Choose two.)

- A. Cisco Unity
- B. Cisco Unified Meeting Place Express
- C. Cisco Unified Contact Center Enterprise
- D. Cisco Unified Contact Center Express
- E. Cisco Unified Communications Manager Attendant Console
- F. Cisco Emergency Responder

Correct Answer: AB

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Explanation:

The deployment of a Unified CM Session Management Edition enables commonly used applications such as conferencing or videoconferencing to connect directly to the Session Management cluster, thus reducing the overhead of managing multiple trunks to leaf systems. Cisco Unity or other voicemail systems can be deployed at all sites and integrated into the Unified CM cluster.

QUESTION 84

Which three requirements must be met to share Enhanced Location Based Call Admission Control bandwidth usage between clusters? (Choose three.)

- A. The Cisco Unified Communications Manager version must be 8.6 or higher.
- B. The location name must be the same on both clusters.
- C. SIP ICT must use the Shadow location.
- D. The Location Bandwidth Manager Service should be started on only two servers in each cluster.
- E. A Location Bandwidth Manager Hub Group must be created for each cluster.
- F. Links must be created to the Shadow location.

Correct Answer: BCE

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Recommendations and Design Considerations for Unified CM Session Management Edition Deployments

All leaf clusters that support E-L CAC should be enabled for intercluster E-L CAC with SME.

replication network. See LBM Hub Replication Network, for more information.

All trunks to leaf clusters supporting E-L CAC should be SIP trunks placed in the shadow A Composite Solution With Just One Click - Certification
Guaranteed 69 location to enable E-L CAC on the trunk between SME and the leaf clusters supporting E-L

CAC.

For TelePresence video interoperability, see the section on Call Admission Control Design

Connectivity from SME to any trunk or device other than a Unified CM that supports E-L CAC (some examples are third-party PBXs, gateways, Unified CM clusters prior to release 9.0 that do not support E-L CAC, voice messaging ports or trunks to conference bridges, Cisco Video Communications Server, and so forth) should be configured in a location other than a phantom or shadow location. The reason for this is that both phantom and shadow locations are non-terminating locations; that is, they relay information about locations and are effectively placeholders for user-defined locations on other clusters. Phantom locations are legacy locations that allow for the transmission of location information in versions of Unified CM prior to 9.0, but they are not supported with Unified CM 9.x Enhanced

Locations CAC. Shadow locations are special locations that enable trunks between Unified CM clusters that support E-L CAC to accomplish it end-to-end.

SME can be used as a locations and link management cluster

QUESTION 85

What is the maximum one-way delay, in milliseconds, between any two Cisco Unified Communications Manager servers in a non-Session Management Edition cluster over an IP WAN?

- A. 20
- B. 40
- C. 80
- D. 160
- E. 250

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

The maximum one-way delay between any two Unified CM servers should not exceed 40 msec, or 80 msec round-trip time. Propagation delay between two sites introduces 6 microseconds per kilometer without any other network delays being considered. This A Composite Solution With Just One Click - Certification Guaranteed 70 equates to a theoretical maximum distance of approximately 3000 km for 20 ms delay or approximately 1860 miles. These distances are provided only as relative guidelines and in reality will be shorter due to other delay incurred within the network.

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/7x/uc7_0/models.html

QUESTION 86

Which SIP request is used by Cisco Unified Communications Manager to signal DND status changes to a Cisco 9971 IP Phone?

- A. OPTIONS
- B. NOTIFY
- C. INFO
- D. REFER
- E. UPDATE

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified Communications Manager supports Do Not Disturb that a SIP device initiates or that a Cisco Unified Communications Manager device initiates. A DND status change gets signaled from a SIP device to Cisco Unified Communications Manager by using the SIP PUBLISH method (RFC3909). A DND status change gets signaled from a Cisco Unified Communications Manager to a SIP device by using a dndupdate Remote-cc REFER request. Cisco Unified Communications Manager can also publish the Do Not Disturb status for a device, along with the busy and idle status for the device.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/6_1_1/ccmfeat/cmfsd6_11/fsdnd.html

QUESTION 87

Which Cisco Unified Communications Manager deployment model for clustering over the IP WAN mandates a primary and a backup subscriber at the same site?

- A. multisite with centralized call processing
- B. multisite with distributed call processing
- C. local failover

- D. remote failover
- E. remote failover with Cisco Unified Communications Manager Express as SRST

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Clustering Over the IP WAN

You may deploy a single Unified CM cluster across multiple sites that are connected by an IP WAN with QoS features enabled. This section provides a brief overview of clustering over the WAN. For further information, refer to the chapter on Call Processing. Clustering over the WAN can support two types of deployments:

- Local Failover Deployment Model

Local failover requires that you place the Unified CM subscriber and backup servers at the same site, with no WAN between them. This type of deployment is ideal for two to four sites with Unified CM.

- Remote Failover Deployment Model

Remote failover allows you to deploy primary and backup call processing servers split across the WAN. Using this type of deployment, you may have up to eight sites with Unified CM subscribers being backed up by Unified CM subscribers at another site.

Reference: http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/4x/42models.html

QUESTION 88

Which statement about the effective path in the Enhanced Location Call Admission Control mechanism on Cisco Unified Communications Manager is true?

- A. It is a sequence of links and intermediate locations that connect a pair of locations.
- B. It is used to define the bandwidth that is available between locations.
- C. Only one effective path is used between two locations.
- D. There could be multiple effective paths between a pair of locations.
- E. It logically represents the WAN link.

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

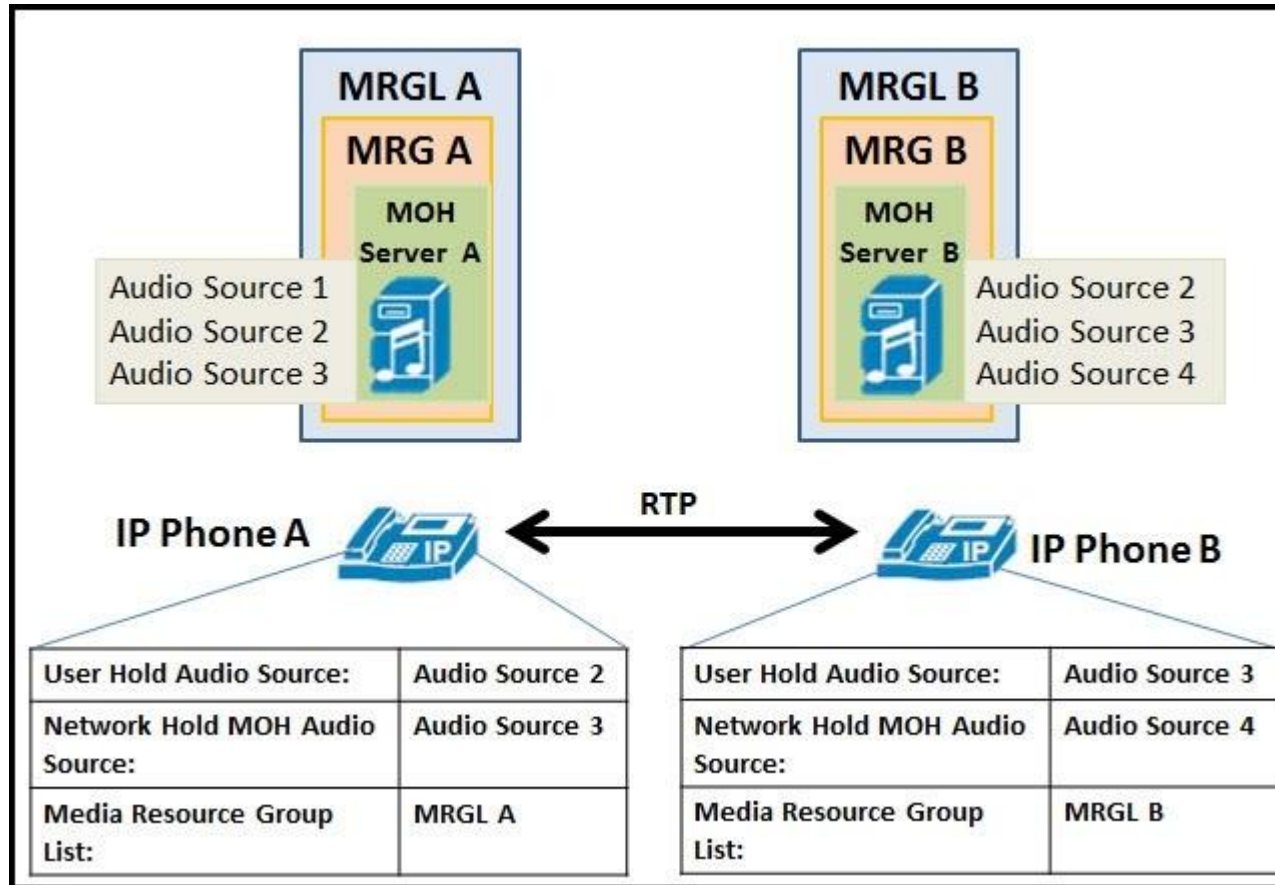
Explanation

Explanation/Reference:

Explanation:

The effective path is the path used by Unified CM for the bandwidth calculations, and it has the least cumulative weight of all possible paths. Weights are used on links to provide a "cost" for the "effective path" and are pertinent only when there is more than one path between any two locations.

QUESTION 89
Refer to the exhibit.



All displayed devices are registered to the same Cisco Unified Communications Manager server and the phones are engaged in an active call. Assuming the provided configurations exist at the phone line level and multicast MOH is disabled clusterwide, what will happen when the user of IP Phone A presses the Transfer softkey?

- A. The IP Phone B user hears audio source 3 from MOH Server A.
- B. The IP Phone B user hears audio source 4 from MOH Server B.
- C. The IP Phone B user hears audio source 3 from MOH Server B.
- D. The IP Phone B user hears audio source 2 from MOH Server B.

E. The IP Phone A user hears no on-hold music.

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Held parties determine the media resource group list that a Cisco Unified Communications Manager uses to allocate a music on hold resource.

QUESTION 90

Which two statements about BFCP with Cisco Unified Communications Manager are true? (Choose two.)

- A. BFCP is supported only on full SIP networks.
- B. Cisco Unified Communications Manager allows BFCP only over UDP.
- C. BFCP is not supported for third-party endpoints.
- D. BFCP is not supported through Cisco Unified Border Element.
- E. BFCP is supported between Cisco Unified Communications Manager and a TelePresence MCU.

Correct Answer: AB

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

BFCP configuration tips

To enable BFCP in Cisco Unified Communications Manager, check the Allow Presentation Sharing using BFCP check box in the SIP Profile Configuration window. If the check box is unchecked, all BFCP offers will be rejected. By default, the check box is unchecked. BFCP is supported only on full SIP networks. For presentation sharing to work, BFCP must be enabled for all SIP endpoints as well as all SIP lines and SIP trunks between the endpoints.

CUCM uses BFCP over user datagram protocol (UDP) in both secure and non-secure BFCP modes.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmsys/CUCM_BK_CD2F83FA_00_cucm-system-guide-90/CUCM_BK_CD2F83FA_00_system-guide_chapter_0101011.html

QUESTION 91

Which option is a characteristic of the Enhanced Location Call Admission Control mechanism on Cisco Unified Communications Manager?

- A. It accounts for network protocol rerouting.
- B. It accounts for network downtime and failures.
- C. It supports dynamic bandwidth adjustments based on WAN topology changes.
- D. It supports asymmetric media flows such that different bit rates in each direction are deducted accordingly.
- E. Unidirectional media flows are deducted as if they were bidirectional.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Network Modeling with Locations, Links, and Weights

Enhanced Location CAC is a model-based static CAC mechanism. Enhanced Location CAC involves using the administration interface in Unified CM to configure Locations and Links to model the "Routed WAN Network" in an attempt to represent how the WAN network topology routes media between groups of endpoints for end-to-end audio, video, and immersive calls. Although Unified CM provides configuration and serviceability interfaces in order to model the network, it is still a "static" CAC mechanism that does not take into account network failures and network protocol rerouting. Therefore, the model needs to be updated when the WAN network topology changes. Enhanced Location CAC is also call oriented, and bandwidth deductions are per-call not per-stream, so asymmetric media flows where the bit-rate is higher in one direction than in the other will always deduct for the highest bit rate. In addition, unidirectional media flows will be deducted as if they were bidirectional media flows.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab10/collab10/cac.htm

QUESTION 92

When IP phone A was provisioned in a Cisco Unified Communications Manager, 2001 was configured as the directory number for its first line. Also, bob@cisco.com was defined as the only directory URI on the Directory Number configuration page for this line. A few days later, an end user was created in the same Cisco Unified Communications Manager and was associated with the same phone with the primary extension set to 2001. Also, bobby@cisco.com was defined as a directory URI for that end user.

Which option about the primary directory URI for IP phone A is true?

- A. bob@cisco.com
- B. bobby@cisco.com
- C. It depends on which radio button was selected next to the Directory URI entries on the Directory Configuration page.
- D. Both are primary directory URIs in a manner like a shared line for DNS.
- E. Neither are primary directory URIs for IP phone A.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation**Explanation/Reference:**

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmsys/CUCM_BK_CD2F83FA_00_cucm-system-guide-90/CUCM_BK_CD2F83FA_00_system-guide_chapter_0101111.html

QUESTION 93

Which two statements about Cisco Unified Communications Manager mixed-mode clusters are true? (Choose two.)

- A. Cluster security mode configures the security capability for your standalone server or a cluster.
- B. The device security mode in the phone configuration file is set to nonsecure.
- C. The phone makes nonsecure connections with Cisco Unified Communications Manager even if the device security mode specifies authenticated or encrypted.
- D. Security-related settings other than device security mode, such as the SRST Allowed check box, get ignored.
- E. Auto-registration does not work when you configure mixed mode.

Correct Answer: AE

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation**Explanation/Reference:**

Explanation:

Cluster security mode configures the security capability for a standalone server or a cluster.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/security/7_0_1/secugd/sec701-cm/secuauth.html#wp1037433

QUESTION 94

Which statement about using the Answer File Generator to load a Cisco Unified Communications virtual machine is true?

- A. You must copy the output text to a file named platformConfig.txt.
- B. Each host should be copied to its own configuration file.
- C. The answer file can be used only when performing the new identity process to load the Cisco Unified Communications virtual machines.
- D. The configuration file should be placed inside an ISO file and mounted on the virtual machine.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/install/9_0_1/CUCM_BK_I87B_437D_00_installing-cucm-90/CUCM_BK_I87B437D_00_installing-cucm-90_chapter_0100.html#CUP0_TK_G0262E75_00

QUESTION 95

Which call processing feature overrides the Do Not Disturb settings on a Cisco IP phone?

- A. park reversion for remotely parked calls by a shared line
- B. hold reversion
- C. remotely placed pickup request by a shared line
- D. pickup notification
- E. terminating side of a call back

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Hold Reversion and Intercom

Hold reversion and intercom override DND (both options), and the call gets presented normally.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/7_1_2/ccmfeat/fsgd-712-cm/fsdnd.html#wp1072487

QUESTION 96

Which design restriction applies to Cisco Unified Communications Manager Session Management Edition clustering over the WAN deployment with extended round-trip times in Cisco Unified CM 9.1 and later releases?

- A. SIP and H.323 intercluster trunks are supported.
- B. Only SIP trunk is supported.
- C. SIP trunks and H.323 gateways are supported.
- D. A minimum of 1.544 Mb/s bandwidth is required for all traffic between any two nodes in the cluster.
- E. Only RSVP agents can be configured and registered to the SME cluster as media resources.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Explanation:

Using only SIP trunks in the SME cluster allows you to deploy a "media transparent" cluster where media resources, when required, are inserted by the end or leaf Unified Communications system and never by SME. Using only SIP trunks also allows you to use extended round trip times (RTTs) between SME nodes when clustering over the WAN.

QUESTION 97

What is the number of directory URIs with which a Cisco Unified Communications Manager directory number can be associated?

- A. 1
- B. up to 2
- C. up to 3
- D. up to 4
- E. up to 5

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified Communications Manager supports dialing using directory URIs for call addressing. Directory URIs look like email addresses and follow the username@host format where the host portion is an IPv4 address or a fully qualified domain name. A directory URI is a uniform resource identifier, a string of characters that can be used to identify a directory number. If that directory number is assigned to a phone, Cisco Unified Communications Manager can route calls to that phone using the directory URI. URI dialing is available for SIP and SCCP endpoints that support directory URIs.

QUESTION 98

Which system location is used for intercluster Enhanced Location CAC on Cisco Unified Communications Manager?

- A. Hub_None
- B. Default
- C. Intercluster
- D. Phantom
- E. Shadow

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

The shadow location is used to enable a SIP trunk to pass Enhanced Location CAC information such as location name and Video-Traffic-Class (discussed below), among other things, required for Enhanced Location CAC to function between clusters. In order to pass this location information across clusters, the SIP intercluster trunk (ICT) must be assigned to the "shadow" location. The shadow location cannot have a link to other locations, and therefore no bandwidth can be reserved between the shadow location and other locations. Any device other than a SIP ICT that is assigned to the shadow location will be treated as if it was associated to Hub_None. That is important to know because if a device other than a SIP ICT ends up in the shadow location, bandwidth deductions will be made from that device as if it were in Hub_None, and that could have varying effects depending on the location and links configuration.

QUESTION 99

Which message is used by a Cisco Unified Communications Manager respond to periodic keepalives from a Cisco IOS MGCP gateway?

- A. AUEP
- B. RQNT
- C. NTFY
- D. 200
- E. AUCX

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

(2xx) Successful completion: The requested transaction was executed normally.

QUESTION 100

What is the maximum number of option 150 IP addresses that a Cisco IP SCCP phone will accept and use from a DHCP server?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified IP Phones use the option 150 value as the TFTP server IP address when Alternate TFTP option is set to No. You can assign only IP addresses as Option 150 values. A maximum of two IP addresses get used, and only the first two IP addresses that the DHCP server provides get accepted.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmsys/CUCM_BK_CD2F83FA_00_cucm-system-guide-90/CUCM_BK_CD2F83FA_00_system-guide_chapter_01010.html

QUESTION 101

Refer to the exhibit.



On which two Cisco Unified CM Administration pages can a system administrator define MTU for an SSL VPN tunnel connecting between a Cisco IP phone and a Cisco IOS VPN gateway? (Choose two.)

- A. VPN Profile
- B. VPN Group
- C. VPN Gateway
- D. VPN Feature Configuration
- E. System, followed by Enterprise Parameters
- F. System, followed by Enterprise Phone Configuration

Correct Answer: AD

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

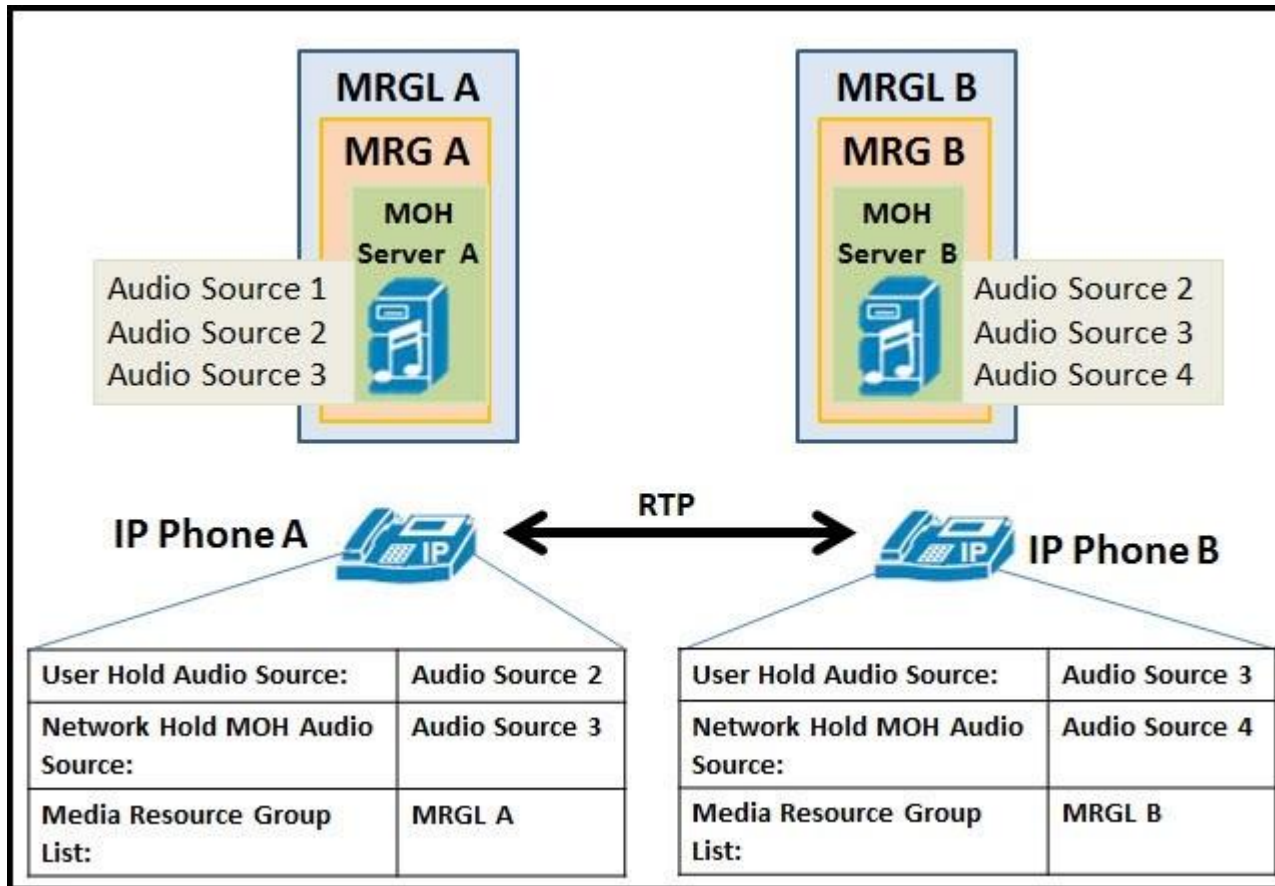
Explanation/Reference:

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/security/8_5_1/secugd/sec-851-cm/secvpfet.html

QUESTION 102

Refer to the exhibit.



All displayed devices are registered to the same Cisco Unified Communications Manager server and the phones are engaged in an active call. Assume that the provided configurations exist at the phone line level and multicast MOH is disabled cluster wide.

Which description of what happens when the user of IP phone B presses the Transfer soft key is true?

- A. IP phone A user hears audio source 3 from MOH server A.
- B. IP phone A user hears audio source 4 from MOH server B.
- C. IP phone A user hears audio source 3 from MOH server B.
- D. IP phone A user hears tone on-hold beep tones.
- E. IP phone A user hears no on-hold music or beep tones.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

QUESTION 103

Which configuration parameter defines whether or not the user portion of a directory URI is case sensitive on Cisco Unified Communications Manager 9.1 or later?

- A. URI Dialing Display Preference in Cisco CallManager Service Parameter
- B. URI Lookup Policy in Cisco CallManager Service Parameter
- C. URI Dialing Display Preference in Enterprise Parameters
- D. URI Lookup Policy in Enterprise Parameters
- E. The user portion of a directory URI is always case sensitive and cannot be changed.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation: Cisco Unified Communications Manager supports the following formats in the user portion of a directory URI (the portion before the @ symbol):

Accepted characters are a-z, A-Z, 0-9, !, \$, %, &, *, _, +, ~, -, =, \, ?, \, ', ,, ., /. The user portion has a maximum length of 47 characters. The user portion accepts percent encoding from %2[0-9A-F] through %7[0-9A-F]. For some accepted characters, Unified CM automatically applies percent encoding. See below for more information on percent encoding. The user portion is case-sensitive or case-insensitive depending on the value of the URI Lookup Policy enterprise parameter. The default value is case-sensitive.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/bat/9_1_1/CUCM_BK_C271A6_9D_00_cucm-bulk-administration-guide-91/CUCM_BK_C271A69D_00_cucm-bulk-administration-guide-91_chapter_01001110.html

QUESTION 104

Which tag in the SIP header is used by Cisco Unified Communications Manager to deliver a blended identity of alpha URI and number?

- A. x-cisco-callinfo
- B. x-cisco-service-control
- C. x-cisco-serviceuri
- D. x-cisco-number
- E. x-cisco-uri

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified Communications Manager supports blended addressing of directory URIs and directory numbers. When blended addressing is enabled across the network, Cisco Unified Communications Manager inserts both the directory URI and the directory number of the sending party in outgoing SIP Invites, or responses to SIP Invites. The destination endpoint has the option of using either the directory URI or the directory number for its response--both will reach the same destination.

Cisco Unified Communications Manager uses the x-cisco-number tag in the SIP identity headers to communicate a blended address. When both a directory URI and directory number are available for the sending phone and blended addressing is enabled, Cisco Unified Communications Manager uses the directory URI in the From fields of the SIP message and adds the x-cisco-number tag with the accompanying directory number to the SIP identity headers. The x-cisco-number tag identifies the directory number that is associated with the directory URI.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/10_0_1/ccmfeat/CUCM_BK_F3AC1C0F_00_cucm-features-services-guide-100/CUCM_BK_F3AC1C0F_00_cucm-features-services-guide-100_chapter_0110011.html#CUCM_RF_D0008C2B_00

QUESTION 105

Which statement about what happens to incoming calls to a Cisco Unified Communications Manager native call queue when no hunt members are logged in or registered is true?

- A. Calls are handled according to the Forward Hunt No Answer settings on the Hunt Pilot configuration page.
- B. Calls are handled according to the Not Available Hunt Option settings on the Line Group Configuration page.
- C. Calls are handled according to the Forward Hunt Busy settings on the Hunt Pilot configuration page.
- D. Calls are forward to the Forward Busy Calls To destination if configured; otherwise the calls are disconnected.
- E. Calls are handled according to the correspondent parameters under the Queuing section on the Hunt Pilot Configuration page.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

There are three main scenarios where alternate numbers are used:

When queue is full

When maximum wait time is met

When no hunt members are logged in or registered

When queue is full

Call Queuing allows up to 100 callers to be queued per hunt pilot (the maximum number of callers allowed in queue on a hunt pilot page). Once this limit for new callers been reached on a particular hunt pilot, subsequent calls can be routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Destination When Queue is Full" settings).

When maximum wait time is met

Each caller can be queued for up to 3600 seconds per hunt pilot (the maximum wait time in queue). Once this limit is reached, that caller is routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Maximum wait time in queue" settings).

When no hunt members are logged in or registered

In a scenario where none of the members of the hunt pilot are available or registered at the time of the call, hunt pilot configuration provides an alternate number field (through the "When no hunt members are logged in or registered" settings) where calls can be routed. For Call Queuing, a hunt pilot member is considered available if that member has both deactivated do not disturb (DND) and logged into the hunt group. In all other cases, the line member is considered unavailable or logged off.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmfeat/CUCM_BK_CEF0C471_00_cucm-features-services-guide-90/CUCM_BK_CEF0C471_00_cucm-features-and-services-guide_chapter_0111.html

QUESTION 106

What is the maximum number of Cisco Unified Communications Manager subscriber pairs in a megacluster deployment?

- A. 4
- B. 8
- C. 12
- D. 16
- E. 32

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

There can be up to 8 pairs of subscribers, 16 subscribers total and must be in a 1:1 redundancy mode (8 active, 8 standby).

QUESTION 107

The number of calls waiting in a Cisco Unified Communications Manager native call queue has reached its maximum limit.

Which statement about what happens to additional incoming calls is true?

- A. Calls are handled according to the Forward Hunt Busy settings on the Hunt Pilot configuration page.
- B. Calls are handled according to the Forward Hunt No Answer settings on the Hunt Pilot configuration page.
- C. Calls are handled according to the Forward Hunt Busy settings on the Line Group members.
- D. Calls are handled according to the Hunt Options settings on the Line Group Configuration page.
- E. Calls are handled according to the When Queue Is Full settings on the Hunt Pilot Configuration page.

Correct Answer: E

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

There are three main scenarios where alternate numbers are used:

When queue is full

When maximum wait time is met

When no hunt members are logged in or registered

When queue is full

Call Queuing allows up to 100 callers to be queued per hunt pilot (the maximum number of callers allowed in queue on a hunt pilot page). Once this limit for new callers been reached on a particular hunt pilot, subsequent calls can be routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Destination When Queue is Full" settings).

When maximum wait time is met

Each caller can be queued for up to 3600 seconds per hunt pilot (the maximum wait time in queue). Once this limit is reached, that caller is routed to an alternate number. This alternate number can be configured through the Hunt Pilot configuration page (through the "Maximum wait time in queue" settings).

When no hunt members are logged in or registered

In a scenario where none of the members of the hunt pilot are available or registered at the time of the call, hunt pilot configuration provides an alternate number field (through the "When no hunt members are logged in or registered" settings) where calls can be routed. For Call Queuing, a hunt pilot member is considered available if that member has both deactivated do not disturb (DND) and logged into the hunt group. In all other cases, the line member is considered unavailable or logged off.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmfeat/CUCM_BK_CEF0C471_00_cucm-features-services-guide-90/CUCM_BK_CEF0C471_00_cucm-features-and-services-guide_chapter_0111.html

QUESTION 108

Which method does a Cisco Unified 9971 phone use to send keep-alive messages to Cisco Unified Communications Manager?

- A. SIP NOTIFY with Event set to keep-alive
- B. SIP OPTIONS
- C. SIP REGISTER with Expires set to zero

- D. SCCP StationRegister
- E. SCCP StationServerReq

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Phone registers with primary and establishes keepalive connection with secondary. Expires = 0 keepalive mechanism allows Cisco SIP Phones to more closely resemble the failover / fallback behavior of SCCP.

QUESTION 109

Router A and router B are Cisco IOS routers with hardware CFB resources that are registered to the same Cisco Unified Communications Manager server. Which Media Resource Group and Media Resource Group List configuration should be implemented if an administrator wants to make sure that all provisioned DSPs on router A are consumed before router B's DSP is used?

- A. Router A's CFB and router B's CFB should each be configured in its own MRG. Both MRGs should then be grouped into the same MRGL, but the MRG that contains router A's CFB should be listed in higher order than the MRG that contains router B's CFB. Finally, associate the MRGL to all conference resource consumers.
- B. Router A's CFB and router B's CFB should each be configured in its own MRG. Both MRGs should then be further separated into different MRGLs. Finally, associate the MRGL that contains router A's CFB in higher order than router B's CFB to all conference resource consumers.
- C. Router A's CFB and router B's CFB should both be configured in the same MRG with router A's CFB listed higher than that of router B. Then associate the MRG with an MRGL and apply it to all conference resource consumers.
- D. Router A's CFB and router B's CFB should both be configured in the same MRG. Make sure router A's CFB is listed in a higher alphabetical order than router B's CFB. Then associate the MRG with an MRGL and apply it to all conference resource consumers.
- E. Router A's CFB and router B's CFB should both be configured in the same MRG. Use Cisco Unified Communications Manager service parameters to assign a higher priority to router A's CFB. Then associate the MRG with an MRGL and apply it to all conference resource consumers.

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

QUESTION 110

You are assisting a customer to troubleshoot a SIP early-offer problem with a SIP service provider. You have enabled Cisco CallManager trace and set the debug trace level to Detailed for SIP Call Processing trace on their standalone Cisco Unified Communications Manager 9.1 system. Using the RTMT tool, your customer has remote browsed to the Cisco UCM and asked you which trace file to download.

