Cisco

Exam 642-437

Implementing Cisco Unified Communications Voice over IP and QoS v8.0 (CVOICE v8.0)

Version: 37.0

[Total Questions: 256]

Topic break down

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Topic 1, Volume A

Question No : 1 - (Topic 1)

What is the function of class-based marking?

A. Marking packets is based only on CoS value, IP precedence value or DSCP value allows Layer 3 frames to be identified and distinguished from other packets.
B. Marking frames based only on CoS value or IP precedence value allows Layer 2 frames to be identified and distinguished from other frames.
C. Marking frames or packets sets information in the Layer 2 and Layer 3 headers of a packet so that the frame or packet can be identified and distinguished from other frames or packets in the same traffic flow.
D. Marking frames only sets information in the Layer 2 headers of a frame so that the frame can be identified and distinguished from other packets or frames.
E. Marking allows network devices to classify a packet or frame, based on a specific traffic descriptor.

Answer: E

Question No : 2 - (Topic 1)

Which QoS mechanism for VoIP works with weighted fair queuing (WFQ) and class-based weighted fair queuing (CBWFQ)?

A. Header compression
B. FRF.12
C. IP RTP Priority and Frame Relay IP RTP Priority
D. Multilink PPP
E. RSVP

Answer: C

Question No : 3 - (Topic 1)

When a Cisco Unified Border Element is deployed to support RSVP-based CAC, which media flow method is required?

A. RSVP-based CAC can be supported with either media flow-through or media flow-around if the Cisco Unified Communications Manager is configured as an RSVP agent.
B. RSVP-based CAC only supports media flow-around.
C. The Cisco Unified Border Element does not have to participate in the RSVP message exchange and will pass RSVP messages through unchanged using media flow-around.
D. RSVP-based CAC requires Cisco Unified Border Element to use media flow-through.

Answer: D

Question No : 4 - (Topic 1)

When deploying an 802.3af switch what is the default number of Watts consumed by each port if 802.3af compliant devices are attached to the switch?

A. 4 Watts
B. 6.3 Watts
C. 7 Watts
D. 15.4 Watts
E. 22.3 Watts

Answer: D

Question No : 5 - (Topic 1)

An access layer switch is configured to extend priority to an IP phone. Cisco Discovery Protocol is enabled on all ports. What are the three possible ways that an IP phone can be instructed to treat the Layer 2 CoS priority value of the attached PC? (Choose three.)

A. trusted IEEE 802.1Q
B. configured DSCP level
C. configured CoS level
D. trusted
E. configured IEEE 802.1Q
F. untrusted

Answer: C,D,F

Question No : 6 - (Topic 1)

Which three methods are used by a Cisco Unified Border Element to provide network hiding? (Choose three.)

A. Back-to-back user agent, replacing all SIP-embedded IP addressing
B. IP network security boundary
C. media flow-through
D. RSVP
E. IP network privacy
F. Intelligent IP address translation for RTP flows

Answer: B,E,F

Question No : 7 - (Topic 1)

How does Packet Loss Concealment improve voice quality?

A. Cisco Packet Loss Concealment technology decreases the voice sampling rate to 10 ms of the voice payload to smooth gaps in the voice stream.
B. Packet Loss Concealment intelligently analyzes missing packets and generates a reasonable replacement packet to improve the voice quality.
C. Packet Loss Concealment will buffer 20 to 50 ms of a voice stream to minimize lost or out-of-order voice packets.
D. Packet Loss Concealment will compensate for packet loss rates between 1 and 5 percent by generating a reasonable replacement packet to improve the voice quality.

Answer: B

Explanation: Packet loss concealment is a technology designed to minimize the practical effect of lost packets in VOIP. PLC mitigates against the effects of packet loss, which is the failure of one or more transmitted packets to arrive at their destination, by artificially regenerating the packet received prior to the lost one, followed by insertion of the duplicated packet into the gap. The digital value of the dropped packet is estimated by interpolation and an artificially generated packet inserted on that basis.
http://www.cisco.com/en/US/partner/tech/tk652/tk698/technologies_tech_note09186a00800f6cf8.shtml

Question No : 8 - (Topic 1)

How does LLQ ensure that voice traffic is always expedited?

