



**Exam** : **642-845**

**Title** : Optimizing Converged Cisco  
Networks

**Version** : Demo

1. Which two QoS statements are true about the use of the SDM QoS wizard? (Choose two.)

- A. Business-critical traffic includes VoIP and voice signaling packets.
- B. SDM can be used to configure a basic QoS policy for incoming traffic on WAN interfaces and IPsec tunnels.
- C. SDM can provide QoS for real-time traffic and business-critical traffic.
- D. SDM creates a custom-queuing (CQ) or a priority-queuing (PQ) policy.
- E. SDM creates a low latency queuing (LLQ) service policy with its associated classes.
- F. When allocating bandwidth, values can be entered in either bandwidth percentage or kilobytes per second (kBps).

**Answer:** CE

2. Which two Cisco AutoQoS interface statements are true? (Choose two.)

- A. AutoQoS is supported on Frame Relay multipoint subinterfaces.
- B. AutoQoS is supported on low-speed ATM PVCs in point-to-point subinterfaces.
- C. AutoQoS is supported on serial PPP and HDLC interfaces.
- D. AutoQoS is supported only on Frame Relay main interfaces and not on any subinterface configuration.

**Answer:** BC

3. Which two wireless security statements are true? (Choose two.)

- A. A TACACS+ server is required to implement 802.1x.
- B. MIC protects against man-in-the-middle and replay attacks.
- C. The 802.1x standard provides encryption services for wireless clients.
- D. The AES (symmetric block cipher) is specified in the IEEE 802.11i specification.
- E. The IEEE 802.11i specification uses RC4 as its encryption mechanism.
- F. WPA requires TKIP and AES as encryption methods.

**Answer:** BD

4. Which two statements regarding the Wireless LAN Solution Engine (WLSE) are true? (Choose two.)

- A. To support fault and policy reporting, the WLSE requires a Wireless Control System (WCS).
- B. When WLSE detects an AP failure, it automatically increases the power and cell coverage of nearby

APs.

- C. WLSE requires the 2700 location appliance to offer location tracking.
- D. WLSE can locate rogue APs and automatically shut them down.
- E. WLSE configuration is done using the command line interface (CLI) or a WEB based template.

**Answer: BD**

5. Which two statements are true about the function of CAC? (Choose two.)

- A. CAC provides guaranteed voice quality on a link.
- B. CAC artificially limits the number of concurrent voice calls.
- C. CAC is used to control the amount of bandwidth that is taken by a call on a link.
- D. CAC prevents oversubscription of WAN resources that is caused by too much voice traffic.
- E. CAC allows an unlimited number of voice calls while severely restricting, if necessary, other forms of traffic.
- F. CAC solves voice congestion problems by using QoS to give priority to UDP traffic.

**Answer: BD**

6. Which two statements are true about the implementation of QoS? (Choose two.)

- A. Implementing DiffServ involves the configuration of RSVP.
- B. Implementing IntServ allows QoS to be performed by configuring only the ingress and egress devices.
- C. Implementing IntServ involves the utilization of RSVP.
- D. Traffic should be classified and marked by the core network devices.
- E. Traffic should be classified and marked as close to the edge of the network as possible.

**Answer: CE**

7. Which three configuration tasks are required to successfully deploy NBAR to recognize TCP and UDP stateful protocols? (Choose three.)

- A. Over leased lines, use the multilink ppp command to reduce latency and jitter, and to create Distributed Link Fragmentation and interleaving.
- B. Use the service-policy command to attach a traffic flow to an interface on the router.
- C. Use the ip rsvp bandwidth command to set a strict upper limit on the bandwidth NBAR uses, and to

guarantee admission of any flows.

D. Use the policy-map command to define one or more QoS policies (such as shaping, policing, and so on) to apply to traffic defined by a class map.

E. Use the random-detect dscp command to modify the default minimum and maximum thresholds for the DSCP value.

F. Use the class-map command to define one or more traffic classes by specifying the criteria by which traffic is classified.