What is the trace file name syntax in which detailed SIP messages are logged?

- A. SDL
- B. SDI
- C. CCM
- D. Call logs
- E. Traces

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

SDL files log SIP messages from CCM.

QUESTION 111

When neither the active or standby Location Bandwidth Manager in the configured LBM group is available, what will the Cisco CallManager service on a subscriber Cisco Unified Communications Manager server do to make location CAC decisions?

- A. It will attempt to communicate with the first configured member in the Location Bandwidth Manager hub group.
- B. It will use the Call Treatment When No LBM Available service parameter with the default action to allow calls.
- C. It will use the Call Treatment When No LBM Available service parameter with the default action to reject calls.
- D. It will attempt to communicate with the local LBM service for location CAC decisions.
- E. It will allow all calls until communication is reestablished with any configured servers in the LBM group.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

By default the Cisco CallManager service communicates with the local LBM service; however, LBM groups can be used to manage this communication. LBM groups provide an active and standby LBM in order to create redundancy for Unified CM call control.

QUESTION 112

According to ITU-T E.164 recommendations, which two fields in the National Significant Number code may be further subdivided? (Choose two.)

- A. Country Code
- B. National Destination Code
- C. Subscriber Number
- D. Regional Significant Number
- E. Local User Code
- F. National Numbering Plan

Correct Answer: BC

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

A telephone number can have a maximum of 15 digits. The first part of the telephone number is the country code (one to three digits). The second part is the national destination code (NDC). The last part is the subscriber number (SN). The NDC and SN together are collectively called the national (significant) number.

QUESTION 113

Which SIP header is used by Cisco Unified Communication Manager to support the Redirected Number ID Service?

- A. replaces
- B. RPID
- C. diversion
- D. join
- E. P-charging-vector

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

CUCM uses sip diversion header in INVITE message to carryout Redirected Number ID service.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_0_1/ccmsys/CUCM_BK_CD2F83FA_00_cucm-system-guide-90/CUCM_BK_CD2F83FA_00_system-guide_chapter_0101000.html#CUCM_TP_R3F173A9_00

QUESTION 114

Which statement about what happens to a hunt member who does not answer queuing- enabled hunt-list call in Cisco Unified Communications Manager 9.1 is true?

- A. The hunt member is logged off automatically and must press HLOG to log back in.
- B. The hunt member remains logged in if Automatically Logout Hunt Member on No Answer is not selected in Cisco Unified Communications Manager Service Parameters.
- C. The hunt member is logged off automatically and must manually reset the phone to log back in.
- D. The hunt member is logged off if Automatically Logout Hunt Member on No Answer is selected on the Line Group configuration page.
- E. The hunt member remains logged in if Automatically Logout Hunt Member on No Answer is not selected in Hunt Pilot configuration page.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

If a line member does not answer a queue-enabled call, that line member is logged off the hunt group only if the setting "Automatically Logout Hunt Member on No Answer" is selected on the line group page.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/9_1_1/ccmcfg/CUCM_BK_A34970C5_00_admin-guide-91/CUCM_BK_A34970C5_00_admin-guide-91_chapter_0100011.html

QUESTION 115

What does a weight represent in the Enhanced Location Call Admission Control mechanism on Cisco Unified Communications Manager?

- A. It defines the bandwidth that is available between locations.
- B. It defines the bandwidth that is available on a link.
- C. It is the amount of bandwidth allocation for different types of traffic.
- D. It is used to provide the relative priority of a link between locations.
- E. It is used to provide the relative priority of a location.

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

A weight provides the relative priority of a link in forming the effective path between any pair of locations. The effective path is the path used by Unified CM for the bandwidth calculations, and it has the least cumulative weight of all possible paths. Weights are used on links to provide a "cost" for the "effective path" and are pertinent only when there is more than one path between any two locations.

QUESTION 116

In a Cisco Unified Communications Manager design where +E.164 destinations are populated in directory entries, which call routing practice is critical to prevent unnecessary toll charges caused by internal calls routed through the PSTN?

- A. forced on-net routing
- B. automated alternate routing
- C. forced authorization codes
- D. client matter codes
- E. tail-end hop-off

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation**Explanation/Reference:**

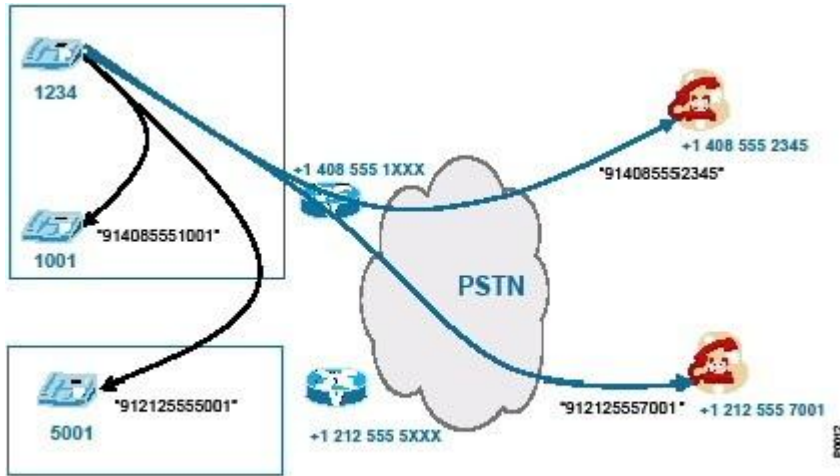
Explanation:

Forced On-Net Routing

It is not uncommon for the dialing habits for on-net/inter-site and off-net destinations to use the same addressing structure. In this case the call control decides whether the addressed endpoint, user, or application is on-net or off-net based on the dialed address, and will treat the call as on-net or off-net, respectively.

Figure 14-4 shows an example of this forced on-net routing. All four calls in this example are dialed as 91 plus 10 digits. But while the calls to +1 408 555 2345 and +1 212 555 7000 are really routed as off-net calls through the PSTN gateway, the other two calls are routed as on-net calls because the call control identifies the ultimate destinations as on-net destinations. Forced on-net routing clearly shows that the dialing habit used does not necessarily also determine how a call is routed. In this example, some calls are routed as on-net calls even though the used PSTN dialing habit seems to indicate that an off-net destination is called.

Figure 14-4 Forced On-Net Routing



Forced on-net routing is especially important if dialing of +E.164 destinations from directories is implemented. In a normalized directory, all destinations are defined as +E.164 numbers, regardless of whether the person that the number is associated with is internal or external. In this case forced on-net routing is a mandatory requirement to avoid charges caused by internal calls routed through the PSTN.

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab09/clb09/dialplan.html

QUESTION 117

What is the maximum length of any numeric geographic area address in ITU recommendation E.164?

- A. 15
- B. 18
- C. 21
- D. 22
- E. 25

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

E.164 defines a general format for international telephone numbers. Plan-conforming numbers are limited to a maximum of 15 digits. The presentation

of numbers is usually prefixed with the character + (plus sign), indicating that the number includes the international country calling code (country code) and must typically be prefixed when dialing with the appropriate international call prefix, which is a trunk code to reach an international circuit from within the country of call origination.

QUESTION 118

How many music on hold servers are required in a trunk-only megacluster of Cisco Unified Communications Manager Session Management Edition?

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

When considering a megacluster deployment, the primary areas impacting capacity are as follows:

- The megacluster may contain a total of 21 servers consisting of 16 subscribers, 2 TFTP servers, 2 music on hold (MoH) servers (0 required), and 1 publisher
- Server type must be either Cisco MCS 7845-I3/H3 class or Cisco Unified Computing System (UCS) C-Series or B-Series using the 10K Open Virtualization Archive (OVA) template.
- Redundancy model must be 1:1.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/8_5_1/ccmfeat/fsgd-851-cm/fsmoh.html#wp1027431

QUESTION 119

Which two Cisco Unified Communications Manager SIP profile configuration parameters for a SIP intercluster trunk are mandatory to enable end-to-end RSVP SIP Preconditions between clusters? (Choose two.)

- A. Set the RSVP over SIP parameter to Local RSVP.
- B. Set the RSVP over SIP parameter to E2E.
- C. Set the SIP Rel1XX Options parameter to Disabled.
- D. Set the SIP Rel1XX Options parameter to Send PRACK If 1xx Contains SDP.
- E. Set the SIP Rel1XX Options parameter to Send PRACK for All 1xx Messages.
- F. Check the Fall Back to Local RSVP check box.

Correct Answer: BD

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Each Unified Communications Manager cluster and Unified CME should have the same configuration information. For example, Application ID should be the same on each Unified Communications Manager cluster and Unified CME. RSVP Service parameters should be the same on each Unified Communications Manager cluster.

QUESTION 120

Which statement describes the Maximum Serving Count service parameter of the Cisco TFTP service on Cisco Unified Communications Manager?

- A. It specifies the maximum number of files in the TFTP server disk storage.
- B. It specifies the maximum number of TFTP client requests to accept and to serve files at a given time.
- C. It specifies the maximum file support by the Cisco TFTP service.
- D. It specifies the maximum file counts, in cache as well as in disk, that are supported by the Cisco TFTP service.
- E. It specifies the maximum number of TFTP client requests to accept and to serve files in a 120-minute window.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

This parameter specifies the maximum number of client requests to accept and to serve files at a time. Specify a low value if you are serving files over a low bandwidth connection. You can set it to a higher number if you are serving small files over a large bandwidth connection and when CPU resources are available, such as when no other services run on the TFTP server. Use the default value if the TFTP service is run along with other Cisco CallManager services on the same server. Use the following suggested values for a dedicated TFTP server: 1500 for a single-processor system and 3000 for a dual-processor system. If the dual-processor system is running Windows 2000 Advanced Server, the serving count can be up to 5000.

This is a required field.

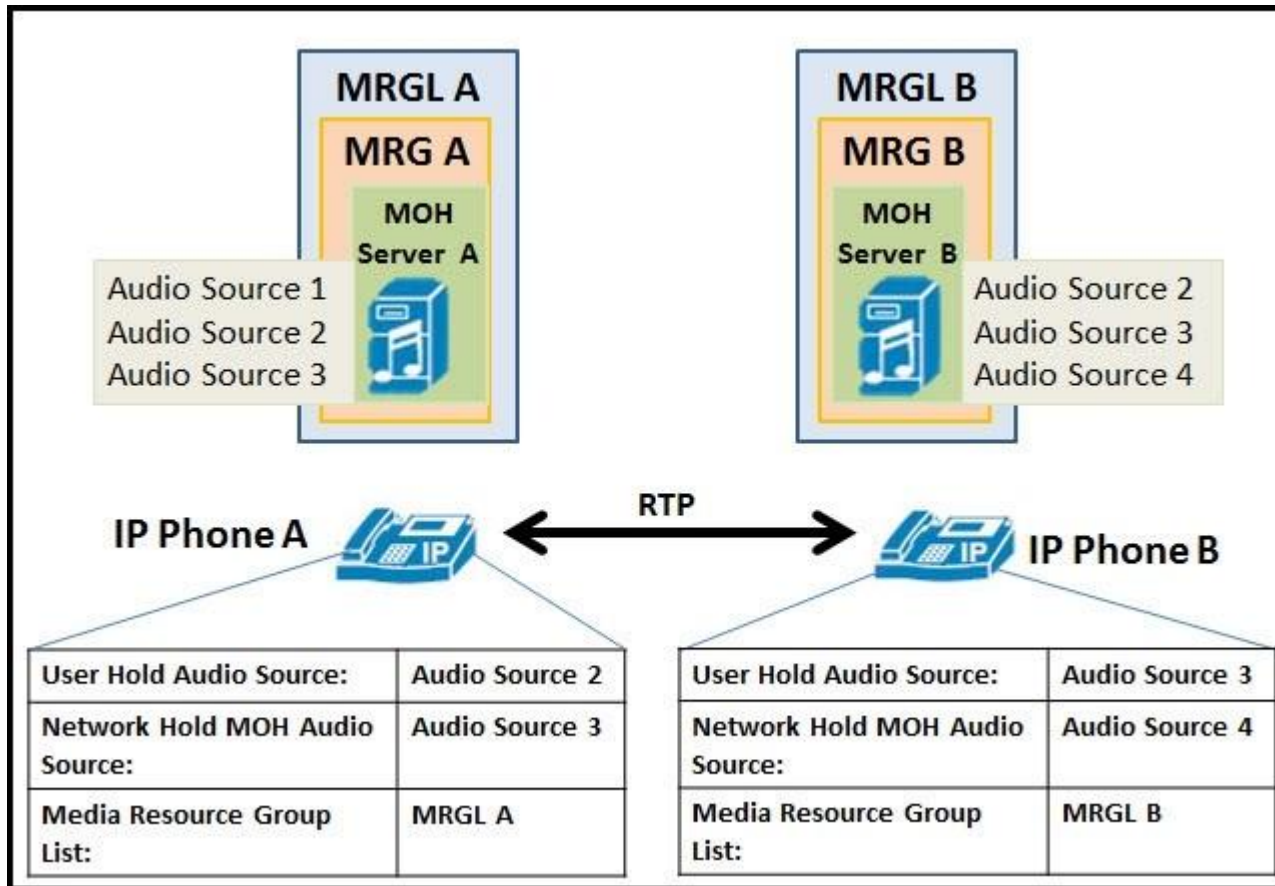
Default: 200.

Minimum: 1.

Maximum: 5000.

QUESTION 121

Refer to the exhibit.



All displayed devices are registered to the same Cisco Unified Communications Manager server and the phones are engaged in an active call. Assuming the provided configurations exist at the phone line level and multicast MOH is disabled clusterwide, what will happen when the user of IP Phone B presses the Hold softkey?

- A. IP Phone A receives audio source 2 from MOH Server A.
- B. IP Phone A receives audio source 3 from MOH Server A.
- C. IP Phone A receives audio source 2 from MOH Server B.
- D. IP Phone A receives audio source 3 from MOH Server B.
- E. IP Phone A receives audio source 1 from MOH Server A.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)
Explanation

Explanation/Reference:
Explanation:

Held parties determine the media resource group list that a Cisco Unified Communications Manager uses to allocate a music on hold resource.

QUESTION 122

Which SIP request is used by a Cisco 9971 IP Phone to signal DND status changes to Cisco Unified Communications Manager?

- A. REGISTER
- B. NOTIFY
- C. INFO
- D. PUBLISH
- E. UPDATE

Correct Answer: D

Section: Section 3: Cisco Unified Communications Manager (CUCM)
Explanation

Explanation/Reference:
Explanation:

Cisco Unified Communications Manager supports Do Not Disturb that a SIP device initiates or that a Cisco Unified Communications Manager device initiates. A DND status change gets signaled from a SIP device to Cisco Unified Communications Manager by using the SIP PUBLISH method (RFC3909). A DND status change gets signaled from a Cisco Unified Communications Manager to a SIP device by using a dndupdate Remote-cc REFER request. Cisco Unified Communications Manager can also publish the Do Not Disturb status for a device, along with the busy and idle status for the device.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/6_1_1/ccmfeat/cmfsgd6_11/fsdnd.html

QUESTION 123

Which two Device Pool configuration settings will override the device-level settings when a device is roaming within or outside a device mobility group? (Choose two.)

- A. Adjunct CSS
- B. Device Mobility CSS
- C. Network Locale

- D. Called Party Transformation CSS
- E. AAR CSS
- F. Device Mobility Group

Correct Answer: CF

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

The parameters under these settings will override the device-level settings when the device is roaming within or outside a Device Mobility Group. The parameters included in these settings are:

Date/time Group

Region

Media Resource Group List

Location

Network Locale

SRST Reference

Physical Location

A Composite Solution With Just One Click - Certification Guaranteed 98

Device Mobility Group

The roaming sensitive settings primarily help in achieving proper call admission control and voice codec selection because the location and region configurations are used based on the device's roaming device pool.

Reference: http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/4x/42dvmobl.html

QUESTION 124

What does a comma accomplish when it is used in a SIP Dial Rule pattern that is associated with a Cisco 9971 IP Phone that is registered to Cisco Unified Communications Manager?

- A. It inserts a 500-millisecond pause between digits.
- B. It causes the phone to generate a secondary dial tone.
- C. It is a delimiter and has no significant dialing impact.

- D. It indicates a timeout value of 5000 milliseconds.
- E. It is an obsolete parameter and will be ignored.

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Comma is accepted in speed dial as delimiter and pause. -Comma used to delineate dial string, FAC, CMC, and post connect digits For post connect digits, commas insert a 2 second delay Commas may be duplicated to create longer delays.

QUESTION 125

Which Cisco Unified Communications Manager partition will be associated with a directory URI that is configured for an end user with a primary extension?

- A. null
- B. none
- C. directory URI
- D. default
- E. any partition that the Cisco Unified Communications Manager administrator desires

Correct Answer: C

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

Cisco Unified Communications Manager supports dialing using directory URIs for call addressing. Directory URIs look like email addresses and follow the username@host format where the host portion is an IPv4 address or a fully qualified domain name. A directory URI is a uniform resource identifier, a string of characters that can be used to identify a directory number. If that directory number is assigned to a phone, Cisco Unified Communications Manager can route calls to that phone using the directory URI. URI dialing is available for SIP and SCCP endpoints that support directory URIs.

QUESTION 126

What is the amount of audio bandwidth, in kilobits per second, that is used in the Cisco Unified Communications Manager location bandwidth calculation for a G.728 call?

- A. 8
- B. 16

- C. 24
- D. 29
- E. 80

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

G.728--Low-bit-rate codec that video endpoints support. It support kilobits per second

QUESTION 127

How many destinations can be configured for a SIP trunk on a Cisco Unified Communications Manager 9.1 system when the destination address is an SRV?

- A. 1
- B. 2
- C. 3
- D. 8
- E. 16

Correct Answer: A

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

SIP trunks can be configured with up to 16 destination IP addresses, 16 fully qualified domain names, or a single DNS SRV entry.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/8x/uc8x/trunks.html

QUESTION 128

Which configuration component in Cisco Unified Communications Manager Enhanced Location Call Admission Control is designated to participate directly in intercluster replication of location, links, and bandwidth allocation data?

- A. an active member of a Location Bandwidth Manager Group
- B. a member of a Location Bandwidth Manager Hub Group

- C. a standby member of a Location Bandwidth Manager Group
- D. all members of a Location Bandwidth Manager Group
- E. a shadow member of a Location Bandwidth Manager Hub Group

Correct Answer: B

Section: Section 3: Cisco Unified Communications Manager (CUCM)

Explanation

Explanation/Reference:

Explanation:

A Location Bandwidth Manager (LBM) service that has been designated to participate directly in intercluster replication of fixed locations, links data, and dynamic bandwidth allocation data. LBMs assigned to an LBM hub group discover each other through their common connections and form a fully-meshed intercluster replication network. Other LBM services in a cluster with an LBM hub participate indirectly in intercluster replication through the LBM hubs in their cluster.

QUESTION 129

Which enrollment method does a Cisco IOS VPN router trustpoint use to install a Certificate Authority Proxy Function certificate for LSC validation of a Cisco IP phone client?

- A. HTTP proxy server
- B. certificate authority server URL
- C. terminal
- D. self-signed
- E. registration authority

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

```
Router(config)#crypto pki trustpoint CAPF
enrollment terminal
authorization username subjectname commonname
revocation-check none
Router(config)#crypto pki authenticate CAPF
Router(config)#
```

Things to Note:

The enrollment method is terminal because the certificate has to be manually installed on the Router.

Reference: <http://www.cisco.com/c/en/us/support/docs/ios-nx-os-software/authentication-authorization-accounting-aaa/116313-configure-anyconnect-00.html>

QUESTION 130

Refer to the exhibit.

```
%VOICE_IEC-3-GW: Application Framework Core: Internal Error (Toll fraud call rejected):  
IEC=1.1.228.3.31.0 on callID 3 GUID=F146D6B0539C11DF800CA596C4C2D7EF  
000183: *Jan 3 11:21:31.251: //3/F146D6B0800C/CCAPI/ccCallSetContext:  
Context=0x49EC9978  
000184: *Jan 3 11:21:31.251: //3/F146D6B0800C/CCAPI/cc_process_call_setup_ind:  
>>>>CCAPI handed cid 3 with tag 1000 to app "_ManagedAppProcess_TOLLFRAUD_APP"  
000185: **Jan 3 11:21:31.251: //3/F146D6B0800C/CCAPI/ccCallDisconnect:  
Cause Value=21, Tag=0x0, Call Entry(Previous Disconnect Cause=0, Disconnect Cause=0)
```

Your customer sent you this debug output, captured on a Cisco IOS router (router A), to troubleshoot a problem where all H.323 calls that originate from another Cisco IOS router (router B) are being dropped almost immediately after arriving at router A. What is the reason for these disconnected calls?

- A. Calls were unsuccessful because of internal, memory-related problems on router A.
- B. Calls were rejected because the called number was denied on a configured class of restriction list on router A.
- C. Calls were rejected because the VoIP dial peer 1002 was not operational.
- D. Calls were unsuccessful because the router B IP address was not found in the trusted source IP address list on router A.
- E. Calls were rejected by router A because it received an admission reject from its gatekeeper because of toll fraud suspicion.

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Trusted source IP address list on router is a list which secures the connectivity of router if it is enabled then we need to give the trusted entry for any route to reach.

QUESTION 131

Which statement about what happens to a Cisco IOS SIP VoIP dial-peer that never received any responses to its out-of-dialog OPTIONS ping is true?

- A. Its admin state will be up but operational state will be down.
- B. Its admin and operational state will be down.
- C. Its admin and operational state will remain up.
- D. Its admin state will be up but operational state will be "busy-out".
- E. Its admin and operational state will be "busy-out".

Correct Answer: A

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

You can check the validity of your dial peer configuration by performing the following tasks:

If you have relatively few dial peers configured, you can use the show dial-peer voice command to verify that the configuration is correct. To display a specific dial peer or to display all configured dial peers, use this command. The following is sample output from the show dial-peer voice command for a specific VoIP dial peer:

```
router# show dial-peer voice 10
```

```
VoiceOverIpPeer10
tag = 10, dest-pat = \Q',
inccall-number = \Q+14087',
group = 0, Admin state is up, Operation state is down
Permission is Answer,
type = voip, session-target = \Q',
sess-proto = cisco, req-qos = bestEffort,
acc-qos = bestEffort,
fax-rate = voice, codec = g729r8,
Expect factor = 10, lcpif = 30, VAD = disabled, Poor QOV Trap = disabled, Connect Time = 0, Charged Units = 0
Successful Calls = 0, Failed Calls = 0
Accepted Calls = 0, Refused Calls = 0
Last Disconnect Cause is ""
Last Disconnect Text is ""
Last Setup Time = 0
```

.

To show the dial peer that matches a particular number (destination pattern), use the show dialplan number command. The following example displays

the VoIP dial peer associated with the destination pattern 51234:
router# show dialplan number 51234

```
Macro Exp.: 14085551234
VoiceOverIpPeer1004
tag = 1004, destination-pattern = \Q+1408555....',
answer-address = \Q',
group = 1004, Admin state is up, Operation state is up type = voip, session-target = \Qipv4:1.13.24.0',
ip precedence: 0 UDP checksum = disabled
session-protocol = cisco, req-qos = best-effort,
acc-qos = best-effort,
fax-rate = voice, codec = g729r8,
Expect factor = 10, lcpif = 30,
VAD = enabled, Poor QOV Trap = disabled
Connect Time = 0, Charged Units = 0
Successful Calls = 0, Failed Calls = 0
Accepted Calls = 0, Refused Calls = 0
Last Disconnect Cause is ""
Last Disconnect Text is ""
Last Setup Time = 0
Matched: +14085551234 Digits: 7
Target: ipv4:172.13.24.0
```

QUESTION 132

Refer to the exhibit.

```
!  
application  
  service app-b-acd-aa  
  param voice-mail 2220  
  paramspace english index 1  
  param max-time-call-retry 40  
  param service-name app-b-acd  
  param number-of-hunt-grps 1  
  param drop-through-option 1  
  paramspace english language en  
  param handoff-string app-b-acd-aa  
  param dial-by-extension-option 3  
  param max-time-vm-retry 1  
  param aa-pilot 5272000  
  paramspace english location flash:  
  param queue-overflow-extension 2003  
  param second-greeting-time 10  
  param drop-through-prompt _bacd_welcome.au  
  param call-retry-timer 10  
  !  
  service app-b-acd  
  param queue-len 2  
  param aa-hunt1 2100  
  param queue-manager-debug 1  
  param number-of-hunt-grps 1  
  !  
!  
ephone-hunt 1 longest-idle  
  pilot 2100  
  list 2001, 2002  
  timeout 10, 10  
  final 2120  
  statistics collect  
!
```

Assume the B-ACD configuration on a Cisco Unified Communications Manager Express router is operational.

Which option describes what will happen to an incoming call that entered the call queue but all members of the hunt group are in Do Not Disturb status?

- A. The call is forwarded to extension 2120.
- B. The call is forwarded to extension 2220.
- C. The call is forwarded to extension 2003.
- D. The call is disconnected with user busy.
- E. The call is forwarded to extension 2100.

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Because all members of hunt group are unavailable or activate DnD and incoming queued call will forward to voicemail using the param voice-mail 2220 command.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/bacd/configuration/guide/cme_40tcl/40bacd.html#wpmkr1105714

QUESTION 133

Which statement about a virtual SNR DN-configured Cisco Unified Communications Manager Express-enabled Cisco IOS router is true?

- A. Virtual SNR DN supports either SCCP or SIP IP phone DNs.
- B. A virtual SNR DN is a DN that is associated with multiple registered IP phones.
- C. Calls in progress can be pulled back from the phone that is associated with the virtual SNR DN.
- D. The SNR feature can only be invoked if the virtual SNR DN is associated with at least one registered IP phone.
- E. A call that arrived before a virtual SNR DN is associated with a registered phone, and still exists after association is made, but cannot be answered from the phone.

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Virtual SNR DN only supports Cisco Unified SCCP IP phone DNs.

Virtual SNR DN provides no mid-call support.

Mid-calls are either of the following:

Calls that arrive before the DN is associated with a registered phone and is still present after the DN is associated with the phone.

Calls that arrive for a registered DN that changes state from registered to virtual and back to registered.

Mid-calls cannot be pulled back, answered, or terminated from the phone associated with the DN.

State of the virtual DN transitions from ringing to hold or remains on hold as a registered DN.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/admin/configuration/guide/cm_eadm/cm_snr.html

QUESTION 134

Which two Cisco Unified Communications Manager Express hunt group mechanisms keep track of the number of hops in call delivery decisions? (Choose two.)

- A. sequential
- B. peer
- C. longest idle
- D. parallel
- E. overlay
- F. linear

Correct Answer: BC

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Peer configures hunting in a circular manner among the hunt group member DNs and starts with the DN to the right of the last DN to ring.

Longest-idle specifies hunting on the DN which is idle for a longest period of time and the call will go to that DN of the hunt Group.

Reference: <http://ccievoice.ksiazek.be/?p=690>

QUESTION 135

Refer to the exhibit.

```
!  
ephone-dn 1 octo-line  
  number 2001  
  huntstop channel 6  
!  
ephone 1  
  mac-address 1111.1111.1111  
  max-calls-per-button 5  
  busy-trigger-per-button 3  
  type 7965  
  button 1:1  
!  
ephone 2  
  mac-address 2222.2222.2222  
  max-calls-per-button 6  
  busy-trigger-per-button 4  
  type 7965  
  button 1:1  
!
```

How many inbound calls can be handled simultaneously between ephone 1 and ephone 2 before a user busy tone is returned?

- A. 6
- B. 7
- C. 8
- D. 9
- E. 11

Correct Answer: A

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Because hunt stop channel is set to 6 as it enables call hunting to up to six channels of this ephone-dn and remaining 2 channels are available for outgoing call features.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/command/reference/cme_cr/cme_e1ht.html

QUESTION 136

Refer to the exhibit.

```
!  
application  
  service app-b-acd-aa  
  param voice-mail 2220  
  paramspace english index 1  
  param max-time-call-retry 40  
  param service-name app-b-acd  
  param number-of-hunt-grps 1  
  param drop-through-option 1  
  paramspace english language en  
  param handoff-string app-b-acd-aa  
  param dial-by-extension-option 3  
  param max-time-vm-retry 1  
  param aa-pilot 5272000  
  paramspace english location flash:  
  param queue-overflow-extension 2003  
  param second-greeting-time 10  
  param drop-through-prompt _bacd_welcome.au  
  param call-retry-timer 10  
  !  
  service app-b-acd  
  param queue-len 2  
  param aa-hunt1 2100  
  param queue-manager-debug 1  
  param number-of-hunt-grps 1  
  !  
!  
ephone-hunt 1 longest-idle  
  pilot 2100  
  list 2001, 2002  
  timeout 10, 10  
  final 2120  
  statistics collect  
!
```

Assume the B-ACD configuration on a Cisco IOS Cisco Unified Communications Manager Express router is operational. What will happen to a call in queue that was not answered by any member of the hunt group after the maximum amount of time allowed in the call queue expires?

A. The call will be forwarded to extension 2120.

- B. The call will be forwarded to extension 2220.
- C. The call will be forwarded to extension 2003.
- D. The call will be disconnected with user busy.
- E. The call will be forwarded to 2100.

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

As we can see in the configuration 2220 is configured as voice mail forwarding extension so the call will forward to voice mail.

QUESTION 137

Which two types of line codes are configurable for an E1 PRI controller on a Cisco IOS router? (Choose two.)

- A. CRC4
- B. AMI
- C. B8ZS
- D. HDB3
- E. ESF
- F. SF

Correct Answer: BD

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Configuring an NM-xCE1T1-PRI Card for an E1 Interface

Perform this task to select and configure an NM-xCE1T1-PRI network module card as E1.

SUMMARY STEPS

1. enable
2. configure terminal
3. card type e1 slot
4. controller e1 slot / port
5. linecode {ami | hdb3}
6. framing {crc4 | no-crc4}

Reference:

<http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/configuration/12-4/ir-12-4-book/ir-12-port-chann-nm.html>

QUESTION 138

Refer to the exhibit.

```
voice translation-rule 2
  rule 1 /^500..$/ /40877\0/
  rule 2 /^5..[0-9]$/ /+1408777\0/
  rule 3 /^500....$/ /1408777..../
voice translation-profile PSTN
  translate calling 2
```

Which number is sent as the caller ID when a user at extension 5001 places a call that matches this translation profile?

- A. 14087775001
- B. +4087775001
- C. 4087750001
- D. +14087775001

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

When someone dials 5001, it will match rule 2 because it exactly starts with 5(five) using the ^ sign and ends with [0-9] followed by \$. In replace pattern you can see +1408777 & \0 means all set of match pattern. Thus, +14087775001.

QUESTION 139

In Cisco IOS routers, which chipset is the PVDM2-32 DSP hardware based on?

- A. C5441
- B. C549
- C. C5510

- D. C5421
- E. Broadcom 1500

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Table 6-2 DSP Resources on Cisco IOS Hardware Platforms with C5510 Chipset

Hardware Module or Chassis

DSP Configuration

Maximum Number of Voice Terminations (Calls) per DSP and per Module Medium Complexity

(8 calls per DSP)

High Complexity

(6 calls per DSP)

Flex Mode1

(240 MIPS per DSP)

VG-224

Fixed at 4 DSPs

N/A

24 calls per platform

Supported codecs:

G.711 (a-law, mu-law)

.

