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# **Q&A**

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

**Title** : **Quality of Service (QoS)**

**Version** : **Demo**

1. Based on the following 2950 switch configurations, which statement is correct?

```
no wrr-queue cos-map
wrr-queue bandwidth 20 10 70 1
wrr-queue cos-map 4 5
wrr-queue cos-map 1 0 1 2 3
wrr-queue cos-map 3 6 7
```

- A. Queue 1 is setup as the expedite queue.
- B. Queue 2 is setup as the expedite queue.
- C. Queue 3 is setup as the expedite queue.
- D. Queue 4 is setup as the expedite queue.
- E. No queue is setup as the expedite queue.

**Answer: E**

2. Refer to the exhibit.

Which three statements are true about the configuration.? (Choose three.)

```
class-map class-1
  match ip rtp 2024 1000
```

```
class-map class 2
  match dscp 5 6 7
```

```
policy-map access-group-1-traffic
  class class-1
    shape peak 16000
  class class-2
    police 8000 1000
      conform-action set-dscp-transmit 1
      exceed-action set-dscp-transmit 0
      violate-action drop
  class class-default
    fair-queue 16
    queue-limit 20
```

```
interface fastethernet 0/0
  service-policy output access-group1-traffic
```

- A. Traffic that is subject to shaping can burst up to 32,000 bps.
- B. IP traffic (DSCPs 5, 6, and 7) that is sent on fastethernet 0/0 will be traffic policed.
- C. RTP traffic (ports 2024 and 1000) that is sent on fastethernet 0/0 will be traffic shaped.
- D. Traffic that is subject to policing will have the DCSP set to 0 if the rate exceeds 1000 bps.
- E. IP traffic (DSCPs 1, 2, 3, and 4) that is sent on fastethernet 0/0 are considered to have a violate status and are dropped.
- F. IP traffic (DSCP 0) that is sent on fastethernet 0/0 will be subject to fair queuing.

**Answer: ABF**

3.Which two commands are typically applied to the voice traffic class within a policy-map? (Choose two.)

- A. shape peak {bps}
- B. priority {kbps}
- C. bandwidth {kbps}
- D. compress header ip rtp
- E. random-detect ecn
- F. random-detect dscp-based

**Answer: BD**

#### 4.LAB

Configure the fa0/1, fa0/10 and fa0/11 ports on the Cisco Catalyst 2950 switch as follows:

On port fa0/1, trust all incoming DSCP settings.

On port fa0/11, trust all incoming CoS settings.

On port fa0/10, trust the incoming CoS setting only if a Cisco IP Phone is connected to the fa0/10 port: otherwise, do not trust any CoS or DSCP markings coming in.

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Scenario 1 Version 1.0

You will have to scroll this window and the problem statement window to view the entire problem.

To configure the switch click on a host icon that is connected to a switch by a serial console cable (shown in the diagram as a curved solid dashed line).

The [Tab] key

A. Please click console

**Answer:**

```
2950-SWITCH>en
2950-SWITCH#config terminal
2950-SWITCH(config)#int fa0/1
2950-SWITCH(config-if)#mls qos trust dscp
2950-SWITCH(config-if)#exit
2950-SWITCH(config)#int fa0/11
2950-SWITCH(config-if)#mls qos trust cos
2950-SWITCH(config-if)#exit
2950-SWITCH(config)#int fa0/10
2950-SWITCH(config-if)#mls qos trust cos
2950-SWITCH(config-if)#mls qos trust device cisco-phone
2950-SWITCH(config-if)#exit
2950-SWITCH(config)#exit
```

2950-SWITCH#copy run start

5. In which two locations is the qos pre-classify command applied to support QoS preclassification over an IPSec/GRE tunnel? (Choose two.)

- A. the tunnel interface
- B. the physical interface
- C. the crypto map
- D. the policy-map
- E. the class-map

**Answer:** AC

6. What is the purpose of using multiactions traffic policing?

- A. so that exceed traffic can be shaped and violate traffic can be policed
- B. so that conform, exceed, and violate traffic can be marked with different CLPs
- C. so that conform traffic from different flows can be marked with different DSCPs
- D. so that class-based policing can mark at Layer 2 and Layer 3 at the same time
- E. so that traffic can be policed using two separate rates

**Answer:** D

7. What is the purpose of the qos pre-classify command?

- A. to enable the IOS to copy the ToS field from the original IP header to the outer tunnel IP header
- B. to enable the IOS to copy the ToS field from the outer tunnel IP header back into the original IP header
- C. to enable the IOS to classify the packet based on the original IP header instead of the tunnel IP header
- D. to enable the IOS to classify the packet based on the outer tunnel IP header instead of the original IP header
- E. to enable class-based marking on tunnel interface
- F. to enable class-based marking on IPSec crypto maps

**Answer:** C

8. Which QoS mechanism calculates the mean queue depth to determine its operation?

- A. WRED
- B. LLQ/CBWFQ
- C. WFQ
- D. class-based shaping
- E. class-based policing

**Answer:** A

9. The following commands have been configured under the fa0/1 interface on the 2950 switch:

```
wrr-queue bandwidth 20 1 80 0
```

```
mls qos trust cos
```

```
mls qos trust device cisco-phone
```

Voice traffic from the IP phone that is directly connected to the fa0/1 interface is experiencing excessive delays.