**Answer: BDF**

8. Which codec standard would provide the highest voice-quality, mean opinion score (MOS)?

A. G.711, PCM

B. G.728, LDCELP

C. G.729, CS-ACELP

D. G.729A, CS-ACELP

**Answer: A**

9. Voice activity detection (VAD) suppresses the transmission of silence patterns. On average, and assuming that a link carries at least 24 calls, what percentage of total bandwidth could VAD save?

A. 5

B. 15

C. 25

D. 35

E. 45

F. 55

**Answer: D**

10. What are the steps for configuring stateful NBAR for dynamic protocols?

A. Use the command ip nbar protocol-discovery to allow identification of stateful protocols. Use the command ip nbar port-map to attach the protocols to an interface.

B. Use the command match protocol rtp to allow identification of real-time audio and video traffic. Use the

command `ip nbar port-map` to extend the NBAR functionality for well-known protocols to new port numbers.

C. Use the command `match protocol` to allow identification of stateful protocols. Use the command `ip nbar port-map` to attach the protocols to an interface.

D. Configure a traffic class. Configure a traffic policy. Attach the traffic policy to an interface.

E. Configure video streaming. Configure audio streaming. Attach the codec to an interface.

**Answer: D**

11. Two sites are using a multisite centralized call processing model. The voice gateway on the remote branch has lost IP connectivity to its Cisco CallManager server. Which feature enables the remote gateway to take the role of the call agent during the WAN failure?

A. automated alternate routing (AAR)

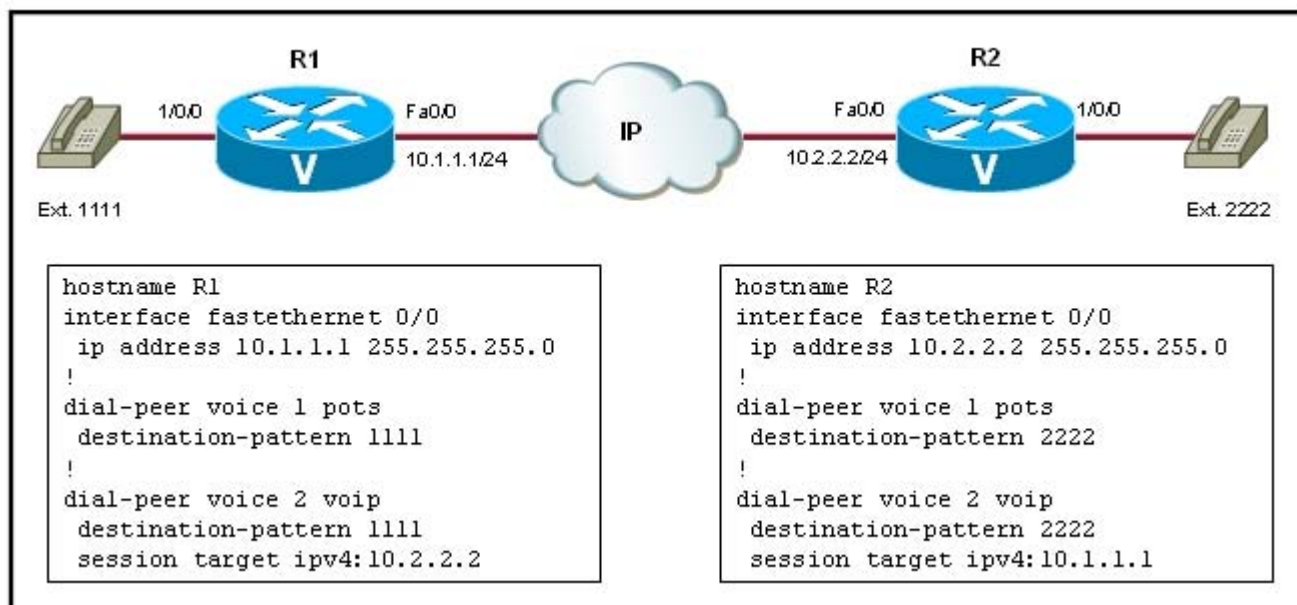
B. Cisco CallManager Attendant Console

C. real-time protocol (RTP)

D. Survivable Remote Site Telephony (SRST)

**Answer: D**

12. Refer to the exhibit. Both routers have been configured as VoIP gateways. They must also support traditional telephony devices to connect to analog telephones. Which two configuration changes would correctly support the voice requirements? (Choose two.)