G.729a

N/A

NM-HD-1V2

Fixed at 1 DSP

4 calls per NM

4 calls per NM

240 MIPS per NM

NM-HD-2V

8 calls per NM

6 calls per NM

240 MIPS per NM

NM-HD-2VE

Fixed at 3 DSPs
24 calls per NM
18 calls per NM
720 MIPS per NM
NM-HDV2
NM-HDV2-2T1/E1
NM-HDV2-1T1/E1
1 to 4 of:
PVDM2-83 (½ DSP)PVDM2-16 (1 DSP)PVDM2-32 (2 DSPs)PVDM2-48 (3 DSPs)PVDM2- 64 (4 DSPs)
Calls per PVDM:
48162432
Calls per PVDM:
36121824
MIPS per PVDM:
120240480720960

Reference: http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/4x/42media.html

QUESTION 140

Which two responses from a SIP device, which is the only remote destination on a Cisco Unified Communications Manager SIP trunk with OPTIONS ping enabled, cause the trunk to be marked as "Out of Service"? (Choose two.)

- A. 503 Service Unavailable
- B. 408 Request Timeout
- C. 505 Version Not Supported
- D. 504 Server Timeout
- E. 484 Address Incomplete
- F. 404 Not Found

Correct Answer: AB

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The remote peer may be marked as Out of Service if it fails to respond to OPTIONS, if it sends 503 or 408 responses, or if the Transport Control Protocol (TCP) connection cannot be established. If at least one IP address is available, the trunk is In Service; if all IP addresses are unavailable, the trunk is Out of Service.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/8_5_1/ccmcfg/bccm-851-cm/b06siprf.html

QUESTION 141

Refer to the exhibit.

```
!  
voice-port 1/1/0  
  caller-id enable  
  station-id number 5251234  
  station-id name Cisco  
  ring number 6  
!
```

In an effort to troubleshoot a caller ID delivery problem, a customer emailed you the voice port configuration on a Cisco IOS router. Which type of voice port is it?

- A. FXS
- B. E&M
- C. BRI
- D. FXO
- E. DID

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Configuring FXS and FXO Voice Ports to Support Caller ID To configure caller-ID on FXS and FXO voice ports, use the following commands beginning in global configuration mode:

Command

Purpose

Step 1

Router(config)# caller-id enable

Enables caller ID. This command applies to FXS voice ports that send caller-ID information and to FXO ports that receive it. By default caller ID is disabled.

Note

If the station-id or a caller-id alerting command is configured on the voice port, these automatically enable caller ID, and the caller-id enable command is not necessary.

Step 2

```
Router(config-voiceport)# station-id name name
```

Configures the station name on FXS voice ports connected to user telephone sets. This sets the caller-ID information for on-net calls originated by the FXS port. You can also configure the station name on an FXO port of a router for which incoming Caller ID from the PSTN subscriber line is expected. In this case, if no caller-ID information is included on the incoming PSTN call, the call recipient receives the information configured on the FXO port instead. If the PSTN subscriber line does provide caller-ID information, this information is used and the configured station name is ignored. The name argument is a character string of 1 to 15 characters identifying the station. Note This command applies only to caller-ID calls, not Automatic Number Identification (ANI) calls. ANI supplies calling number identification only.

Step 3

```
Router(config-voiceport)# station-id number number
```

Configure the station number on FXS voice ports connected to user telephone sets. This sets the caller-ID information for on-net calls originated by the FXS port. You can also configure the station number on an FXO port of a router for which incoming caller ID from the PSTN subscriber line is expected. In this case, if no caller-ID information is included on the incoming PSTN call, the call recipient receives the information configured on the FXO port instead. If the PSTN subscriber line does provide caller-ID information, this information is used and the configured station name is ignored. If the caller-ID station number is not provided by either the incoming PSTN caller ID or by the station number configuration, the calling number included with the on-net routed call is determined by Cisco IOS software by using a reverse dial-peer search. In this case, the number is obtained by searching for a POTS dial-peer that refers to the voice-port and the destination-pattern number from that dial-peer is used. Number is a string of 1 to 15 characters identifying the station telephone or extension number.

Reference:

http://www.cisco.com/c/en/us/td/docs/ios/12_2/voice/configuration/guide/fvfax_c/vvclid.ht ml

QUESTION 142

Which two statements are requirements regarding hunt group options for B-ACD implementation on Cisco Unified Communications Manager Express routers? (Choose two.)

- A. The ephone hunt group is mandatory.
- B. Either the ephone hunt group or the voice hunt group is acceptable.
- C. Hunt group members must be SCCP IP phones.
- D. Hunt group members can include both SCCP or SIP IP phones.
- E. Hunt group members must be SIP IP phones.
- F. The member hunting mechanism must be set to sequential.

Correct Answer: AC

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The ephone hunt group is mandatory, and while ephone hunt groups only support Cisco Unified SCCP IP phones, a voice hunt group supports either a Cisco Unified SCCP IP phone or a Cisco Unified SIP IP phone.

Reference:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucme/command/reference/cme_v1ht.html

QUESTION 143

Refer to the exhibit.

```
CUBE-2#show voice high-availability summary
===== Voice HA DB INFO =====
Number of calls in HA DB: 28 (MAX:2048)
Number of calls in HA sync pending DB: 12
Number of calls in HA preserved session DB: 9
```

This output was captured on a Cisco IOS gateway shortly after it became the active Cisco Unified Border Element in a box-to-box redundancy failover.

How many calls are native to this Cisco Unified Border Element?

- A. 9
- B. 12
- C. 19
- D. 31
- E. 40

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Total no of calls = 28 + 12 = 40.
So, native calls are = 40 - 9 = 31.

Reference: <http://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-border-element/112095-cube-hsrp-config-00.html>

QUESTION 144

Refer to the exhibit.

```
Outgoing SIP UDP message to 10.1.1.1:[5060]:  
  
SIP/2.0 401 Unauthorized  
Via: SIP/2.0/UDP 10.1.1.1:5060;branch=z9hG4bK078cE1C7A  
From:"Unknown" ;tag=2349872847981  
To: "SBC" ;tag=2349872938479  
Date: Tue, 11 Dec 2012 15:08:29 GMT  
Call-ID: 234098d123147652@20.1.1.1  
CSeq: 104 OPTIONS  
www-Authenticate: Digest realm="standAloneCluster", nonce="sdflakjdfjklahsfhkhq", algorithm=MD5  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Content-Length: 0
```

The exhibit shows an outgoing SIP 401 response message from Cisco Unified Communications Manager to a SIP VoIP service provider gateway. Which action can the Cisco Unified Communications Manager systems administrator use to change the response to "200 OK"?

- A. Make sure the gateway IP address of the SIP VoIP service provider is defined correctly in Cisco Unified Communications Manager SIP trunk.
- B. Enable OPTIONS ping on Cisco Unified Communications Manager SIP trunk.
- C. Disable OPTIONS ping on Cisco Unified Communications Manager SIP trunk.
- D. Create an SIP response alias to force outgoing 401 messages to "200 OK".
- E. Disable digest authentication on Cisco Unified Communications Manager SIP trunk.

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Because Right now CUCM challenges the identity of a SIP user agent and must configure digest credentials for the application user in CUCM or you have to disable it for stop challenging by CUCM.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/security/9_0_1/secugd/CUCM_BK_CCB00C40_00_cucm-security-guide-90/CUCM_BK_CCB00C40_00_cucm-security-guide_chapter_011010.html

QUESTION 145

Which codec is supported on the Cisco PVDM2 DSP modules but not on the PVDM3 DSP modules?

- A. G.728
- B. G.729B
- C. G.729AB
- D. G.723
- E. G.726

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

All codecs that are supported on the PVDM2 are supported on the PVDM3, except that the PVDM3 does not support the G.723 (G.723.1 and G.723.1A) codecs. The PVDM2 can be used to provide G.723 codec support or the G.729 codec can be as an alternative on the PVDM3

Reference:

http://www.cisco.com/c/en/us/td/docs/routers/access/1900/software/configuration/guide/Software_Configuration/pvdm3_config.html

QUESTION 146

Refer to the exhibit.

```
!  
ephone-dn 1 octo-line  
  number 2001  
  huntstop channel 6  
!  
ephone 1  
  mac-address 1111.1111.1111  
  max-calls-per-button 5  
  busy-trigger-per-button 3  
  type 7965  
  button 1:1  
!  
ephone 2  
  mac-address 2222.2222.2222  
  max-calls-per-button 6  
  busy-trigger-per-button 4  
  type 7965  
  button 1:1  
!
```

Three calls are active on ephone 1. Assume ephone 2 will remain idle.

How many additional calls can be placed from ephone 1?

- A. 0
- B. 1
- C. 2
- D. 3
- E. 5

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

As we can see max-calls-per-button set to 5 and 3 calls are active. So, 2 calls remain.

QUESTION 147

Refer to the exhibit.

```
!  
voice register dn 1  
  number 2001  
  call-forward b2bua busy 2100  
  call-forward b2bua noan 2200 timeout 20  
  shared-line max-calls 5  
  huntstop channel 4  
!  
voice register pool 1  
  busy-trigger-per-button 3  
  id mac 1111.1111.1111  
  type 7965  
  number 1 dn 1  
!  
voice register pool 2  
  busy-trigger-per-button 3  
  id mac 2222.2222.2222  
  type 7965  
  number 1 dn 1  
!
```

IP phone 1 has the MAC address 1111.1111.1111, while IP phone 2 has the MAC address 2222.2222.2222. The first two incoming calls were answered by IP phone 1, while the third incoming call was answered by IP phone 2. What will happen to the fourth incoming call?

- A. Both phones will ring, but only IP phone 2 can answer the call.
- B. Both phones will ring and either phone can answer the call.
- C. Only IP phone 2 will ring and can answer the call.
- D. Neither phone will ring and the call will be forwarded to 2100.
- E. Neither phone will ring and the call will be forwarded to 2200.

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features**Explanation****Explanation/Reference:**

Explanation:

In shared line configuration phone share the same line so it is possible for any phone to answer the call.

QUESTION 148

When DSP oversubscription occurs on a Cisco IOS router using DSP modules that are based on the C5510 chipset, what will happen when an analog phone connected to a FXS port goes off-hook?

- A. A fast busy tone will be played.
- B. A slow busy tone will be played.
- C. A network busy tone will be played.
- D. A dial tone will be played, but digits will not be processed.
- E. No tone will be played.

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features**Explanation****Explanation/Reference:**

Explanation:

When DSP oversubscription occurs for both analog ports and digital ports, except PRI and BRI. FXO signaling and application controlled endpoints are not supported. This feature does not apply to insufficient DSP credits due to mid-call codec changes (while a call is already established).

QUESTION 149

Refer to the exhibit.


```
Router#show dial-peer voice sum
dial-peer hunt 0
```

TAG	TYPE	AD MIN	OPER	PREFIX	DEST-PATTERN	PRE FER	PASS THRU	SESS-TARGET	OUT STAT	PORT	KEEPALIVE
4300	voip	up	up		4...	0	syst	ipv4:10.1.1.4			active
2300	voip	up	up		[2-3]...	0	syst	ipv4:10.1.1.3			active
1111	voip	up	down		1111	0	syst	ipv4:10.1.1.1			busy-out
20001	pots	up	up		2001\$	0				50/0/1	
20002	pots	up	up		2002\$	0				50/0/2	

Which out-of-dialog SIP OPTIONS ping response put dial-peer tag 1111 into its current operational state?

- A. 501 Not Implemented
- B. 504 Server Time-out
- C. 408 Request Timeout
- D. 486 Busy Here
- E. 503 Service Unavailable

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

SIP 503 Service Unavailable is commonly seen in a VoIP network when a SIP device (such as a SIP server) is knowingly unable to process a call. Typically when this happens the endpoint that originated the Invite will try the next available host it receives in the SIP Contact header.

QUESTION 150

Which codec complexity mode, when deployed on Cisco IOS routers with DSPs using the C5510 chipset, supports the most G.711 calls per DSP?

- A. Low
- B. Medium
- C. High
- D. Secure
- E. Flex

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features**Explanation****Explanation/Reference:**

Explanation:

The flex parameter allows the complexity to automatically adjust to either medium or high complexity depending on the needs of a call. For example, if a call uses the G.711 codec, the C5510 chipset automatically adjusts to the medium-complexity mode. However, if the call uses G.729, the C5510 chipset uses the high complexity mode

QUESTION 151

Refer to the exhibit.

```
T1-CAS-Gateway(config-controller)#ds0-group 1 time 1-10 type ?
e&m-delay-dial      E & M Delay Dial
e&m-fgd             E & M Type II FGD
e&m-immediate-start E & M Immediate Start
e&m-lmr             E & M land mobil radio
e&m-wink-start       E & M Wink Start
ext-sig             External Signaling
fgd-eana            FGD-EANA BOC side
fgd-os              FGD-OS BOC side
fxo-ground-start    FXO Ground Start
fxo-loop-start       FXO Loop Start
fxs-ground-start     FXS Ground Start
fxs-loop-start       FXS Loop Start
none                Null Signalling for External Call Control
<cr>
```

Which ds0-group option should you select to send automated number identification information on outbound calls for this digital T1 voice circuit?

- A. e&m-fgd
- B. e&m-fgd
- C. fgd-eana
- D. e&m-delay-dial
- E. fgd-os

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features
Explanation

Explanation/Reference:
Explanation:

E&M signaling is often the preferred option for CAS because it avoids glare, it provides answer/disconnect supervision and it can receive Automatic Number Identification (ANI) with FGD and send ANI with FGD-EANA. In other words, you can have 1 channel-group for incoming calls and 1 channel-group for outgoing calls.

QUESTION 152

Which call hunt mechanism is only supported by the voice hunt group in a Cisco Unified Communications Manager Express router?

- A. sequential
- B. peer
- C. longest idle
- D. parallel
- E. overlay

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features
Explanation

Explanation/Reference:
Explanation:

Parallel Hunt-Group, allows a user to dial a pilot number that rings 2-10 different extensions simultaneously. The first extension to answer gets connected to the caller while all other extensions will stop ringing. A timeout value can be set whereas if none of the extensions answer before the timer expires, all the extensions will stop ringing and one final destination number will ring indefinitely instead. The final number could be another voice hunt-group pilot number or mailbox.

The following features are supported for Voice Hunt-Group:

Calls can be forwarded to Voice Hunt-Group

Calls can be transferred to Voice Hunt-Group

Member of Voice Hunt-Group can be SCCP, ds0-group, pri-group, FXS or SIP phone/trunk

Max member of Voice Hunt-Group will be 32

QUESTION 153

Which three options are valid per-session video conference participants supported on the Cisco Integrated Router Generation 2 with packet voice and video digital signal processor 3? (Choose three.)

- A. 3

- B. 4
- C. 6
- D. 8
- E. 9
- F. 12
- G. 16

Correct Answer: BDG

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The integrated video conferencing services use the same DSP resources on PVDM3s that are used for widely deployed ISR G2 voice capabilities. These modules, in conjunction with Cisco IOS Software, perform audio and video mixing, video transcoding for certain resolutions, and other functions for video endpoints. PVDM3 modules support flexible media resources and conference profile management to maximize capacity with predictable end-user experiences. Both homogenous and heterogenous video conferences are supported. A homogenous conference refers to one in which participants connect to the ISR G2 with devices that support the same video format attributes (for example, the same codec, resolution, frame rate, and bit rate). A heterogeneous conference refers to one in which participants can connect to a conference bridge with devices that support different video format attributes. Each conference allows 4-, 8-, or 16-party participants.

Reference: http://www.cisco.com/c/en/us/products/collateral/unified-communications/voice-video-conferencing-isr-routers/data_sheet_c78-649427.html

QUESTION 154

Which Cisco Unified Communications Manager Express ephone button configuration separator enables overflow lines when the primary line for an overlay button is occupied by an active call?

- A. o
- B. c
- C. w
- D. x
- E. :

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

x expansion/overflow, define additional expansion lines that are used when the primary line for an overlay button is occupied by an active call.

QUESTION 155

Refer to the exhibit.

```
!  
application  
  service app-b-acd-aa  
  param voice-mail 2220  
  paramspace english index 1  
  param max-time-call-retry 40  
  param service-name app-b-acd  
  param number-of-hunt-grps 1  
  param drop-through-option 1  
  paramspace english language en  
  param handoff-string app-b-acd-aa  
  param dial-by-extension-option 3  
  param max-time-vm-retry 1  
  param aa-pilot 5272000  
  paramspace english location flash:  
  param queue-overflow-extension 2003  
  param second-greeting-time 10  
  param drop-through-prompt _bacd_welcome.au  
  param call-retry-timer 10  
  !  
  service app-b-acd  
  param queue-len 2  
  param aa-hunt1 2100  
  param queue-manager-debug 1  
  param number-of-hunt-grps 1  
  !  
!  
ephone-hunt 1 longest-idle  
  pilot 2100  
  list 2001, 2002  
  timeout 10, 10  
  final 2120  
  statistics collect  
!
```

Assume the B-ACD configuration on a Cisco IOS Cisco Unified Communications Manager Express router is operational. What will happen to a new call that enters the call queue when there are already two calls in queue?

- A. The call will be forwarded to extension 2120.
- B. The call will be forwarded to extension 2220.
- C. The call will be forwarded to extension 2003.
- D. The call will be disconnected with user busy.
- E. The call will be forwarded to 2100.

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

That is because queue over flow is forwarded to 2003 and maximum number of calls in queue is configured as two.

QUESTION 156

Refer to the exhibit.

```
SIP-Gateway#show sip-ua status

SIP User Agent Status
SIP User Agent for UDP : ENABLED
SIP User Agent for TCP : ENABLED

SIP User Agent for TLS over TCP : ENABLED
SIP User Agent bind status(signaling): ENABLED 10.1.1.1
SIP User Agent bind status(media): ENABLED 10.1.1.1
SIP early-media for 180 responses with SDP: DISABLED
SIP max-forwards : 70
SIP DNS SRV version: 2 (rfc 2782)
NAT Settings for the SIP-UA
Role in SDP: NONE
Check media source packets: DISABLED
Maximum duration for a telephone-event in NOTIFYs: 2000 ms
SIP support for ISDN SUSPEND/RESUME: ENABLED
Redirection (3xx) message handling: ENABLED
Reason Header will override Response/Request Codes: DISABLED
Out-of-dialog Refer: DISABLED
Presence support is DISABLED
protocol mode is ipv4

SDP application configuration:
version line (v=) required
owner line (o=) required
Timespec line (t=) required
Media supported: audio video image
Network types supported: IN
Address types supported: IP4 IP6
Transport types supported: RTP/AVP udpt1
```

Which option describes how this Cisco IOS SIP gateway, with an analog phone attached to its FXS port, handles an incoming informational SIP 180 response message with SDP?

- A. It will enable early media cut-through.
- B. It will generate local ring back.
- C. It will do nothing because the message is informational.
- D. It will terminate the call because this is an unsupported message format.
- E. It will take the FXS port offhook.

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features**Explanation****Explanation/Reference:****QUESTION 157**

Which two Cisco IOS multipoint video conferencing profiles are supported on the Cisco Integrated Router Generation 2 with packet voice and video digital signal processor 3? (Choose two.)

- A. homogeneous
- B. rendezvous
- C. guaranteed-audio
- D. scheduled
- E. guaranteed-video
- F. ad-hoc

Correct Answer: AC

Section: Section 4: Cisco IOS UC Applications & Features**Explanation****Explanation/Reference:**

Explanation:

Q. What video conferences are supported?

A. Three types of video profiles are supported: homogeneous conferences (video switching), heterogeneous conferences (video mixing), and guaranteed audio conferences (best-effort video).

Reference: http://www.cisco.com/c/en/us/products/collateral/unified-communications/voice-video-conferencing-isr-routers/qa_c67-649850.html

QUESTION 158

A Composite Solution With Just One Click - Certification Guaranteed 128

Which statement describes the question mark wildcard character in a SIP trigger that is configured on Cisco Unity Express?

- A. It matches any single digit in the range 0 through 9.
- B. It matches one or more digits in the range 0 through 9.
- C. It matches zero or more occurrences of the preceding digit or wildcard value.
- D. It matches one or more occurrences of the preceding digit or wildcard value.
- E. It matches any single digit in the range 0 through 9, when used within square brackets.

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Table 5-2 Trigger Pattern Wildcards and Special Characters

Character

Description

Examples

X

The X wildcard matches any single digit in the range 0 through 9. The trigger pattern 9XXX matches all numbers in the range 9000 through 9999.

!

The exclamation point (!) wildcard matches one or more digits in the range 0 through 9. The trigger pattern 9! matches all numbers in the range 910 through 919999999999999999999999999999.

?

The question mark (?) wildcard matches zero or more occurrences of the preceding digit or wildcard value.

The trigger pattern 91X? matches all numbers in the range 91 through 91999999999999999999999999999999.

+

The plus sign (+) wildcard matches one or more occurrences of the preceding digit or wildcard value.

The trigger pattern 91X+ matches all numbers in the range 910 through 919999999999999999999999999999.

[

The square bracket ([]) characters enclose a range of values. The trigger pattern 813510[012345] matches all numbers in the range 8135100 through 8135105.

—

The hyphen (-) character, used with the square brackets, denotes a range of values.

The trigger pattern `813510[0-5]` matches all numbers in the range 8135100 through 8135105.

^

The circumflex (^) character, used with the square brackets, negates a range of values. Ensure that it is the first character following the opening bracket (I).

Each trigger pattern can have only one ^ character.

The trigger pattern `813510[^0-5]` matches all numbers in the range 8135106

QUESTION 159

Refer to the exhibit.

```
!  
voice register dn 1  
  number 2001  
  call-forward b2bua busy 2100  
  shared-line  
  huntstop channel 6  
!  
voice register pool 1  
  busy-trigger-per-button 4  
  id mac 1111.1111.1111  
  type 7965  
  number 1 dn 1  
!  
voice register pool 2  
  busy-trigger-per-button 5  
  id mac 2222.2222.2222  
  type 7965  
  number 1 dn 1  
!
```

How many simultaneous inbound calls can be handled by these two IP phones?

- A. 2
- B. 4
- C. 6
- D. 9
- E. 10

Correct Answer: A

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The line is configured as shared line so it will support maximum two calls at a time.

QUESTION 160

Which two statements describe characteristics of Cisco Unified Border Element high availability, prior to Cisco IOS release 15.2.3T, using a box-to-box

redundancy configuration? (Choose two.)

- A. It leverages HSRP for router redundancy and GLBP for load sharing between a pair of routers.
- B. Cisco Unified Border Element session information is check-pointed across the active and standby router pair.
- C. It supports media and signal preservation when a switchover occurs.
- D. Only media streams are preserved when a switchover occurs.
- E. It can leverage either HSRP or VRRP for router redundancy.
- F. The SIP media signal must be bound to the loopback interface.

Correct Answer: BD

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Configure box-to-box redundancy when you:

Expect the behavior of the CSSs to be active/standby (only the master CSS processes

flows)

.

Can configure a dedicated Fast Ethernet (FE) link between the CSSs for the VRRP

Do not configure box-to-box redundancy when you:

.

Expect the behavior of the CSSs to be active-active (both CSSs processing flows). Use VIP

redundancy instead.

A Composite Solution With Just One Click - Certification Guaranteed 131 .

Cannot configure a dedicated FE link between the CSSs.

.

Require the connection of a Layer 2 device between the redundant CSS peers.

QUESTION 161

Refer to the exhibit.

```
!  
voice register dn 1  
  number 2001  
  call-forward b2bua busy 2100  
  call-forward b2bua noan 2200 timeout 20  
  shared-line max-calls 4  
  huntstop channel 3  
!  
voice register pool 1  
  busy-trigger-per-button 3  
  id mac 1111.1111.1111  
  type 7965  
  number 1 dn 1  
!  
voice register pool 2  
  busy-trigger-per-button 2  
  id mac 2222.2222.2222  
  type 7965  
  number 1 dn 1  
!
```

IP phone 1 has MAC address of 1111.1111.1111, and IP phone 2 has MAC address of 2222.2222.2222. The first two incoming calls were answered by IP phone 1, and the third incoming call was answered by IP phone 2.

Which option describes what will happen to the fourth incoming call?

- A. Both phones ring, but only IP phone 2 can answer the call.
- B. Both phones ring and either phone can answer the call.
- C. Both phones ring, but only IP phone 1 can answer the call.
- D. Neither phone rings and the call is forwarded to 2100.
- E. Neither phone rings and the call is forwarded to 2200.

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation**Explanation/Reference:**

Explanation:

IP Phone 1 & 2 both have busy-trigger-per-button configured to 3 & 2 respectively. So, the 4th incoming call will get forwarded to 2100 as busy-triggers are exceeding in IP Phones.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/command/reference/cme_cr/cme_c1ht.html#wp1570384096

QUESTION 162

How many signaling bits are there in each T1 time slot using channel associated signaling with Super Frame?

- A. 1
- B. 2
- C. 4
- D. 8
- E. 12

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation**Explanation/Reference:**

Explanation:

Each T1 CAS has 24 channels that can transmit 8 bits per channel each. This gives us a total of 192 bits. The T1 has one additional bit for framing, bringing the total to 193 bits. Two types of line coding can be used on a T1 CAS. The first type of line coding is called Super Frame (SF). This is an older and less - efficient type of framing. Super Frame bundles 12 of these 193 - bit frames together for transport. It then uses the even numbered frames as signaling bits. The T1 CAS signaling then looks at every sixth frame for signaling information. This comes out to be 2 bits that are referred to as the A and B bits, which reside in frames 6 and 12.

QUESTION 163

Which digital modulation method is used to transmit caller ID information on analog FXS ports on Cisco IOS routers?

- A. DTMF
- B. PSK
- C. FSK
- D. MF
- E. pulse dialing

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Link:-<http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/vcr1/vcr1-cr-book/vcr-c4.html>

QUESTION 164

Assume the IP address of Cisco Unity Express is 10.1.1.1. Which URL provides Cisco Unity Express end users with a GUI interface to access and manage their messages and mailbox settings?

- A. <http://10.1.1.1/Web/Common/Login.do>
- B. <http://10.1.1.1/ciscopca>
- C. <http://10.1.1.1/user>
- D. <http://10.1.1.1/inbox>
- E. <http://10.1.1.1/>

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

For user access cisco unity has predefined url and it is <http://10.1.1.1/user>

QUESTION 165

Refer to the exhibit.

```
isdn switch-type primary-dms100  
  
controller T1 1/0  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d primary nfas_int 0 nfas_group 1  
  
controller T1 1/1  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d backup nfas_int 1 nfas_group 1  
  
controller T1 2/0  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d none nfas_int 2 nfas_group 1  
  
controller T1 2/1  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d none nfas_int 3 nfas_group 1
```

From this NFAS-enabled T1 PRI configuration on a Cisco IOS router, how many bearer channels are available to carry voice traffic?

- A. 91
- B. 92
- C. 93
- D. 94
- E. 95

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

A T1 circuit typically carries 24 individual timeslots. Each timeslot in turn carries a single telephone call. When a T1 circuit is used to carry Primary Rate ISDN one of the timeslots is used to carry the D channel. A single Primary Rate ISDN circuit is thus sometimes described as 23B + D. There are 23 bearer channels carrying voice or data, and one D channel carrying the Common Channel Signaling. In this case, there are 96 total channels in the group, but only 1 will be needed for use as the D channel, leaving 95 available for bearer channels.

QUESTION 166

Which two statements about the restrictions for support of H.239 are true? (Choose two.)

- A. SIP to H323 video calls using H.239 are not supported.
- B. Redundancy for H.323 calls is not supported.
- C. H.239 calls are not supported over intercluster trunks with Cisco Unified Communications Manager.
- D. H.239 is not supported with third-party endpoints.
- E. Cisco Unified Communications Manager supports a maximum of three video channels when using H.239.

Correct Answer: AB

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Restriction for Support for H.239

The Support for H.239 feature has the following restrictions:

Interworking SIP-H.323 Video calls using H.239 is not supported.

Redundancy for H.323 calls is not supported.

A fast-start request cannot include a request to open an H.239 additional video channel as it is not supported.

H.239 systems based on H.235 is not supported.

The SBC does not support call transfer for H.323 calls. When an H.323 endpoint is placed on hold, it closes its media as well as video channels.

Reference:

http://www.cisco.com/c/en/us/td/docs/routers/asr1000/configuration/guide/sbcu/2_xe/sbcu_2_xe_book/sbc_h239.html

QUESTION 167

Refer to the exhibit.


```
voice class codec 1
  codec preference 1 g729r8
  codec preference 2 g711ulaw
!
voice class sip-profiles 102
  request INVITE sip-header Allow-Header modify ", UPDATE" ""
  request REINVITE sip-header Allow-Header modify ", UPDATE" ""
  response 180 sip-header Allow-Header modify ", UPDATE" ""
  response 200 sip-header Allow-Header modify ", UPDATE" ""
  request INVITE sip-header Diversion remove
  request ANY sip-header Diversion remove
!
dial-peer voice 7 voip
  translation-profile outgoing CALLED_DIGIT_STRIP
  destination-pattern 6911
  modem passthrough nse codec g711ulaw
  session protocol sipv2
  session target ipv4:10.0.0.1
  voice-class codec 1
  voice-class sip dtmf-relay force rtp-nte
  voice-class sip early-offer forced
  voice-class sip profiles 102
  dtmf-relay rtp-nte
  ip qos dscp af41 signaling
  no vad
```

Which two statements about calls that match dial-peer voice 7 voip are true? (Choose two.)

- A. All calls that match dial-peer voice 7 use G.711.
- B. All calls that match dial-peer voice 7 have the Diversion header removed from SIP Invites.
- C. All calls that match dial-peer voice 7 use NOTIFY-based, out-of-band DTMF relay.
- D. All calls that match dial-peer voice 7 are marked with DSCP 32.
- E. All calls that match dial-peer voice 7 are marked with DSCP 34.

Correct Answer: BE

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Dial peer 7 refers to SIP profile 102, which we can see is configured to have the Diversion header removed from SIP Invites.
Dial peer 7 marks traffic with AF41, which is equivalent to DSCP 34.

QUESTION 168

Which two are characteristics of jitter buffers? (Choose two.)

- A. Jitter buffers are used to change asynchronous packet arrivals into a synchronous stream by turning variable network delays into constant delays at the destination end systems.
- B. Jitter buffers are used to change asynchronous packet arrivals into a synchronous stream by turning variable network delays into constant delays at the sending systems.
- C. The role of the jitter buffer is to balance the delay and the probability of interrupted playout due to late packets.
- D. The role of the jitter buffer is to queue late packets and reorder out-of-order packets.
- E. Jitter buffers are used to change asynchronous packet arrivals into a synchronous stream by queuing packets into constant delays at the sending systems.

Correct Answer: AC

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Jitter buffers are used to remove the effects of jitter so that asynchronous packet arrivals are changed to a synchronous stream. The jitter buffer trades off between delay and the probability of interrupted playout because of late packets (discard).

Reference: <http://www.appneta.com/blog/jitter-voip/>

QUESTION 169

Which two analog telephony signaling methods are most vulnerable to glare conditions? (Choose two.)

- A. FXS Loop-start
- B. FXO Ground-start
- C. E&M Wink-start
- D. E&M Delay-dial
- E. E&M Immediate-start
- F. E&M Feature Group D

Correct Answer: AE

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The loop start signaling method is more common and is typically used by residential phone lines. When a voice port is configured with loop start signaling, the device (telephone) closes the circuit loop that signals the CO voice port to provide dial tone; an incoming call is signaled on the CO by supplying a predefined voltage on the line. The loop start signaling method has one main disadvantage in that it has no method of preventing both sides of the connection from attempting to seize the line at the same time; this condition is referred to as glare. Because of this, loop start signaling is typically not used on high demand circuits.