A. LLQ adds WRED to CBWFQ. This allows delay-sensitive data such as voice to be dequeued and sent first.
B. LLQ uses CBWFQ to prioritize voice traffic and by dequeuing the voice packets so they can be handled first.
C. The strict priority queue has a higher weight than the queues in CBWFQ. This weight allows the delay-sensitive data such as voice to be dequeued and sent first.
D. The LLQ strict priority queue allows delay-sensitive data such as voice to be dequeued and sent first (before packets in other queues are dequeued), giving delay-sensitive data preferential treatment over other traffic.

Answer: D

Explanation: Without Low Latency Queueing, CBWFQ provides weighted fair queueing based on defined classes with no strict priority queue available for real-time traffic. This scheme poses problems for voice traffic that is largely intolerant of delay, especially variation in delay. For voice traffic, variations in delay introduce irregularities of transmission manifesting as jitter in the heard conversation. The Low Latency Queueing feature provides strict priority queueing for CBWFQ, reducing jitter in voice conversations. Configured by the priority command, Low Latency Queueing enables use of a single, strict priority queue within CBWFQ at the class level, allowing you to direct traffic belonging to a class to the CBWFQ strict priority queue.
http://www.cisco.com/en/US/docs/ios/12_0t/12_0t7/feature/guide/pqcbwfq.html

Question No : 9 - (Topic 1)

Which three Cisco IOS commands are required to configure a voice gateway as a DHCP server to support a data subnet with the IP address of 10.1.30.0/24 and a default gateway of 10.1.30.1/24? (Choose three.)

A. ip dhcp pool
B. subnet 10.1.30.1 255.255.255.0
C. ip dhcp pool data
D. network 10.1.30.1/24
E. network 10.1.30.0 255.255.255.0
F. default-gw 10.1.30.1/24
G. default-router 10.1.30.1

Answer: C,E,G

Explanation:

1) To configure the DHCP address pool name and enter DHCP pool configuration mode, use the following command in global configuration modE.

Router(config)# ip dhcp pool name - Creates a name for the DHCP Server address pool and places you in DHCP pool configuration mode

2) To configure a subnet and mask for the newly created DHCP address pool, which contains the range of available IP addresses that the DHCP Server may assign to clients, use the following command in DHCP pool configuration modE.

Router(dhcp-config)# network network-number [mask | /prefix-length] - Specifies the subnet network number and mask of the DHCP address pool. The prefix length specifies the number of bits that comprise the address prefix. The prefix is an alternative way of specifying the network mask of the client. The prefix length must be preceded by a forward slash (/).

3) After a DHCP client has booted, the client begins sending packets to its default router. The IP address of the default router should be on the same subnet as the client. To specify a default router for a DHCP client, use the following command in DHCP pool configuration modE.

Router(dhcp-config)# default-router address [address2 ... address8] - Specifies the IP address of the default router for a DHCP client. One IP address is required; however, you can specify up to eight addresses in one command line.

http://www.cisco.com/en/US/docs/ios/12_2/ip/configuration/guide/1cfdhcp.html#wp1000999

Question No : 10 - (Topic 1)

Which of the following describes SIP Early Offer?

A. In SIP Early Offer mode, the SDP media capabilities are sent in the INVITE message of the calling device.
B. SIP Early Offer always uses session indicator 183.
C. In SIP Early Offer mode, the SDP media capabilities are sent in the 200 OK messages

of the calling device.
D. In SIP Early Offer mode, the INVITE and the 200 OK messages use non-SDP message format to indicate SIP Early Offer

Answer: A

Question No : 11 - (Topic 1)

In which situation would the trust boundary be located at the access layer?

A. if the endpoints, both IP phones and PCs, are incapable of marking traffic properly
B. if PCs are switched through an IP phone and the IP phone traffic can be trusted to mark both traffic streams properly
C. if the access layer switch cannot trust or re-mark incoming traffic from endpoints properly
D. if there are endpoints that cannot be trusted and connect directly to the distribution layer

Answer: A

Question No : 12 - (Topic 1)

Refer to the exhibit. When an inbound PSTN call to 4087071222 is received by the router that is shown in the exhibit, what is the resulting called number?