- A. On each router, under the dial-peer voice 1 pots configuration, add the port fa0/0 command.
- B. On each router, under the dial-peer voice 1 pots configuration, add the port 1/0/0 command.
- C. On each router, configure dial-peer voice 1 as a voip connection and configure dial-peer voice 2 as a pots connection.
- D. Under the dial-peer voice 1 pots configuration, change the destination pattern of 1111 to 2222 on the R1 router, and 2222 to 1111 on the R2 router.
- E. Under the dial-peer voice 2 voip configuration, change the destination pattern of 1111 to 2222 on the R1 router, and 2222 to 1111 on the R2 router.
- F. Under the dial-peer voice 2 voip configuration, change the destination target address of 10.2.2.2 to 10.1.1.1 on the R1 router, and the destination target address of 10.1.1.1 to 10.2.2.2 on the R2 router.

**Answer: BE**

13. To have the best possible voice quality and to utilize effectively the available bandwidth, which queuing and compression mechanisms need to be used? (Choose two.)

- A. class-based weighted fair queuing (CBWFQ)
- B. low latency queuing (LLQ)
- C. priority queuing (PQ) or custom queuing (CQ)
- D. Real-Time Transport Protocol (RTP) header compression
- E. TCP header compression

F. UDP header compression

**Answer:** BD

14. Which three statements about end-to-end delay are true? (Choose three.)

- A. End-to-end delay is the sum of propagation delays, processing delays, serialization delays, and queuing delays.
- B. Coast-to-coast end-to-end delay over an optical link is about 20 ms.
- C. Processing delay depends on various factors, which include CPU speed, CPU utilization, IP switching mode, and router architecture.
- D. Propagation and serialization delays are related to the media.
- E. Propagation delay is the time it takes to transmit a packet and is measured in bits-per-second (bps).
- F. Serialization delay is the time it takes for a router to take the packet from an input interface and put it into the output queue of the output interface.