With immediate-start, the calling side of the connection seizes the line by going off hook on the E-lead and address information is sent using dual-tone multifrequency (DTMF) digits. Immediate start signaling is vulnerable to glare just like loop-start signaling.

QUESTION 170

Which method allows administrators to determine the best match impedance on analog voice ports in Cisco IOS router without having to shut and no shut the ports?

- A. THL tone sweep
- B. original tone sweep
- C. ECAN test
- D. inject-tone local sweep
- E. remote loop

Correct Answer: A

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

THL tone sweep allows all available impedances for a single test call to a quiet termination point out to the PSTN. You do not need to manually disable ECAN on the voice port under test. The test feature switches impedances automatically for the tester. The test feature calculates the arithmetic mean ERL and reports the mean for each channel profile at each impedance setting. Then, at the end of the test, the feature specifies the best match impedance setting. This test requires minimal supervision.

Reference: <http://www.cisco.com/c/en/us/support/docs/voice/ip-telephony-voice-over-ip-voip/64282-impedance-choice.html>

QUESTION 171

When multiple greetings are enabled on Cisco Unity Express, which greeting will take the highest precedence?

- A. standard
- B. meeting

- C. busy
- D. closed
- E. internal

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Meeting greeting has the highest priority because it is set by the user when he doesn't want to take the call and notices the caller he is online.

QUESTION 172

Refer to the exhibit.

```
!  
ephone-dn 1 octo-line  
  number 2001  
  huntstop channel 4  
!  
ephone 1  
  mac-address 1111.1111.1111  
  max-calls-per-button 5  
  busy-trigger-per-button 3  
  type 7965  
  button 1:1  
!
```

Ephone 1 has three active calls. The first two calls were inbound calls, which the user put on hold to place a third call outbound. What will happen on ephone 1 when a fourth call arrives for extension 2001?

- A. The fourth call will be delivered to ephone 1 because it only received two inbound calls, one call less than the busy-trigger-per-button setting.
- B. The fourth call will be delivered to ephone 1 because the huntstop channel setting is not yet saturated.
- C. The fourth call will be delivered to ephone 1 because it can handle up to five calls on each button.
- D. The fourth call will be held temporarily by the IOS Software until ephone 1 disconnects one of the active calls.

E. The fourth call will not be delivered and the caller will hear a user busy tone.

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Because on line maximum 4 calls can be placed when user put the call on hold is consume a channel and reach the maximum number of calls on line.

QUESTION 173

In Channel Associated Signaling on a T1 circuit using Extended Super Frame, how many signaling bits does each T1 timeslot have?

- A. 1
- B. 2
- C. 4
- D. 12
- E. 24

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Each T1 channel carries a sequence of frames. These frames consist of 192 bits and an additional bit designated as the framing bit, for a total of 193 bits per frame. Super Frame (SF) groups twelve of these 193 bit frames together and designates the framing bits of the even numbered frames as signaling bits. CAS looks specifically at every sixth frame for the timeslot's or channel's associated signaling information. These bits are commonly referred to as A- and B-bits. Extended super frame (ESF), due to grouping the frames in sets of twenty-four, has four signaling bits per channel or timeslot. These occur in frames 6, 12, 18, and 24 and are called the A-, B-, C-, and D-bits respectively.

Reference: <http://www.cisco.com/c/en/us/support/docs/voice/digital-cas/22444-t1-cas-ios.html>

QUESTION 174

Refer to the exhibit.

```
!  
application  
  service app-b-acd-aa  
    param voice-mail 2220  
    paramspace english index 1  
    param max-time-call-retry 40  
    param service-name app-b-acd  
    param number-of-hunt-grps 1  
    param drop-through-option 1  
    paramspace english language en  
    param handoff-string app-b-acd-aa  
    param dial-by-extension-option 3  
    param max-time-vm-retry 1  
    param aa-pilot 5272000  
    paramspace english location flash:  
    param queue-overflow-extension 2003  
    param second-greeting-time 10  
    param drop-through-prompt _bacd_welcome.au  
    param call-retry-timer 20  
  !  
  service app-b-acd  
    param queue-len 2  
    param aa-hunt1 2100  
    param queue-manager-debug 1  
    param number-of-hunt-grps 1  
  !  
!  
ephone-hunt 1 longest-idle  
  pilot 2100  
  list 2001, 2002  
  timeout 10, 10  
  final 2120  
  statistics collect  
!
```

Assume the B-ACD configuration on a Cisco Unified Communications Manager Express router is operational.

How much time does a member of the hunt group have to answer a queue call that is ringing on their extension?

- A. 5 seconds
- B. 10 seconds
- C. 20 seconds
- D. 30 seconds
- E. 40 seconds

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

As you can see the timeout 10 sec in ephone-hunt 1 means hunt group members have to answer the queued call within 10 sec.

QUESTION 175

Refer to the exhibit.

```
!  
voice register dn 1  
  number 2001  
  call-forward b2bua busy 2100  
  call-forward b2bua noan 2200 timeout 20  
  shared-line max-calls 4  
  huntstop channel 3  
!  
voice register pool 1  
  busy-trigger-per-button 2  
  id mac 1111.1111.1111  
  type 7965  
  number 1 dn 1  
!  
voice register pool 2  
  busy-trigger-per-button 2  
  id mac 2222.2222.2222  
  type 7965  
  number 1 dn 1  
!
```


IP phone 1 has MAC address of 1111.1111.1111, and IP phone 2 has MAC address of 2222.2222.2222. The first two incoming calls rang both phones and were answered by IP phone 2.

Which option describes what will happen to the third incoming call?

- A. Both phones ring, but only IP phone 1 can answer the call.
- B. Both phones ring and either phone can answer the call.
- C. Only IP phone 1 rings and can answer the call.
- D. Neither phone rings and the call is forwarded to 2100.
- E. Neither phone rings and the call is forwarded to 2200.

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features
Explanation

Explanation/Reference:

Explanation:

As we can see busy-trigger-per-button set to 2 in voice register pool 1(IP Phone 1). So, IP Phone 1's channel is free for receiving incoming calls and right now IP Phone 2 is busy answering call.

QUESTION 176

Refer to the exhibit.

```
Branch-Router#debug ip dhcp packet
*Aug 15 22:13:23.924: DHCPD: Finding a relay for client 01ec.4476.1e3e.7d on interface Vlan101.
*Aug 15 22:13:23.924: DHCPD: setting giaddr to 10.101.15.1.
*Aug 15 22:13:23.924: DHCPD: BOOTREQUEST from 01ec.4476.1e3e.7d forwarded to 10.100.1.1.
*Aug 15 22:13:23.940: DHCPD: forwarding BOOTREPLY to client ec44.761e.3e7d.
*Aug 15 22:13:23.940: DHCPD: broadcasting BOOTREPLY to client ec44.761e.3e7d.
Branch-Router#
```

The exhibit shows the Cisco IOS CLI output of debug ipdhcp packet, which was captured on a router that is located at a branch office where a single IP phone is located. There is a standalone Cisco Unified Communications Manager server at the central site, which also provides DHCP services to the IP phone at the branch office. You are troubleshooting a problem where the IP phone could not register to Cisco Unified Communications Manager. You have confirmed that the IP phone received an IP address in the correct subnet and with a correct subnet mask from the DHCP server. Assuming the IP phone is correctly defined on Unified CM, which two statements about the network components are true? (Choose two.)

- A. The MAC address of the IP phone is 01ec44761e3e.
- B. The IP address of the DHCP server is 10.101.15.1.
- C. The MAC address of the VLAN 101 interface is ec44761e3e7d.
- D. The IP address of the VLAN 101 interface is 10.101.15.1.
- E. There is IP connectivity between the VLAN 101 interface of the branch router and the ip- helper address that is configured on this interface.
- F. There is IP connectivity between the IP phone and the ip-helper address on the VLAN 101 interface.

Correct Answer: DE

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

As we can see from the logs given first line relate that dhcp request is being relayed. So it clarifies there must be ip helper address command given by the admin on interface vlan 101. Now we can see from the second line that giaddress is set as source address of vlan 101 by the dhcp as 10.101.15.1 to unicast the dhcp request

QUESTION 177

In Cisco IOS routers, which chipset is the PVDM-12 DSP hardware based on?

- A. C542
- B. C549
- C. C5510
- D. C5421
- E. C5409

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

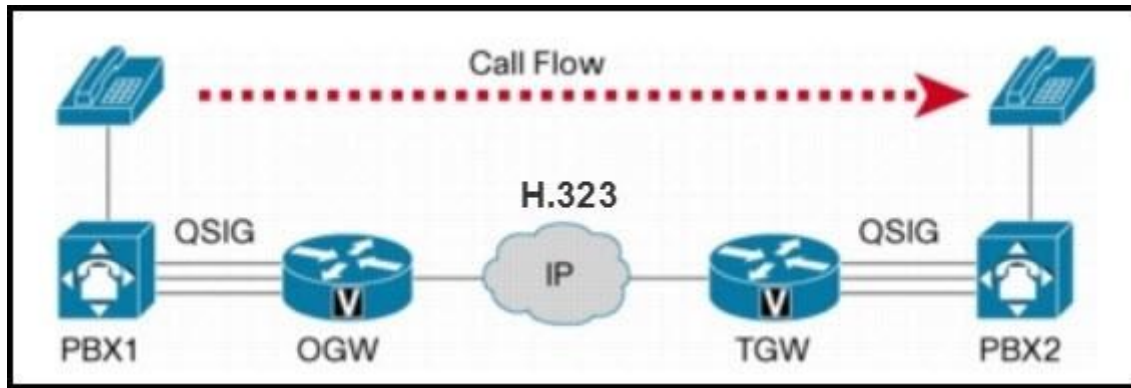
NM-HDV has five SIMM sockets (called Banks) that hold the PVDM-12 cards. Each PVDM- 12 card contains three TI 549 DSPs.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/7x/uc7_0/media.html

QUESTION 178

Refer to the exhibit.



Which option describes the method used by Cisco IOS gateways to tunnel QSIG signaling messages in H.323 protocol?

- A. H.323 Annex M1
- B. H.323 Annex M2
- C. H.323 Annex A
- D. ISDN Generic Transparency Descriptor
- E. H.450.1

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

H.323 is an umbrella recommendation that encompasses various ITU-T recommendations, primarily recommendations H.225.0 and H.245 (basic communication capabilities) and recommendation H.450.1 (generic functional protocol for the support of supplementary services). Tunneling QSIG over H.323 is specified in H.323 Annex-M1. However, Cisco IOS ® Software H.323 QSIG tunneling does not implement Annex-M1 (as the Cisco Unified Communications Manager H.323 implementation does). Instead it uses the ISDN Generic Transparency Descriptor (GTD) to transport QSIG messages in the corresponding H.225 message to another Cisco gateway device on the other side of the network.

Reference: http://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/empowered-branch-solution/white_paper_c11_459092.html

QUESTION 179

Refer to the exhibit.

```
T1-CAS-Gateway(config-controller)#ds0-group 1 time 1-10 type ?
e&m-delay-dial      E & M Delay Dial
e&m-fgd             E & M Type II FGD
e&m-immediate-start E & M Immediate Start
e&m-lmr             E & M land mobil radio
e&m-wink-start       E & M Wink Start
ext-sig             External Signaling
fgd-eana            FGD-EANA BOC side
fgd-os              FGD-OS BOC side
fxo-ground-start    FXO Ground Start
fxo-loop-start      FXO Loop Start
fxs-ground-start    FXS Ground Start
fxs-loop-start      FXS Loop Start
none                Null Signalling for External Call Control
<cr>
```

Which ds0-group option should you select to support automated number identification information collection on inbound calls for this digital T1 voice circuit?

- A. e&m-wink-start
- B. e&m-delay-dial
- C. e&m-delay-dial
- D. e&m-lmr
- E. e&m-fgd

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Because it can receive ANI information and sends DNIS info. But can't send ANI.

Reference:

<http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/isdn/configuration/15-mt/vi-15-mt-book/vi-imp-t1cas-voip.html>

QUESTION 180

Refer to the exhibit.

```
Branch-Router#debug ip dhcp packet
*Aug 15 22:13:23.924: DHCPD: Finding a relay for client 01ec.4476.1e3e.7d on interface Vlan101.
*Aug 15 22:13:23.924: DHCPD: setting giaddr to 10.101.15.1.
*Aug 15 22:13:23.924: DHCPD: BOOTREQUEST from 01ec.4476.1e3e.7d forwarded to 10.100.1.1.
*Aug 15 22:13:23.940: DHCPD: forwarding BOOTREPLY to client ec44.761e.3e7d.
*Aug 15 22:13:23.940: DHCPD: broadcasting BOOTREPLY to client ec44.761e.3e7d.
Branch-Router#
```

The exhibit shows the Cisco IOS CLI output of debug ipdhcp packet, which was captured on a router that is located at a branch office where a single IP phone is located. There is a standalone Cisco Unified Communications Manager server at the central site, which also provides DHCP services to the IP phone at the branch office. You are troubleshooting a problem where the IP phone received an IP address in the correct subnet and with a correct subnet mask from the DHCP server, but never completed registration with Cisco Unified CM. Assuming the IP phone is correctly defined on Unified CM, which two statements the network components are true? (Choose two.)

- A. The MAC address of the IP phone is 01ec44761e3e7d.
- B. The IP address of the DHCP server is 10.101.15.1.
- C. The MAC address of the VLAN 101 interface is 01ec44761e3e7d.
- D. The MAC address of the IP phone is ec44761e3e7d.
- E. There is no IP connectivity between the VLAN 101 interface of the branch router and the ip-helper address that is configured on this interface.
- F. Based on the information provided, we cannot conclude if there is IP connectivity A Composite Solution between the IP phone and Cisco Unified CM.

Correct Answer: DF

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

In the logs the only information that we get is about the mac address of the IP phone because the IP phone is raising the boot request.

QUESTION 181

Which message is used by a Cisco IOS MGCP gateway to send periodic keepalives to its call agent?

- A. CRCX

- B. AUCX
- C. NTFY
- D. RQNT
- E. 200 OK

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

The gateway maintains this connection by sending empty MGCP Notify (NTFY) keepalive messages to Cisco CallManager at 15-second intervals. If the active Cisco CallManager fails to acknowledge receipt of the keepalive message within 30 seconds, the gateway attempts to switch over to the next highest order Cisco CallManager server that is available.

If none of the Cisco CallManager servers respond, the gateway switches into fallback mode and reverts to its default H.323 session application for basic call control support of IP telephony activity in the network.

QUESTION 182

In which call state does the Mobility soft key act as a toggle key to enable or disable Single Number Reach for Cisco Unified Communications Manager Express SCCP IP phones?

- A. idle
- B. seized
- C. alerting
- D. ringing
- E. connected

Correct Answer: A

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Pressing the Mobility soft key during the idle call state enables the SNR feature. This key is a toggle; pressing it a second time disables SNR.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/admin/configuration/guide/cm_eadm/cmesnr.html

QUESTION 183

Which Cisco IOS multipoint video conferencing profile is also known as best-effort video on the Cisco Integrated Router Generation 2 with packet voice and video digital signal processor 3?

- A. homogeneous
- B. guaranteed-audio
- C. rendezvous
- D. heterogeneous
- E. flex mode video

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Three types of video profiles are supported: homogeneous conferences (video switching), heterogeneous conferences (video mixing), and guaranteed audio conferences (best-effort video).

As the name suggests, when Guaranteed Audio Conferences is configured, the system attempts to display video for all participants; however, it does not guarantee that the video of all participants is displayed. For those participants whose video is not displayed, participants are downgraded to audio-only and the profile guarantees preservation of the audio portion of the call. This option gives you added flexibility because the DSPs are not all reserved when the profile is created; the system attempts to reserve them when this profile is activated with an actual conference. For example:

```
dspfarm profile 1 conference video guaranteed-audio
```

```
codec h264 vga
```

```
codec h264 4cif
```

Reference:

http://www.cisco.com/c/en/us/products/collateral/unified-communications/voice-video-conferencing-isr-routers/qa_c67-649850.html

QUESTION 184

Refer to the exhibit.

```
SIP-Gateway#show sip-ua status

SIP User Agent Status
SIP User Agent for UDP : ENABLED
SIP User Agent for TCP : ENABLED

SIP User Agent for TLS over TCP : ENABLED
SIP User Agent bind status(signaling): ENABLED 10.1.1.1
SIP User Agent bind status(media): ENABLED 10.1.1.1
SIP early-media for 180 responses with SDP: ENABLED
SIP max-forwards : 70
SIP DNS SRV version: 2 (rfc 2782)
NAT Settings for the SIP-UA
Role in SDP: NONE
Check media source packets: DISABLED
Maximum duration for a telephone-event in NOTIFYs: 2000 ms
SIP support for ISDN SUSPEND/RESUME: ENABLED
Redirection (3xx) message handling: ENABLED
Reason Header will override Response/Request Codes: DISABLED
Out-of-dialog Refer: DISABLED
Presence support is DISABLED
protocol mode is ipv4

SDP application configuration:
Version line (v=) required
Owner line (o=) required
Timespec line (t=) required
Media supported: audio video image
Network types supported: IN
Address types supported: IP4 IP6
Transport types supported: RTP/AVP udptl
```

Which option describes how this Cisco IOS SIP gateway, with an analog phone attached to its FXS port, handles an incoming informational SIP 180 response message without SDP?

- A. It will enable early media cut-through.
- B. It will generate local ring back.
- C. It will do nothing because the message is informational.
- D. It will terminate the call because this is an unsupported message format.
- E. It will take the FXS port offhook.

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation**Explanation/Reference:**

Explanation:

The Session Initiation Protocol (SIP) feature allows you to specify whether 180 messages with Session Description Protocol (SDP) are handled in the same way as 183 responses with SDP. The 180 Ringing message is a provisional or informational response used to indicate that the INVITE message has been received by the user agent and that alerting is taking place. The 183 Session Progress response indicates that information about the call state is present in the message body media information. Both 180 and 183 messages may contain SDP, which allows an early media session to be established prior to the call being answered.

Prior to this feature, Cisco gateways handled a 180 Ringing response with SDP in the same manner as a 183 Session Progress response; that is, the SDP was assumed to be an indication that the far end would send early media. Cisco gateways handled a 180 response without SDP by providing local ringback, rather than early media cut-through. This feature provides the capability to ignore the presence or absence of SDP in 180 messages, and as a result, treat all 180 messages in a uniform manner. The SIP--Enhanced 180 Provisional Response Handling feature allows you to specify which call treatment, early media or local ringback, is provided for 180 responses with SDP.

Reference:

http://www.cisco.com/c/en/us/td/docs/ios/voice/cube/configuration/guide/vb_book/vb_book/vb_1506.html

QUESTION 185

Which SIP message element is mapped to QSIG FACILITY messages being tunneled across a SIP trunk between two Cisco IOS gateways?

- A. SIP UPDATE
- B. SIP OPTIONS
- C. SIP SUBSCRIBE
- D. SIP INFO
- E. SIP NOTIFY

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation**Explanation/Reference:**

Explanation:

Mapping of QSIG Message Elements to SIP Message Elements This section lists QSIG message elements and their associated SIP message elements when QSIG messages are tunneled over a SIP trunk.

.

QSIG FACILITY/NOTIFY/INFO

<-->
SIP INFO

.

QSIG SETUP
<-->

SIP INVITE
.

QSIG ALERTING

<-->
SIP 180 RINGING
.

QSIG PROGRESS
<-->
SIP 183 PROGRESS

.

QSIG CONNECT
<-->
SIP 200 OK
.

QSIG DISCONNECT
<-->
SIP BYE/CANCEL/4xx--6xx Response

Reference:

http://www.cisco.com/c/en/us/td/docs/ios/voice/sip/configuration/guide/15_0/sip_15_0_book/tunneling_qsig.html

QUESTION 186
Refer to the exhibit.

```
!  
ephone-dn 1 octo-line  
  number 2001  
  huntstop channel 6  
!  
ephone 1  
  mac-address 1111.1111.1111  
  max-calls-per-button 5  
  busy-trigger-per-button 3  
  type 7965  
  button 1:1  
!  
ephone 2  
  mac-address 2222.2222.2222  
  max-calls-per-button 6  
  busy-trigger-per-button 4  
  type 7965  
  button 1:1  
!
```

How many simultaneous outbound calls are possible with this Cisco Unified Communications Manager Express configuration on these two phones?

- A. 6
- B. 7
- C. 8
- D. 9
- E. 11

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Ephone is configured as octo line so maximum call number is 8 and it will be divided between lines.

QUESTION 187

Which Cisco packet voice and video digital signal processor 3 can be used for video mixing on a Cisco Integrated Router Generation 2?

- A. PVDM3-16
- B. PVDM3-32
- C. PVDM3-64
- D. PVDM3-128

Correct Answer: D

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

All the PVDM3 types (that is, PVDM3-16, PVDM3-32, PVDM3-64, PVDM3-128, PVDM3- 192, and PVDM3-256) support switched-only video conferences. Only PVDM3-128 and higher modules support video conferencing with video mixing, transcoding and transrating.

Reference: http://www.cisco.com/c/en/us/products/collateral/unified-communications/voice- video-conferencing-isr-routers/data_sheet_c78-649427.pdf

QUESTION 188

Which type of mailbox on Cisco Unity Express can play a user greeting and disconnect the call, but cannot take or send messages?

- A. PIN-less mailbox
- B. announcement-only mailbox
- C. general delivery mailbox
- D. call-handling mailbox
- E. personal mailbox

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Announcement-only mailbox is set for those users who only want the caller to listen the announcement and leave his message according to the announcement.

QUESTION 189

Refer to the exhibit.

```
%Q.931 is backhauled to CCM MANAGER 0x0003 on DSL 0. Layer 3 output may not apply

ISDN Serial0/0/0:23 interface
  dsl 0, interface ISDN Switchtype = primary-ni
  L2 Protocol = Q.921 0x0000 L3 Protocol(s) = CCM MANAGER 0x0003
  Layer 1 Status:
    ACTIVE
  Layer 2 Status:
    TEI = 0, Ces = 1, SAPI = 0, State = MULTIPLE_FRAME_ESTABLISHED
  Layer 3 Status:
    0 Active Layer 3 Call(s)
  Active dsl 0 CCBs = 0
  The Free Channel Mask: 0x807FFFFF
  Number of L2 Discards = 0, L2 Session ID = 117
ISDN Serial0/2/1:23 interface
  dsl 1, interface ISDN Switchtype = primary-ni
  Layer 1 Status:
    ACTIVE
  Layer 2 Status:
    TEI = 0, Ces = 1, SAPI = 0, State = TEI_ASSIGNED
  Layer 3 Status:
    0 Active Layer 3 Call(s)
  Active dsl 1 CCBs = 0
  The Free Channel Mask: 0x00000000
  Number of L2 Discards = 0, L2 Session ID = 0
Total Allocated ISDN CCBs = 0
```

Which two statements about the show command output are true? (Choose two.)

- A. T1 0/2/1 terminates Q.921 signaling to a Cisco Unified Communications Manager server.
- B. T1 0/0/0 terminates Q.921 signaling on the gateway.
- C. T1 0/0/0 terminates SIP Signaling to a Cisco Unified Communications Manager server.
- D. T1 0/0/0 terminates Q.931 signaling to a Cisco Unified Communications Manager server.
- E. T1 0/2/1 terminates Q.931 signaling on the gateway.

Correct Answer: BD

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

As you can see the T1 0/0:23 interface is active in layer 1,2(multi frame established) & 3,it means Q.931 signaling terminates at gateway and using backhauled technique q931 messages are going to CUCM server.
But in case of T1 0/2/1 port multi frames are not established in layer 2.So, it's not configured properly & doesn't backhauling q931 messages to CUCM

QUESTION 190

Refer to the exhibit.

```
!  
ephone-dn 1  
  number 1001  
!  
ephone-dn 2  
  number 1002  
!  
ephone-dn 3  
  number 1003  
  ephone-hunt login  
!  
ephone-dn 4  
  number 1004  
!  
ephone-dn 5  
  number 1005  
  ephone-hunt login  
!  
ephone-dn 6  
  number 1006  
!  
ephone-hunt 1 peer  
  list 1001,1002,1004,*  
  hop 6  
  final 1100  
!
```

Which ephone-dn can join the hunt group whenever a wild card slot becomes available?

A. ephone-dn 1

- B. ephone-dn 2
- C. ephone-dn 3
- D. ephone-dn 4
- E. ephone-dn 6

Correct Answer: C

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/command/reference/cme_cr/cme_e1ht.html

QUESTION 191

Refer to the exhibit.

```
isdn switch-type primary-dms100

controller T1 1/0
framing esf
linecode b8zs
pri-group timeslots 1-24 nfas_d primary nfas_int 0 nfas_group 1

controller T1 1/1
framing esf
linecode b8zs
pri-group timeslots 1-24 nfas_d backup nfas_int 1 nfas_group 1

controller T1 2/0
framing esf
linecode b8zs
pri-group timeslots 1-24 nfas_d none nfas_int 2 nfas_group 1

controller T1 2/1
framing esf
linecode b8zs
pri-group timeslots 1-24 nfas_d none nfas_int 3 nfas_group 1
```

Assuming this NFAS-enabled T1 PRI configuration on a Cisco IOS router is fully functional, what will the controller T1 1/1 D-channel status be in the output of the show isdn status command?

- A. MULTIPLE_FRAME_ESTABLISHED
- B. TEI_ASSIGNED
- C. AWAITING_ESTABLISHMENT
- D. STANDBY
- E. INITIALIZED

Correct Answer: B

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

TEI_ASSIGNED, which indicates that the PRI does not exchange Layer 2 frames with the switch. Use the show controller t1 x command to first check the controller t1 circuit, and verify whether it is clean (that is, it has no errors) before you troubleshoot ISDN Layer 2 problem with the debug isdn q921.

QUESTION 192

Refer to the exhibit.

```
!  
voice register dn 1  
  number 2001  
  huntstop channel 10  
!  
voice register pool 1  
  id mac 1111.1111.1111  
  type 7965  
  number 1 dn 1  
!
```

How many calls, inbound and outbound combined, are supported on the IP phone?

- A. 1
- B. 2

- C. 8
- D. 12
- E. 50

Correct Answer: E

Section: Section 4: Cisco IOS UC Applications & Features

Explanation

Explanation/Reference:

Explanation:

Output incomplete to figure out the answer

Topic 5, Quality of Service and Security in Cisco Collaboration Solutions

QUESTION 193

Assume 20 bytes of voice payload, 6 bytes for the Layer 2 header, 1 byte for the end-of-frame flag, and the IP, UDP, and RTP headers are compressed to 2 bytes, how much bandwidth should be allocated to the strict priority queue for six VoIP calls that use a G.729 codec over a multilink PPP link with cRTP enabled?

- A. 80.4 kb/s
- B. 91.2 kb/s
- C. 78.4 kb/s
- D. 69.6 kb/s
- E. 62.4 kb/s

Correct Answer: D

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Voice payloads are encapsulated by RTP, then by UDP, then by IP. A Layer 2 header of the correct format is applied; the type obviously depends on the link technology in use by each router interface: A single voice call generates two one-way RTP/UDP/IP packet streams. UDP provides multiplexing and checksum capability; RTP provides payload identification, timestamps, and sequence numbering.

QUESTION 194

How are queues serviced in Cisco IOS routers with the CBWFQ algorithm?

- A. first-in, first-out
- B. weighted round robin based on assigned bandwidth

- C. strict priority based on assigned priority
- D. last-in, first-out
- E. weighted round robin based on assigned priority

Correct Answer: B

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Class Based Weighted Fair queuing is an advanced form of WFQ that supports user defined traffic classes i.e. one can define traffic classes based on match criteria like protocols, access control lists (ACLs), and input interfaces. A flow satisfying the match criteria for a class contributes the traffic for that particular defined class. A queue is allocated for each class, and the traffic belonging to that class is directed to the queue for that class.

QUESTION 195

To which QoS tool category does compressed RTP belong?

- A. classification
- B. marking
- C. link efficiency
- D. queuing
- E. prioritization

Correct Answer: C

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

LLQ is a feature that provides a strict PQ to CBWFQ. LLQ enables a single strict PQ within CBWFQ at the class level. With LLQ, delay-sensitive data (in the PQ) is dequeued and sent first. In a VoIP with LLQ implementation, voice traffic is placed in the strict PQ.

QUESTION 196

The iLBC codec operates at 38 bytes per sample per 20-millisecond interval. What is its codec bit rate in kilobits per second?

- A. 6.3
- B. 13.3
- C. 15.2
- D. 16

E. 24

Correct Answer: C

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

The internet Low Bit Rate Codec (iLBC) is designed for narrow band speech and results in a payload bit rate of 13.33 kbits per second for 30-millisecond (ms) frames and 15.20 kbits per second for 20 ms frames. When the codec operates at block lengths of 20 ms, it produces 304 bits per block, which is packetized as defined in RFC 3952. Similarly, for block lengths of 30 ms it produces 400 bits per block, which is packetized as defined in RFC 3952. The iLBC has built-in error correction functionality to provide better performance in networks with higher packet loss.

QUESTION 197

In Cisco IOS routers that use low latency queuing, which algorithm is used to presort traffic going into the default queue?

- A. first-in, first-out
- B. last-in, first-out
- C. weighted round robin
- D. fair queuing
- E. random processing

Correct Answer: D

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

WFQ is a flow-based queuing algorithm used in Quality of Service (QoS) that does two things simultaneously: It schedules interactive traffic to the front of the queue to reduce response time, and it fairly shares the remaining bandwidth between high bandwidth flows. A stream of packets within a single session of a single application is known as flow or conversation. WFQ is a flow-based method that sends packets over the network and ensures packet transmission efficiency which is critical to the interactive traffic. This method automatically stabilizes network congestion between individual packet transmission flows.

QUESTION 198

Which statement describes the Cisco best practice recommendation about priority queue bandwidth allocation in relationship to the total link bandwidth when multiple strict priority LLQs are configured on the same router interface?

- A. Each LLQ should be limited to one-third of the link bandwidth capacity.

- B. The sum of all LLQs should be limited to two-thirds of the link bandwidth capacity.
- C. The sum of all LLQs should be limited to one-half of the link bandwidth capacity.
- D. The sum of all LLQs should be limited to one-third of the link bandwidth capacity.
- E. Cisco does not recommend more than one strict priority LLQ per interface.

Correct Answer: D

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Cisco Technical Marketing testing has shown a significant decrease in data application response times when Real-Time traffic exceeds one-third of a link's bandwidth capacity. Cisco IOS Software allows the abstraction (and, thus, configuration) of multiple LLQs. Extensive testing and production-network customer deployments have shown that limiting the sum of all LLQs to 33 percent is a conservative and safe design ratio for merging real-time applications with data applications.

QUESTION 199

Assume a 30-millisecond voice payload, 6 bytes for the Layer 2 header, 1 byte for the end-of-frame flag, and the IP, UDP, and RTP headers are compressed to 2 bytes, how much bandwidth should be allocated to the strict priority queue for eight VoIP calls that use a

- A. 729 codec over a multilink PPP link with cRTP enabled?
- B. 121.6 kb/s
- C. 92.8 kb/s
- D. 88.4 kb/s
- E. 83.2 kb/s
- F. 78.4 kb/s

Correct Answer: D

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Reference:

http://www.cisco.com/en/US/tech/tk652/tk698/technologies_tech_note09186a0080094ae2.shtml

QUESTION 200

To which Cisco enterprise medianet application class does Cisco TelePresence belong?