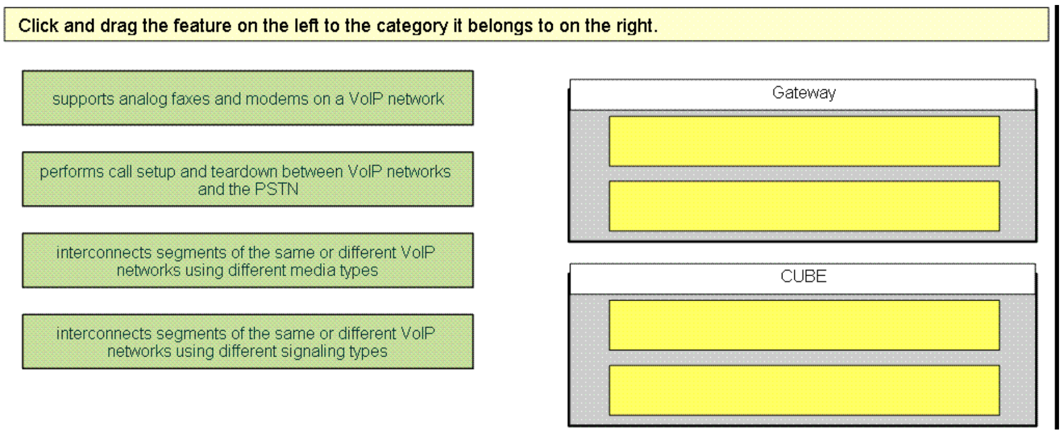
```
!
voice translation-rule 1
 rule 1 /^.*\(....$\)/ /\1/
!
voice translation-profile pstn-in
 translate called 1
!
voice-port 0/0/0:23
 translation-profile incoming pstn-in
```

A. 14087071222
B. 11222
C. 14081222
D. 1222
E. 4087071222

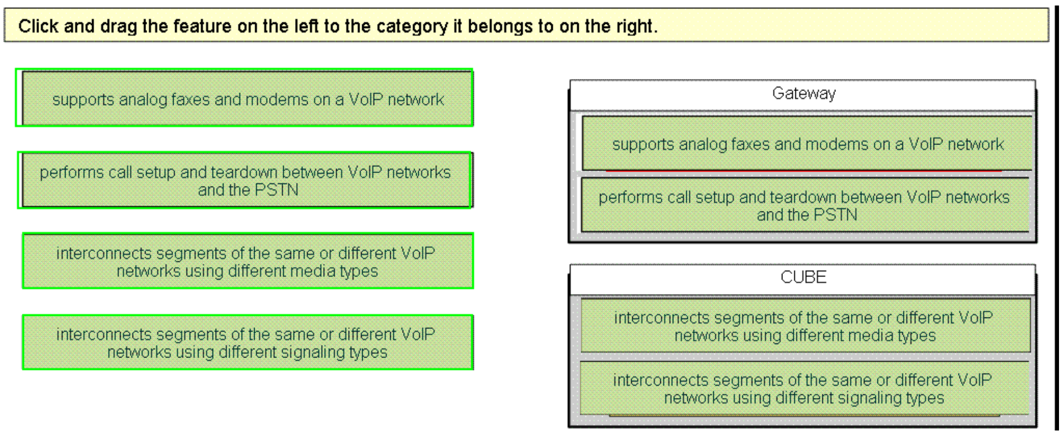
Answer: D

Explanation: /^.*\(….$\) – Truncates Numbers down to the last 4 digits.
http://www.cisco.com/en/US/tech/tk652/tk90/technologies_tech_note09186a0080325e8e.shtml

Question No : 13 DRAG DROP - (Topic 1)



Answer:



Question No : 14 - (Topic 1)

What are the three acceptable values for one-way delay, jitter, and packet loss in a VoIP network? (Choose three.)

A. 0-400 ms for delay
B. 1 packet loss
C. 20 ms for jitter
D. 0-150 ms for delay
E. 1 percent packet loss
F. 30 ms for jitter

Answer: D,E,F

Explanation:

(http://www.cisco.com/en/US/docs/solutions/Enterprise/WAN_and_MAN/QoS_SRND/QoSIntro.html#wp46447)

Question No : 15 - (Topic 1)

What are two benefits of using the DiffServ model? (Choose two.)

A. DiffServ is a flow-based architecture.
B. DiffServ is highly scalable.
C. DiffServ keeps flow state on each node in the network.
D. DiffServ supports a large number of service classes.
E. DiffServ uses repetitive signaling for each flow.

Answer: B,D

Question No : 16 - (Topic 1)

When Cisco Unified Border Element is configured to support RSVP-based CAC, at which point during call setup are the RSVP path and reservation messages sent and received?

A. The path message is sent immediately after the call setup message is received and the reservation message is received after H.245 capabilities negotiation is completed.
B. The reservation message is sent immediately after the call setup message is received and the path message is received after H.225 call setup messages have been sent.