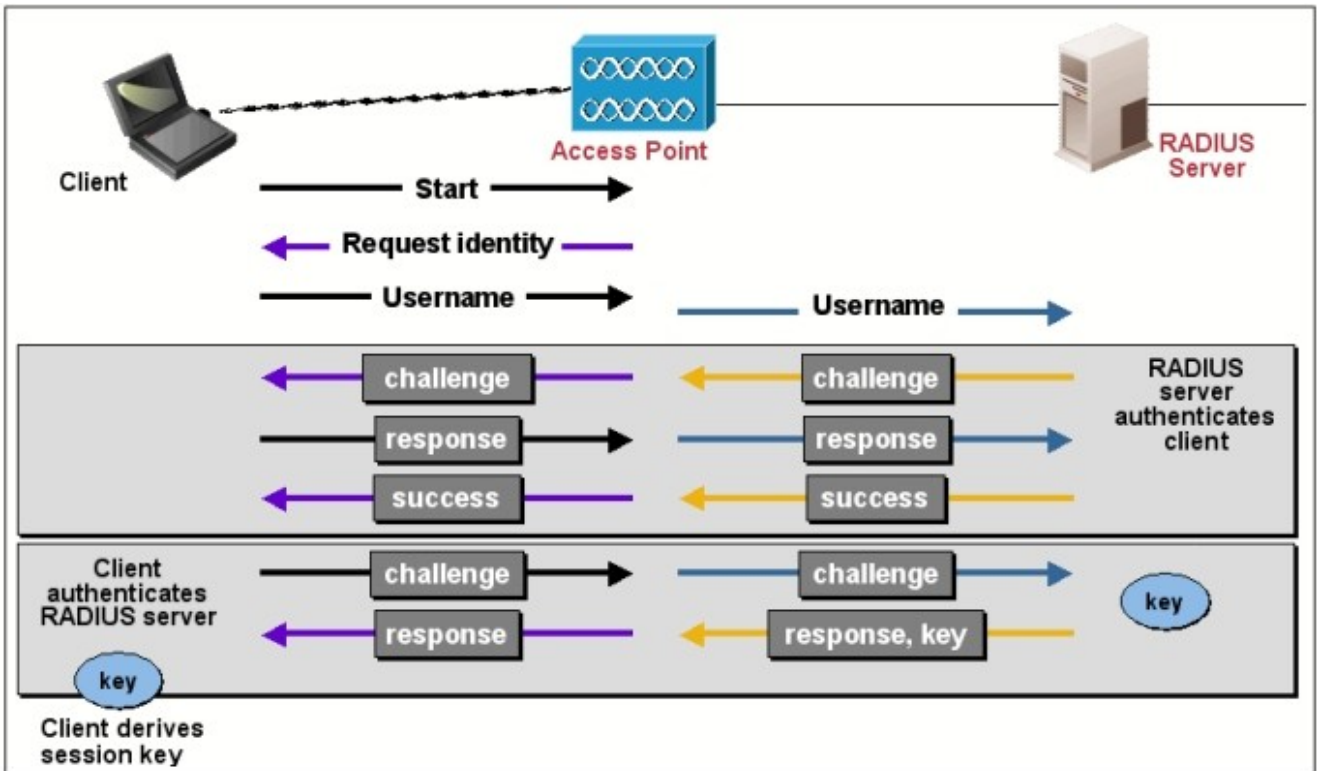
**Answer:** ACD

15. What three statements are true about the various deployments of the 802.1x Extensible Authentication Protocol (EAP)? (Choose three.)

- A. EAP-FAST has the ability to tie login with non-Microsoft user databases.
- B. EAP-TLS supports static passwords.
- C. PEAP supports one-time passwords.
- D. LEAP does not support multiple operating systems.
- E. LEAP supports Layer 3 roaming.
- F. PEAP does not work with WPA.

**Answer:** ACE

16. Refer to the exhibit. What variation of the 802.1x Extensible Authentication Protocol (EAP) uses this authentication process?



- A. LEAP
- B. EAP-FAST
- C. PEAP
- D. EAP-TLS

**Answer: A**

17. What are three security problems with Wi-Fi Protected Access (WPA)? (Choose three.)

- A. WPA is based on the outdated IEEE 802.11i standard.
- B. WPA uses RSN, which uses the same base encryption algorithm as RC4.
- C. WPA requires a hardware upgrade that may not be supported by all vendors.
- D. WPA uses TKIP, which uses the same base encryption algorithm as WEP.
- E. WPA is susceptible to a DoS attack when it receives two packets in quick succession with bad MICs, forcing the AP to shut down the entire Basic Service Set (BSS) for one minute.
- F. WPA is susceptible to a security weakness when preshared keys are used.

**Answer: DEF**

18. Which two steps are executed in the deployment of Cisco AutoQoS for Enterprise? (Choose two.)

- A. The customer uses SNMP statistics to create the policy.
- B. QoS policy templates are generated and installed on the interface.
- C. RTP is used to generate the policy.
- D. LLQ, cRTP, and LFI are used to automatically discover the policy.
- E. The auto-generated policy is manually optimized before implementation.
- F. Auto-discovery is used to determine what traffic is on the interface.

**Answer: BF**

19. Which three methods would help prevent critical network-traffic packet loss on high speed serial interfaces? (Choose three.)

- A. policy routing
- B. increase link capacity
- C. WRED
- D. CBWFQ
- E. LFI
- F. WFQ

**Answer: BCD**

20. Interface congestion is causing drops in voice packets and TCP packets. The drops result in jerky speech quality and slower FTP traffic flows. Which two technologies would proactively address the TCP transfer rate and the voice problems? (Choose two.)

- A. CBWFQ
- B. LLQ
- C. traffic shaping
- D. WRED

**Answer: BD**

21. What form of AutoQoS is supported on Cisco Catalyst 2950 switches with the Enhanced Image?

- A. AutoQos Enterprise

B. AutoQoS Campus

C. AutoQoS VoIP

D. AutoQoS LAN

**Answer: C**

22. Which two statements about the DiffServ QoS model are true? (Choose two.)

A. DiffServ requires RSVP to set up a path through the network to accommodate the requested QoS.

B. Network traffic is identified by class, and the level of service is chosen for each class.

C. The DiffServ model relies on a fairly simple mechanism to provide QoS over a wide range of equipment.

D. RSVP enables the DiffServ model to provide end-to-end QoS.

E. The DiffServ model is more scalable than the IntServ model.

F. The flow-based approach of the DiffServ model is ideal for large scalable implementations such as the public Internet.

**Answer: BE**

23. Which two statements are true about the various methods of implementing QoS? (Choose two.)

A. Cisco AutoQoS can be used repeatedly to apply a single QoS policy to multiple interfaces.

B. Cisco AutoQoS includes an optional web-based GUI for automating the configuration of QoS services.

C. Cisco AutoQoS provides capabilities to automate VoIP deployments.

D. The auto qos global configuration command is used to configure Cisco AutoQoS.

E. The Modular QoS CLI (MQC) is the best way to fine tune QoS configurations.

F. The SDM QoS wizard is the fastest way to implement QoS.

**Answer: CE**

24. Which two statements are true about analog to digital conversion of voice signals for use in digital telephony networks? (Choose two.)

A. The three required steps in the analog to digital conversion are sampling, encoding, and compression.

B. The three required steps in the analog to digital conversion are sampling, quantization, and compression.

- C. The three required steps in the analog to digital conversion are sampling, quantization, and encoding.
- D. The output of the sampling process is a pulse code modulation (PCM) signal.
- E. The output of the sampling process is a pulse amplitude modulation (PAM) signal.

**Answer: CE**

25. Which two statements are true about the digital audio in a VoIP network? (Choose two.)

- A. Standard encoding techniques create an uncompressed digital data rate of 4000 bps.
- B. Standard encoding techniques create an uncompressed digital data rate of 8000 bps.
- C. Standard encoding techniques create an uncompressed digital data rate of 64,000 bps.
- D. Voice quality is not a concern if compression is not used.
- E. Two methods of quantization are linear and logarithmic.
- F. Two methods of compression are u-law and a-law .

**Answer: CE**

26. Which statement is true about Foreign Exchange Station (FXS) ports on a router?

- A. The FXS interface allows an analog connection to be directed at the public switched telephone network (PSTN's) central office.
- B. The FXS interface connects directly to a standard telephone, fax machine, or similar device and supplies ring, voltage, and dial tone.
- C. The FXS interface connects directly to an IP phone and supplies ring, voltage, and dial tone.
- D. The FXS interface connects directly to ISDN voice channels.

**Answer: B**

27. Which two statements are true about voice ports on a router? (Choose two.)

- A. Calls to the PSTN can be made via the use of FXO or T1/E1 trunk ports.
- B. Calls to the PSTN can be made via FXS or T1/E1 trunk ports.
- C. Analog and IP phones can be connected to the VoIP network via FXO or T1/E1 trunk ports.
- D. Calls between analog phones that are attached to the FXS ports in a VoIP network can be completely processed by voice-enabled routers.

**Answer: AD**

28. What are two major sources of delay that can be managed by QoS in voice-enabled networks?

(Choose two.)

- A. propagation delay
- B. voice packet serialization delay
- C. congested egress queues
- D. header overhead
- E. packets dropped because of CRC errors

**Answer:** CD

29. Which statement is true about a distributed call control environment and the processing of dialed digits from an IP phone?

- A. The router that is directly connected to the IP phone will look up the called number in its call routing table.
- B. The router that is directly connected to the IP phone will inform its call agent when a service request is detected.
- C. When the IP phone is picked up, the IP phone initiates the service request.
- D. The directly connected router passes the collected digits to its call agent, and the call agent looks up in its call-routing table the called number.

**Answer:** A

30. What are two steps that are taken when a router converts a voice signal from analog to digital form?

(Choose two.)

- A. sampling
- B. packetization
- C. quantization
- D. serialization

**Answer:** AC