- A. VoIP Telephony

- B. Real-time Interactive
- C. Multimedia Conferencing
- D. Broadcast Video
- E. Low Latency Data

Correct Answer: B

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Telepresence is used for video conferencing which can be done in Real-time so it is Real-time Interactive.

QUESTION 201

Refer to the exhibit.

```
!  
class-map match-any signal  
  match ip dscp cs3  
class-map match-any rtp  
  match ip dscp ef  
!  
policy-map VoIP  
  class rtp  
    bandwidth percent 33  
    compress header ip rtp  
  class signal  
    bandwidth percent 5  
  class class-default  
    fair-queue  
!  
interface serial 0/1/0  
  service-policy output VoIP  
!
```

Assume that the serial interface link bandwidth is full T1. What is the maximum amount of bandwidth allowed for priority queuing of RTP packets with a DSCP value of EF?

- A. 33% of 1.544 Mb/s
- B. 5% of 1.544 Mb/s
- C. 38% of 1.544 Mb/s
- D. 62% of 1.544 Mb/s
- E. 0% of 1.544 Mb/s

Correct Answer: E

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Since the use of the "priority" keyword was not used in this example 0% is the correct answer.

QUESTION 202

Refer to the exhibit.

```
!
class-map match-any signal
  match ip dscp cs3
class-map match-any rtp
  match ip dscp ef
!
policy-map VoIP
  class rtp
    bandwidth percent 33
    compress header ip rtp
  class signal
    bandwidth percent 5
  class class-default
    fair-queue
!
interface serial 0/1/0
  service-policy output VoIP
!
```

Assume that the serial interface link bandwidth is full T1. What is the bandwidth that is guaranteed for voice signaling traffic with a DSCP value of CS3?

- A. 33 percent of 1.544 Mb/s
- B. 5 percent of 1.544 Mb/s
- C. 38 percent of 1.544 Mb/s
- D. 62 percent of 1.544 Mb/s
- E. 0 percent of 1.544 Mb/s

Correct Answer: B

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Under the policy map VOIP the CS3 value falls under the signal class-map, which has been allocated 5 percent of the bandwidth.

QUESTION 203

Which statement describes the key security service that is provided by the TLS Proxy function on a Cisco ASA appliance?

- A. It provides interworking to ensure that external IP phone traffic is encrypted, even if the rest of the system is unencrypted.
- B. It only applies to encrypted voice calls where both parties utilize encryption.
- C. It manipulates the call signaling to ensure that all media is routed via the adaptive security appliance.
- D. It enables internal phones to communicate with external phones without encryption.
- E. It protects Cisco Unified Communications Manager from rogue soft clients and attackers on the data VLAN.

Correct Answer: B

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

TLS Proxy is typically deployed in front of Cisco Unified Communications Manager and other unified communications application servers that utilize media encryption. TLS Proxy is not designed to provide remote-access encryption services for remote phones or client endpoints. Other solutions such as Cisco ASA Phone Proxy or IP Security/Secure Sockets Layer (IPsec/SSL) VPN services are more appropriate. TLS Proxy is not designed to provide a secure campus soft phone solution where the requirement is to provide secure data to phone VLAN traversal or for proxying connections to Cisco Unified Communications Manager.

QUESTION 204

Which two security services are provided by the Phone Proxy function on a Cisco ASA appliance? (Choose two.)

- A. It provides interworking to ensure that external IP phone traffic is encrypted, as long as the Cisco Unified Communications Manager cluster runs in secure mode.
- B. It only applies to encrypted voice calls where both parties utilize encryption.
- C. It manipulates the call signaling to ensure that all media is routed via the adaptive security appliance.
- D. It supports encrypted TFTP operation of IP phone configuration files.
- E. It intercepts and authenticates soft clients before they reach Cisco Unified Communications Manager clusters.
- F. It requires a remote routing device with an IPsec VPN tunnel.

Correct Answer: CE

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

When using TLS Proxy, the Cisco ASA appliance is inserted between the phones and Cisco Unified Communications Manager. The phones will now establish a TLS session with the ASA appliance. The appliance will, in turn, establish a proxy TLS connection with Cisco Unified Communications Manager on the phone's behalf. This function generates two TLS sessions.

QUESTION 205

Which entity signs a Cisco IP phone LSC?

- A. Godaddy.com Enrollment Server
- B. Manufacturer Certificate Authority
- C. Registration Authority
- D. Certificate Authority Proxy Function
- E. Cisco Certificate Authority

Correct Answer: D

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

By default, LSC certificates are not installed on Cisco IP phones. Cisco IP phones that are required to use LSC certificates must be provisioned to allow TLS transactions before deployment in the field. LSC certificates can be provisioned to the Cisco IP phones through the Certificate Authority Proxy Function (CAPF) process. This process is completed using TLS and USB tokens coupled with the CTL client. Moreover, the Cisco ASA Phone Proxy feature can serve LSC certificates to the Cisco IP phones. Cisco IP phones will only work with the Cisco ASA Phone Proxy and will not establish secure connectivity with the Cisco Unified Communications Manager.

QUESTION 206

Which statement about application inspection of SAF network services on an adaptive security appliance is true?

- A. The adaptive security appliance can inspect and learn the ephemeral port numbers that are used by H.225 and H.245 on SAF-enabled H.323 trunks.
- B. An explicit ACL must be configured on the adaptive security appliance for SAF-enabled SIP trunks.
- C. An explicit ACL must be configured on the adaptive security appliance for SAF-enabled H.323 trunks to account for ephemeral port numbers that are used by H.225 and H.245.
- D. 323 trunks to account for ephemeral port numbers that are used by H.225 and H.245.
- E. The adaptive security appliance can inspect and learn the ephemeral port numbers that are used by H.225 on SAF-enabled H.323 trunks, but H.245 ports must be explicitly defined.
- F. The adaptive security appliance provides full application inspection for SAF network services.

Correct Answer: C

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

The Adaptive Security Appliances do not have application inspection for the SAF network service. When Unified CM uses a SAF-enabled H.323 trunk to place a call, the ASA cannot inspect the SAF packet to learn the ephemeral port number used in the H.225 signaling. Therefore, in scenarios where call traffic from SAF-enabled H.323 trunks traverses the ASAs, ACLs must be configured on the ASAs to allow this signaling traffic. The ACL configuration must account for all the ports used by the H.225 and H.245 signaling.

Reference: Cisco Collaboration 9.x Solution Reference Network Designs (SRND) page 4-

QUESTION 207

Assume 6 bytes for the Layer 2 header, 1 byte for the end-of-frame flag, and a 40- millisecond voice payload, how much bandwidth should be allocated to the strict priority queue for five VoIP calls that use a G.729 codec over a multilink PPP link?

- A. 87 kb/s
- B. 134 kb/s
- C. 102.6 kb/s
- D. 77.6 kb/s
- E. 71.3 kb/s

Correct Answer: A

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

Voice payloads are encapsulated by RTP, then by UDP, then by IP. A Layer 2 header of the correct format is applied; the type obviously depends on the link technology in use by each router interface: A single voice call generates two one-way RTP/UDP/IP packet streams. UDP provides multiplexing and checksum capability; RTP provides payload identification, timestamps, and sequence numbering.

QUESTION 208

Which two statements describe security services that are provided by the Phone Proxy function on a Cisco ASA appliance? (Choose two.)

- A. It is supported only on phones that use SCCP.
- B. It is supported on an adaptive security appliance that runs in transparent mode.
- C. It provides interworking to ensure that the external IP phone traffic is encrypted, as long as the Cisco Unified Communications Manager cluster runs in secure mode.
- D. It provides a proxy of phone signaling, with optional use of NAT, to hide the Cisco Unified Communications Manager IP address from the public Internet.
- E. It proxies phone media so that internal phones are not directly exposed to the Internet.
- F. It supports IP phones that send phone proxy traffic through a VPN tunnel.

Correct Answer: DE

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation

Explanation/Reference:

Explanation:

TLS Proxy is typically deployed in front of Cisco Unified Communications Manager and other unified communications application servers that utilize media encryption. TLS Proxy is not designed to provide remote-access encryption services for remote phones or client endpoints. Other solutions such as Cisco ASA Phone Proxy or IP Security/Secure Sockets Layer (IPsec/SSL) VPN services are more appropriate. TLS Proxy is not designed to provide a secure campus soft phone solution where the requirement is to provide secure data to phone VLAN traversal or for proxying connections to Cisco Unified Communications Manager.

QUESTION 209

Which option is the default Cisco Wireless Unified Communications endpoints marking for video media traffic or video RTP traffic?

- A. DSCP 8
- B. DSCP 24
- C. DSCP 34
- D. DSCP 46

Correct Answer: C

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation**Explanation/Reference:**

Explanation:

When configuring network-level quality of service (QoS), Cisco video endpoints (including Cisco Unified IP Phone 8900 and 9900 Series and Cisco TelePresence System EX Series devices) generally mark traffic at Layer 3 according to Cisco general QoS guidelines related to voice and video packet marking (video media as DSCP 34 or PHB AF41; call signaling as DSCP 24 or PHB CS3) and therefore these devices can be trusted.

QUESTION 210

Assume 18 bytes for the Layer 2 header and a 10-millisecond voice payload, how much bandwidth should be allocated to the strict priority queue for three VoIP calls that use a

- A. 722 codec over an Ethernet network?
- B. 331.2 kb/s
- C. 347.8 kb/s
- D. 261.6 kb/s
- E. 274.7 kb/s
- F. 238.4 kb/s

Correct Answer: A

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions

Explanation**Explanation/Reference:**

Reference:

http://www.cisco.com/en/US/tech/tk652/tk698/technologies_tech_note09186a0080094ae2.shtml

QUESTION 211

To which Cisco enterprise medianet application class does Cisco Unified Personal Communicator belong?

- A. VoIP Telephony
- B. Real-time Interactive
- C. Multimedia Conferencing
- D. Broadcast Video
- E. Low Latency Data

Correct Answer: C

Section: Section 5: Quality of Service & Security In Cisco Collaboration Solutions
Explanation

Explanation/Reference:

Explanation:

Enterprise Medianet QoS Recommendations

Application Class	Per-Hop Behavior	Admission Control	Queuing and Dropping	Media Application Examples
VoIP Telephony	EF	Required	Priority Queue (PQ)	Cisco IP Phones (G.711, G.729)
Broadcast Video	CS5	Required	(Optional) PQ	Cisco IP Video Surveillance/Cisco Enterprise TV
Real-Time Interactive	CS4	Required	(Optional) PQ	Cisco TelePresence
Multimedia Conferencing	AF4	Required	BW Queue + DSCP WRED	Cisco Unified Personal Communicator
Multimedia Streaming	AF3	Recommended	BW Queue + DSCP WRED	Cisco Digital Media System (VoDs)
Network Control	CS6		BW Queue	EIGRP, OSPF, BGP, HSRP, IKE
Signaling	CS3		BW Queue	SCCP, SIP, H.323
Ops/Admin/Mgmt (OAM)	CS2		BW Queue	SNMP, SSH, Syslog
Transactional Data	AF2		BW Queue + DSCP WRED	Cisco WebEx/MeetingPlace/ERP Apps
Bulk Data	AF1		BW Queue + DSCP WRED	E-mail, FTP, Backup Apps, Content Distribution
Best Effort	DF		Default Queue + RED	Default Class
Scavenger	CS1		Min BW Queue	YouTube, iTunes, BitTorrent, Xbox Live

Reference:

http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/WAN_and_MAN/QoS_SRND_40/QoSIntro_40.html#pgfId-61116

QUESTION 212

Which statement describes the supported integration method when Cisco Unity Connection and Cisco Unified Communications Manager are installed on the same server as Cisco Unified Communications Manager Business Edition?

- A. Only SCCP integration is supported.
- B. Only SIP integration is supported.
- C. Both SCCP or SIP integration are supported, but you must choose one or the other.

- D. Q-Sig integration is supported through a voice-enabled Cisco ISR router.
- E. Circuit-switched integration is supported through PIMG.

Correct Answer: A

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

When installed on the same server there is no way to create trunk that is why sccp is the only way Cisco Unity Connection and Cisco Unified Communications Manager are installed on the same server.

QUESTION 213

In Cisco Unity Connection, to which three configuration dialog boxes can a user assign a search space? (Choose three.)

- A. Routing Rule
- B. Call Handler
- C. Interview Handler
- D. Contacts
- E. Users
- F. Port
- G. Phone System

Correct Answer: ABE

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

In unity connection, user can assign a search space in:

Users

Call Routing Rules

System Distribution Lists

System Call Handlers

Directory Handlers

Interview Handlers

Digital Networking

VPIM Locations

Administrator-Defined Contacts

QUESTION 214

What is the default treatment of a message that is left in the opening greeting default call handler in Cisco Unity Connection?

- A. It will be sent to the mailbox for the Operator user.
- B. It will be sent to the Undeliverable Messages distribution list.
- C. It will be sent to the mailbox of the system administrator.
- D. It will be sent to the All Voicemail Users distribution list.
- E. It will be sent to the General Delivery Mailbox.

Correct Answer: B

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

Default call handler is selected when we don't assign any call handler to user and with this default call handler no specific user assigned so it don't go to any specific mail box and goes to It will be sent to the Undeliverable Messages distribution list

QUESTION 215

Which two search scope options are removed from a directory handler when you check the "voice enabled" check box? (Choose two.)

- A. Class of Service
- B. System Distribution List
- C. Search Space
- D. Partition
- E. Phone System

Correct Answer: AB

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

You can configure the scope of a directory handler to define the objects that callers who reach the directory handler can find or hear. For phone directory handlers, you can set the scope to the entire server, to a particular class of service, to a system distribution list, or to a search space (either inherited from the call or specified for the directory handler). For voice-enabled directory handlers, you can set the scope to the entire server or to a search space (either inherited from the call or specified for the directory handler). When callers search a directory handler for a particular name, if the scope of the directory handler is set to a search space, Cisco Unity Connection searches each partition in the search space and returns a list of all of the objects that

match the name.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/administration/guide/8xcucsagx/8xcucsag235.html#pgfId-1058609

QUESTION 216

Which statement about accessing secure Cisco Unity Connection voice messages in an Exchange mailbox in a Single Inbox deployment is true?

- A. Users can listen to a secure voice message if they use the Outlook email client.
- B. Users can listen to a secure voice message if they use the Outlook email client with the ViewMail add-in.
- C. Users can listen to a secure voice message with email clients other than Outlook if they have installed the ViewMail add-in.
- D. Users cannot listen to a secure message in Exchange because it is not supported in Single Inbox.
- E. Secure voice messages are stored on the Cisco Unity Connection server and the Exchange server.

Correct Answer: B

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

Users can listen to a secure voice message if they use the Outlook email client with the ViewMail add-in. Because in this integration Outlook integrates with unity as secresmapclient.

QUESTION 217

When Cisco Unity Connection users attempt to connect using Web Inbox and receive a Site Is Unavailable error message, which service status should be verified?

- A. Tomcat
- B. Connection Exchange Notification Web Service
- C. Connection Voicemail Web Service
- D. Connection Administration
- E. Secured Web Server

Correct Answer: A

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

Cisco Tomcat service, as the name suggests, is used by the Web Server of CUCM and helps display the administration, operating system, disaster recovery, and other GUI interfaces of CUCM. The service leverages a built-in CA for Tomcat in that it redirects the incoming HTTP requests to HTTPS using the default self-signed certificate.

QUESTION 218

Refer to the exhibit.

```
Jan 29 17:32:01.723: CRYPTO_PKI: (A0076) Starting CRL revocation check
Jan 29 17:32:01.723: CRYPTO_PKI: Matching CRL not found
Jan 29 17:32:01.723: CRYPTO_PKI: (A0076) CDP does not exist. Use SCEP to
query CRL.
Jan 29 17:32:01.723: CRYPTO_PKI: pki request queued properly
Jan 29 17:32:01.723: CRYPTO_PKI: Revocation check is complete, 0
Jan 29 17:32:01.723: CRYPTO_PKI: Revocation status = 3
Jan 29 17:32:01.723: CRYPTO_PKI: status = 0: poll CRL
Jan 29 17:32:01.723: CRYPTO_PKI: Remove session revocation service providers
CRYPTO_PKI: Bypassing SCEP capabilities request 0
Jan 29 17:32:01.723: CRYPTO_PKI: status = 0: failed to create GetCRL
Jan 29 17:32:01.723: CRYPTO_PKI: enrollment url not configured
Jan 29 17:32:01.723: CRYPTO_PKI: transaction GetCRL completed
Jan 29 17:32:01.723: CRYPTO_PKI: status = 106: Blocking chain verification
callback received status
Jan 29 17:32:01.723: CRYPTO_PKI: (A0076) Certificate validation failed
```

The public key infrastructure debugs are generated on a Cisco IOS VPN router for a failed certification validation on an incoming connection from an IP phone client. Which option is a possible solution for this problem?

- A. Define a Certification Revocation List in the IP phone certificate.
- B. Disable revocation check for the trustpoint.
- C. Define an enrollment URL for the trustpoint.
- D. Define a matching Certification Revocation List on the Cisco Unified Communications Manager.

Correct Answer: C

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

When a certificate is issued, it is valid for a fixed period of time. Sometimes a CA revokes a certificate before this time period expires; for example, due to security concerns or a change of name or association. CAs periodically issues a signed list of revoked certificates. Enabling revocation checking forces the IOS router to check that the CA has not revoked a certificate every time it uses that certificate for authentication. When you enable revocation checking during the PKI certificate validation process, the router checks certificate revocation status. It can use either CRL checking or Online Certificate Status Protocol or both, with the second method you set in effect only when the first method returns an error, for example, that the server is unavailable. With CRL checking, the router retrieves, parses, and caches Certificate Revocation Lists, which provide a complete list of revoked certificates. OCSP offers a more scalable method of checking revocation status in that it localizes certificate status on a Validation Authority, which it queries for the status of a specific certificate.

QUESTION 219

Which message-handling behavior describes how Cisco Unity Connection Single Inbox works for Outlook users who do not have ViewMail installed?

- A. Cisco Unity Connection voice messages are treated as emails without a WAV file attachment.
- B. Cisco Unity Connection voice messages are treated as voice messages.
- C. Cisco Unity Connection voice messages are treated as emails with a WAV file attachment.
- D. Cisco Unity Connection adds a Voice Outbox folder to the Outlook mailbox.
- E. Replies to Cisco Unity Connection voice messages are sent to Exchange as well as the Cisco Unity Connection mailbox for the recipient.

Correct Answer: C

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

Cisco unity here acts as an IMAP server for the outlook user who don't have view mail installed so user send their request as an IMAP client and unity will revert back with email and wav file attached to play.

QUESTION 220

Which Cisco Unity Connection call handler message is played when a caller enters a string of digits that is not found in the search scope?

- A. error
- B. closed
- C. internal
- D. busy
- E. alternate

Correct Answer: A

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

As soon as unity finds the unexpected behavior it prompts the error message to the user.

QUESTION 221

Which Cisco Unity Connection call handler greeting, when enabled, overrides all other greetings?

- A. holiday
- B. closed
- C. internal
- D. busy
- E. alternate

Correct Answer: E

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

An Alternate greeting might be enabled to override the Standard Greeting during certain times, because it is a personal greeting used for specific purpose.

QUESTION 222

Which two statements about virtual SNR in Cisco Unified Communications Manager Express are true? (Choose two.)

- A. The SNR DN must be configured as SCCP.
- B. Calls cannot be pulled back from the phone associated with the DN.
- C. Ephone hunt groups are supported.
- D. The virtual SNR DN must be assigned to an ephone.
- E. Music on hold is supported for trunk and line side calls.

Correct Answer: AB

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

To configure a virtual SNR DN on Cisco Unified SCCP IP phones, perform the following steps:

Prerequisites

Cisco Unified CME 9.0 or a later version.

Restrictions

Virtual SNR DN only supports Cisco Unified SCCP IP phone DNs.

Virtual SNR DN provides no mid-call support.

Mid-calls are either of the following:

Calls that arrive before the DN is associated with a registered phone and is still present after the DN is associated with the phone.

Calls that arrive for a registered DN that changes state from registered to virtual and back to registered.

Mid-calls cannot be pulled back, answered, or terminated from the phone associated with the DN.

State of the virtual DN transitions from ringing to hold or remains on hold as a registered DN.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/admin/configuration/guide/cm_eadm/cm_snr.html#pgfld-1012065

QUESTION 223

In addition to SIP triggers, which two trigger types can invoke applications on Cisco Unity Express? (Choose two.)

- A. HTTP
- B. IMAP
- C. VoiceView
- D. JTAPI
- E. Cisco Unified CM telephony
- F. voice mail

Correct Answer: AD

Section: Section 6: Cisco Unity Connection 19

Explanation**Explanation/Reference:**

Explanation:

Triggers are incoming events that invoke application which in turn starts executing the script associated with that application. For example, the incoming event can be an incoming call or an incoming HTTP request.

After you have created and configured your application, you need to create a trigger on the Cisco Unity Express module to point to that application.

Cisco Unity Express supports three types of triggers:

.

SIP triggers -- Use this type of trigger to invoke applications in Cisco Unified CME and Cisco SRST mode. This type of trigger is identified by the phonenum which is dialed to

.

JTAPI triggers -- Use this type of trigger to invoke applications in Cisco Unified

Communications Manager mode. This type of trigger is identified by the phonenum which is dialed to invoke the desired application.

.

HTTP triggers -- Use this type of trigger to invoke applications using an incoming HTTP request. Such a trigger is identified by the URL suffix of the incoming HTTP request. This type of trigger can only be used if an IVR license has been purchased and installed on the system.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/unity_exp/administrator/AA_and_VM/guide/vmadmin_book/syscmp.html#wp1126512

QUESTION 224

Which statement about system broadcast messages in Cisco Unity Connection is true?

- A. The user can skip a system broadcast message to listen to new messages first.
- B. The user can forward a system broadcast message only if it has been played in its entirety.
- C. System broadcast messages are synchronized between Cisco Unity Connection and Exchange when Single Inbox is configured.
- D. System broadcast messages do not trigger MWI.
- E. System broadcast messages are played immediately after users sign in and listen to message counts for new and saved messages.

Correct Answer: D

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

System broadcast messages are played immediately after users log on to Cisco Unity Connection by phone even before they hear message counts for new and saved messages. After logging on, users hear how many system broadcast messages they have and Connection begins playing them.

QUESTION 225

Which three Cisco Unity Connection call handler greetings can be overridden by the internal greeting? (Choose three.)

- A. holiday
- B. alternate
- C. error
- D. busy
- E. closed
- F. standard

Correct Answer: AEF

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

This greeting overrides the Standard, Closed, and Holiday greetings but only for internal callers or users defined in Cisco Unity Connection because the mentioned three greetings are defined for external users.

QUESTION 226

A Cisco Unity Connection administrator receives a name change request from a voice-mail user, whose Cisco Unity Connection user account was imported from Cisco Unified Communications Manager. What should the administrator do to execute this change?

- A. Change the user data in the Cisco Unity Connection administration page, then use the Synch User page in Cisco Unity Connection administration to push the change to Cisco Unified Communications Manager.
- B. Change the user data in the Cisco Unified Communications Manager administration page, then use the Synch User page in Cisco Unity Connection administration to pull the changes from Cisco Unified CM.
- C. Change the user data in the Cisco Unified Communications Manager administration page, then use the Synch User page in Cisco Unified CM administration to push the change to Cisco Unity Connection.
- D. Change the user profile from Imported to Local on Cisco Unity Connection Administration, then edit the data locally on Cisco Unity Connection.
- E. Change the user data in Cisco Unity Connection and Cisco Unified Communications Manager separately.

Correct Answer: B

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

As we can see user are getting synch from call manager so we first have to change the details of user on call manager so that user will synch the changes from call manager.

QUESTION 227

Which statement describes how the digit zero is handled in the predefined restriction tables in Cisco Unity Connection?

- A. Zero is listed in the Default Out-Dial Restriction table.
- B. Zero is listed in the Default System Transfer Restriction table.
- C. Zero is listed in the Default Transfer Restriction table.
- D. Zero is listed in the User-Defined and Automatically Added Alternate Extensions Restriction table.
- E. Zero is not listed in any default restriction table configuration.

Correct Answer: E

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

When user dials "0", by default Unity Connection treats it as an operator call and does not block "0" by any restriction table configuration. Only the operator can modify transfer extension associated with operator call.

QUESTION 228

When Single Inbox is configured, what will happen to an email message that was moved from any Outlook folder to the Voice Outbox folder?

- A. The email message will be delivered to Cisco Unity Connection.
- B. The email message will be kept in the Voice Outbox folder.
- C. The move will fail because the operation is not supported.
- D. The email message will be moved to the Deleted Items folder.
- E. The email message will be permanently deleted and will not be retrievable.

Correct Answer: D

Section: Section 6: Cisco Unity Connection 19

Explanation

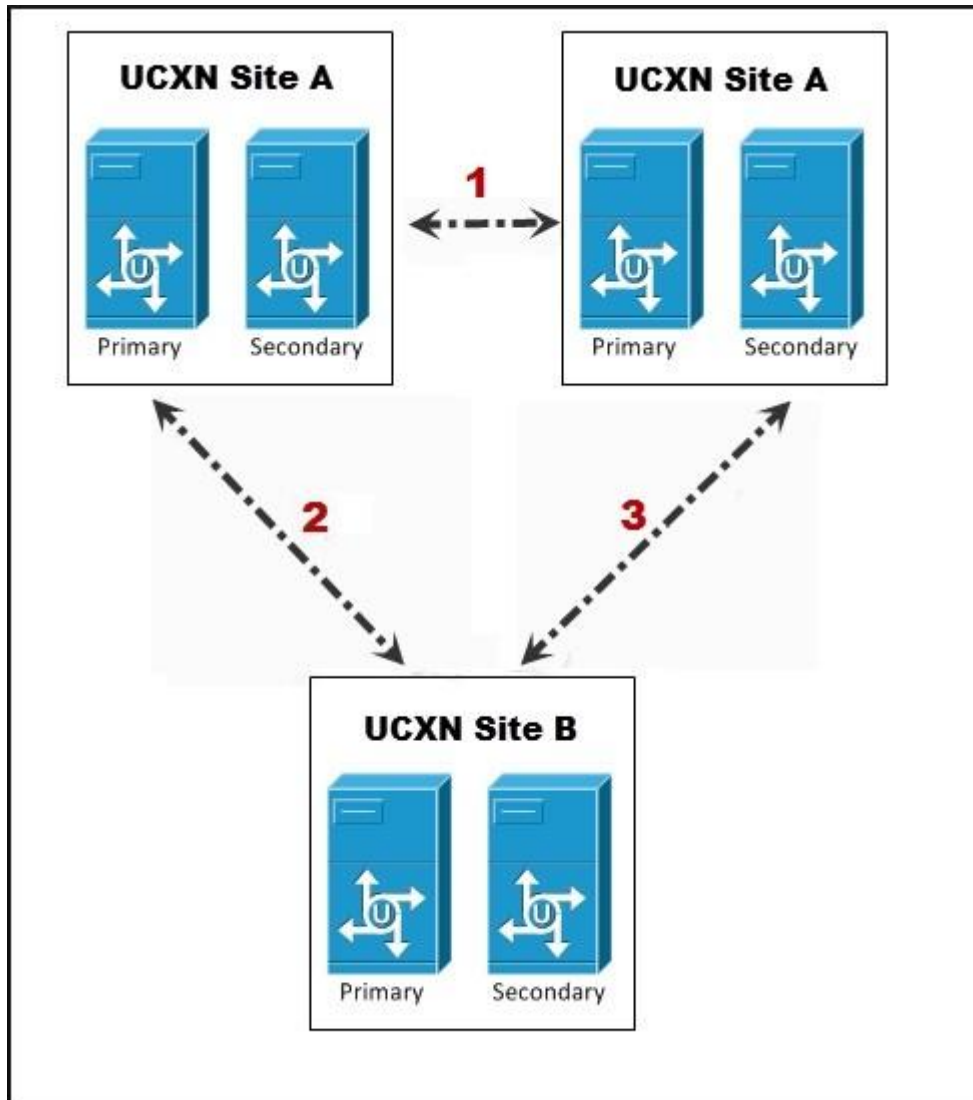
Explanation/Reference:

Explanation:

Voice messages queue for delivery in the Voice Outbox folder that is why it shows in Deleted Items folder.

QUESTION 229

Refer to the exhibit.



Cisco Unity Connection Site A has two locations. Cisco Unity Connection Site B has one location. Which protocols connect the locations and servers together for messaging and replication?

- A. 1 - SMTP
2 - HTTP/HTTPS, SMTP

- 3 - None
- B. 1 - SMTP
2 - SMTP
3 - SMTP
- C. 1 - HTTP/HTTPS, SMTP
2 - HTTP/HTTPS, SMTP
3 - HTTP/HTTPS, SMTP
- D. 1 - HTTP/HTTPS, SMTP
2 - SMTP
3 - None

Correct Answer: A

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

You can join two or more Connection servers or clusters (up to a maximum of ten) to form a well-connected network, referred to as a Connection site. The servers that are joined to the site are referred to as locations. (When a Connection cluster is configured, the cluster counts as one location in the site.) Within a site, each location uses SMTP to exchange directory synchronization information and messages directly with every other location. Each location is said to be linked to every other location in the site via an intrasite link. When you link two Cisco Unity Connection sites with an intersite link, the gateway for each site is responsible for collecting information about all changes to the local site directory, and for polling the remote site gateway periodically to obtain information about updates to the remote site directory. The gateways use the HTTP or HTTPS protocol to exchange directory synchronization updates.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/networking/guide/8xcu_cnetx/8xcucnet010.html

QUESTION 230

Which two categories are state-based greetings on Cisco Unity Express? (Choose two.)

- A. Meeting
- B. Vacation
- C. Internal
- D. Closed
- E. Alternate
- F. Extended Absence

Correct Answer: CD

Section: Section 6: Cisco Unity Connection 19

Explanation

Explanation/Reference:

Explanation:

Beginning in version 7.1, you can configure multiple greetings. These greetings fall into the following three categories:

.

.

Alternate greetings

This category includes the following types of greetings:

Alternate

Meeting

Vacation

Extended absence

.

State-based greetings:

This category includes the following types of greetings:

Busy

Closed

Internal

QUESTION 231

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/unity_exp/administrator/AA_and_VM/guide/vmadmin_book/vmconfig.html

Topic 7, Cisco Unified Contact Center Express

A Composite Solution With Just One Click - Certification Guaranteed 186

Which Cisco Unified Contact Center Express core system software component communicates with Cisco Agent Desktop for agent state control and call control?

- A. Unified CCX Engine
- B. Database
- C. Monitoring
- D. Recording
- E. RmCm

Correct Answer: A

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

The Unified CCX Engine enables you to run multiple applications to handle Unified CM Telephony calls or HTTP requests. The Unified CCX Engine uses the Unified CM Telephony subsystem to request and receive services from the Computer Telephony Interface (CTI) manager that controls Unified CM clusters. The Unified CCX Engine is implemented as a service that supports multiple applications. You can use a web browser to administer the Unified CCX Engine and your Unified CCX applications from any computer on the network. Unified CCX provides you the following two web interfaces: Unified CCX Administration web interface: Used to configure system parameters, subsystems, view real-time reports that include total system activity and application statistics, and so on.

Unified CCX Serviceability web interface: Used to view alarm and trace definitions for Unified CCX services, start and stop the Unified CCX Engine, monitor Unified CCX Engine activity, and so on.