What could be the cause of this problem?

- A. The wrr-queue bandwidth weightings are not correct.
- B. The default wrr-queue cos-map is being used.
- C. The default cos-to-dscp map is being used.
- D. The default dscp-to-cos map is being used.
- E. The trust boundary configuration is not correct.

**Answer: B**

10. Switch port fa0/2 has been configured to connect an IP phone with an attached PC. Given the set of commands shown below, where does the trust boundary lie?

interface fa0/2

mls qos trust cos

mls qos trust device cisco-phone

switchport voice vlan 112

- A. between the IP phone and the switch
- B. between the IP phone and the PC
- C. between the access layer switch and the distribution layer switch
- D. between the PC port and the LAN port on the IP phone


**Answer: A**

11.


Click and drag each statement on the left to the proper traffic policing method on the right.

- Bc is the maximum number of tokens accumulated.
- Bc + Be is the maximum number of tokens accumulated.
- Traffic is policed using two separate rates.
- Tokens exceeding Bc are discarded.
- Traffic exceeding the normal burst rate is marked.
- Tp bucket is checked to determine if the traffic rate is in violation.


Single Rate - Single Bucket



Single Rate - Dual Bucket



Dual Rate



**Answer:**

Click and drag each statement on the left to the proper traffic policing method on the right.

Single Rate - Single Bucket
Bc is the maximum number of tokens accumulated.
Tokens exceeding Bc are discarded.

Single Rate - Dual Bucket
Traffic exceeding the normal burst rate is marked.
Bc + Be is the maximum number of tokens accumulated.

Dual Rate
Traffic is policed using two separate rates.
Tp bucket is checked to determine if the traffic rate is in violation.

12.

Match the Qos mechanisms to the associated definition or characteristic?

classification	identifies and splits traffic into different classes
shaping	is performed as close to the network edge as possible
congestion avoidance	uses the marking on each packet to determine which queue to place packets in
congestion management	monitors network traffic loads in an effort to anticipate and avoid congestion
link efficiency mechanisms	drops or marks packets when pre-defined limits are reached
marking	is typically used on output interfaces to limit flows from high-speed links to lower speed links
policing	compression, fragmentation and interleaving

Answer:

Match the Qos mechanisms to the associated definition or characteristic?

- classification
- marking
- congestion management
- congestion avoidance
- policing
- shaping
- link efficiency mechanisms

13.What does the following command accomplish?

```
router(config-pmap-c)# shape fecn-adapt
```

- A. enables the router to lower the shaping rate when BECN bits are received
- B. enables the router to lower the shaping rate when FECN bits are received
- C. enables the router to respond to FECN bits by creating test frames in the opposite direction with the BECN bit set
- D. enables the router to respond to BECN bits by creating test frames in the opposite direction with the FECN bit set
- E. enables the router to increase the shaping rate when BECN bits are received
- F. enables the router to increase the shaping rate when FECN bits are received

**Answer: C**

14.In a managed CE scenario, the customer's network is supporting VoIP and bulk file transfers. According to the best practices, which QoS mechanisms should be applied on the WAN edge CE-PE 56-kbps Frame Relay link on the CE outbound direction?

- A. WRR, FRTS, FRF.12, and CB-RTP header compression
- B. WRR, CB-WRED, CB-Marking, FRF.12, and CB-RTP header compression
- C. CBWFQ, CB-WRED, CB-Marking, CB-Policing, and FRTS
- D. CBWFQ, FRTS, FRF.12, and CB-RTP header compression
- E. LLQ, CB-WRED, CB-Marking, FRTS, FRF.12, and CB-RTP header compression
- F. LLQ, CB-WRED, CB-Policing, and CB-TCP and CB-RTP header compressions

**Answer: E**

15.In an unmanaged CE router implementation, how does the service provider enforce the SLA?

- A. by using class-based policing on the CE to PE link to limit the customer's input rate
- B. by marking on the CE to PE link and using CBWFQ and CB-WRED on the PE to P link
- C. by marking on the CE to PE link and using class-based policing on the PE to P link
- D. by using class-based random discard on the CE to PE link to limit the customer's input rate

**Answer: A**