

## CCNA Voice Practice Tests &ndash; Cisco network to support VoIP (6-10)

### Topic 5 ? Describe and configure a Cisco network to support VoIP

#### Question 6

Jitter is an unwanted variation of one or more characteristics of a periodic signal in electronics and telecommunications. Jitter may be seen in characteristics such as the interval between successive pulses, or the amplitude, frequency, or phase of successive cycles. Jitter is a significant factor in the design of almost all communications links (e.g. USB, PCI-e, SATA, OC-48). In clock recovery applications it is called timing jitter. Which type of delay can lead to jitter in a voice network?

- A.transmission delay
- B.serialization delay
- C.CODEC delay
- D.queuing delay

Answer: D

#### Explanation:

This question tests the reasons for jitter. Jitter refers to the variable delay, which is one of the factors affecting voice quality. Only the variable delay can cause jitter. A: transmission delay: transmission delay, that is, the transmission delay of IP packet on the line, which depends on the line length and transmission rate. It is not a variable delay.

B: serialization delay: serialization delay, that is, the delay caused by IP packets transferred from the interface to the transmission line, which depends on the packet size and interface bandwidth. As voice packets are of the same size, it will not lead to variable delay.

C: CODEC delay: coding delay, depending on the router's own encoding mechanism.

D: queuing delay: queuing delay, that is, the delay when line congestion occurs. There are many determinants of queuing delay, including local strategies, current length of the queue and so on.

Therefore, the queuing delay will lead to jitter.

#### Question 7

You are CCNA VOICE associate in Lead2pass.com. Please describe how does LLQ help ensure that voice quality is maintained in a converged network?

- A.The Low Latency Queueing feature allocates minimum bandwidth guaranteed to voice traffic.
- B.The Low Latency Queueing feature allocates a priority queue to voice traffic at a guaranteed rate
- C.The Low Latency Queueing feature allocates a priority queue and a minimum guaranteed bandwidth queue for voice.
- D.The Low Latency Queueing feature ensures that all traffic is treated fairly and hence voice traffic is not severely impacted.

Answer: B

#### Explanation:

Low Latency Queuing (LLQ) is a feature developed by Cisco to brings strict priority queuing (PQ) to Class-Based Weighted Fair Queuing (CBWFQ). LLQ allows delay-sensitive data (such as voice) to be given preferential treatment over other traffic by letting the data to be dequeued and sent first at a guaranteed rate.

#### Question 8

Which three of the following are appropriate solutions to address latency issues in a VoIP network? (Choose 3.)

- A.Use dejitter buffers
- B.Increase bandwidth
- C.Fragment data packets
- D.Prioritize voice packets

Answer: B C D

#### Explanation:

A: Jitter buffers or de-jitter buffers are used to counter jitter introduced by queuing in packet switched networks so that a continuous playout of audio (or video) transmitted over the network can be ensured. The maximum jitter that can be countered by a de-jitter buffer is equal to the buffering delay introduced before starting the play-out of the media stream.

B: increase bandwidth: It is the most fundamental way to solve latency resulted from the inadequate bandwidth.

C: fragment data packet: Fragment large data packets to reduce the serialization latency caused by large packets

D: prioritize voice packet: Take QOS policy to ensure the transmission priority of voice packets and reduce the queue latency.

Cisco Switch advertises the voice vlan id of IP Phone via CDP protocol.

#### Question 9

Cisco IP phone use\_\_\_\_\_ protocol to indicate to the switch how much power is needed.

Answer: CDP

Explanation:

Cisco Switch advertises the voice vlan id of IP Phone via CDP protocol.

#### Question 10

You are CCNA VOICE associate in Lead2pass.com. Which statement is true about the VLAN Number field based on the following information?

A.Creating a new voice VLAN as long as it falls in the range 1 to 1001.

B.Creating a new voice and data VLAN as long as it falls within the range 1 to 1001

C.Creating a voice VLAN as long as it falls in the range of 1 to 100

D.Assigning a voice VLAN here in the range of 1 to 1001

Answer: D

Explanation:

This question tests the configuration of network menu in the UC520 configuration interface.

The VLAN in this menu especially refers to a voice VLAN. The VLAN number is the range of VLAN allowed by UC520.

Therefore, the correct answer is D.