QUESTION 232

Which statement describes DTMF processing on Cisco Unified Contact Center Express with supported SIP-based agent IP phones that are registered to Cisco Unified Communications Manager?

- A. Cisco Unified CCX receives the DTMF digits via SIP NOTIFY messages.
- B. Cisco Unified CCX receives the DTMF digits in the RTP payload based on RFC 2833.
- C. Cisco Unified CCX receives the DTMF digits via JTAPI messages.
- D. Cisco Unified CCX receives the DTMF digits via SIP INFO messages.
- E. Cisco Unified CCX receives the DTMF digits as part of the audio encoding in the RTP stream.

Correct Answer: C

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

Unified CCX CTI ports are notified of caller-entered digits (DTMF input) via JTAPI messages from Unified CM. Unified CCX does not support any mechanism to detect in-band DTMF digits where DTMF digits are sent with voice packets. In deployments with voice gateways or SIP phones that only support in-band DTMF or are configured to use in-band DTMF, an MTP resource must be invoked by Unified CM to convert the in-band DTMF signaling so that Unified CM can notify Unified CCX of the caller-entered digits. Be sure to enable out-of-band DTMF signaling when configuring voice gateways in order to avoid using the previous MTP resources.

Reference:

http://www.cisco.com/en/US/docs/voice_ip_comm/cust_contact/contact_center/crs/express_9_02/design/guide/UCCX_BK_C39FDB35_00_cisco-unified-contact-center-express_chapter_010.html

QUESTION 233

A company that is using the Cisco Unified Contact Center Express Enhanced version requires that selected types of agent calls are automatically recorded. Which call recording operation can be used to satisfy this requirement?

- A. Instruct agents to use the Record button on Cisco IPPA to trigger recording.
- B. Instruct supervisors to use the Record button on Cisco Agent Desktop to trigger recording.
- C. Instruct supervisors to use the Record button on Cisco Supervisor Desktop to trigger recording.
- D. Configure the Cisco Agent Desktop workflow to trigger recording.
- E. Recording is not supported on the Cisco Unified CCX Enhanced version. It is supported only on the Premium version.

Correct Answer: D

Section: Section 7: Cisco Unified Contact Center Express
Explanation

Explanation/Reference:
Explanation:

On-demand recording of active agent calls, available in Enhanced and Premium versions, improves customer service and encourages appropriate and consistent agent behavior and it is a feature of Cisco Agent Desktop.

QUESTION 234

Which Cisco Unified Contact Center Express data store contains user scripts, grammars, and documents?

- A. configuration data store
- B. repository data store
- C. agent data store
- D. historical data store
- E. script data store

Correct Answer: B

Section: Section 7: Cisco Unified Contact Center Express
Explanation

Explanation/Reference:
Explanation:

Unified CCX applications might use auxiliary files that interact with callers, such as scripts, pre-recorded prompts, grammars, and custom Java classes. Depending on each implementation, Unified CCX applications use some or all of the following file types. The Unified CCX Server's local disk prompt, grammar, and document files are synchronized with the central repository during Unified CCX engine startup and during run-time when the Repository datastore is modified.

QUESTION 235

Refer to the exhibit.

Contact Service Queue Configuration

Next
 Delete
 Cancel
 Open Printable Report of this CSQ configuration

Status

Status : Ready

Contact Service Queue Name* Customer Service
 Contact Service Queue Type* Voice
 Contact Queuing Criteria FIFO
 Automatic Work* ☐ Enabled ☒ Disabled
 Wrapup Time* ☐ Enabled Second(s) ☒ Disabled
 Resource Pool Selection Model* Resource Skills
 Service Level* 20
 Service Level Percentage* 80
 Prompt - No Selection -

Contact Service Queue Configuration

Update
 Cancel
 Show Resources
 Open Printable Report of this CSQ

Contact Service Queue Name Customer Service
 Resource Selection Criteria* Most Skilled
 Select Required Skills

Commercial Fuels
 Customer Service
 Dispatch Night
 Dispatch OH

 Add

Skills	Minimum Competence	Delete
Customer Service	3	

Resource Configuration

Update
 Cancel
 Open Printable Report of this Resource Configuration

Resource Name Source 1 OH Dispatch
 Resource ID s1dispatch-OH
 IPCC Extension 7782
 Resource Group -Not Selected-
 Automatic Available* ☒ Enabled ☐ Disabled

Assigned Skills

Dispatch OH(5)
 Dispatch PA(7)
 Customer Service(3)

Unassigned Skills

Commercial Fuels
 Dispatch Night
 Energy Billing
 Wholesale Fuels

Competence Level 3 (1-Beginner, 10-Expert)

Team Source One Dispatch

Resource Configuration

Update
 Cancel
 Open Printable Report of this Resource Configuration

Resource Name Source 1 PA Dispatch
 Resource ID s1dispatch-PA
 IPCC Extension 7783
 Resource Group -Not Selected-
 Automatic Available* ☒ Enabled ☐ Disabled

Assigned Skills

Dispatch OH(7)
 Dispatch PA(5)
 Customer Service(4)

Unassigned Skills

Commercial Fuels
 Dispatch Night
 Energy Billing
 Wholesale Fuels

Competence Level 4 (1-Beginner, 10-Expert)

Team Source One Dispatch

Assume that all shown agents are available to take a call. Which agent will receive the call when a select resource step is triggered in the script for the Customer Service CSQ?

- A. s1dispatch-PA
- B. s1dispatch-OH
- C. the agent that has been idle the longest
- D. the agent with the shortest handled time

Correct Answer: A

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

The Contact Service Queue (CSQ) controls incoming calls by determining where an incoming call should be placed in the queue and to which agent the call is sent. After you assign an agent to a resource group and assign skills, you need to configure the CSQs.

You assign agents to a CSQ by associating a resource group or by associating all skills of a particular CSQ. Agents in the selected resource group or who have all the selected skills are assigned to the CSQ.

Skills within the CSQ can be ordered. This means, when resources are selected, a comparison is done based on the competency level (highest for "most skilled" and lowest for "least skilled") of the first skill in the list. If there is a "tie" the next skill within the order is used, and so on.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cust_contact/contact_center/crs/express_10_0/configuration/guide/UCCX_BK_W1AF9DDD_00_uccx-admin-guide-10-0/UCCX_BK_W1AF9DDD_00_uccx-admin-guide-10-0_chapter_0111.html#UCCX_TP_C6155D52_00

QUESTION 236

Which two statements describe the remote supervisory monitoring feature in Cisco Unified Contact Center Express? (Choose two.)

- A. It is supported on Cisco Unified CCX Enhanced and Premium editions.
- B. It does not require a Cisco Supervisor Desktop or any data network connectivity.
- C. Agents are aware that they are being silently monitored.
- D. Calls can be silently monitored from a PSTN phone.
- E. It supports G.711 and G.729 codecs.
- F. It works with SPAN port monitoring only.

Correct Answer: BD

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

Agents use the Cisco Agent Desktop (commonly referred to as CAD) to login to the Unified CCX server and control their ACD state, control incoming and outgoing calls, chat with supervisors and other agents on their team, view their own real-time statistics, and view their own recent call activity. Supervisors use the CSD to view real-time queue and agent statistics, view recent call activity for agents, change agent states, chat with agents, and send marquee messages to all agents on the selected team. With the Enhanced or Premium packages, the supervisor can also barge-in or intercept ACD calls, silently monitor agents, and record agent calls.

QUESTION 237

Which statement describes the call recording operation on Cisco Unified Contact Center Express call agents that use Cisco IPPA?

- A. Recording is facilitated via desktop monitoring on supported IP phones.
- B. Automatic recording is supported.
- C. Only G.711 codec is supported.
- D. Only SPAN port monitoring is supported.
- E. Call recording is not supported on Cisco Unified CCX call agents that use Cisco IPPA.

Correct Answer: D

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

There is no mechanism created as of now to record the call so we first span and record it from packet capture or from third party software.

QUESTION 238

Which Cisco Unified Contact Center Express script media step can invoke a VXML application to retrieve and play prompts on-demand from an off-box location?

- A. Play Prompt step
- B. Voice Browser step
- C. Menu step
- D. Recording step
- E. Simple Recognition step

Correct Answer: B

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

CRA Voice Browser is fully integrated with the CRA Engine. You can use scripts designed in the CRA Editor to extend VoiceXML applications by providing ICD (Integrated Contact Distribution) call control and resource management. For example, you can use VoiceXML to build a speech dialog as a front end to collect information from the caller. You can then pass this information to the CRA script, and when the agent receives the call, the information collected by VoiceXML will be available. You use the Voice Browser step in the Media palette of the CRA Editor to invoke a VoiceXML application. You can use the bundled voicebrowser.aef script as an example for creating scripts that invoke VoiceXML. (You can create custom scripts to execute other steps in addition to VoiceXML.)

QUESTION 239

How many RTP streams exist on the network when a Cisco Unified Contact Center Express agent is engaged in a call that is being silently monitored and recorded?

- A. 3
- B. 4
- C. 5
- D. 6
- E. 8

Correct Answer: D

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

6 RTP streams exist when UCCE agent is engaged in a call when it is being silently monitored.

Reference:

http://www.cisco.com/en/US/docs/voice_ip_comm/cust_contact/contact_center/crs/express_9_0/design/UCCX_BK_UD5B347F_00_uccx-solution-reference-network-design_chapter_0110.html

QUESTION 240

Which two guidelines are recommended when configuring agent phones for Cisco Unified CCX agents? (Choose two.)

- A. In the Multiple Call/Call Waiting Settings section, set the Maximum Number of Calls to 2.
- B. In the Multiple Call/Call Waiting Settings section, set the Busy Trigger value to 2.
- C. The Unified CCX extension for the agent must be listed within the top four extensions on the device profile.
- D. In the Multiple Call/Call Waiting Settings section, set the Maximum Number of Calls to at least 3.
- E. Always enable SRTP when configuring an agent phone.

Correct Answer: AC

Section: Section 7: Cisco Unified Contact Center Express**Explanation****Explanation/Reference:**

Explanation:

Follow these guidelines when configuring agent phones for Unified CCX agents:

Choose Device > Phone in Unified Communications Manager Administration. The Find and List Phones window is displayed.

Enter search criteria to locate a specific phone and click Find. A list of phones that match the search criteria is displayed. Click the device name of the phone to which you want to add a directory number. The Phone Configuration window is displayed. In the Unified Communications Manager Administration Phone Configuration web page, select the required Association Information (on the left) to get to the Directory Number Configuration web page. On this page, make the following changes:

In the Multiple Call/Call Waiting Settings section, set the Maximum Number of Calls to 2 (default is 4) for Cisco Unified IP Phones 7900 Series and 3 for Cisco Unified IP Phones 8961, 9951, and 9971.

In the Multiple Call/Call Waiting Settings section, set the Busy Trigger value to 1 (default is 2).

In the Call Forward and Call Pickup Settings section, verify that you do not forward any Unified Communications Manager device to the Unified CCX extension of an agent.

In the Call Forward and Call Pickup Settings section, verify that you do not configure the Unified CCX extension of an agent to forward to a Unified CCX route point.

Always disable (turn off) Secure Real-Time Transport Protocol (SRTP) when configuring a Cisco Unified Communications product. You can disable SRTP for a specified device or for the entire Unified Communications Manager:

For a specified device--Choose Device > Phone. In the Find and List Phone page, select the required phone device. In the Phone Configuration page for the selected phone, scroll down to the Protocol Specific Information section. To turn off SRTP on the phone device, select any one of the Non Secure SCCP Profile auth by choices from the drop-down list in SCCP Phone Security Profile or SCCP Device Security Profile field.

For the entire Unified Communications Manager cluster -- Choose System > Enterprise Parameters. In the Enterprise Parameters Configuration page, scroll down to the Securities Parameters section, to verify that the corresponding value for the Cluster Security Mode field is 0. This parameter indicates the security mode of the cluster. A value of 0 indicates that phones will register in nonsecure mode (no security).

The Unified CCX extension for the agent must be listed within the top 4 extensions on the device profile. Listing the extension from position 5 on will cause Unified CCX to fail to monitor the device, so the agent will not be able to log in. Do not forward any Unified Communications Manager device to the Unified CCX extension of an agent.

Do not configure the Unified CCX extension of an agent to forward to a Unified CCX route point.

Do not use characters other than the numerals 0 to 9 in the Unified CCX extension of an agent.

Do not configure two lines on an agent phone with the same extension when both lines exist in different partitions.

Do not assign a Unified CCX extension to multiple devices. Do not configure the same Unified CCX extension in more than one device or device profile. (Configuring a Unified CCX extension in one device or device profile is supported.)

To use Cisco Unified IP Phones 9900 Series, 8900 Series, and 6900 Series as agent devices, the RmCm application user in Unified Communications Manager needs to have "Allow device with connected transfer/conference" option assigned to itself.

QUESTION 241

Which mechanism enables the Cisco Unified CCX Cisco Agent Desktop application to obtain a copy of the RTP packet stream directly from a supported IP phone?

A. SPAN port monitoring

- B. desktop monitoring
- C. remote SPAN monitoring
- D. reflector port monitoring
- E. ESPAN monitoring

Correct Answer: B

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

Desktop monitoring provides a mechanism for the CAD application to obtain a copy of the RTP packet streams directly from the phone and therefore removes the need for a Monitoring component connected to the SPAN port on the Catalyst switch. A Cisco phone supporting desktop monitoring is required and the agent workstation running CAD must be connected to the data port on the back of the agent phone. The Cisco IP Communicator also supports using desktop monitoring for silent monitoring and recording.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cust_contact/contact_center/crs/express_9_0/design/UCCX_BK_UD5B347F_00_uccx-solution-reference-network-design/UCCX_BK_UD5B347F_00_uccx-solution-reference-network-design_chapter_010.html

QUESTION 242

Which Cisco Unified Contact Center Express data store contains CSQ information?

- A. configuration data store
- B. repository data store
- C. agent data store
- D. historical data store
- E. script data store

Correct Answer: A

Section: Section 7: Cisco Unified Contact Center Express

Explanation

Explanation/Reference:

Explanation:

The Database component is required for any Unified CCX deployment and manages access to the database. The Unified CCX Database contains four data stores. They are as follows:

Configuration data store

Repository data store

Agent data store

Historical data store

The configuration data store contains Unified CCX configuration information such as resources (agents), skills, resource groups, teams, and CSQ information. The repository data store contains user prompts, grammars, and documents. The agent data store contains agent logs, statistics, and pointers to the recording files. The historical data store contains Contact Call Detail Records (CCDRs).

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cust_contact/contact_center/crs/express_9_02/design/guide/UCCX_BK_C39FDB35_00_cisco-unified-contact-center-express/UCCX_BK_C39FDB35_00_cisco-unified-contact-center-express_chapter_010.html

Topic 8, Cisco Unified IM and Presence

QUESTION 243

Two Jabber clients are unable to pass instant messages between each other. What is the appropriate next step?

- A. Review XCP router logs.
- B. Open port 5060 on the firewalls between the PCs and the IM&P servers.
- C. Review SIP proxy logs.
- D. Review Help > Show Connection Status in each Jabber client, and pull logs as necessary.

Correct Answer: A

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

The XCP Router is the core communication functionality on the Cisco Unified Presence server. It provides XMPP-based routing functionality on Cisco Unified Presence; it routes XMPP data to the other active XCP services on Cisco Unified Presence, and it accesses SDNS to allow the system to route XMPP data to Cisco Unified Presence users. The XCP router manages XMPP sessions for users, and routes XMPP messages to and from these sessions.

QUESTION 244

Which external database software is required for the Cisco IM and Presence compliance feature?

- A. MySQL
- B. EnterpriseDB
- C. MSSQL
- D. SQLite
- E. PostgreSQL

Correct Answer: E

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

The following Cisco Unified Presence features require an external database:

Permanent Group Chat feature Cisco Unified Presence supports two types of group chat, temporary (ad-hoc) chat and permanent chat. You do not require an external database for temporary chat to work. However, if you require permanent chat rooms on Cisco Unified

Presence, you must configure an external database.

.

Instant Messaging Compliance - If you deploy the native Message Archiver (MA) component on Cisco Unified Presence for compliance logging, you require an external

Requirements for Configuring an External Database

.

Hardware requirements:

A remote server on which you install the PostgreSQL database(s).

.

Software requirements:

Cisco Unified Presence, release 8.x.

PostgreSQL database, versions 8.3.x through 9.1.1

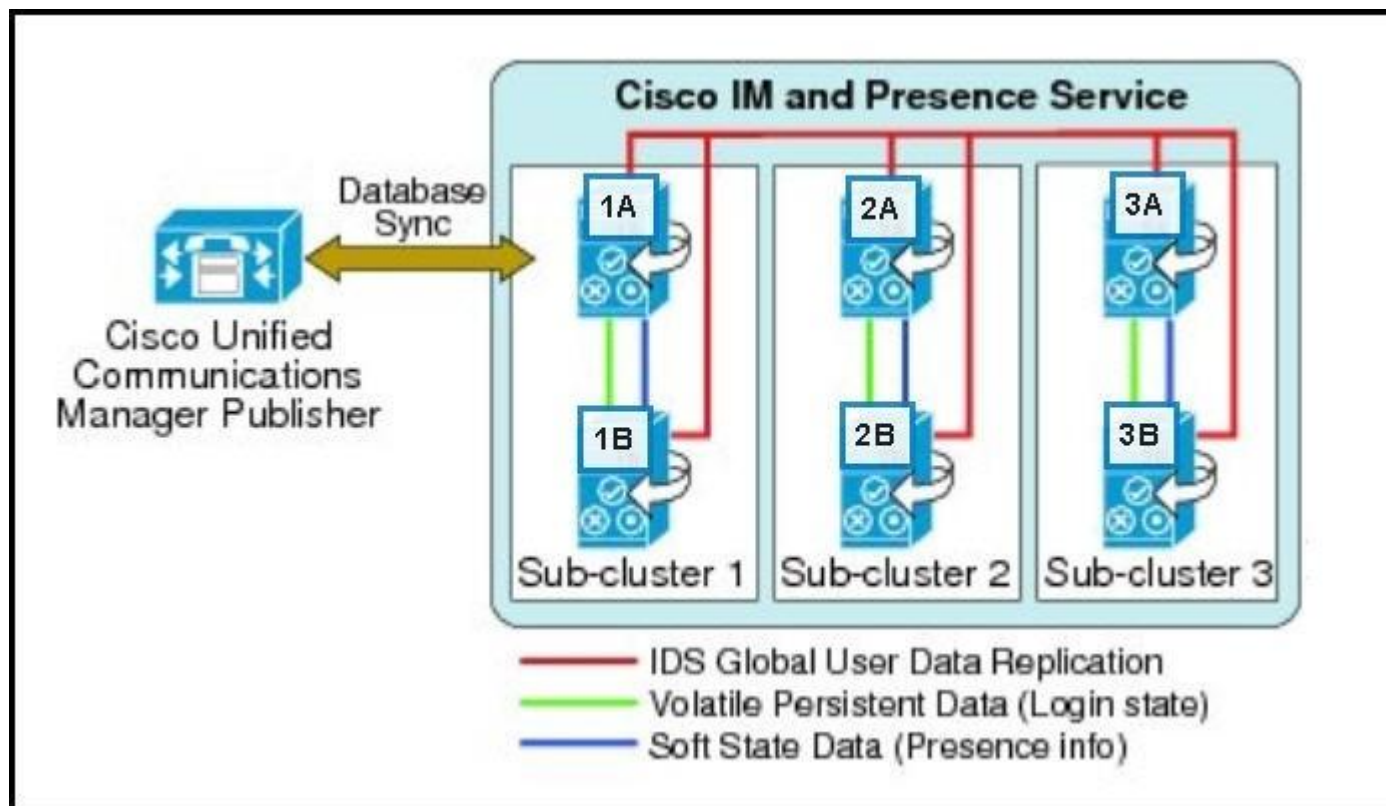
You can install the PostgreSQL database on either a Linux or a Windows operating system. See the PostgreSQL documentation for details on the supported operating systems and platform requirements.

Reference:

http://www.cisco.com/en/US/docs/voice_ip_comm/cups/8_0/english/install_upgrade/databa se/guide/Preparing_database_setup.html#wp1053954

QUESTION 245

Refer to the exhibit.



In this high-availability Cisco IM and Presence deployment with three subclusters, the first user is assigned to server 1A; the second user is assigned to server 2A; and the third user is assigned to server 3A. Assume that Cisco IM and Presence is set to active-active mode. To which server will the fourth user be automatically assigned?

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

Correct Answer: C

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

You can achieve a balanced mode High Availability deployment by evenly balancing users across all nodes in the subcluster, but only using up to 35% of the CPU of each IM and Presence node. The balanced mode High Availability deployment option in a redundant mode supports up to fifteen thousand users per cluster. For example, if you have six IM and Presence nodes in your deployment, and fifteen thousand users, you assign 2.5 thousand users to each IM and Presence node. When you use the balanced mode High Availability deployment option in a redundant mode, as compared to a non-redundant mode, only half the number of users are assigned to each node. However, if one node fails, the other node will handle the full load of the additional 50% of users in the subcluster, even at peak traffic. In order to support this failover protection, you must turn on High Availability in each of the subclusters in your deployment.

QUESTION 246

Which statement describes the external database requirement for the Cisco IM and Presence permanent group chat feature?

- A. All nodes in a Cisco IM and Presence cluster can share a physical external database.
- B. All nodes in a Cisco IM and Presence cluster can share a logical external database.
- C. Each node in a Cisco IM and Presence cluster must have its own physical external database.
- D. Each node in a Cisco IM and Presence cluster must have its own logical external database.
- E. An external database is not mandatory.

Correct Answer: D

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

When you configure an external database entry on IM and Presence, you assign the external database to a node, or nodes, in your cluster as follows: For the Compliance feature, you require at least one external database per cluster. Depending on your deployment requirements, you can also configure a separate external database per node.

For the Permanent Group Chat feature, you require a unique external database per node. Configure and assign a unique external database for each node in your cluster.

If you deploy both the Permanent Group Chat and Compliance features on an IM and Presence node, you can assign the same external database to both features.

QUESTION 247

Which statement about high availability for XMPP federation in Cisco IM and Presence is true?

- A. A maximum of two Cisco IM and Presence nodes can be enabled for XMPP federation.
- B. Cisco IM and Presence load balances outbound requests across all nodes that are enabled for XMPP federation.
- C. Cisco IM and Presence load balances outbound requests across both nodes that are enabled for XMPP federation in a subcluster.
- D. The XMPP federation-enabled nodes should have different priorities and weights on the published DNS SRV for proper inbound request node selection.
- E. A single DNS SRV record that resolves to an XMPP federation-enabled node must be published on a public DNS server for inbound request routing.

Correct Answer: B

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

High availability for XMPP federation differs from the high availability model for other IM and Presence Service features because it is not tied to the two node sub-cluster model. To provide high availability for XMPP federation, you must enable two or more IM and Presence Service nodes in your cluster for XMPP federation; having multiple nodes enabled for XMPP federation not only adds scale but it also provides redundancy in the event that any node fails.

QUESTION 248

Which three services must be stopped to change the IM & Presence service default domain setting of DOMAIN.NOT.SET? (Choose three.)

- A. Cisco XCP Router
- B. Cisco Intercluster Sync Agent
- C. Cisco XCP Authentication Service
- D. Cisco SIP Proxy
- E. Cisco Presence Engine
- F. Cisco AXL Web service

Correct Answer: ADE

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

Change the Domain Value Follow this procedure if you want to change the domain value (from one valid domain value to another valid IP proxy domain value).

This procedure is applicable if you have a DNS or non-DNS deployment.

Procedure

Step 1

Stop the Cisco SIP Proxy, Presence Engine and XCP Router services on IM and Presence

Step 2

On the publisher node, perform the following steps to configure the new domain value:

- a. Select IM and Presence Administration > System > Cluster Topology.
- b. In the right pane, select Settings.
- c. Configure the Domain Name value with the new domain. a. Select IM and Presence Administration > System > Service Parameters, and select the Cisco SIP Proxy service.
- b. Configure the Federation Routing IM and Presence FQDN with the new domain.

c. You will be prompted to confirm these configuration changes. Select OK for both prompts, and then select Save.

Step 3

```
set network domain <new_domain>
```

This CLI command invokes a reboot of the servers.

Step 4

On all nodes in the cluster, manually start the Cisco Presence Engine and Cisco XCP Router services after the reboot is complete (if required).

Step 5

Manually regenerate all certificates on each node in the cluster.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/im_presence/ip_address_host_name/9_0_1/IM_P_IPChange/sip_domain.html

QUESTION 249

Which protocol is used by presence-enabled users in Cisco IM and Presence to control A Composite Solution With Just One Click - Certification
Guaranteed 201 phones that are registered to Cisco Unified Communications Manager?

- A. AXL/SOAP
- B. CTI/QBE
- C. SIP/SIMPLE
- D. LDAP
- E. XMPP

Correct Answer: B

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

The CTI gateway provides desk phone control when users are configured for phone association mode. Proper installation calls upon information to specify CTI gateway server names, addresses, ports, and protocols on CUPS. Configured correctly, the CTI gateway enables users logging in to CUPC to reach the CTI gateway.

QUESTION 250

Which three issues prevent a customer from seeing the presence status of a new contact in their Jabber contact list? (Choose three.)

- A. incoming calling search space on SIP trunk to IM&P
- B. IM&P incoming ACL blocking inbound status
- C. subscribe calling search space on SIP trunk to IM&P
- D. PC cannot resolve the FQDN of IM&P
- E. Owner user ID is not set on device.
- F. Primary DN is not set in end user configuration for that user.
- G. Subscriber calling search space is not defined on user's phone.

Correct Answer: BCD

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Reference: <http://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-presence/97443-cups-cupc-ts.html>

QUESTION 251

Which option describes how you can show the same contacts in your Jabber for Windows on-premise client as you do on the corporate directory of your IP phone?

- A. Switch your Jabber client to use UDS instead of EDI.
- B. Switch your Jabber client to use EDI instead of UDS.
- C. Update your IM&P server to sync off of the same LDAP directory as your Cisco Unified Communications Manager.
- D. Add Jabber to your inbound/outbound firewall rules on your PC.
- E. Jabber can only pull directly from LDAP and cannot directly search the Cisco Unified Communications Manager user database.

Correct Answer: A

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

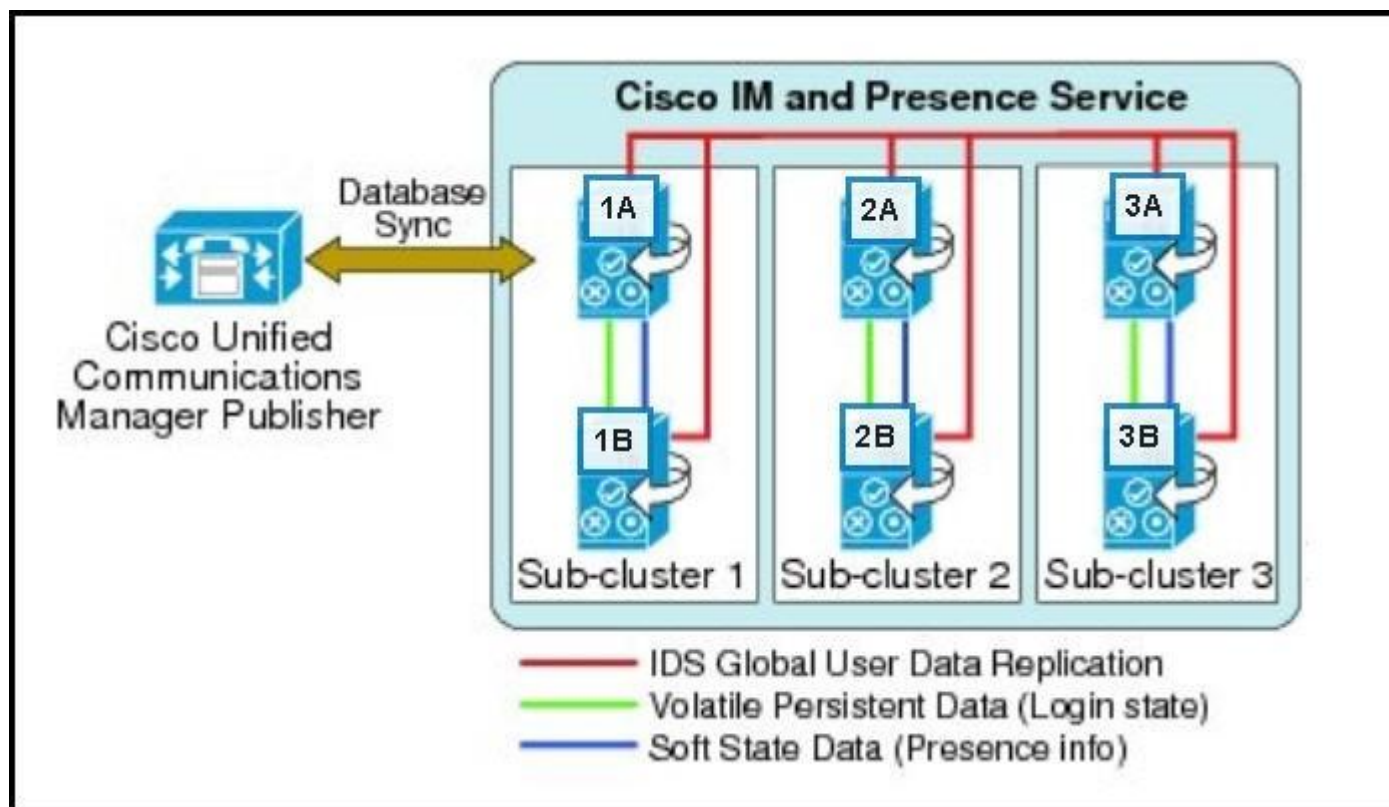
LDAP contact resolution -- The client cannot use LDAP for contact resolution when outside of the corporate firewall. Instead, the client must use UDS for contact resolution. When users are inside the corporate firewall, the client can use either UDS or LDAP for contact resolution. If you deploy LDAP within the corporate firewall, Cisco recommends that you synchronize your LDAP directory server with Cisco Unified Communications Manager to allow the client to connect with UDS when users are outside the corporate firewall.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/jabber/Windows/9_7/JABW_BK_C4_C679C9_00_cisco-jabber-for-windows-97/JABW_BK_C4C679C9_00_cisco-jabber-for-windows-97_chapter_0111.html#CJAB_CN_C2733196_00

QUESTION 252

Refer to the exhibit.



In this high-availability Cisco IM and Presence deployment with three subclusters, the first user is assigned to server 1A; the second user is assigned to server 2A; and the third user is assigned to server 3A. Assume that the Cisco IM and Presence is set to Active/Standby mode, to which server should the fourth user be assigned?

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

Correct Answer: A

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

This deployment model provides the same level of redundancy and high availability as outlined in the "Balanced Redundant High-Availability Deployment" section in this chapter. The only difference is that users are not deployed in a balanced fashion, but rather all reside on the primary server in the subcluster, and the backup server is there as a standby option if a node failure occurs.

QUESTION 253

Which two settings should be configured on the SIP Trunk Security Profile for the IM & Presence Service SIP Trunk? (Choose two.)

- A. Check to enable Accept Presence Subscription.
- B. Verify that the setting for Incoming Transport Type is TCP+UDP.
- C. Configure Device Security Mode to Encrypted.
- D. Check to enable Enable Application Level Authorization.
- E. Configure the Outgoing Transport Type to TLS.

Correct Answer: AB

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

Configure SIP Trunk Security Profile for IM and Presence Service Procedure

Step 1

Choose Cisco Unified CM Administration > System > Security > SIP Trunk Security Profile.

Step 2

Click Find.

Step 3

Click Non Secure SIP Trunk Profile.

Step 4

Click Copy and enter CUP Trunk in the Name field.

Step 5

Verify that the setting for Device Security Mode is Non Secure.

Step 6

Verify that the setting for Incoming Transport Type is TCP+UDP.

Step 7

Verify that the setting for Outgoing Transport Type is TCP.

Step 8

Check to enable these items:

Accept Presence Subscription

Accept Out-of-Dialog REFER
Accept Unsolicited Notification
Accept Replaces Header
Step 9
Click Save.

Reference:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/im_presence/configAdminGuide/9_0/CUP0_BK_CFF5B189_00_config-admin-guide-imp-90/CUP0_BK_CFF5B189_00_config-admin-guide-imp-90_chapter_0101.html

QUESTION 254

Which two enterprise presence domains can federate with Cisco IM and Presence by using SIP? (Choose two.)

- A. AOL
- B. Microsoft OCS
- C. IBM Sametime
- D. Cisco WebEx Connect
- E. Google Talk
- F. Cisco Unified Presence 8.X Releases

Correct Answer: AB

Section: Section 8: Cisco Unified IM & Presence

Explanation

Explanation/Reference:

Explanation:

Microsoft Lync and OCS support presence services with sip as well as AOL so to sip is easy to troubleshoot and feasible for signaling that's why cisco federate these with sip.

QUESTION 255

Which protocol does the Cisco Jabber client use, in conjunction with Cisco IM and Presence, to deliver enterprise-class instant messaging services?

- A. SIP
- B. CTI/QBE
- C. XMPP
- D. IRC
- E. ICQ

Correct Answer: C

Section: Section 8: Cisco Unified IM & Presence

Explanation**Explanation/Reference:**

Explanation:

Many federated IM networks communicate using an open standard, such as Jabber, that leverages the Extensible Messaging and Presence Protocol (XMPP). Networks using XMPP provide open communications with other XMPP-based networks.

QUESTION 256

Which Cisco IM and Presence service is responsible for logging all IM traffic that passes through the IM and Presence server to an external database for IM compliance?

- A. Cisco Presence Engine
- B. Cisco Serviceability Reporter
- C. Cisco Sync Agent
- D. Cisco XCP Connection Manager
- E. Cisco XCP Message Archiver

Correct Answer: E

Section: Section 8: Cisco Unified IM & Presence

Explanation**Explanation/Reference:**

Explanation:

The Cisco Unified Presence XCP Message Archiver service supports the IM Compliance feature. The IM Compliance feature logs all messages sent to and from the Cisco Unified Presence server, including point-to-point messages, and messages from adhoc (temporary) and permanent chat rooms for the Chat feature. Messages are logged to an external Cisco-supported database.

QUESTION 257

Which three statements about configuring partitioned intradomain federation to Lync are true? (Choose three.)

- A. Intradomain federation to Lync is only possible using SIP.
- B. IM&P and Lync should federate to any required remote domains.
- C. You must update the URIs of any users migrated from Lync to IM&P to match the Cisco Unified Presence Server SIP URI format.
- D. A static route must be added to point the local presence domain to the Lync server.
- E. Microsoft RCC must be enabled.
- F. The Enable use of Email Address when Federating option can be turned on if SIP URIs are different between IM&P and Lync.

Correct Answer: ACD

Section: Section 8: Cisco Unified IM & Presence
Explanation

Explanation/Reference:
Explanation:

Please refer to the link for more information:
http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cups/8_6/english/integration_notes/Federation/Intradomain_Federation/Partitioned_Intradomain_Federation/InterdomainFederation.html

QUESTION 258

Which protocol that is used between Cisco IM and Presence and Cisco Unified Communications Manager is responsible for the exchange of phone state presence information?

- A. AXL/SOAP
- B. CTI/QBE
- C. SIP/SIMPLE
- D. LDAP
- E. XMPP

Correct Answer: C

Section: Section 8: Cisco Unified IM & Presence
Explanation

Explanation/Reference:
Explanation:

To provide interoperability between communications systems, SIP is the protocol leveraged. Enterprise Presence solutions need to provide for a uniform definition of the main communication services such as IM, voice, video, e-mail, web calendaring, and so on, while SIP delivers the necessary features.

Topic 9, Mix Questions

QUESTION 259

A Cisco Unified Contact Center Express manager wants to add database integration to the self-service interactive voice response application. Which four types of licensing and database servers support this requirement? (Choose four.)

- A. The server must have enhanced licensing.
- B. The server must have premium licensing.
- C. A server running Sybase Adaptive Server is required.
- D. A server running Oracle is required.
- E. A server running Postgress SQL is required.

- F. A server running SAP SQL server is required.
- G. A server running Microsoft SQL server is required.
- H. The server must have standard licensing.

Correct Answer: BCDG

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 260

Which three parameters are requested in an Audit Endpoint message from a Cisco Unified CM to an endpoint on a MGCP gateway? (Choose three.)

- A. Bearer Information
- B. Call ID
- C. Capabilities
- D. Connection ID
- E. Connection Mode
- F. Connection Parameters
- G. Request Identifier
- H. Observed Events

Correct Answer: CDG

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 261

Which TFTP server address selection option has the highest precedence on Cisco SCCP IP phones using firmware release 8.0(4) or later?

- A. a manually configured alternate TFTP option on the phone
- B. the first Option 150 IP address received from the DHCP server
- C. the first Option 66 dotted decimal IP address received from the DHCP server
- D. the first IPv6 TFTP Server address received from the DHCP server
- E. the value of next-server IP address in the boot-up process

Correct Answer: A
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 262
Refer to the exhibit.

```
CUBE_PSTN#show voice high-availability summary

===== Voice HA DB INFO =====
Number of calls in HA DB: 100
Number of calls in HA sync pending DB: 50
Number of calls in HA preserved session DB: 70
```

The Cisco Unified Border Element is configured using high availability with the Hot Standby Routing Protocol. Which two pieces of information can be gathered about the calls traversing these border elements? (Choose two.)

- A. The total number of calls is 150.
- B. The number of nonnative calls is 70.
- C. The number of native calls is 50.
- D. The number of calls preserved is 220.
- E. The total number of active calls is 100.

Correct Answer: AB
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 263

Multiple Jabber for Windows users are having problems logging into the voicemail server. The Cisco Unity Connection administrator has reset the password and emailed them the new credentials, as well as the instructions about how to reset them in Jabber. The users cannot see the Phone Accounts tab under Jabber settings to complete the instructions.

Which two steps resolve this issue? (Choose two.)

- A. In the Cisco Unified CM Jabber Service Profile, change the Credentials source for voicemail service to "not set".
- B. In Cisco Unified CM, create a MailStore service and assign it to the Jabber Service Profile as Primary.
- C. In the IM&P server CCMCIP Profile, uncheck the "Make this the default CCMCIP Profile for the system".
- D. In the IM&P server Enterprise Parameters Configuration, enable the Phone Personalization parameter.
- E. In the Cisco Unified CM Jabber Service Profile, uncheck "Make this the default service profile for the system".

Correct Answer: AB

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 264

Refer to the exhibit.



Which two phone security functions are available to this Cisco IP phone? (Choose two.)

- A. default Authentication of TFTP downloaded files using a signing key
- B. encryption of TFTP configuration files using a signing key
- C. encrypted call signaling but unencrypted call media
- D. encrypted call media but unencrypted call signaling
- E. encrypted call signaling and media
- F. local trust verification on the phone

Correct Answer: AB

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 265

When DSP oversubscription occurs on a Cisco IOS router using DSP modules that are based on the C5510 chipset, what will happen when an analog phone connected to a FXS port goes off-hook?

- A. A fast busy tone will be played.
- B. A slow busy tone will be played.
- C. A network busy tone will be played.
- D. A dial tone will be played, but digits will not be processed.
- E. No tone will be played.

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 266

Which two clock rates does Performance Monitor use to calculate RTP jitter values? (Choose two.)

- A. PCMU (G.711 mu-law) , 8000 Hz
- B. PCMU (G.711 mu-law) , 32000 Hz
- C. PCMA (G.711 A-law) , 16000 Hz

- D. H.263 , 90,000 Hz
- E. H.263 , 64,000 Hz

Correct Answer: AD
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 267

Which three softkeys can be offered on a Cisco IP Phone 7965, running SCCP firmware, when it is in On Hold state? (Choose three.)

- A. Select
- B. Confrn
- C. NewCall
- D. EndCall
- E. iDivert
- F. Park
- G. Hold

Correct Answer: ACE
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 268

Which Cisco IOS multipoint video conferencing profile attempts to reserve DSPs only when it is activated with an actual conference?

- A. homogeneous
- B. guaranteed-audio
- C. rendezvous
- D. heterogeneous
- E. flex mode video

Correct Answer: B
Section: Section 9: Mix Questions

Explanation**Explanation/Reference:****QUESTION 269**

A collaboration engineer has set up SAF on a Cisco IOS router to advertise and accept SAF information during a maintenance window. Which two commands enable this functionality? (Choose two.)

- A. enroll callcontrol wildcarded
- B. advertise callcontrol 1
- C. subscribe callcontrol wildcarded
- D. register callcontrol wildcarded
- E. publish callcontrol 1
- F. distribute callcontrol 1

Correct Answer: CE

Section: Section 9: Mix Questions

Explanation**Explanation/Reference:****QUESTION 270**

Which four requirements are mandatory to enable a mixed mode Cisco Unified CM cluster? (Choose four.)

- A. Cisco CTL Provider Service activated and enabled
- B. Cisco Certificate Authority Proxy Function activated and enabled
- C. Cisco Trust Verification activated and enabled
- D. Cisco CTL client
- E. a minimum of one USB e-token
- F. a minimum of two USB e-token
- G. a minimum of one soft e-token

Correct Answer: ABDF

Section: Section 9: Mix Questions

Explanation**Explanation/Reference:**

QUESTION 271

Company ABC is planning to migrate from Cisco MCS-hosted Cisco Unified Communications Manager applications to Cisco UC on UCS B-Series servers. Which statement about external media supportability is true for this migration?

- A. The Cisco Music on Hold USB audio sound card on the MCS servers will continue to work on the USB ports on the UCS server.
- B. The Cisco Music on Hold USB audio sound card on the MCS servers will continue to work through the USB ports on the Cisco UCS server KVM dongle cable adaptor connected to the front of the UCS server.
- C. The Cisco Music on Hold USB audio sound card on the MCS servers will not work on the UCS server.
- D. The Cisco Music on Hold USB audio sound card can be mapped to a virtual USB port on a VMware virtual machine on the UCS server.
- E. The Cisco Music on Hold USB audio sound card can be mapped to a virtual serial port on a VMware virtual machine on the UCS server.

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 272

Refer to the exhibit.

```
Router#show dial-peer voice sum
dial-peer hunt 0
```

TAG	TYPE	AD MIN	OPER	PREFIX	DEST-PATTERN	PRE FER	PASS THRU	SESS-TARGET	OUT STAT	PORT	KEEPALIVE
4300	voip	up	up		4...	0	syst	ipv4:10.1.1.4			active
2300	voip	up	up		[2-3]...	0	syst	ipv4:10.1.1.3			active
1111	voip	up	down		1111	0	syst	ipv4:10.1.1.1			busy-out
20001	pots	up	up		2001\$	0				50/0/1	
20002	pots	up	up		2002\$	0				50/0/2	

Which out-of-dialog SIP OPTIONS ping response put dial-peer tag 1111 into its current operational state?

- A. 401 Unauthorized
- B. 505 Version Not Supported
- C. 406 Not Acceptable
- D. 482 Loop Detected

E. 500 Server Internal Error

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 273

Refer to the exhibit.

```
38587249.000 |18:49:37.585 |AppInfo |MGCPHandler received msg from: 10.163.25.1
NTFY 416258700 aaln/S0/SU0/0@cisco.com MGCP 0.1
N: ca@10.163.34.5:2427
X: 0
O: H/ci("", "", 0)
```

Which three options are potential reasons the FXO port is not receiving Caller ID? (Choose three.)

- A. "Enable Caller ID" was not configured on the Cisco Unified Communications Manager configuration.
- B. The FXO port was configured to "loop-start" instead of "ground-start".
- C. The Timing Guard-out parameter is incorrectly set to 1500 ms.
- D. "Connection polar opx immediate" was used and does support caller ID.
- E. Gateway with IOS 12.4(24T) was used and does not support this feature.
- F. The NTFY message contains a Hung Up parameter.

Correct Answer: ACE

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 274

An engineer received this requirement from a service provider:

Diversion header should match the network DID "123456@company.com" for Call Forward and transfer scenarios back to PSTN.

Which SIP profile configuration satisfies this request?

- A. voice class sip-profiles 200
request INVITE sip-header Diversion modify "sip:(.*) "123456@company.com">" request REINVITE sip-header Diversion modify "sip:(.*) "
"123456@company.com">"
- B. voice class sip-profiles 200
request INVITE sdp-header Diversion modify "sip:(.*) "123456@company.com">" request REINVITE sdp-header Diversion modify "sip:(.*) "
"123456@company.com">"
- C. voice class sip-profiles 200
response 200 sdp-header Diversion modify "sip:(.*) "123456@company.com">"
- D. voice class sip-profiles 200
response 200 sip-header Diversion modify "sip:(.*) "123456@company.com">"

Correct Answer: A

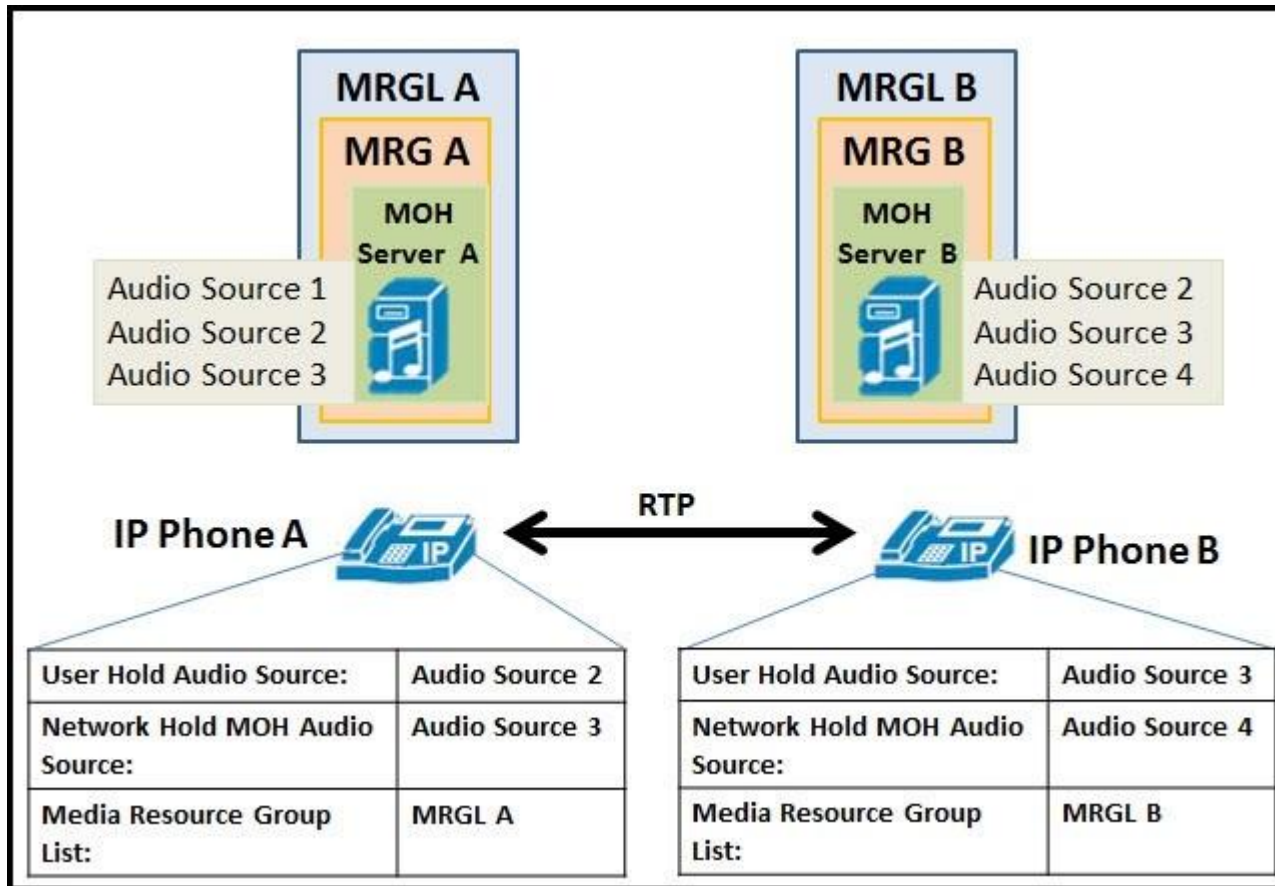
Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 275

Refer to the exhibit.



All displayed devices are registered to the same Cisco Unified Communications Manager server and the phones are engaged in an active call. Assume that the provided configurations exist at the phone line level and multicast MOH is disabled cluster wide.

Which description of what will happen when the user of IP phone B presses the Transfer soft key is true?

- A. IP phone A user hears audio source 3 from MOH server A.
- B. IP phone A user hears audio source 4 from MOH server B.
- C. IP phone A user hears audio source 3 from MOH server B.
- D. IP phone A user hears tone on-hold beep tones.
- E. IP phone A user hears no on-hold music or beep tones.

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 276

Which two SCCP call states support the MeetMe softkey? (Choose two.)

- A. On Hook
- B. Connected
- C. On Hold
- D. Off Hook
- E. Ring Out
- F. Connected Conference

Correct Answer: AD

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 277

Refer to the exhibit.



The image shows a screenshot of the 'Token Logon' window from the SafeNet Authentication Client. The window has a title bar with a close button. Below the title bar is a header with the SafeNet logo and the text 'SafeNet Authentication Client'. The main area contains the following elements:

- Text: 'Enter the Token Password.'
- Label: 'Token Name:' followed by a text box containing 'eToken'.
- Label: 'Token Password:' followed by a password box with 10 dots.
- Text: 'Current Language: EN' (where 'EN' is in red).
- Text at the bottom left: 'Retries remaining before the token is locked: 1'.
- Buttons: 'OK' and 'Cancel' at the bottom right.

How many failed token password attempts have occurred on this Cisco CTL client?

- A. 4
- B. 9
- C. 14
- D. 19
- E. 24

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 278

A Cisco Unity Connection administrator receives a request from a user who wants the ability to change the caller input option 0 in their voicemail box as needed without calling for support. How does the administrator grant these rights to the user?

- A. The administrator can set the caller input to "Transfer to alternate contact number" so the user can log into their voicemail account through the TUI and set their alternate contact number.
- B. The administrator can set the caller input to "Transfer to alternate contact number" so the user can log into their voicemail account through their

Cisco PCA page and set their alternate contact number.

- C. The administrator can create a new call handler of which the user is an owner. The user controls the destination of that call handler by logging into the call handler via greetings administrator.
- D. The administrator informs the user that this feature is a built-in option to the user Cisco PCA page under caller input.
- E. The administrator informs the user that this feature is a built-in option for the user in the TUI under personal settings.

Correct Answer: A

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 279

Which two settings must be the same between the backup source and restore target with DRS in Cisco Unified Communications Manager? (Choose two.)

- A. Server Hostname
- B. Server IP Address
- C. Cluster Security Password
- D. NTP Servers
- E. Domain Name
- F. Certificate Information

Correct Answer: AB

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 280

Refer to the exhibit.

```
isdn switch-type primary-dms100  
  
controller T1 1/0  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d primary nfas_int 0 nfas_group 1  
  
controller T1 1/1  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d backup nfas_int 1 nfas_group 1  
  
controller T1 2/0  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d none nfas_int 2 nfas_group 1  
  
controller T1 2/1  
framing esf  
linecode b8zs  
pri-group timeslots 1-24 nfas_d none nfas_int 3 nfas_group 1
```

From this NFAS-enabled T1 PRI configuration on a Cisco IOS router, how many bearer channels are available to carry voice traffic?

- A. 91
- B. 92
- C. 93
- D. 94
- E. 95

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 281

A customer has a single Active Directory domain with users in various email domains. Each user is associated to only one email domain. The customer wants their users to federate to external organizations using their email addresses. What two methods are used to set up the integration between Active Directory, Cisco Unified CM, and IM&P? (Choose two.)

- A. CUCM LDAP Attribute for User ID set to sAMAccountName, CUCM LDAP Directory URI set to mail, IM Address Scheme set to Directory URI
- B. CUCM LDAP Attribute for User ID set to mail, IM Address Scheme set to User ID
- C. CUCM LDAP Attribute for User ID set to sAMAccountName, CUCM LDAP Directory URI set to msRTCSIP-primaryuseraddress, IM Address Scheme set to Directory URI
- D. CUCM LDAP Attribute for User ID set to mail, CUCM LDAP Directory URI set to mail, IM Address Scheme set to Directory URI
- E. CUCM LDAP Attribute for User ID set to mail, IM Address Scheme set to mail

Correct Answer: AD


Section: Section 9: Mix Questions

Explanation

Explanation/Reference:




QUESTION 282


Refer to the exhibit.


Cisco Unified Operating System Administration
 For Cisco Unified Communications Solutions

Show ▼ Settings ▼ Security ▼ Software Upgrades ▼ Services ▼ Help ▼

Certificate List

 Generate New
  Upload Certificate/Certificate chain
  Generate CSR

Status
 21 records found

Certificate List (1 - 21 of 21)

Find Certificate List where begins with

Certificate Name	Certificate Type	.PEM File
tomcat	certs	tomcat.pem
ipsec	certs	ipsec.pem
tomcat-trust	trust-certs	PUB.pem
tomcat-trust	trust-certs	VeriSign Class 3 Secure Server CA - G3.pem
tomcat-trust	trust-certs	SUB.pem
ipsec-trust	trust-certs	PUB.pem
CallManager	certs	CallManager.pem
CAPF	certs	CAPF.pem
TVS	certs	TVS.pem
CallManager-trust	trust-certs	Cisco Manufacturing CA.pem
CallManager-trust	trust-certs	CAPF-8b60ebb5.pem
CallManager-trust	trust-certs	CAP-RTP-002.pem
CallManager-trust	trust-certs	CAP-RTP-001.pem
CallManager-trust	trust-certs	SUB.pem
CallManager-trust	trust-certs	CAPF-fbb7020d.pem
CallManager-trust	trust-certs	Cisco Root CA 2048.pem
CAPF-trust	trust-certs	Cisco Manufacturing CA.pem
CAPF-trust	trust-certs	CAPF-8b60ebb5.pem
CAPF-trust	trust-certs	CAP-RTP-002.pem
CAPF-trust	trust-certs	CAP-RTP-001.pem
CAPF-trust	trust-certs	Cisco Root CA 2048.pem

Which certificate file contains the private key used to sign the TFTP configuration file for download authentication with Initial Trust List enabled IP phones?

- A. PUB.pem tomcat-trust trust-cert
- B. SUB.pem CallManager-trust trust-cert
- C. CAPF.pem CAPF cert
- D. TVS.pem TVS cert
- E. CallManager.pem CallManager cert

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 283

Which option is a mandatory LDAP attribute for a user to be synchronized to Cisco Unified Communications Manager?

- A. uid
- B. telephoneNumber
- C. employeeNumber
- D. sn
- E. mail

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 284

In a Cisco Unified Communications Manager system, which three locations does the TFTP server search when a device requests a configuration file from a TFTP server? (Choose three.)

- A. internal caches
- B. local disk
- C. alternate file server

- D. NFS server
- E. FTP server
- F. load server

Correct Answer: ABC

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 285

Which configuration file does a Cisco IP phone with MAC address 1111.2222.3333 request from the TFTP server when an Initial Trust List file is present?

- A. SEP111122223333.cnf.xml
- B. SEP111122223333.cnf
- C. SEP111122223333.cnf.xml.sgn
- D. SEPDefault.cnf.xml.sgn
- E. SEP111122223333.cnf.xml.enc.sgn

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 286

Tom Lee is an active user in a Cisco Unified CM deployment with fully functional LDAP synchronization and authentication to an Active Directory. Daily resynchronization is set at 11:00 pm. At 8:00 am on March 1st 2014, this user was deleted from the AD. What is the status of this user in the Unified CM database at 1:00 am on March 2nd 2014?

- A. active
- B. inactive
- C. delete pending
- D. awaiting authorization
- E. permanently deleted

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 287

Which Cisco Unified CM service is responsible for writing Call Detail Records into flat files?

- A. Cisco CallManager
- B. Cisco CDR Agent
- C. Cisco CDR Repository Manager
- D. Cisco SOAP CallRecord Service
- E. Cisco Extended Functions

Correct Answer: A


Section: Section 9: Mix Questions

Explanation

Explanation/Reference:





QUESTION 288

Refer to the exhibit.


**Cisco Unified CCX Administration**
For Cisco Unified Communications Solutions

SystemApplicationsSubsystemsWizardsToolsHelp

Contact Service Queue Configuration


 Next  Delete  Cancel  Open Printable Report of this CSQ configuration

Status

 Status : Ready

Contact Service Queue Name*	SupportQueue
Contact Service Queue Type*	Voice
Contact Queuing Criteria	FIFO
Automatic Work*	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Wrapup Time*	<input checked="" type="radio"/> Enabled 60 Second(s) <input type="radio"/> Disabled
Resource Pool Selection Model*	Resource Skills
Service Level*	5
Service Level Percentage*	70
Prompt	- No Selection -

NextDeleteCancel

 *- indicates required item

A Cisco collaboration engineer is writing a report to summarize the call distribution characteristics in a Cisco Unified Contact Center Express queue. Which three characteristics can be reported about the call distribution? (Choose three.)

- A. This queue will not work because no prompt has been selected.
- B. Calls to this queue can be distributed in a round-robin manner between agents.
- C. Agents that are answering calls for this queue can answer calls to other queues if available.
- D. Agents in this queue are expected to finish (wrap-up) a call within 60 seconds.
- E. Calls to this queue are handled in the order they were received unless prioritized by the script.
- F. Changing the queue name from SupportQueue to Support01 requires updates to the script.
- G. Agents logged in to this queue automatically receive calls without the need to do anything else (automatic work).

Correct Answer: CEF

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 289

A collaboration engineer is designing an Cisco IM&P implementation to support instant messaging logging for compliance. Which two external databases can be used to support that functionality? (Choose two.)

- A. Oracle database
- B. MySQL database
- C. Microsoft SQL database
- D. PostgreSQL database
- E. Informix SQL database

Correct Answer: AD

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 290

Which statement describes how much of the DSP resources are reserved for video conference when voice-service dsp-reservation 40 is configured on a Cisco Integrated Router Generation 2 with packet voice and video digital signal processor 3?

- A. 60% of the total available DSP resources
- B. 40% of the total available DSP resources

- C. 50% of the total available DSP resources
- D. Video conferencing resources are reserved dynamically by Cisco IOS and cannot be changed.
- E. This command is used for voice resource reservation only.

Correct Answer: A

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 291

Which three message types for RTCP are valid? (Choose three.)

- A. sender report
- B. end of participation
- C. source description
- D. sender codec
- E. receiver packets
- F. average MOS

Correct Answer: ABC

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 292

Which three components are required when configuring the Cisco Unified Communications Manager for time-of-day routing? (Choose three.)

- A. Partition
- B. Time Period
- C. Time Schedule
- D. Time Zone
- E. Date Time Group

Correct Answer: ABC


Section: Section 9: Mix Questions

Explanation

Explanation/Reference:







QUESTION 293


Refer to the exhibit.


Cisco Unified CM Administration
 For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Advanced Features ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾












Phone Configuration

 Save
  Delete
  Copy
  Reset
  Apply Config
  Add New

Status
 Update successful

Association Information

Modify Button Items

1	 Line [1] - 1002 (no partition)
2	 Line [2] - Add a new DN
3	 1000
4	 1001
5	 1003
6	 1004
----- Unassigned Associated Items -----	
7	 2000
8	 2001
9	 2002
10	 Add a new SURF
11	 Add a new BLF SD

Phone Type
Product Type: Cisco 7965
Device Protocol: SCCP

Device Information

Registration	Registered with Cisco Unified Communications Manager
IP Address	
Active Load ID	SCCP45.9-3-1SR1-1S
Download Status	Unknown
<input checked="" type="checkbox"/> Device is Active	
<input checked="" type="checkbox"/> Device is trusted	
MAC Address*	EC44761E44CC
Description	Auto 1002
Device Pool*	Default
Common Device Configuration	< None >
Phone Button Template*	Standard 7965 SCCP
Softkey Template	Standard User
Common Phone Profile*	Standard Common Phone Profile

Assume there are no classes of service restrictions and all numbers shown are reachable from this Cisco Unified IP 7965 Phone. Which statement about the dialing key strokes that allow the owner of this phone to reach directory number 2000 is true?

- A. Press the last button on the right hand side of the phone screen.
- B. There is no way to speed dial to directory number 2000 because the speed dial entry is not assigned.
- C. Press 7 on the phone keypad, followed by the Dial softkey.
- D. Press 6 on the phone keypad, followed by the Dial softkey.
- E. Press 5 on the phone keypad, followed by the AbbrDial softkey.

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 294

Tom Lee is an active user in a Cisco Unified CM deployment with fully functional LDAP synchronization and authentication to an Active Directory. Daily resynchronization is set at 11:00 pm. At 8:00 am on March 1st 2014, this user was deleted from the AD.

What will Tom Lee experience when he attempts to log in Extension Mobility at an IP phone and then access his Unified CM User Options page on his PC, at 9:00 am on March 1st 2014?

- A. Extension Mobility will not work, but the User Options page will work.
- B. Extension Mobility and the User Options page will not work.
- C. Extension Mobility will work, but the User Options page will not work.
- D. Extension Mobility and the User Options page will work.
- E. The information provided is insufficient to answer this question.

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 295

Which codec complexity mode, when deployed on Cisco IOS routers with DSPs using the C5510 chipset, supports the most G.711 calls per DSP?

- A. Low
- B. Medium

- C. High
- D. Secure
- E. Flex

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 296

Which two QoS guidelines are recommended for provisioning interactive video traffic? (Choose two.)

- A. Latency should be no more than 45 seconds.
- B. Overprovision interactive video queues by 20% to accommodate bursts.
- C. Loss should be no more than 5%.
- D. Interactive video should be marked to DSCP CS4.
- E. Jitter should be no more than 30 ms.

Correct Answer: BE

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 297

Refer to the exhibit.



What caused this message on a Cisco 9971 IP phone, connected to a Cisco 3750X PoE switch, when a mobile phone is plugged into the IP Phone's back USB port?

- A. The back USB port only supports Cisco USB devices such as a Cisco Unified Video camera
- B. USB classes for this USB port are not properly configured
- C. The USB port is not enabled by the administrator

- D. The mobile phone is requesting more power than the USB port could provide
- E. USB devices are not supported when the IP phone is powered by a Cisco PoE switch

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 298

Which two options are Power Save configuration parameters for Cisco 9971 IP Phones? (Choose two.)

- A. Phone On Time
- B. Phone Off Idle Timeout
- C. Day Display Not Active
- D. Enable Audio Alert
- E. Enable Power Save Plus
- F. Display on Duration

Correct Answer: CF

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 299

Which Cisco IOS multipoint video conferencing profile reserves DSPs when it is created in the configuration?

- A. flex mode video
- B. guaranteed-audio
- C. rendezvous
- D. heterogeneous
- E. guaranteed-video

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:**QUESTION 300**

Which three softkeys can be offered on a Cisco IP Phone 7965, running SCCP firmware, when it is in Remote In Use state? (Choose three.)

- A. Resume
- B. EndCall
- C. Select
- D. Barge
- E. NewCall
- F. cBarge
- G. Join

Correct Answer: DEF

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:**QUESTION 301**

Which Cisco Unified CM Application user is created by default and used by Cisco Unified CM Extension Mobility?

- A. CCMAAdministrator
- B. EMSysUser
- C. TabSyncSysUser
- D. CCMSysUser
- E. CTIGWUser

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:**QUESTION 302**

Which Cisco Unified CM service is installed by default and authenticates certificates on behalf of IP phones and other endpoints?

- A. Cisco CTL Provider
- B. Cisco Certificate Authority Proxy Function
- C. Cisco Trust Verification
- D. Cisco CallManager
- E. Cisco TFTP

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 303

The Information Technologies policy of your company mandates logging of all calls that last less than one second in Call Detail Records. Which option is the minimum Cisco Unified CM Service Parameter configuration that is needed to ensure compliance to this policy?

- A. Set CDR Enabled Flag to True.
- B. Set CDR Log Calls with Zero Duration Flag to True.
- C. Set CDR Enabled Flag and CDR Log Calls with Zero Duration Flag to True.
- D. Set CDR Enabled Flag to True and set Call Diagnostics Enabled to Enable Only When CDR Enabled Flag is True.
- E. Leave CDR Enabled Flag and Call Diagnostics Enabled to their default settings.

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 304

Which two steps must be taken when configuring EMCC? (Choose two.)

- A. An SFTP server that all clusters share must be set up.
- B. Certificates from all remote clusters must be imported into each cluster.
- C. Cross-cluster Enhanced Location CAC must be configured.
- D. End users must be configured to only exist in their home cluster.
- E. A device pool for EMCC phones must be configured.
- F. Define MLPP domains.

Correct Answer: AB
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 305
Refer to the exhibit.



Which option describes the security encryption status of this active call on a Cisco IP phone?

- A. unencrypted call signaling and media
- B. encrypted call signaling but unencrypted call media
- C. encrypted call media but unencrypted call signaling
- D. encrypted call signaling and media
- E. Not enough information provided to answer this question.

Correct Answer: D
Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 306
Refer to the exhibit.

```
Gatekeeper#show gatekeeper endpoint
```

```

                        GATEKEEPER ENDPOINT REGISTRATION
                        =====
CallSignalAddr  Port  RASignalAddr  Port  Zone Name      Type  Flags
-----
10.1.1.1        1720  10.1.1.1      49960  GK              VOIP-GW
   H323-ID: HQGK_1
   Voice Capacity Max.= Avail.= Current.=
10.1.1.2        1720  10.1.1.2      49309  GK              VOIP-GW
   H323-ID: HQGK_2
   Voice Capacity Max.= Avail.= Current.= 0
20.1.1.1        1720  20.1.1.1      49262  GK              H323-GW
   H323-ID: RemoteGK-1
   Voice Capacity Max.= Avail.= Current.= 0
Total number of active registrations = 3

```

10.1.1.1 and 10.1.1.2 are node IP addresses of a Cisco Unified CM cluster. Which statement describes the correct Cisco Unified CM configurations that produced the output shown in the exhibit?

- A. Device Name on the Cisco Unified CM Gatekeeper configuration page is HQGK.
- B. Device Name on the Cisco Unified CM H.225 Trunk (Gatekeeper Controlled) configuration page is HQGK.
- C. Device Name on the Cisco Unified CM H.225 Trunk (Gatekeeper Controlled) configuration page is HQGK_1,HQGK_2.
- D. Device Name on the Cisco Unified CM Gatekeeper configuration page is HQGK_1,HQGK_2.
- E. Not enough information has been provided to answer this question.

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 307

Under which three conditions will a Cisco 9971 IP Phone request the "xmldefault.cnf.xml" file from a TFTP server in a Cisco Unified CM cluster? (Choose three)

- A. The phone is registered to the CUCM cluster but need to update its firmware

- B. The phone is attempting to register to the CUCM cluster for the first time
- C. Auto-registration is disabled on CUCM cluster
- D. The phone has not yet been defined in the CUCM database
- E. The phone is attempting to change from SIP firmware to SCCP firmware
- F. Auto-registration is enabled on CUCM cluster

Correct Answer: BDF

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 308

Which two rules apply to MMOH in SRST? (Choose two.)

- A. A maximum of three MOH groups are allowed.
- B. Cisco Unified SRST voice gateway allows you to associate phones with different MOH groups on the basis of their IP address to receive different MOH media streams.
- C. A maximum of five media streams are allowed.
- D. Cisco Unified SRST voice gateway allows you to associate phones with different MOH groups on the basis of their MAC address to receive different MOH media streams.
- E. Cisco Unified SRST voice gateway allows you to associate phones with different MOH groups on the basis of their extension numbers to receive different MOH media streams.

Correct Answer: CE

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 309

Which option is a mandatory softkey for a Cisco IP 7965, running SCCP firmware, in the Off Hook call state?

- A. Redial
- B. NewCall
- C. EndCall
- D. CfwAll

E. There is no mandatory softkey in the Off Hook call state.

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 310

Refer to the exhibit.

```
Gatekeeper#show gatekeeper gw  
  
GATEWAY TYPE PREFIX TABLE  
=====
```

Prefix: 1*	
Zone GK master gateway list:	
10.1.1.2:49392	HQGK_2
10.1.1.1:50972	HQGK_1

10.1.1.1 and 10.1.1.2 are node IP addresses of a Cisco Unified CM cluster. Which two statements describe the correct Gatekeeper Information parameters on Cisco Unified CM

- A. 225 Trunk (Gatekeeper Controlled) configuration page that could produce the output shown in the exhibit? (Choose two.)
- B. Default Technology Prefix is 1*.
- C. Technology Prefix is 1.
- D. H.323 IDs are HQGK_1 and HQGK_2.
- E. H.323 ID is HQGK.
- F. Technology Prefix is 1*.
- G. Zone name is HQGK.

Correct Answer: BE

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 311

Which Cisco Unified CM service is responsible for periodically checking disk usage and deleting old Call Management Records files?

- A. Cisco CallManager
- B. Cisco CDR Agent
- C. Cisco CDR Repository Manager
- D. Cisco SOAP CallRecord Service
- E. Cisco Extended Functions

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 312

Refer to the exhibit.

```
Jan 10 02:31:25.598: h323chan_gw_conn: Created socket fd=1
Jan 10 02:31:25.598: h323chan_gw_conn: Created socket fd=2h323chan_dgram_send:Sent UDP msg.
                        Bytes sent: 50 to 224.0.1.41:1718 fd=2

Jan 10 02:31:25.598: RASLib::GW_RASSendGRQ: GRQ (seq# 47) sent to 224.0.1.41
Jan 10 02:31:25.598: h323chan_chn_process_read_socket
Jan 10 02:31:25.598: h323chan_chn_process_read_socket: fd=2 of type CONNECTED has data
Jan 10 02:31:25.598: h323chan_chn_process_read_socket: h323chan accepted/connected fd=2

Jan 10 02:31:25.598: h323chan_dgram_rcvdata:rcvd from [10.1.1.2:1718] on fd=2
Jan 10 02:31:25.598: GCF (seq# 47) rcvd from h323chan_dgram_send:Sent UDP msg.
```

Debug RAS output is logged on a H.323 gateway. Which RAS message is sent next by the

- A. 323 gateway?
- B. ARQ
- C. BRQ
- D. IRQ

- E. LRQ
- F. RRQ

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 313

Where can a Cisco Unified CM administrator define Call Detail Records data collection interval?

- A. Cisco Unified CM Administration Service Parameters
- B. Cisco Unified CM Administration Enterprise Parameters
- C. Cisco Unified Serviceability
- D. Cisco Unified Reporting
- E. Call Detail Records data collection interval is not a configurable parameter.

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 314

A company is decommissioning a site where a Cisco Unity Connection cluster resides. This cluster is part of a larger network of Unity Connection servers linked using HTTPS networking. Which three steps remove the site from the network? (Choose three.)

- A. Determine if the Unity Connection cluster to be decommissioned sits between the hub and another Unity Connection site in the hub-and-spoke topology.
- B. Remove the Unity Connection primary server from the HTTPS network on each node in the cluster.
- C. Remove all servers in the Unity Connection cluster from the other clusters in the HTTPS network.
- D. Update any downstream Unity Connection locations so that they link with a Unity Connection that will continue to have access to the hub location.
- E. Remove the existing link to the remaining Unity Connection locations subtree and add new links to locations that will remain connected to the hub.
- F. Update any remote call handlers and interview handlers that targeted the users on the location as well as any location downstream from the commissioned site to be removed.

Correct Answer: AEF

Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 315

Refer to the exhibit.



Which three Ethernet Setup Administrator Settings are manually configurable locally on the Cisco 9971 IP phone? (Choose three)

- A. Operational VLAN Id
- B. Admin VLAN Id
- C. PC VLAN
- D. SW Port Setup
- E. PC Port Setup

Correct Answer: BDE

Section: Section 9: Mix Questions
Explanation

Explanation/Reference:

QUESTION 316

A collaboration engineer has just implemented SAF as a hub-and-spoke network. The hub uses its loopback interface for SAF advertisements. Updates are coming into the hub router, but are not being advertised out. Which option describes the issue?

- A. Multicast is not enabled across the WAN.
- B. SAF is set up on a VRF.
- C. SAF username/password are incorrect.
- D. The autonomous system is mismatched.
- E. Split horizon is enabled.

Correct Answer: E

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 317

The Information Technologies policy of your company mandates logging of all unsuccessful calls that resulted in reorder tone in Call Detail Records. Which option is the minimum Cisco Unified CM Service Parameter configuration that is needed to ensure compliance to this policy?

- A. Set CDR Enabled Flag and CDR Log Calls with Zero Duration Flag to True.
- B. Set CDR Enabled Flag to True and set Call Diagnostics Enabled to Enable Only When CDR Enabled Flag is True.
- C. Set CDR Enabled Flag to True and set Call Diagnostics Enabled to Enable Regardless of CDR Enabled Flag.
- D. Leave CDR Enabled Flag and Call Diagnostics Enabled to their default settings.

Correct Answer: A

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 318

Refer to the exhibit.

```
Gatekeeper#show gatekeeper gw
GATEWAY TYPE PREFIX TABLE
=====
Prefix: 1*
Zone GK master gateway list:
 10.1.1.2:49392 HQGK_2
 10.1.1.1:50972 HQGK_1
```

10.1.1.1 and 10.1.1.2 are node IP addresses of a Cisco Unified CM cluster. Which two options are the correct Cisco IOS Gatekeeper configuration that could produce the output shown in the exhibit? (Choose two.)

- A. gw-type-prefix 1 default-technology
- B. no shutdown
- C. zone local GK cciecollab.com
- D. Zone remote HQGK_2 cciecollab.com 10.1.1.2
- E. gw-type-prefix 1* default-technology
- F. Zone remote HQGK_1 cciecollab.com 10.1.1.1

Correct Answer: BC

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 319

Which directory path on Cisco Unified CM publisher is used to temporarily store the Call Detail Records collected from other nodes until they are processed by the CDR Repository Manager?

- A. car/yyyymmdd
- B. preserve/yyyymmdd
- C. cdr/yyyymmdd
- D. collected/yyyymmdd
- E. processed/yyyymmdd

Correct Answer: B

Section: Section 9: Mix Questions

Explanation**Explanation/Reference:****QUESTION 320**

Refer to the exhibit.

```
Received:
INVITE sip:+15552341234@10.41.11.21:5060 SIP/2.0
Via: SIP/2.0/TCP 10.41.11.10:5060;branch=z9hG4bK4bb12565f6120d
Via: SIP/2.0/TCP 10.10.20.20:5060;branch=z9hG4bK2d4790;received=192.0.2.111
Via: SIP/2.0/TCP 10.50.40.30:5060;branch=z9hG4bK2d6014;received=192.0.2.20
From: "Test" <sip:5559874321@customer.com>;tag=15269661~58798a82-6f11-4d0c-9024-092b2761f953-71117600
To: <sip:+15552341234@10.41.11.21>
Cisco-Guid: 2960899712-0000065536-0000112086-0202057994
P-Asserted-Identity: "Test" <sip:5559874321@customer.com>
Remote-Party-ID: "Test" <sip:5559874321@customer.com>;party=calling;screen=yes;privacy=off
Contact: <sip:5559874321@10.41.11.10:5060;transport=tcp>
```

```
voice translation-rule 1
 rule 1 /\+/ //
!
voice translation-rule 2
 rule 1 /\+1/ //
!
voice translation-rule 3
 rule 1 /\+1/ /91/
!
voice translation-profile 1
 translate called 1
voice translation-profile 2
 translate called 2
voice translation-profile 3
 translate called 3
```

A call is received on a Cisco Unified Border Element gateway. The debug captures this SIP INVITE message. Which configurations result in 915556781234 as the final called number?

- A. voice class uri 1 sip
host ipv4:10.41.11.10
!
voice class uri 2 sip
host ipv4:10.50.40.30
!
dial-peer voice 1 voip
incoming uri via 1
translation-profile incoming 1
!
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 2
!
dial-peer voice 3 voip
incoming called-number +1T
translation-profile incoming 3
- B. voice class uri 1 sip
host dns:customer.com
voice class uri 2 sip
host ipv4:10.50.40.30
dial-peer voice 1 voip
incoming uri via 1
translation-profile incoming 1
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 2
dial-peer voice 3 voip
incoming called-number +1T
translation-profile incoming 3
- C. voice class uri 1 sip
host ipv4:10.41.11.10
voice class uri 2 sip
host ipv4:10.50.40.30
dial-peer voice 1 voip
incoming called-number +1[2-9]..[2-9].....
translation-profile incoming 3
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 2
dial-peer voice 3 voip
incoming called-number [2-9]..[2-9].....

- translation-profile incoming 1
- D. voice class uri 1 sip
host dns:customer.com
voice class uri 2 sip
host ipv4:10.50.40.30
dial-peer voice 1 voip
incoming uri via 1
translation-profile incoming 1
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 1
dial-peer voice 3 voip
incoming called-number +1T
translation-profile incoming 3
- E. voice class uri 1 sip
host ipv4:10.41.11.10
voice class uri 2 sip
host ipv4:10.50.40.30
voice class uri 3 sip
host dns:customer.com
dial-peer voice 1 voip
incoming uri via 1
translation-profile incoming 2
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 1
dial-peer voice 3 voip
incoming uri via 3
incoming called-number +1T
translation-profile incoming 1
- F. voice class uri 1 sip
host ipv4:10.41.11.10
voice class uri 2 sip
host ipv4:10.50.40.30
voice class uri 3 sip
host dns:customer.com
dial-peer voice 1 voip
incoming uri via 1
translation-profile outgoing 3
dial-peer voice 2 voip
incoming uri via 2
translation-profile incoming 2
dial-peer voice 3 voip

incoming called-number +1T
translation-profile incoming 2

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 321

Which Cisco Unified CM service is responsible for writing Call Management Records into the CDR Analysis and Reporting database?

- A. Cisco CDR Agent
- B. Cisco CAR DB
- C. Cisco CDR Repository Manager
- D. Cisco CAR Scheduler
- E. Cisco Extended Functions

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 322

Refer to the exhibit.

```
ephone-dn 3 octo-line
  number 1645
  label 1645
  description John Doe
  name John Doe
  mobility

!
ephone-template 1
  softkeys idle Redial Newcall Mobility Cfgdall Pickup Dnd
  softkeys connected Endcall Hold Mobility
!
ephone 3
  device-security-mode none
  mac-address 0023.5EB7.2949
  ephone-template 1
  type 7962
  button 1:3
```

A Cisco Unified CME administrator is configuring SNR for a line and has these requirements:

- The remote phone should receive the call after the local phones ring for 10 seconds.
- The ANI displayed on the remote phones should be the local extension number.

Which two configuration commands complete these requirements? (Choose two.)

- A. snr 92875421 delay 15 timeout 10
- B. snr 92875421 delay 10 timeout 20
- C. snr calling-number local
- D. snr calling-number remote
- E. snr answer-too-soon 10

Correct Answer: BC

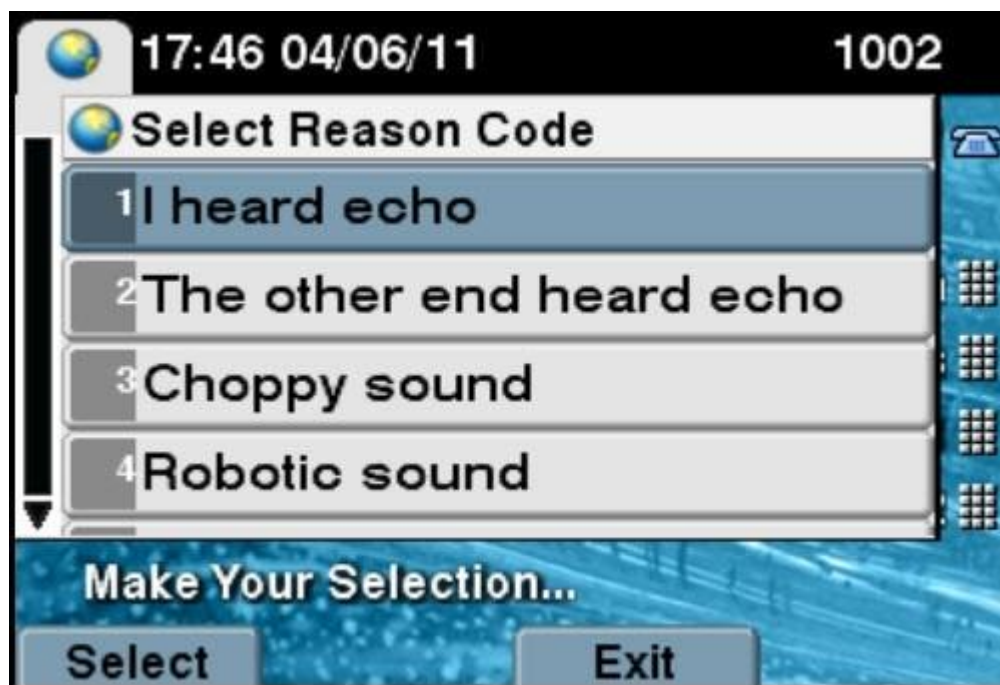
Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 323

Refer to the exhibit.



Which Cisco Unified CM service interfaces with Cisco IP Phones to allow users to report audio and other general problems on the phones?

- A. Cisco Serviceability Reporter
- B. Cisco Audit Event Service
- C. Cisco CallManager Serviceability
- D. Cisco Extended Functions
- E. Cisco RTMT Reporter Servlet

Correct Answer: D

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 324

Which Cisco Unified IP Phone supports the most number of speed dial phone buttons?

- A. Cisco Unified 7961
- B. Cisco Unified 7965
- C. Cisco Unified 7975
- D. Cisco Unified 9951
- E. Cisco Unified 9971

Correct Answer: C

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 325

Refer to the exhibit.

```
Jun  1 17:59:16.839: ISDN Se0/0/0:15 Q931: RX <- SETUP pd = 8  callerref = 0x17FF
    Bearer Capability i = 0x8090A3
        Standard = CCITT
        Transfer Capability = Speech
        Transfer Mode = Circuit
        Transfer Rate = 64 kbit/s
    Channel ID i = 0xA98392
        Exclusive, Channel 18
    Progress Ind i = 0x8283 - Origination address is non-ISDN
    Calling Party Number i = 0x2181, '2014582589'
        Plan:ISDN, Type:National
    Called Party Number i = 0xC1, '6727498'
        Plan:ISDN, Type:Subscriber(local)
    Sending Complete
Jun  1 17:59:16.847: ISDN Se0/0/0:15 Q931: TX -> CALL_PROC pd = 8  callref = 0x97
FF
    Channel ID i = 0xA98392
        Exclusive, Channel 18
PSTN_VG01#
```

A PSTN caller initiates an inbound call. Which two dial peers can be selected as inbound dial peers? (Choose two.)

- A. dial-peer voice 100 pots
answer-address [2-9]..[2-9]...\$
voice-port 0/0/0:23
- B. dial-peer voice 200 pots
destination-pattern [2-9]..[2-9]..[2-9]...\$
voice-port 0/1/0:15
- C. dial-peer voice 300 pots

incoming called-number 704[2-9]...\$
voice-port 0/1/0:15

- D. dial-peer voice 400 pots
answer-address 672[2-9]...\$
voice-port 0/0/0:15
- E. dial-peer voice 500 pots
incoming called-number 6..[2345689]...\$
voice-port 0/1/0:15

Correct Answer: BE

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 326

Which statement describes a video conference viewing mode on a Cisco Integrated Router Generation 2 with packet voice and video digital signal processor 3 that is configured to work with Cisco Unified Communications Manager?

- A. Video of one participant is displayed to all other video capable participants in a round- robin manner.
- B. Video of the loudest speaker is displayed across all video capable participants.
- C. Video of one participant, except for those with mute enabled, is displayed to all other video capable participants in a round-robin manner.
- D. The dedicated conference lecturer can one participant at a time, while all others can only see the lecturer.
- E. Video of one participant is displayed to all other video capable participants in a random manner using an algorithm hard-coded in Cisco IOS.

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

QUESTION 327

Refer to the exhibit.

Forwarded Routing Rule

Display Name *

Status ☒ Active ☐ Inactive ☐ Invalid

Language ☐ Use System Default Language

☒ Inherit Language from Caller

☐

Search Scope

Send Call to

☒ Call Handler

☐ Attempt Transfer

☒ Go Directly to Greetings

Routing Rule Conditions

Parameter
<input type="button" value="Delete Selected"/> <input type="button" value="Add New"/>

Edit Greeting (Standard)

Call Handler Edit Refresh Help

Status

☐ Disabled

☒ Greeting Enabled with No End Date and Time

☐ Enabled Until:

Date

Time

Callers Hear

☒ System Default Greeting

☐ My Personal Recording

☐ Nothing

☒ Play the "Record Your Message at the Tone" Prompt

After Greeting

☒ Call Action

☐ Call Handler

☒ Attempt Transfer

Forwarded Routing Rules in Descending Order of Precedence

	Display Name	Status	Dialed Number	Calling Number	Forwarding Station	Phone System	Port	Send Call to
<input type="checkbox"/>	Emergency Message	Active						Greeting Conversation
<input type="checkbox"/>	Attempt Forward	Active						Attempt Forward
<input type="checkbox"/>	Opening Greeting	Active						Transfer Conversation

What does an outside caller hear when calling a user and forwarding to Cisco Unity Connection?

- A. The caller hears the Emergency greeting, followed by the voicemail greeting of the user they originally called.
- B. The caller hears the message "Emergency Message is not available," followed by the voicemail greeting of the user they originally called.
- C. The caller hears the emergency greeting followed by the Opening Greeting message.
- D. The caller hears the Main Message greeting and then the call is disconnected.

Correct Answer: B

Section: Section 9: Mix Questions

Explanation

Explanation/Reference:

A Composite Solution With Just One Click - Certification Guaranteed 246

QUESTION 328

Which two SCCP call states support call back softkey?

- A. Onhook
- B. Connected Transfer

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 329

Customer is using Centralized TFTP Services – Firewalls are being implemented between each of cluster – after installation of firewalls – centralized TFTP stopped serving why?

- A. Open UDP port 69 between leaf cluster and central cluster.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 330

Which file IP Phone requests if TFTP encryption is enabled

A. SEP111122223333.cnf.xml.enc.sgn

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 331

CM Administrator configured the Phone VPN for remote users and they cannot see missed calls.

- A. Configure a log server in common phone profile in CM
- B. Configure an Alternate TFTP in remote phone

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 332

Where can CM Administrator define billing application server for CDR

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

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 333

Director of Information Security of your company wants to log all call attempts when a users phone goes off hook and immediately back on hook in CDR – which option is minimum CM Service parameter configuration is needed

- A.
- B. Set CDR enabled flag and CDR log calls with zero duration to true
- C. Token is locked forever.
- D.

Correct Answer: BC

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 334

Which three security modes allow user to enter user and password authentication on 9971

- A. AKM
- B. EAP-POL
- C. EAP-FAST
- D. LEAP

Correct Answer: ACD

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 335

RQNT – Message by CM to request MGCP to report an on hook events on analog endpoint

- A. Observed Events
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 336

Maximum Configurable Speed dial entries for 9971 phone

- A. 199
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 337

Director of IT of company wants to log all calls when a users phone speed dials to a busy PSTN Destination and hangs up in less than one second In CDR – which options is needed

- A. Set CDR enabled flag to True
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 338

Unity Connection – caller report that system does not process call immediately after pressing transfer

- A. Enable Ignore additional input on Edit caller input page for selected key
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 339

Audit Endpoint Message – active call

- A. Bearer Information and Connection ID
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 340

Replication

- A. 0 – Replication Did not start or still initializing
- B. 1 – Incorrect replicate counts
- C. 2 – logical connections successful and all tables match
- D. 3 – logical connections successful but tables did not match
- E. 4 – Replication set up did not succeed.

Correct Answer: ABCDE

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 341

External database connection failed

- A. Configure external database to listen to correct port
- B. Fix the user permissions on external database
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 342

Jabber for windows failed to connect to voicemail server – Host unreachable error

- A. Internal DNS has timeout problem
- B. Firewall is blocking port 7080
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 343

Which two security modes offer configuration option on 9971

- A. Shared key
- B. Open with WEP
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 344

Which two fields can uniquely identify the same call in CDR

- A. globalCALLID_callManagerId
- B. globalCALLID_callId
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 345

QOS – Audio Quality question:

WAN environment with LLQ configured , audio quality issues are excp during peak network times.

- A. Precedence 5 must be removed from RTP class map
- B. Class map control must be changed to match –any
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 346

User is troubleshooting an FXO line on Cisco IOD router that remains connected even after call ends
Which three disconnect methods:

- A. Tone based Supervisory disconnect
- B. Power Denial based

- C. Ground Start Signalling Disconnect
- D.

Correct Answer: ABC

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 347

Which two softkeys can be offered on IP Phone 7965 in a connected conference state

- A. Confm
- B. End call
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 348

Which parameter in NTFY message is used by IOS MGCP gw to inform CM that analog endpoint has gone off hook

- A. Observed events
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 349

EMCC – Login unavailable 208

- A. Consolidate the exported certs and re import into each cluster
- B. Restart CM and Tomcat service
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 350

Collaboration engineer is designing VPN in a and company security team required AD for auth which two phone VPN conf meet this requirement

- A. Userid and pass authentication
- B. Password only authentication
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 351

Design requires capacity of 25 concurrent audio calls using G729 codec and IPv6

- A. Require bw 975 kbps Ethernet with 20 byte
- B. Require bw 300 kbps PPP compressed RTP and 20 byte pay
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation**Explanation/Reference:****QUESTION 352**

Translation profile – 917765284569

ADFG

- A. Edit the rule 1 and change `/+\1\2/` to `/+1\1\2/`
- B. Edit rule 3 and change `\(7+.\)` to `\([27]..)`
- C. Edit rule 4 and change `(.*\)` to `\(776\)(.*\)`
- D. Edit rule 2 and change `/+\0\2/` to `/+1\0\1\2/`

Correct Answer: ABCD

Section: Section 10: New Mix Questions

Explanation**Explanation/Reference:****QUESTION 353**

Default Data Collection interval for CDR

- A. 60 seconds
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation**Explanation/Reference:****QUESTION 354**

Which two power saving parameters are available on 9971

- A. Enabled Power Save plus
- B. Phone on Time
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 355

Which MGCP GW does a Cisco IOS MGCP GW send to back CM when two keep alive failed with primary CM server

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

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 356

Which two parameters are required in Audit Connection message from CM to an endpoint on MGCP

- A. Connection ID
- B. Bearer information
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 357

Which 3 softkeys can be offered to 7965 when in Ring IN State

- A. DND
- B. Answer
- C. IDivert
- D.

Correct Answer: ABC

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 358

Users are unable to control their 6941 desk phone from their Jabber client but Jabber client works as softphone

- A. Assign group Standard allow Rollver mode
- B. Xfer and Conf
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 359

MGCP Debugs were captured on IOS MGCP PRI gateway registered to CM – gateway had no active calls and will not take any new calls for next 3 min – what time will it send the next NTFY message

- A. Jan 10 05:55:50.130
- B.
- C.

D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 360

Which service is responsible on Pub for enabling Mixed Mode –

A. CTL Provider

B.

C.

D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 361

A collaboration engineer was asked to attach CME to UCM network of a client via SAF – Configuration was applied – but CME was not able to retrieve the dial plan – what must be changed about the configuration to allow CME to attach to SAF network pass calls to and from CM network

A. CME must be configuration for SIP under voice service saf when communicating with CM clusters over SAF

B.

C.

D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 362

Engineer is configuring QOS for 100mb wan link – ISP SLA was signed to support 70% of link – which QOS command allows to engineer to use 70% of link

- A. Traffic share rate 70000000 87500000 87500000
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 363

In CM environment with default QOS con in cluster – IP Phone users report voice quality issues when they are downloading large files to their PC – which two conf changes solve this problem

- A. Priority q out command is missing from int configuration
- B. Srr-que bandwidth shape command must be changed to increase weight of q 1
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 364

Engineer notices that two Unity Connection servers are in split brain mode engineer corrects a network issue that allows two servers to communicate again – which two describe negative effects of this event

- A. Replication between nodes defunct requiring the administrator to run `utils cuc cluster activate`
- B. User calling in to check their voicemail during recovery may be informed that their messages are not available
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 365

Which two QOS guidelines are recommended for provisioning interactive video traffic

- A. Overprovision interactive video by 20%
- B. Jitter should not be more than 30 ms
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 366

Collaboration engineer is designing a Unity connection network for large client running 10.x client has 12 locations each with their own Unity connection cluster which two designs are valid

- A. Full mesh topology with unity connection digital networking
- B. Hub and spoke top with Unity connection digital networking
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 367

Outbound call is in progress through CUBE with G729r8 and it dropped after 60 min

- A. Midcall signaling preserve codec under each ITSP dialpeer
- B. Mid call signaling preserve command under voice service voip
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 368

Sip carrier delivers DID to CUBE in form of +1555567810xx – where last two digits could be anything from 00 to 99 which two translation profiles create the req outcome

- A. Rule 1 /\+1555(678\)10
- B. Rule 1 /\+1555\(...\)
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 369

Collaboration engineer is troubleshooting a delay in call completeion on a SIP CUBE . gw is set up for a dual stack IOP wioth DNS as dial peer target – in DNS AAAA and A records are conf for target – engineer determines that IPV4 alls should remain IPV4 when possible

- A. Sip-ua
- B. Protocol mode dial-stack preference mode ipv4
- C.
- D.

Correct Answer: AB

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 370

What happens to local copies of CDR files on CM sub after they are transferred to pub

- A. Will be deleted
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference:

QUESTION 371

Where can administrator reset all database replication connections and initiate a broadcast

- A. CM CLI
- B.
- C.
- D.

Correct Answer: A

Section: Section 10: New Mix Questions

Explanation

Explanation/Reference: