



**Cisco**

**Exam Questions 350-501**

Implementing and Operating Cisco Service Provider Network Core Technologies

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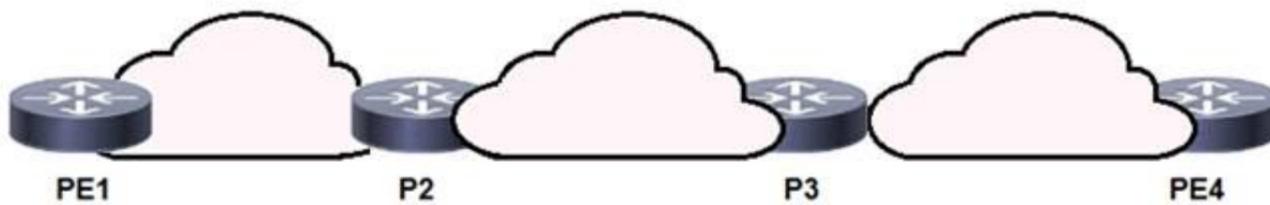
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**NEW QUESTION 1**

Refer to the exhibit:



P3 and PE4 are at the edge of the service provider core and serve as ABR routers. Aggregation areas are on either side of the core. Which statement about the architecture is true?

- A. If each area is running its own IGP
- B. the ABR routers must redistribute the IGP routing table into BGP
- C. To support seamless MPLS
- D. TDP must be used as the label protocol
- E. If each area is running its own IGP
- F. BGP must provide an end-to-end MPLS LSP
- G. To support seamless MPLS, the BGP route reflector feature must be disabled

**Answer: C**

**NEW QUESTION 2**

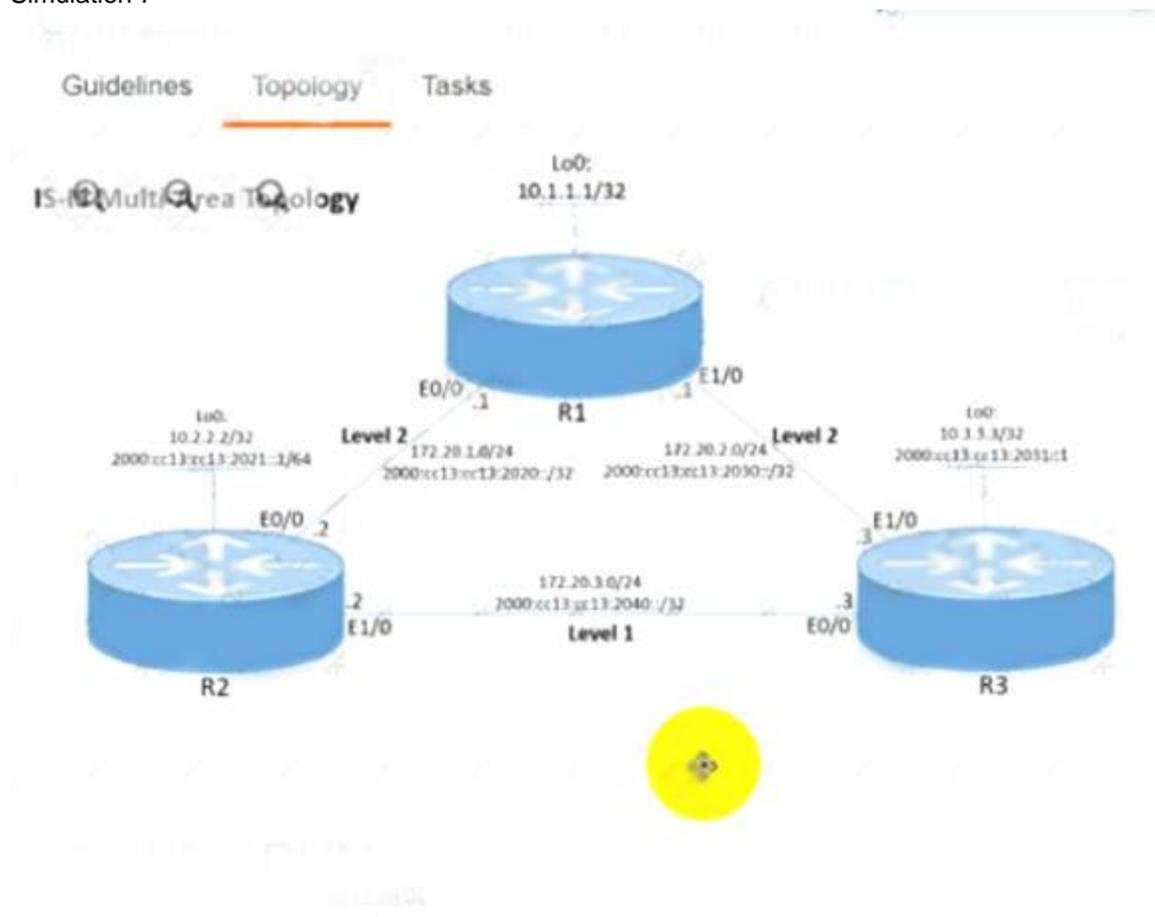
Which three OSPF parameters must match before two devices can establish an OSPF adjacency? (Choose three.)

- A. IP address
- B. interface cost
- C. subnet mask
- D. process ID
- E. hello timer setting
- F. area number

**Answer: CEF**

**NEW QUESTION 3**

Simulation 7



Guidelines Topology **Tasks**

Configure the IS-IS routing protocol for R1, R2, and R3 according to the topology to achieve these goals:

1. Configure HMAC-MD5 authentication for R1, R2, and R3 links that form the IS-IS adjacency using the ISIS commands on the interfaces using these parameters:
  - key-chain name: AUTH\_ISIS
  - key ID: 2
  - password: C1sc0!
2. Configure ISIS metric on R1, R2, and R3 to:
  - 15 for each level on all interfaces that form adjacency on router R1
  - 20 for each level on all interfaces that form adjacency on router R2
  - 25 for each level on all interface that form adjacency on R3

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

```
R1
key chain AUTH_ISIS key 2
key-string C1sco! exit
int range et0/0 , et1/0
isis authen key-chain AUTH_ISIS ip isis
isis metric 15 Copy run start R2
key chain AUTH_ISIS key 2
key-string C1sco! exit
int range et0/0 , et1/0
isis authen key-chain AUTH_ISIS ip isis
isis metric 20 Copy run start R3
key chain AUTH_ISIS key 2
key-string C1sco! exit
int range et0/0 , et1/0
isis authen key-chain AUTH_ISIS ip isis
isis metric 25 Copy run start
```

**NEW QUESTION 4**

Refer to the exhibit:

```

Router 1:

ip route 192.168.1.0 255.255.255.0 null 0 tag 1

route-map ddos
 match tag 1
 set local preference 150
 set community no export

route-map ddos permit 20

router bgp 65513
 redistribute static route-map ddos

Router 2:

Interface gigabitethernet0/1
 ip verify unicast reverse-path
    
```

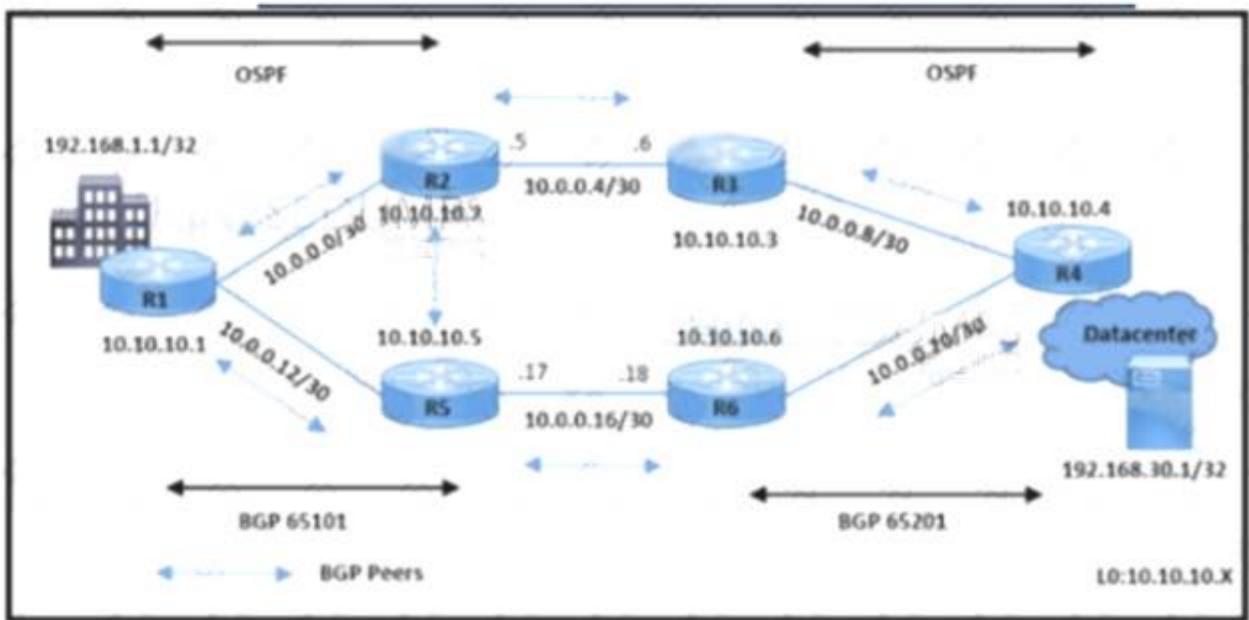
An engineer is preparing to implement data plane security configuration. Which statement about this configuration is true?

- A. Router 2 must configure a route to null 0 for network 192.168.1.0/24 for the RTBH implementation to be complete.
- B. Router 1 is the trigger router in a RTBH implementation.
- C. Router 1 must be configured with uRPF for the RTBH implementation to be effective.
- D. Router 2 is the router receiving the DDoS attack

Answer: B

**NEW QUESTION 5**

Refer to the exhibit.



```

R5#show ip bgp 192.168.1.1/32
BGP routing table entry for 192.168.1.1/32, version 25
Paths: (1 available, best #1, table Default-IP-Routing-Table)
  Advertised to update-groups:
    3
  Local
    10.10.10.1 (metric 2) from 10.10.10.1 (192.168.1.1)
      Origin IGP, metric 0, localpref 100, valid, internal, best

R2#show ip bgp 192.168.1.1/32
BGP routing table entry for 192.168.1.1/32, version 13
Paths: (1 available, no best path)
  Not advertised to any peer
  Local
    10.10.10.1 (metric 2) from 10.10.10.1 (192.168.1.1)
      Origin IGP, metric 0, localpref 100, valid, internal, not synchronized

R1#show ip bgp 192.168.1.1/32
BGP routing table entry for 192.168.1.1/32, version 15
Paths: (1 available, best #1, table Default-IP-Routing-Table)
  Advertised to update-groups:
    1
  Local
    0.0.0.0 from 0.0.0.0 (192.168.1.1)
      Origin IGP, metric 0, localpref 100, weight 32768, valid, sourced, local, best
    
```

All BGP peering in AS 65101 and 65201 is enabled. The operations team is told that traffic destined to 192.168.1.1/32 from R4 does not use the path R3-R2-R1 as expected. An engineer debugs the issue and determines that 192.168.1.1/32 is advertised in the BGP routing table on R1. Which action resolves the issue?

- A. Enable no synchronization on R2 in AS65101.
- B. Apply route-map High-LP out for prefix 192.168.1.1/32 on R1 with R2 BGP peering.
- C. Apply redistribute ospf 10 on R1 in BGP AS 65101.
- D. Configure network 192.168.1.1 mask 255.255.255.255 in BGP AS 65101 on R2

Answer: A

**NEW QUESTION 6**

Which additional configuration is required for NetFlow to provide traceback information?

- A. Cisco Express Forwarding must be configured for traffic that is egressing from the router to be properly reported.
- B. A classification ACL must be configured to identify which type of traffic will be analyzed.
- C. The BGP routing process must be started for any ingress or egress data to be reported when using NetFlow
- D. Version 5.
- E. LLDP must be configured or the device will be unable to locate a NetFlow analyzer.

Answer: B

**Explanation:**

**Traffic Identification and Traceback**

At times, you can need to quickly identify and traceback network traffic, especially during incident response or poor network performance. NetFlow and Classification ACLs are the two primary methods to accomplish this with Cisco IOS software. NetFlow can provide visibility into all traffic on the network. Additionally, NetFlow can be implemented with collectors that can provide long-term trending and automated analysis. Classification ACLs are a component of ACLs and require pre-planning to identify specific traffic and manual intervention during analysis. These sections provide a brief overview of each feature.

**NEW QUESTION 7**

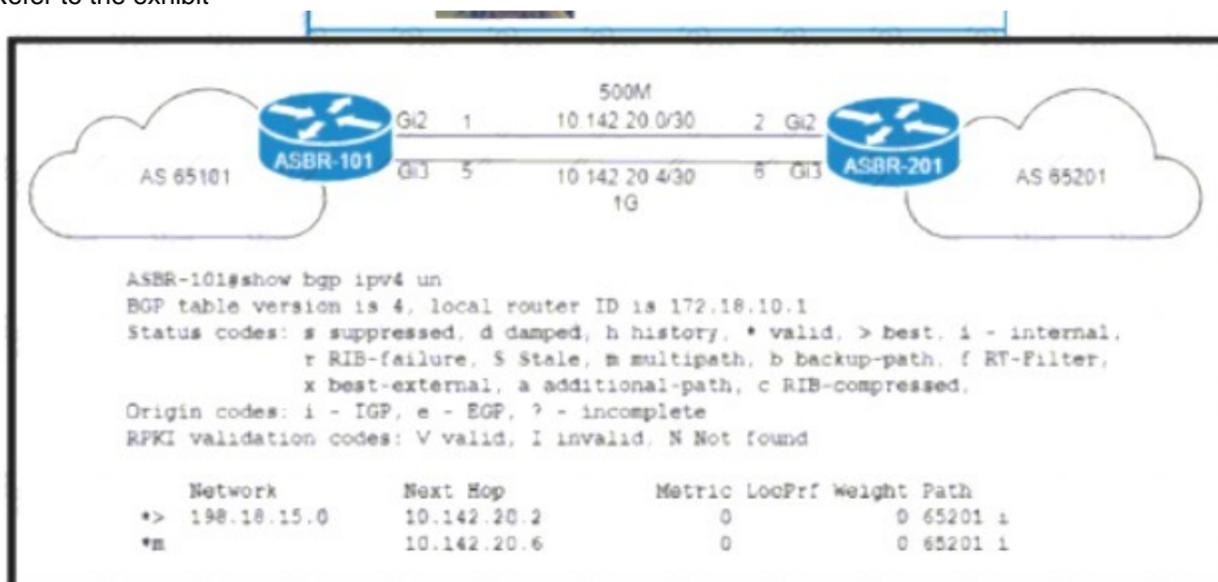
The administrator of a small company network notices that intermittent network issues occasionally cause inbound notifications to its SNMP servers to be lost. Which configuration must the administrator apply so that the SNMP servers acknowledge the notifications that they receive?

- A. snmp-server community ciscotest rw 10
- B. snmp-server host tests.cisco.com public snmp-server community ciscotest rw 10
- C. snmp-server enable traps bgpsnmp-server host 192.169.2.1 Informs
- D. snmp-server enable traps snmp

Answer: C

**NEW QUESTION 8**

Refer to the exhibit



an engineer working for a private telecommunication company with an employee Id: 4065:96:080 upgrades the WAN link between routers ASBR-101 and ASBR-201 to 1Gb by installing a new physical connection between the Gi3 interfaces. Which BGP attribute must the engineer configure on ASBR-201 so that the existing WAN link on Gi2 is maintained as a backup?

```

configure terminal
ip prefix-list ALLOWED_PREFIXES seq 5 permit 198.18.15.0/24

route-map AS65101-OUT permit 10
match ip address prefix-list ALLOWED_PREFIXES
set as-path prepend 65101 65101

router bgp 65201
address-family ipv4
neighbor 10.142.20.1 route-map AS65101-OUT out
end

configure terminal
ip prefix-list ALLOWED_PREFIXES seq 5 permit 198.18.15.0/24

route-map AS65101-OUT permit 10
match ip address prefix-list ALLOWED_PREFIXES
set as-path prepend 65101 65101
  
```

```

✔ configure terminal
ip prefix-list ALLOWED_PREFIXES seq 5 permit 198.18.15.0/24

route-map AS65101-OUT permit 10
match ip address prefix-list ALLOWED_PREFIXES
set metric 100

router bgp 65201
address-family ipv4
neighbor 10.142.20.1 route-map AS65101-OUT out
end

○ configure terminal
ip prefix-list ALLOWED_PREFIXES seq 5 permit 198.18.15.0/24

route-map AS65101-OUT permit 10
match ip address prefix-list ALLOWED_PREFIXES
set metric 100

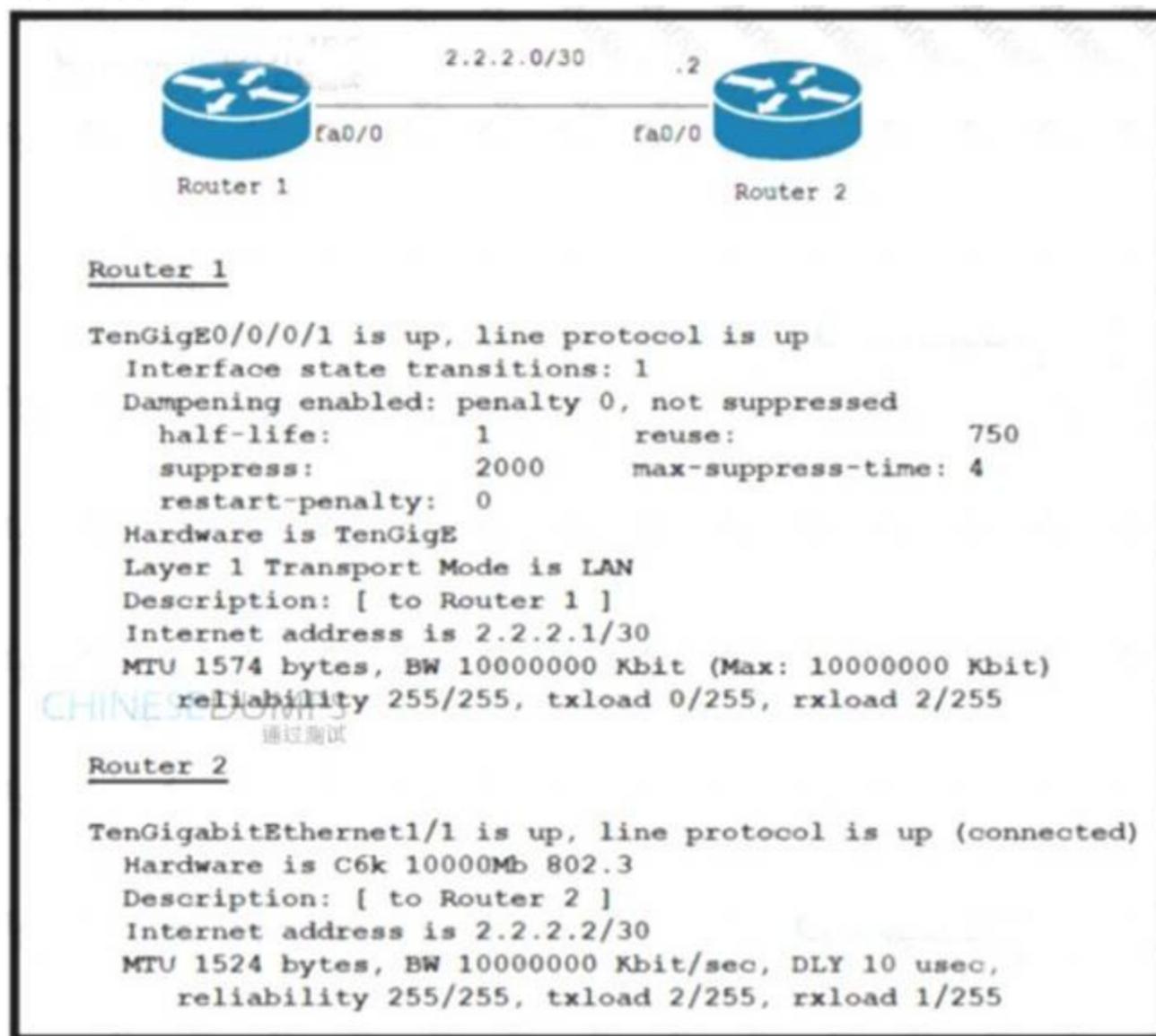
router bgp 65201
address-family ipv4
neighbor 10.142.20.5 route-map AS65101-OUT out
end
    
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

**NEW QUESTION 9**

Refer to the exhibit.



Router 1 and Router 2 were installed in the data center. Router 1 is the core router in the network, but it fails to establish an OSPF peering with Router 2, and customer traffic is unable to pass. Router 1 also reports an increase in CPU and memory usage. However, the CPU for R2 is stable. Which action resolves this issue?

- A. Disable Cisco Express Forwarding on Router 2.
- B. Change the transport mode to WAN on Router 1.
- C. Change the MTU to 1524 on Router 1.
- D. Enable MPLS on Router 2.

Answer: C

**NEW QUESTION 10**

How is a telemetry session established for data analytics?

- A. A router initiates a session using the dial-out to a destination.
- B. A destination initiate a session to a router.
- C. The destination initiate a session using the dial-out more to the router.

D. A router requests the data using Teinet.

**Answer:** A

**NEW QUESTION 10**

Refer to the exhibit.



A network operator working for a private telecommunication company with an employee id: 7138: 13:414 just added new users to the network, which resides in VLANs connected to routers R1 and R4. The engineer now must configure the network so that routers R1 and R4 share routes to the VLANs, but routers R2 and R3 are prevented from including the routes in their routing tables. Which configuration must the engineer apply to R4 to begin implementing the request?

- A. pseudowire -class ciscotest encapsulation mplsinterface gigabitethernet 1/0/1connect neighbor 192.168.1.1 101 pw-class cisco
- B. pseudowire -class ciscotest encapsulation mplsinterface gigabitethernet 1/0/1xconnect 192.168.1.1 101 pw-class ciscotest
- C. pseudowire-class ciscotest encapsulation mplsinterface gigabitethernet 1/0/1xconnect 192.168.1.1 101 pw-class ciscotest
- D. interface serial 2/0/0 frame-relay encapsulationip address 192.168.1.4 255.255.255.0service-policy output ciscotest

**Answer:** B

**NEW QUESTION 11**

Exhibit:

```
R1#show ip bgp 35.33.13.0
BGP routing table entry for 35.33.13.0/24, version 24
Paths: (3 available, best #3, table Default-IP-Routing-Table)
...
10
 172.31.1.99 from 172.31.1.99 (1.1.1.1)
   Origin IGP, metric 100, localpref 200, valid, internal
10
 172.26.11.100 from 172.26.11.100 (3.3.3.3)
   Origin IGP, metric 120, localpref 200, valid, external
18293
 172.21.71.1 from 172.21.71.1 (2.2.2.2)
   Origin IGP, metric 150, localpref 200, valid, external, best
```

A network engineer must update the routing toward the web server with IP address 35.22.13.1. The primary path must be configured via the neighbor router with ID 1.1.1.1. However, local-preference configuration is not permitted on R1. Which task must the engineer perform on R1 to complete the implementation?

- A. Configure the device to choose the best MED from the same AS.
- B. Set the device to ignore the conditional MED if the route originated in a different autonomous system.
- C. Enable MED comparison between routes from neighbors in different AS.
- D. Implement deterministic MED to choose the best route from the different AS.

**Answer:** C

**NEW QUESTION 13**

Refer to the exhibit:



BGPsec is implemented on R1. R2, R3, and R4 BGP peering is established between neighboring autonomous systems Which statement about implementation is true?

- A. BGP updates from the eBGP peers are appended with an additional AS path value that is statically set by the domain administrator
- B. BGP updates from the iBGP peers are appended with a community of local-as
- C. BGP updates from the all BGP peers are appended with a community of no export
- D. BGP updates from the eBGP peers are appended with a BGPsec attribute sequence that includes a public key hash and digital signature

Answer: D

**NEW QUESTION 17**

Which fact must a network engineer consider when planning to deploy RSVP-TE FRR?

- A. The FRR backup tunnel reserves the total bandwidth of all protected tunnels
- B. FRR protects MPLS LDP and RSVP-TE LSPs.
- C. PLR prefers FRR NHOP backup tunnels over NNHOP tunnels.
- D. PLR prefers FRR NNHOP backup tunnels over NHOP tunnels.

Answer: D

**NEW QUESTION 20**

A network engineer has configured TE tunnels in the MPLS provider core. Which two steps ensure traffic traverse? (Choose two.)

- A. Static routes is the only option for directing traffic into a tunnel.
- B. ECMP between tunnels allows RSVP to function correctly.
- C. Forwarding adjacency features allows a tunnel to be Installed in the IGP table as a link.
- D. The IGP metric of a tunnel is configured to prefer a certain path
- E. A tunnel weight is configured in SPF database the same way as a native link.

Answer: CD

**NEW QUESTION 21**

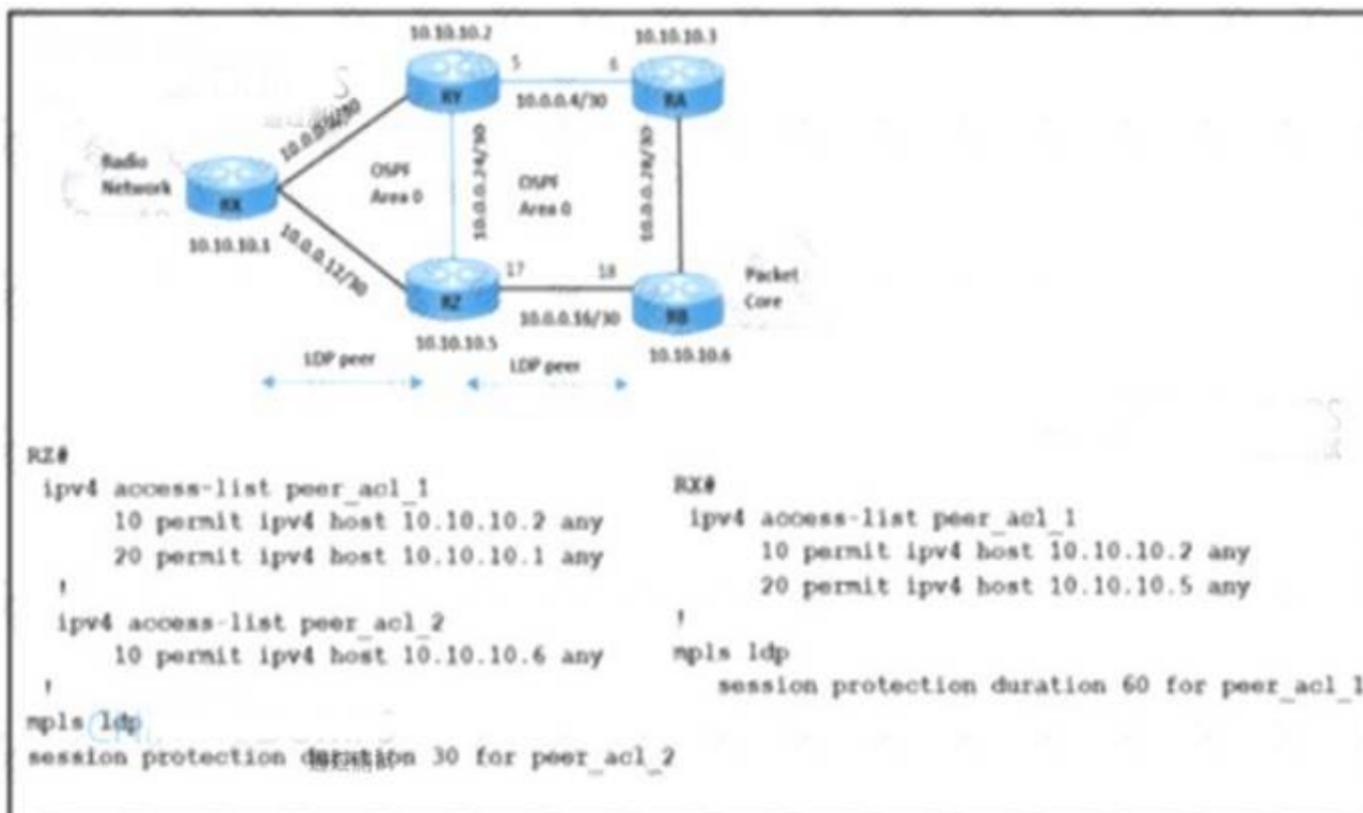
What is the role of NSO?

- A. Provides public cloud services for customers that need Internet access.
- B. Controls the turn-up of a device.
- C. Provides network monitoring services for Layer 3 devices.
- D. Maintains data storage.

Answer: B

**NEW QUESTION 22**

Refer to the exhibit.



The radio network and packet core are using the route RX-RZ-RB to establish communication. The LDP session between 10.10.10.5 and 10.10.10.1 is experiencing link flapping at random intervals for 30-45 seconds each time. A network engineer must protect the LDP session and improve MPLS traffic convergence. Which action meets these requirements?

- A. Enable IGP\_LDP sysnc on RZ and RX
- B. Add session protection duration 60 for peer\_acl\_1 under the MPLS LDP instance on RZ.
- C. Attach peer\_acl\_1 in for session protection duration 1 on RX.
- D. Configure Peer\_acl\_2 on RX and allow IP address 10.10.10.6 in LDP

Answer: B

**NEW QUESTION 26**

Which type of attack is an application attack?

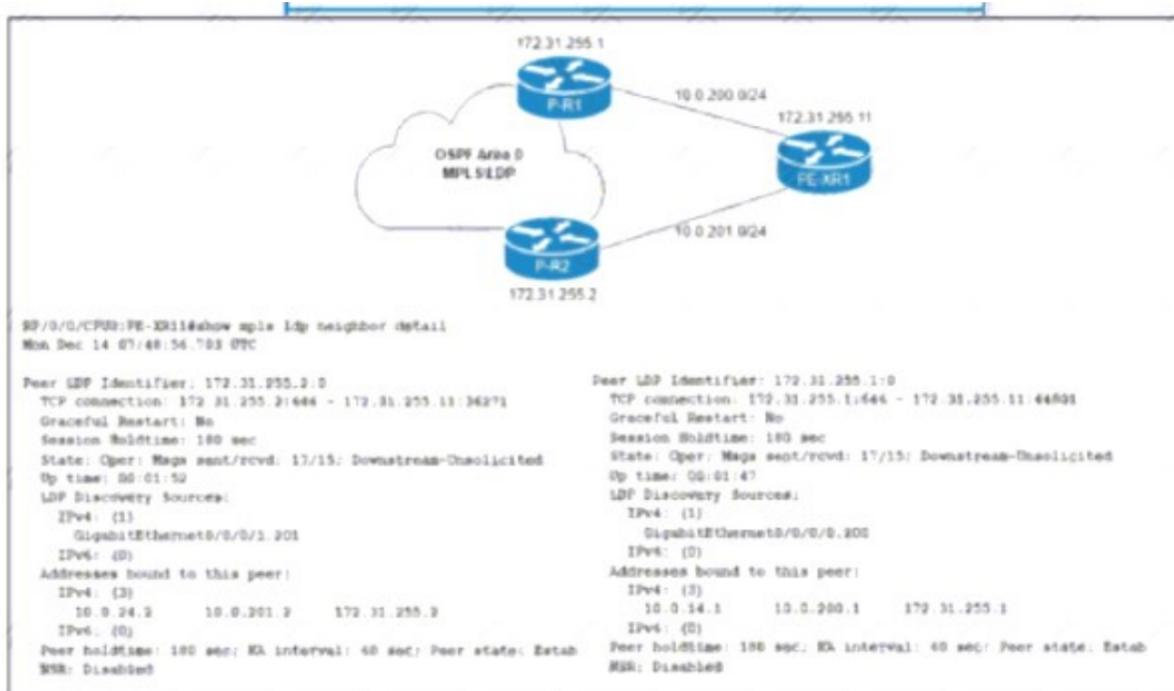
- A. ping of death
- B. ICMP (ping) flood
- C. HTTP flood

D. SYN flood

Answer: C

**NEW QUESTION 29**

Refer to the exhibit.



The network team must implement MPLS LDP session protection with two requirements:

Session protection is provided for core loopback IP addresses only.

The LDP session must remain operational for one hour when the WAN link on PE-XR1 fails. Which configuration must the team implement on PE-XR1?

- A. configure terminal ipv4 access-list LDP-SESSION-PROTECTION permit ipv4 172.31.255.0 0.0.0.255 any!mpls ldp session protection for LDP-SESSION-PROTECTION duration 60 end
- B. configure terminal ipv4 access-list LDP-SESSION-PROTECTION permit ipv4 172.31.255.0 0.0.0.255 any!mpls ldp session protection for LDP-SESSION-PROTECTION duration 3600 end
- C. configure terminal ipv4 access-list LDP-SESSION-PROTECTION permit ipv4 172.31.255.0 0.0.0.255 any permit ipv4 10.0.0.0 0.0.255.255 any!mpls ldp session protection for LDP-SESSION-PROTECTION duration 60 end
- D. configure terminal ipv4 access-list LDP-SESSION-PROTECTION permit ipv4 172.31.255.0 0.0.0.255 any permit ipv4 10.0.0.0 0.0.255.255 any!mpls ldp session protection for LDP-SESSION-PROTECTION duration 3600 end

Answer: D

**NEW QUESTION 32**

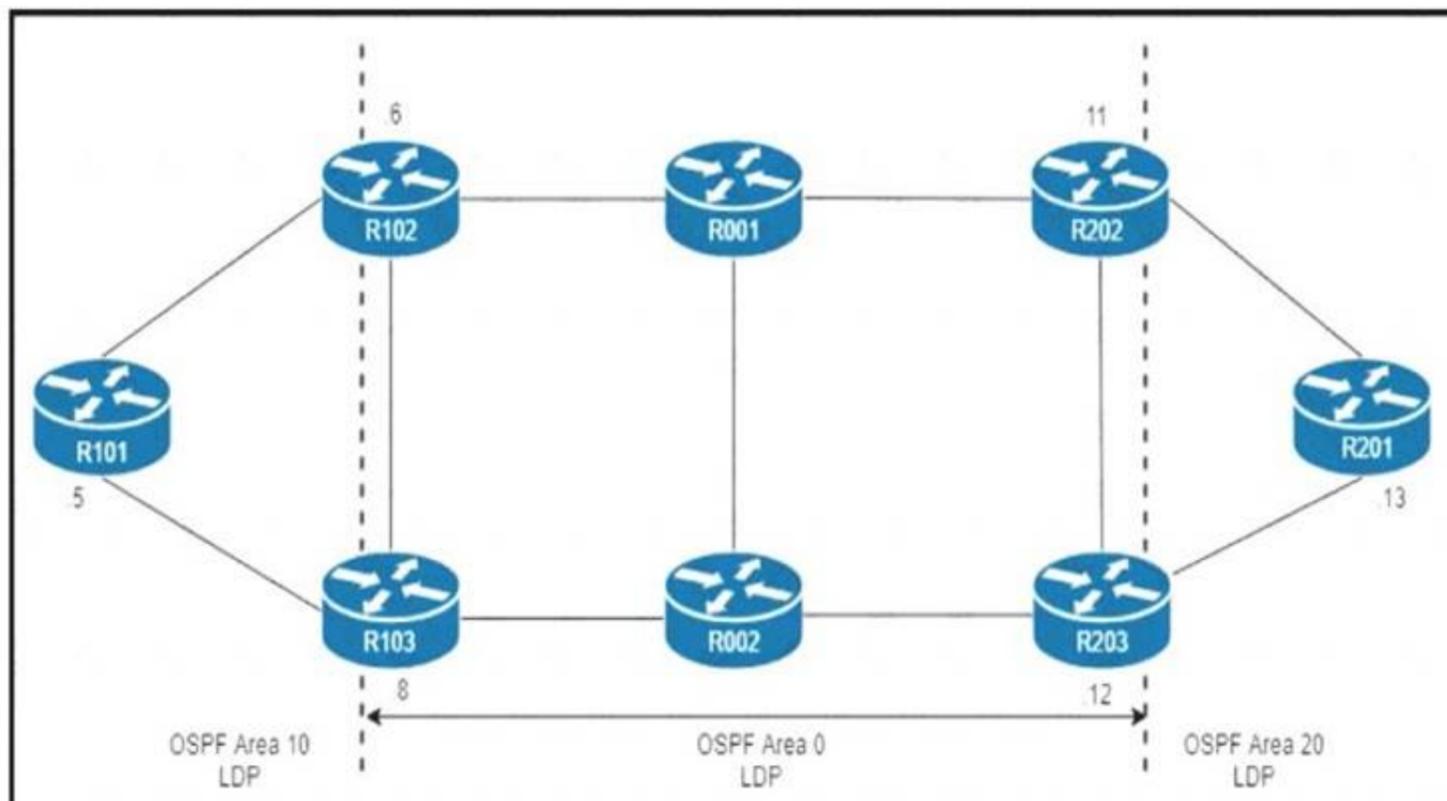
While implementing TTL security, an engineer issues the PE(config-router-af)#neighbor 2.2.2.2 ttl-security hops 2 command. After issuing this command, which BGP packets does the PE accept?

- A. from 2.2.2.2, with a TTL of less than 2
- B. to 2.2.2.2, with a TTL of less than 253
- C. from 2.2.2.2, with a TTL of 253 or more
- D. to 2.2.2.2, with a TTL of 2 or more

Answer: C

**NEW QUESTION 33**

Refer to the exhibit.



R101 is peering with R102 and R103, and R201 is peering with R202 and R203 using iBGP Labeled Unicast address families. The OSPF area 0 border routers are in a full iBGP Labeled Unicast mesh, and VPNv4 routes are exchanged directly between PE routers R101 and R201 through iBGP. Which address family-level configuration must be applied on ABR R102 to support a Unified MPLS routing architecture with partitioned IGP domains?

A)

```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 route-reflector-client
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 route-reflector-client
```

B)

```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self all
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 next-hop-self all
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 next-hop-self all
neighbor 172.16.0.12 send-label
```

C)

```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self all
neighbor 172.16.0.11 next-hop-self all
neighbor 172.16.0.12 next-hop-self all
```

D)

```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 next-hop-self
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 next-hop-self
neighbor 172.16.0.12 send-label
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

**NEW QUESTION 35**

Refer to the exhibit.



A network engineer with an employee ID 4379:43:595 is setting up an IS-IS network with these requirements:

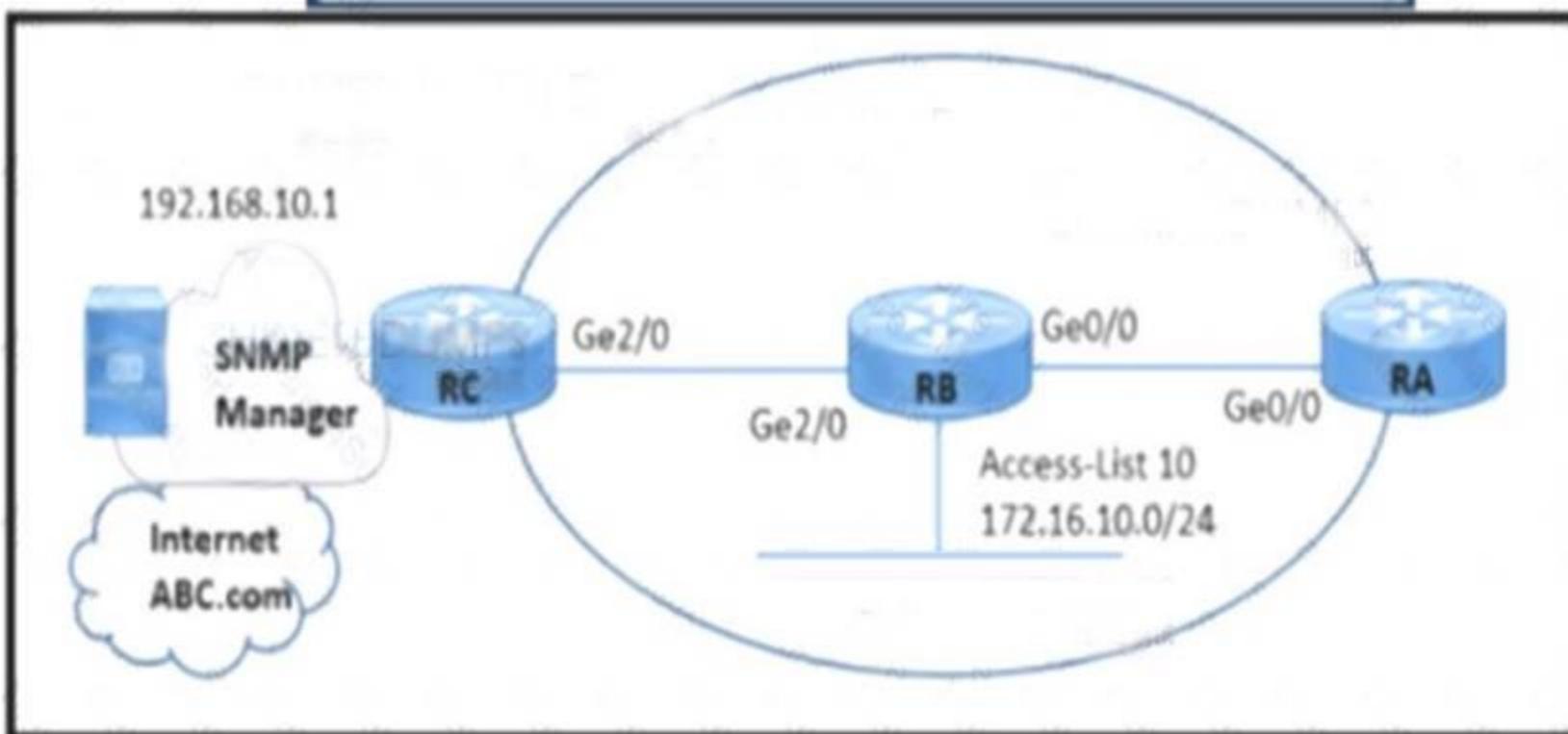
- > Routes with a tag of 80 and IP prefixes other than 192.168.10.20/24 must be redistributed from Level 1 into Level 2.
  - > Route leaking must be configured from Level 2 into the Level 1 domain for routes that are tagged with only 50 or 40.
- Which configuration must be implemented on RB to meet the requirements?

- A. Add match tag 80 in route-map leak2-1
- B. DUMPS Add match ip address 152 in route-map redistrib1-2
- C. Remove match tag 40 from route-map leak2-1
- D. Change match tag 80 to match tag 50 in route-map redistrib1-2.

**Answer:** D

**NEW QUESTION 37**

Refer to the exhibit.



A network engineer is configuring an SNMP community on router RB with these requirements:

- > Allow read-only access for all objects to members of Access-List 10 that use the comaccess community string.
  - > Other SNMP managers must not have access to objects.
  - > SNMP authentication failure traps must be sent to SNMPv2c and then to the host using SNMPv2c with the public community string.
- Which configuration meets these requirements?

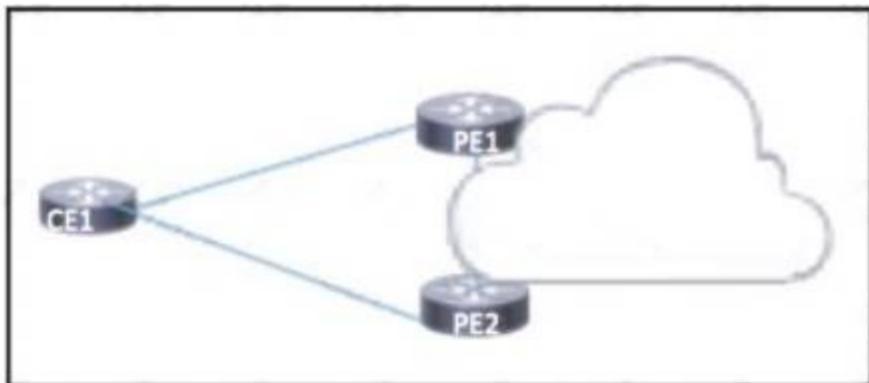
- RB(config)# snmp-server community comaccess ro 10  
 RB(config)# snmp-server enable traps snmp authentication  
 RB(config)# snmp-server host ABC.com version 2c public
- RB(config)# snmp-server community comaccess ro 10  
 RB(config)# snmp-server enable traps snmp authentication  
 RB(config)# snmp-server host ABC.com  
 RB(config)# snmp-server host informs ABC.com restricted entity
- RB(config)# snmp-server community comaccess ro 10  
 RB(config)# snmp-server enable traps snmp authentication  
 RB(config)# snmp-server enable traps entity  
 RB(config)# snmp-server host informs ABC.com restricted entity
- RB(config)# snmp-server community comaccess ro 10  
 RB(config)# snmp-server enable traps  
 RB(config)# snmp-server host 192.168.10.1 informs version 2c public  
 RB(config)# snmp-server host ABC.com public

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** A

**NEW QUESTION 41**

Refer To the exhibit.



Which BGP attribute should be manipulated to have CE1 use PE1 as the primary path to the Internet?

- A. The weight attribute should be manipulated on PE1 on outbound routes advertised to CE1.
- B. The MED should be manipulated on CE1 on inbound routes from PE1.
- C. The local preference attribute should be manipulated on PE2 on inbound routes advertised to CE1.
- D. The origin of all routes should be modified on each router on inbound and outbound routes advertised to CE1.

**Answer:** B

**NEW QUESTION 42**

Which OS uses a distributed subsystem architecture?

- A. IOS XE
- B. IOS
- C. IOS XR
- D. CatOS

**Answer:** C

**NEW QUESTION 45**

After you analyze your network environment, you decide to implement a full separation model for Internet access and MPLS L3VPN services For which reason do you make this decision?

- A. It enables you to choose whether to separate or centralize each individual service.
- B. It is easier to manage a system in which services are mixed
- C. It requires only one edge router
- D. It enables EGP and IGP to operate independently

Answer: D

**NEW QUESTION 47**

Refer to the exhibit

```

Sep 30 03:12:33: ISIS-Adj: Rec serial IIH from *HDLC* (Serial1/1), cir type L1L2
Sep 30 03:12:33: ISIS-Adj: rcvd state DOWN, old state UP, new state INIT
Sep 30 03:12:33: ISIS-Adj: Action = GOING DOWN
Sep 30 03:12:33: %CLNS-5-ADJCHANGE: ISIS: Adjacency to R1 (Serial1/1) Down, nes
Sep 30 03:12:33: ISIS-Adj: L2 adj count 0
Sep 30 03:12:33: ISIS-Adj: Sending serial IIH on Serial1/1, length 1699
Sep 30 03:12:41: ISIS-Adj: Rec serial IIH from *HDLC* (Serial1/1), cir type L1L2
Sep 30 03:12:41: ISIS-Adj: rcvd state DOWN, old state DOWN, new state INIT
Sep 30 03:12:41: ISIS-Adj: Action = GOING UP, new type = L2
Sep 30 03:12:41: ISIS-Adj: New serial adjacency
Sep 30 03:12:41: ISIS-Adj: Sending serial IIH on Serial1/1, length 1699
Sep 30 03:12:47: ISIS-Adj: Rec serial IIH from *HDLC* (Serial1/1), cir type L1L2
Sep 30 03:12:47: ISIS-Adj: rcvd state DOWN, old state INIT, new state INIT
Sep 30 03:12:47: ISIS-Adj: Action = GOING UP, new type = L2
Sep 30 03:12:47: ISIS-Adj: Sending serial IIH on Serial1/1, length 1699
Sep 30 03:12:47: ISIS-Adj: Sending serial IIH on Serial1/1, length 1699
    
```

Routers R1 and R2 are connected via a serial link and use the IS-IS routing protocol for route exchange. After a configuration change on R2, IS-IS connectivity is interrupted. A network engineer confirmed that the interfaces are in the UP state and connectivity exists between the two routers. Which two actions must the engineer perform to resolve the problem? (Choose two.)

- A. Disable padding for hello packets under the serial interface on R2 DUMPS
- B. Change the hello interface timer to 10 seconds on R1.
- C. Change the MTU to 1500 bytes on R2.
- D. Enable hello packet padding globally on R1.
- E. Change R2 to an IS-IS Level 1 router.

Answer: CE

**NEW QUESTION 52**

Simulation1

The screenshot shows a Cisco Packet Tracer simulation titled "Implementing and Operating Cisco Service Provider Network". On the left, there is a network diagram titled "IS-IS Multi-Area Topology" showing three routers: R1, R2, and R3. R1 is at the top, R2 at the bottom left, and R3 at the bottom right. R1 is connected to R2 and R3 via Level 2 links. R2 and R3 are connected to each other via a Level 1 link. The diagram includes interface labels like E0/0, E1/0, and E2/0, and IP addresses for each interface. On the right, a terminal window for R1 shows the following commands and output:

```

R1>enabler1
Translating "enabler1"...domain server (255.255.255.255)
(255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
% Bad IP address or host name
Translating "enabler1"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address
R1>
    
```

Guidelines
Topology
Tasks

## Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

R1
R2
R3

R3>

Guidelines
Topology
Tasks

Configure the IS-IS routing protocol for R1, R2, and R3 according to the topology to achieve these goals:

- Enable IS-IS routing protocol parameters:
  - R1: Routing area tag: 1, Net: 49.0001.0010.0001.0101.00
  - R2: Routing area tag: 2, Net: 49.0001.0010.0002.0202.00
  - R3: Routing area tag: 3, Net: 49.0001.0010.0003.0303.00
- Configure IS-IS IPv4 and IPv6:
  - Only Level 1 adjacency for: R2 and R3 links
  - Only Level 2 adjacency for: R1 and R2 links
  - Only Level 2 adjacency for: R1 and R3 links.
- Configure CLNS Domain and Area password **C1sc0!** for the authentication of all IS-IS adjacency links on R1, R2, and R3. Use the clear text ISIS authentication mechanism for this task.

[Submit feedback about this item](#)

R1
R2
R3

R1>enable

Translating "enable" to IP address (255.255.255.255)

Bad IP address or host name

Translating "enable" to IP address (255.255.255.255)

Unknown command or computer name, or unable to find computer address

R1>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

SOLUTION:R1  
 Config t router isis 1  
 net 49.0001.0010.0001.0101.00  
 area-password C1sc0! int et0/0  
 ip router isis 1  
 isis authen mode text level-2 isis circuit-type level-2  
 isis tag 1 int et1/0  
 ip router isis 1  
 isis authen mode text level-2 isis circuit-type level-2  
 isis tag 1 R2  
 router isis 2  
 net 49.0001.0010.0002.0202.00  
 area-password C1sc0! int et0/0  
 ip router isis 2  
 isis authen mode text level-2 isis circuit-type level-2  
 isis tag 2 int et1/0  
 ip router isis 2  
 isis authen mode text level-1 isis circuit-type level-1  
 isis tag 2 R3  
 router isis 3  
 net 49.0001.0010.0003.0303.00  
 area-password C1sc0! int et0/0  
 ip router isis 3

```
isis authen mode text level-1 isis circuit-type level-1
isis tag 3 int et1/0
ip router isis 3
isis authen mode text level-2 isis circuit-type level-2
isis tag 3
R1 Verification:
```

```
R1#show isis neighbors

Tag 1:
System Id      Type Interface      IP Address      State Holdtime Circu
it Id
R2             L2 Et0/0             172.20.1.2     UP      8      R2.02
R3             L2 Et1/0             172.20.2.3     UP      8      R3.02

Tag null:
```

```
R1
Config t
Ipv6 unicast-routing Router isis 1
Metric-style wide
Address-family ipv6 unicast Multi-topology
Int loop0
Ip router isis 1 Ipv6 router isis 1 Isis tag 1
Int et0/0
Ipv6 router isis 1 Int et1/0
Ipv6 router isis 1 R2
Config t
Ipv6 unicast-routing Router isis 2
Metric-style wide
Address-family ipv6 unicast Multi-topology
Int loop0
Ip router isis 2 Ipv6 router isis 2 Isis tag 2
Int et0/0
Ipv6 router isis 2 Int et1/0
Ipv6 router isis 2 R3
Config t
Ipv6 unicast-routing Router isis 3
Metric-style wide
Address-family ipv6 unicast Multi-topology
Int loop0
Ip router isis 3 Ipv6 router isis 3 Isis tag 3
Int et0/0
Ipv6 router isis 3 Int et1/0
Ipv6 router isis 3
```

```
R1#show clns neighbors

Tag 1:
System Id      Interface      SNPA           State Holdtime Type
Protocol
R2             Et0/0         aabb.cc00.0200 Up      9      L2
IS-IS
R3             Et1/0         aabb.cc00.0301 Up      7      L2
IS-IS

Tag null:
```

R1 Ipv6 Verification:

- L

```

R1#sh ipv6 route
IPv6 Routing Table - default - 8 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
        B - BGP, HA - Home Agent, MR - Mobile Router, R - RIP
        H - NHRP, I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea
        IS - ISIS summary, D - EIGRP, EX - EIGRP external, NM - NEMO
        ND - ND Default, NDp - ND Prefix, DCE - Destination, NDr - Redir
ect
        RL - RPL, O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1
        OE2 - OSPF ext 2, ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
        la - LISP alt, lr - LISP site-registrations, ld - LISP dyn-eid
        lA - LISP away, a - Application
C   2000:CC13:CC13:2020::/64 [0/0]
    via Ethernet0/0, directly connected
L   2000:CC13:CC13:2020::1/128 [0/0]
    via Ethernet0/0, receive
I2  2000:CC13:CC13:2021::/64 [115/20]
    via FE80::A8BB:CCFF:FE00:200, Ethernet0/0
C   2000:CC13:CC13:2030::/64 [0/0]
    via Ethernet1/0, directly connected
L   2000:CC13:CC13:2030::1/128 [0/0]
    via Ethernet1/0, receive
I2  2000:CC13:CC13:2031::/64 [115/20]
    via FE80::A8BB:CCFF:FE00:301, Ethernet1/0
I2  2000:CC13:CC13:2040::/64 [115/20]
    via FE80::A8BB:CCFF:FE00:301, Ethernet1/0
L   FF00::/8 [0/0]
    via Null0, receive
R1#
  
```

R1  
 Copy run start R2  
 Copy run start R3  
 Copy run start

#### NEW QUESTION 54

Refer to the exhibit.

```

R1
interface gigabitethernet1/0/0
  ipv6 enable ipv6 ospf 1 area 1
interface gigabitethernet2/0/0
  ipv6 enable ipv6 ospf 1 area 2
  
```

An engineer implemented OSPF neighbor relationship on an IOS device. Which configuration must be applied to get the OR/BOR election removed from interfaces running OSPF?

- A. ip ospf network broadcast on interfaces running OSPF
- B. ip ospf network point-to-point on interfaces running OSPF
- C. ip ospf network multipoint-point on interfaces running OSPF
- D. ip ospf network non-broadcast on n:erfaces running OSPF

Answer: B

#### NEW QUESTION 57

An engineer working for a private service provider with employee id: 3994 37 650 is configuring a Cisco device to redistribute OSPF into BGP. Which task enables the device to filter routes?

- A. Configure a distribute list and associate it to the BGP peer interface
- B. Configure a prefix list and associate it to the BGP peer interface
- C. Configure a route map and reference it with the redistribute command
- D. Configure an access list and reference it with the redistribute command

Answer: C

#### NEW QUESTION 58

Refer to the exhibit:

```
R1:
!
interface FastEthernet0/0
 ip address 10.1.12.1 255.255.255.0
 duplex full
!
router ospf 1
 network 0.0.0.0 255.255.255.255 area 0
R2:
!
interface FastEthernet0/0
 ip address 10.1.12.2 255.255.255.252
 duplex full
!
router ospf 1
 network 0.0.0.0 255.255.255.255 area 0
```

R1 and R2 are directly connected with Fast Ethernet interfaces and have the above configuration applied OSPF adjacency is not formed. When the debug ip ospf hello command is issued on R1. these log messages are seen.

```
*Mar 6 21:57:33.051: OSPF-1 HELLO Fa0/0: Mismatched hello parameters from 10.1.12.2
*Mar 6 21:57:33.051: OSPF-1 HELLO Fa0/0: Dead R 40 C 40, Hello R 10 C 10 Mask R
255.255.255.252 C 255.255.255.0
```

Which command can be configured on routers R1 and R2 on f0/0 interfaces to form OSPF adjacency?

- A. ip ospf network non-broadcast
- B. ip ospf network point-to- multipoint non-broadcast
- C. ip ospf network point-to-point
- D. ip ospf network broadcast

**Answer: C**

**NEW QUESTION 60**

Drag and drop the LDP features from the left onto their usages on the right.

session protection	It prevents valid routes from being overwritten with new ones until labels are assigned.
IGP synchronization	It allows stale label bindings to be used for a period of time while an LDP neighbor is unreachable.
targeted-hello accept	It uses LDP Targeted hellos to protect LDP sessions.
graceful restart	It uses LDP to form neighborhood between non-directly connected routers.

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

graceful restart

IGP synchronization

session protection

targeted-hello accept

#### NEW QUESTION 61

Refer to the exhibit.

```

R1
ip multicast-routing
ip pim rp-candidate GigabitEthernet1/0/0

interface g1/0/0
 ip pim sparse-mode

R2
ip multicast-routing
ip pim bsr-candidate GigabitEthernet1/0/0

interface g1/0/0
 ip pim sparse-mode
    
```

An engineer configured multicast routing on client's network. What is the effect of this multicast implementation?

- A. R2 floods information about R1 throughout the multicast domain.
- B. R2 is unable to share information because the ip pim autorp listener command is missing.
- C. R1 floods information about R2 throughout the multicast domain.
- D. R2 is elected as the RP for this domain.

**Answer: B**

#### NEW QUESTION 62

An engineer is implementing IGMP with SSM on a multicampus network that supports video streaming. Which task must the engineer perform as part of the process?

- A. Configure the network to use IGMPv3.
- B. Configure the network to use bidirectional PIM.
- C. Configure an RP that uses static assignments only.
- D. Configure the network to use the PIM bsr-candidate

**Answer: A**

#### NEW QUESTION 65

You are configuring MPLS traffic-engineering tunnels in the core. Which two ways exist for the tunnel path across the core? (Choose two )

- A. Tunnel links inherit IGP metrics by default unless overridden
- B. Tunnels can be configured with dynamic path or explicitly defined path
- C. A zero bandwidth tunnel is not a valid option
- D. The bandwidth statement creates a "hard" reservation on the link-The dynamic path option is supported only with IS-IS

**Answer: AB**

#### NEW QUESTION 70

Which statement about the Cisco MPLS TE forwarding adjacency feature is true?

- A. It enables the headend and tailend routers to establish a bidirectional tunnel
- B. It enables the tailend router to advertise routes to the headend router over the tunnel
- C. It enables the MPLS core to use EIGRP as the routing protocol
- D. It enables the Cisco MPLS TE tunnel to be advertised into the running IGP.

**Answer: D**

**NEW QUESTION 75**

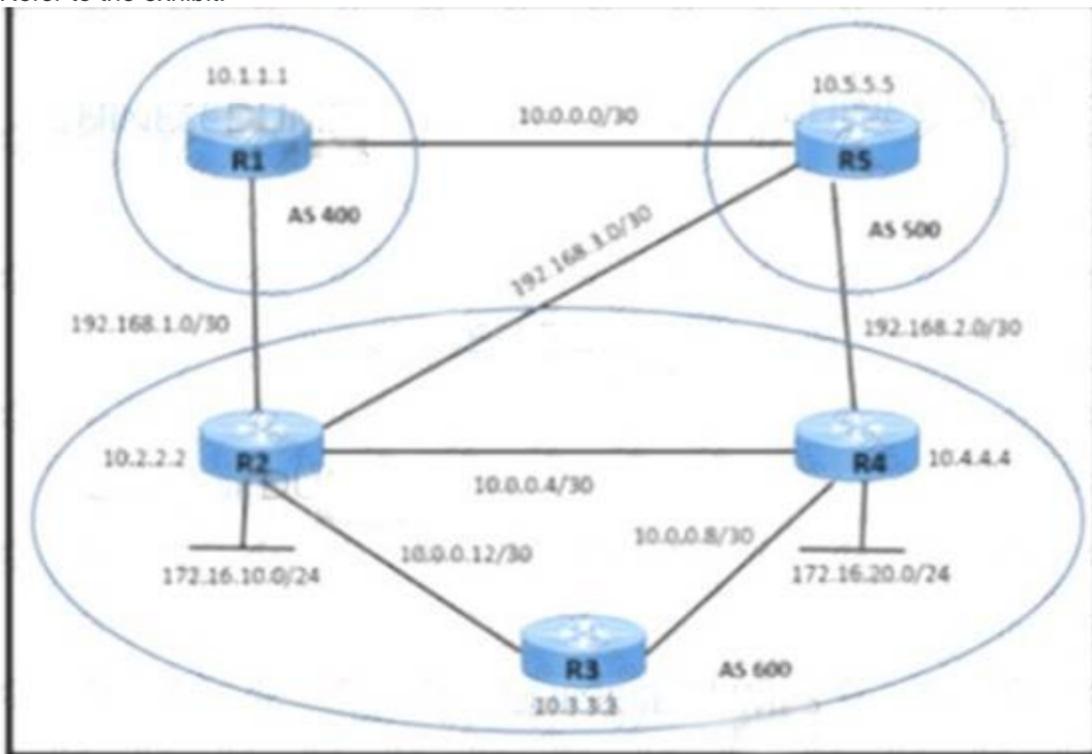
Which function does RSVP perform in a Cisco MPLS TE environment?

- A. It establishes targeted LDP sessions between neighbors that are directly connected.
- B. It signals to LDP protocol along the path that a Cisco MPLS TE will be configured.
- C. It reserves bandwidth for LDP sessions between routers participating in a Cisco MPLS TE.
- D. It reserves the bandwidth along the path between the head-end and tail-end router.

**Answer: D**

**NEW QUESTION 79**

Refer to the exhibit.



A network engineer is implementing iBGP and eBGP between AS 600 and AS 500 with these requirements:

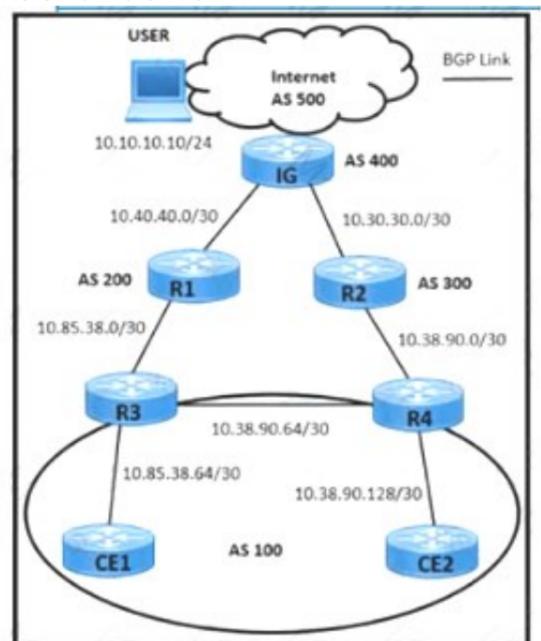
- R2 must wait for 30 seconds before sending BGP updates to R5 for multicast traffic.
- Which action must be taken on R2 to meet the requirements?

- A. Configure advertisement-interval 30 In address-family ipv4 unicast
- B. Configure advertisement-Interval 30 in address-family Ipv4 multicast
- C. Apply timers bgp 30 in address-family ipv4 unicast
- D. Apply timers bgp 30 in address-family ipv4 multicast.

**Answer: B**

**NEW QUESTION 83**

Refer to the exhibit.



```

R3#
router bgp 100
no synchronization
bgp log-neighbor-changes
network 10.38.90.0 mask 255.255.255.252
network 10.38.90.64 mask 255.255.255.252
network 10.38.90.128 mask 255.255.255.252
network 10.85.38.0 mask 255.255.255.252
network 10.85.38.64 mask 255.255.255.252
neighbor 24.38.90.65 remote-as 100
neighbor 24.38.90.65 next-hop-self
neighbor 10.85.38.1 remote-as 400
neighbor 10.85.38.1 ebgp-multihop 10
neighbor 10.85.38.66 remote-as 100
neighbor 10.85.38.66 next-hop-self
no auto-summary

R4#
router bgp 100
no synchronization
bgp log-neighbor-changes
network 10.38.90.0 mask 255.255.255.252
network 10.38.90.64 mask 255.255.255.252
network 10.38.90.128 mask 255.255.255.252
network 10.85.38.0 mask 255.255.255.252
network 10.85.38.64 mask 255.255.255.252
neighbor 10.38.90.1 remote-as 300
neighbor 10.38.90.1 ebgp-multihop 10
neighbor 10.38.90.66 remote-as 100
neighbor 10.38.90.66 next-hop-self
neighbor 10.38.90.130 remote-as 100
neighbor 10.38.90.130 next-hop-self
no auto-summary
    
```

The USER mat is connecting an application on an Internet connection in AS 100 is facing these issues:

- The USER lost the connection to the application during a failure Between IG and R2.
- Router R2 configuration a lost due to a power outage.
- The application the USER is connecting to a hosted behind CE2. What action resolves the issues on R3 and R4 routers?

- A. Set R4 as a route reflector for R3 and CE2
- B. Apply high Local Preference on R3 toward R1
- C. Set R3 as a route reflector for R4 and CE1
- D. Apply low Local Preference on R4 toward R2.

Answer: D

**NEW QUESTION 84**

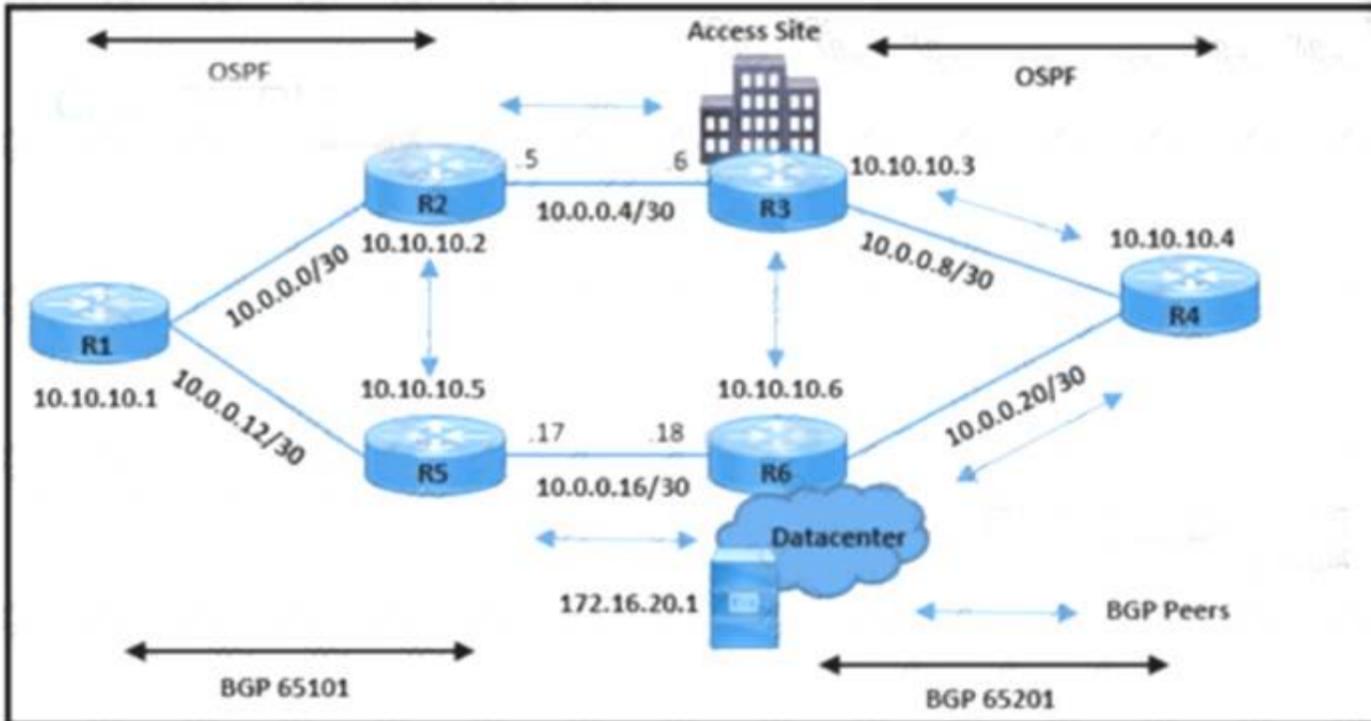
What is a feature of model-driven telemetry?

- A. It occasionally streams to multiple servers in the network.
- B. It is less secure because it uses community strings.
- C. It uses the pull model to send requested data to a client when polled.
- D. It uses the push model to stream data to desired destinations.

Answer: D

**NEW QUESTION 88**

Refer to the exhibit.



```

R3#show ip route
 192.168.30.0/32 is subnetted, 1 subnets
 B   192.168.30.1 [200/0] via 10.10.10.4, 00:39:23
 172.16.0.0/32 is subnetted, 2 subnets
 O   172.16.20.1 [110/3] via 10.0.0.10, 00:05:39, GigabitEthernet2/0
 B   172.16.10.10 [200/0] via 10.10.10.1, 00:39:23
 10.0.0.0/8 is variably subnetted, 15 subnets, 3 masks
 C   10.0.0.8/30 is directly connected, GigabitEthernet2/0
 O   10.0.0.12/30 [110/3] via 10.0.0.5, 00:41:16, FastEthernet0/0
 S   10.10.10.2/32 [1/0] via 10.0.0.5
 C   10.10.10.3/32 is directly connected, Loopback0
 O   10.0.0.0/30 [110/2] via 10.0.0.5, 00:41:16, FastEthernet0/0

 O   10.10.10.1/32 [110/3] via 10.0.0.5, 00:41:16, FastEthernet0/0
 O   10.10.10.6/32 [110/2] via 10.0.0.29, 00:41:16, FastEthernet1/0
 O   10.10.10.4/32 [110/2] via 10.0.0.10, 00:41:16, GigabitEthernet2/0
 C   10.0.0.4/30 is directly connected, FastEthernet0/0
    
```

```

O    10.10.10.1/32 [110/3] via 10.0.0.5, 00:41:16, FastEthernet0/0
O    10.10.10.6/32 [110/2] via 10.0.0.29, 00:41:16, FastEthernet1/0
O    10.10.10.4/32 [110/2] via 10.0.0.10, 00:41:16, GigabitEthernet2/0
C    10.0.0.4/30 is directly connected, FastEthernet0/0
O    10.10.10.5/32 [110/12] via 10.0.0.5, 00:41:16, FastEthernet0/0
O    10.0.0.24/30 [110/11] via 10.0.0.5, 00:41:16, FastEthernet0/0
C    10.0.0.28/30 is directly connected, FastEthernet1/0
B    10.0.0.16/30 [200/0] via 10.10.10.5, 00:39:23
O    10.0.0.20/30 [110/2] via 10.0.0.10, 00:41:16, GigabitEthernet2/0
    192.168.1.0/32 is subnetted, 1 subnets

R4#show ip route 172.16.20.1
Routing entry for 172.16.20.1/32
  Known via "ospf 10", distance 110, metric 2, type intra area
  Last update from 10.0.0.21 on FastEthernet1/0, 00:06:51 ago
  Routing Descriptor Blocks:
  * 10.0.0.21, from 172.16.20.1, 00:06:51 ago, via FastEthernet1/0
    Route metric is 2, traffic share count is 1
  
```

The network operations team reported that the access site that is connected to R3 is not connecting to the application server in the data center and that all packets that are sent from the application server to the access site are dropped. The team verified that OSPF and BGP peerings are up in BGP AS 65101 and BGP AS 65201. R4 is expected to receive traffic from the application server route via OSPF. Which action resolves this issue?

- A. Remove the route-map on R4 when advertising 172.16.20.1 in BGP to R3.
- B. Advertise application server 172.16.20.1 in the OSPF routing table on R6.
- C. Allow 172.16.20.1 in the BGP advertisement on R3 in the route-map.
- D. Add the next-hop-self command on R6 to enable R3 iBGP peering.

**Answer: D**

**NEW QUESTION 91**

What do Ansible and Salt Stack have in common?

- A. They both use DSL configuration language
- B. They both use YAML configuration language
- C. They both have agents running on the client machine
- D. They both can be designed with more than one master server

**Answer: D**

**NEW QUESTION 93**

Refer to the exhibit:

```

R1
router isis
  net 52.0011.0000.0000.0001.00
  is-type level-2

interface gigabitethernet0/1
  ip address 192.168.0.1 255.255.255.0
  ip router isis

R2
router isis
  net 52.0022.0000.0000.0002.00
  is-type level-1

interface gigabitethernet0/1
  ip address 192.168.0.2 255.255.255.0
  ip router isis
  
```

Which statement about the status of the neighbor relationship between R1 and R2 is true?

- A. The neighbor relationship is down because the two routers are configured with different area types
- B. The neighbor relationship is down because the two routers are in the same subnet.
- C. The neighbor relationship is up because R2 is level 1 and level 2 router.
- D. The neighbor relationship is down because R2 is operating as a Level 1 router and the two routers are in different area

**Answer: D**

**NEW QUESTION 94**

A network administrator is planning a new network with a segment-routing architecture using a distributed control plane. How is routing information distributed on such a network?

- A. Each segment is signaled by a compatible routing protocol, and each segment makes its own steering decisions based on SR policy.

- B. Each segment is signaled by MPLS, and each segment makes steering decisions based on the routing policy pushed by BGP.
- C. Each segment is signaled by an SR controller, but each segment makes its own steering decisions based on SR policy.
- D. Each segment is signaled by an SR controller that makes the steering decisions for each node.

**Answer: D**

**NEW QUESTION 98**

Refer to the exhibit:

```
RP/0/RSP0/CPU0:JFK-PE#show mpls ldp bindings 192.168.10.10/32
Fri Nov 11 21:02:33.124 UTC
192.168.10.10/32, rev 2
  Local binding: label: ImpNull
  Remote bindings: (2 peers)
      Peer                Label
      -----
      10.10.10.2:0        562656
      10.10.10.5:0        378337
```

After implementing a new design for the network, a technician reviews the pictured CLI output as part of the MOP. Which two statements describe what the technician can ascertain from the ImpNull output? (Choose two.)

- A. Label 0 is used for the prefix displayed but will not be part of the MPLS label stack for packets destined for 192.168.10.10.
- B. Ultimate Hop Popping is in use for the prefix displayed.
- C. Label 0 is used for the prefix displayed and will be part of the MPLS label stack for packets destined for 192.168.10.10
- D. Penultimate Hop Popping is in use for the prefix displayed
- E. Label 3 is in use for the prefix displayed and will be part of the MPLS label stack for packets destined for 192.168.10.10

**Answer: DE**

**NEW QUESTION 103**

Refer to the exhibit:

```
interface gigabitethernet1/0
xconnect 192.168.0.1 12 encapsulation mpls pw-class cisco
```

Which effect of this configuration is true?

- A. it creates a pseudowire class named Cisco
- B. It enables tagging for VLAN 12 on the interface
- C. It enables MPLS on the interface
- D. It enables AToM on interface gigabitethemet1/0

**Answer: D**

**NEW QUESTION 108**

Refer the exhibit.



Users on a network connected to router R3 report slow speeds when they connect to the server connected to R2. After analyzing traffic on the network, a network engineer identified congestion on the link between R2 and R3 as the cause. Which QoS service must the engineer implement to drop traffic on the link when it exceeds a configured threshold?

- A. first-in, first-out
- B. traffic shaping
- C. class-based weighted fair queueing
- D. traffic policing

**Answer: D**

**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/quality-of-service-qos/qos-policing/19645-policevsshape.html>

**NEW QUESTION 113**

What does DWDM use to combine multiple optical signals?

- A. frequency
- B. IP protocols
- C. time slots
- D. wavelength

Answer: D

#### NEW QUESTION 116

How does SR policy operate in Segment Routing Traffic Engineering?

- A. An SR policy for color and endpoint is deactivated at the headend as soon as the headend learns a valid candidate path for the policy.
- B. When "invalidation drop" behavior occurs, the SR policy forwarding entry is removed and the router drops all traffic that is steered into the SR policy.
- C. When a set of SID lists is associated with the SR policy designated path, traffic steering is ECMP-based according to the qualified cost of each SID-list.
- D. An active SR policy installs a BSID-keyed entry in the forwarding table to steer the packets that match the entry to the SR policy SID-list.

Answer: D

#### NEW QUESTION 117

Refer to the exhibit:

```

R1
interface fastethernet1/0
 ip address 192.168.2.14 255.255.255.0
 ip ospf message-digest-key 1 md5 cisco
 ip ospf authentication message-digest
    
```

Which condition must be met by the OSPF peer of router R1 before the two devices can establish communication?

- A. The interface on the OSPF peer must use the same key ID and key value as the configured interface
- B. The interface on the OSPF peer may have a different key ID, but it must use the same key value as the configured interface
- C. The OSPF peer must be configured as an OSPF stub router
- D. The OSPF peer must use clear-text authentication

Answer: A

#### NEW QUESTION 122

What is a characteristic of MVPN?

- A. It bypasses the use of MPLS in the service provider core and transmits packets using IP only.
- B. It uses pseudowires to route unicast and broadcast traffic over either a service provider MPLS or IP core.
- C. It allows VRF traffic to use the service provider MPLS VPN to route multicast traffic.
- D. It creates GRE tunnels to route multicast traffic over a service provider IP core.

Answer: C

#### NEW QUESTION 127

An network engineer is deploying VRF on ASBR router R1. The interface must have connectivity over an MPLS VPN inter-AS Option AB network. Which configuration must the engineer apply on the router to accomplish this task?

- A)

```

R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# mpls ip
            
```
- B)

```

R1(config)# interface ethernet 1/0
R1(config-if)# ip address 192.168.1.254 255.255.255.0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# shutdown
            
```
- C)

```

R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1 (config-if)# ip ospf 1 area 0
            
```
- D)

```

R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# mpls bgp forwarding
            
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

#### NEW QUESTION 129

A network administrator must monitor network usage to provide optimal performance to the network end users when the network is under heavy load. The administrator asked the engineer to install a new server to receive SNMP traps at destination 192.168.1.2. Which configuration must the engineer apply so that all traps are sent to the new server?

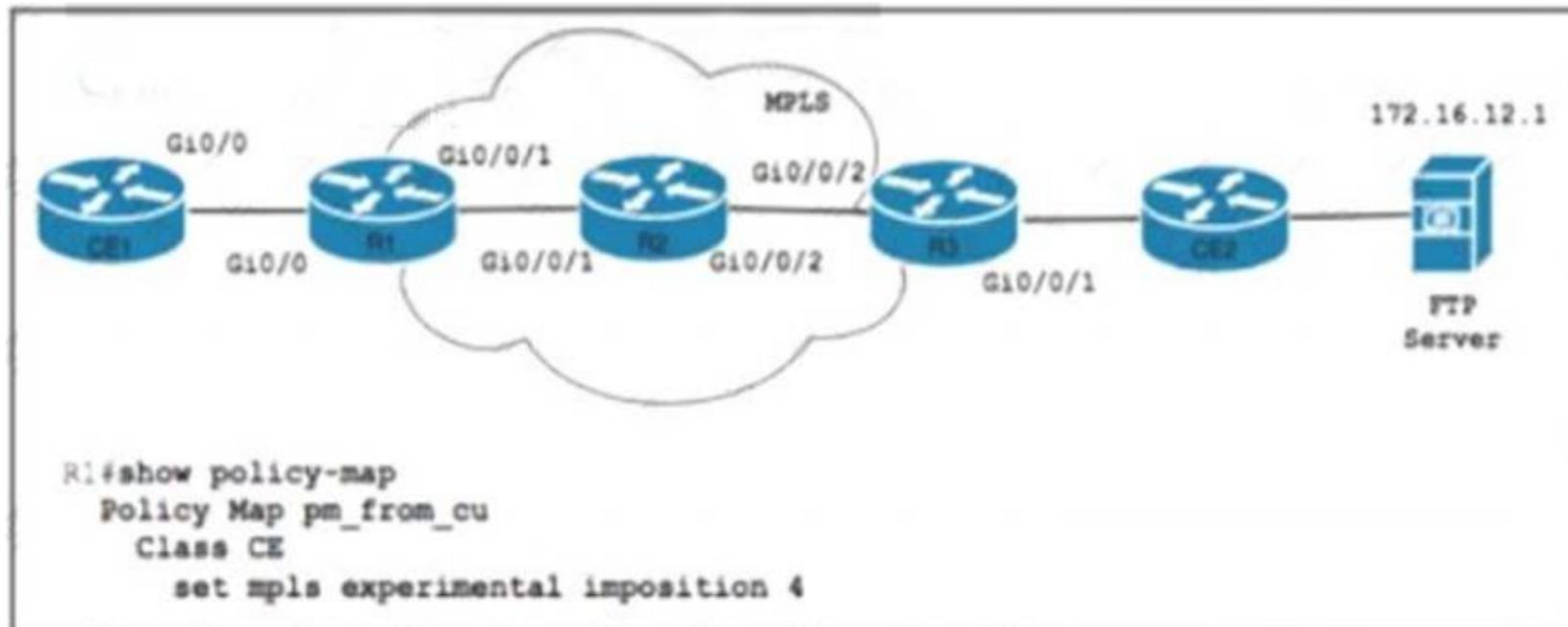
- A. snmp-server enable traps entity snmp-server host 192.168.1.2 public
- B. snmp-server enable traps bgpsnmp-server host 192.168.1.2 public
- C. snmp-server enable traps isdnsnmp-server host 192.168.1.2 public

D. snmp-server enable trapssnmp-server host 192.168.1.2 public

**Answer:** D

**NEW QUESTION 134**

Refer to the exhibit.



Router R1 is configured with class map CE with match Ip precedence critical to align with customer contract SLAs. The customer is sending all traffic from CE1 toward the FTP server with IP precedence 5 A network engineer must allow 10% of interface capacity on router R3 Which two actions must the engineer take to accomplish the task? (Choose two )

- A. Implement a class map on R1 to match all packets with QoS IP precedence value 100.
- B. Implement a class map on R3 to match all packets with QoS IP precedence value 101.
- C. Apply a policy map to R1 to reserve the remaining 10% of interface bandwidth.
- D. Apply a policy map to R3 to reserve 10% of interface bandwidth.
- E. Implement a class map on R3 to match all packets with QoS IP precedence.

**Answer:** BD

**NEW QUESTION 136**

What is the primary role of a BR router in a 6rd environment?

- A. It provides connectivity between end devices and the IPv4 network.
- B. It embeds the IPv4 address in the 2002::/16 prefix.
- C. It connects the CE routers with the IPv6 network.
- D. It provides IPv4-in-IPv6 encapsulation

**Answer:** C

**NEW QUESTION 139**

Which BGP attribute is used first when determining the best path?

- A. origin
- B. AS path
- C. local preference
- D. weight

**Answer:** D

**NEW QUESTION 140**

Refer to the exhibit.

```

GET https://192.168.201.10/api/class/aaaUser.json?
query-target-filter=eq(aaaUser.lastName, "CiscoTest")
    
```

An engineer configured several network devices to run REST APIs. After testing, the organization plans to use REST APIs throughout the network to manage the network more efficiently. What is the effect if this script?

- A. It returns an AAA users with the last name CiscoTest.
- B. It creates a class map named aaauser with traffic tagged from AAA.
- C. It queries the local database to find a user named aaaUser.Json
- D. It adds the user CiscoTest to the AAA database located at 192.168.201.10.

**Answer:** A

**NEW QUESTION 142**

A network operator with an employee ID 4531 26:504 must implement a PIM-SSM multicast configuration on the customer's network so that users in different domains are able to access and stream live traffic. The IGMP version must be enabled to support the SSM implementation. Which action must the engineer perform on R1 to complete the SSM implementation?

- R1(config)# ip multicast-routing  
R1(config)# ip pim ssm default  
R1(config)# interface ethernet 1/0  
R1(config-if)# ip pim sparse-mode  
R1(config-if)# ip igmp version 3
- R1(config)# ip routing multicast  
R1(config)# ip pim ssm range 1  
R1(config)# ip pim passive  
R1(config)# ip pim dense-mode  
R1(config-if)# ip igmp version 3
- R1(config)# ip pim ssm range 1  
R1(config)# interface ethernet 1/0  
R1(config-if)# ip pim sparse-dense-mode  
R1(config-if)# ip igmp version 2
- R1(config)# ip pim bidir-enable  
R1(config)# ip multicast-routing  
R1(config)# ip pim autorp listener  
R1(config-if)# ip igmp version 2

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: A**

**NEW QUESTION 143**

Drag and drop the functions from the left onto the correct Path Computation Element Protocol roles on the right

calculates paths through the network	<b>Path Computation Element</b> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
keeps TE topology database information	
sends path calculation request	
sends path creation request	
sends path status updates	
	<b>Path Computation Client</b> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Path Computation Element (Calculates paths through the network, keeps TE topology database information, sends path status updates)

Path computation Client (sends path calculation request, sends path creation request)

Path Computation Element (PCE)

Represents a software module (which can be a component or application) that enables the router to compute paths applying a set of constraints between any pair of nodes within the router's TE topology database. PCEs are discovered through IGP.

Path Computation Client (PCC)

Represents a software module running on a router that is capable of sending and receiving path computation requests and responses to and from PCEs. The PCC is typically an LSR (Label Switching Router).

[https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs\\_r5-3/mps/configuration/guide/b-mpls-cg53x-crs](https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r5-3/mps/configuration/guide/b-mpls-cg53x-crs)

**NEW QUESTION 145**

Refer to the exhibit.



An engineer is scripting ACLs to handle traffic on the given network. The engineer must block users on the network between R1 and R2 from leaving the network through R5. but these users must still be able to access all resources within the administrative domain. How must the engineer implement the ACL configuration?

- A. Configure an ACL that permits traffic to any internal address, and apply it to the R5 interfaces to R3 and R4 in the egress direction
- B. Configure a permit any ACL on the R1 interface to R2 in the egress direction, and a deny any ACL on the interface in the ingress direction
- C. Configure an ACL that permits traffic to all internal networks and denies traffic to any external address, and apply it to the R2 interface to R1 in the ingress direction.
- D. Configure an ACL that denies traffic to any internal address and denies traffic to any external address, and apply it to the R5 interfaces to R3 and R4 in the ingress direction

Answer: C

**NEW QUESTION 147**

Refer for the exhibit.

```
import import
from requests import HTTPBasicAuth
auth = HTTPBasicAuth('cisco_device', 'cisco_device')
headers = { 'Accept': 'application/yang-data+json', 'Content-Type': 'application/yang-data+json' }
url = "https://172.168.211.65/restconf/data/Cisco-IOS-XE-native:native/interface/GigabitEthernet=0/1"
payload = ""
{
  "Cisco-IOS-XE-native:GigabitEthernet": {
    "ip": {
      "address": {
        "primary": {
          "address": "10.1.131.112",
          "mask": "255.255.255.252"
        }
      }
    }
  }
}
"""
response = requests.patch(url, verify=False)
print ("Done" + response.status)
```

To optimize network operations, the senior architect created this Python 3.9 script for network automation tasks and to leverage Ansible 4.0 playbooks. Devices In the network support only RFC 2617-based authentication What does the script do?

- A. The script logs in via SSH and configures interface GigabitEthernetO/1 with IP address 10.1.131.112/30.
- B. The script leverages REST API calls and configures Interface GlgabilEthemet0/1 with IP address 10.1.131.112/30.
- C. The script performs a configuration sanity check on the device with IP address 172.168.211.65 via HTTP and returns an alert If the payload field falls to match.
- D. The script parses the JSON response from the router at IP address 172 168.211.65 and checks If the interface GigaWtEthernet0/1 with IP address 10.1.131.112 exists on the router.

Answer: D

**NEW QUESTION 151**

Which OoS model allows hosts to report their QoS needs to the network?

- A. DiffServ
- B. CB-WFQ
- C. IntServ
- D. MQC

Answer: A

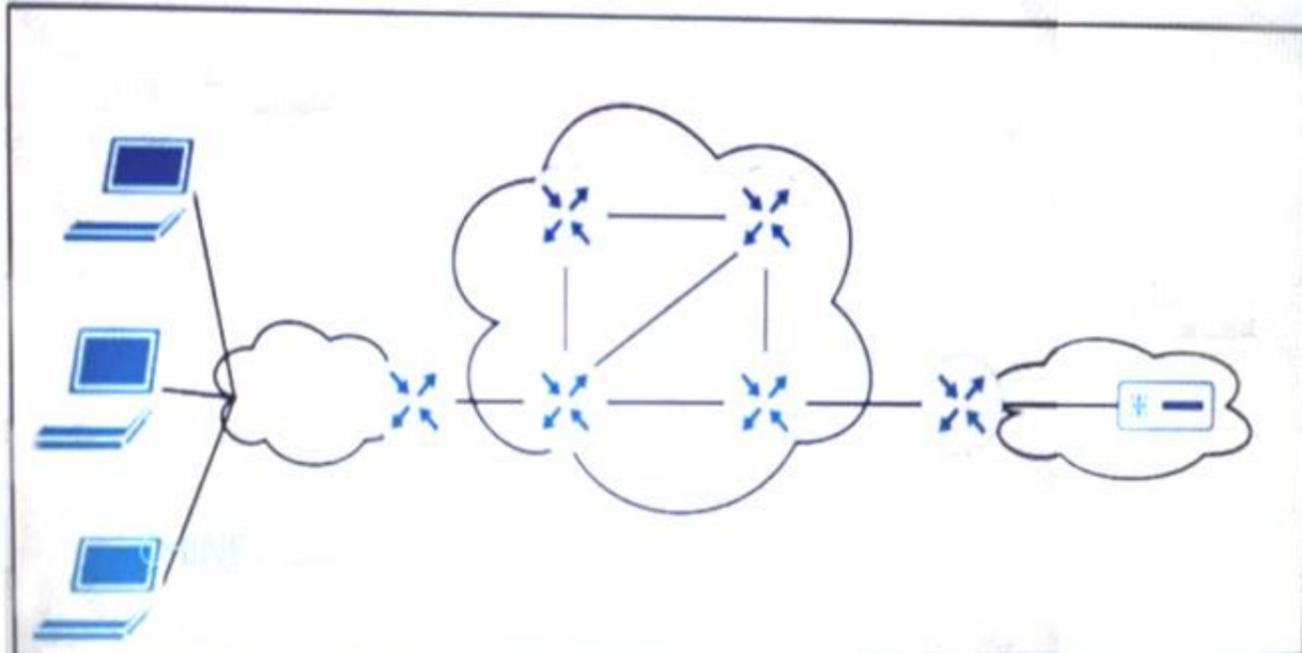
**Explanation:**

Text Description automatically generated with medium confidence

To facilitate true end-to-end QoS on an IP-network, the Internet Engineering Task Force (IETF) has defined two models: Integrated Services (IntServ) and Differentiated Services (DiffServ). IntServ follows the signaled-QoS model, where the end-hosts signal their QoS needs to the network, while DiffServ works on the provisioned-QoS model, where network elements are set up to service

**NEW QUESTION 156**

Refer to the exhibit.



ISP A provides VPLS services and DDoS protection to Company XYZ to connect their branches across the North America and Europe regions. The uplink from the data center to the ISP is Mbps. The company XYZ security team asked the ISP to redirect ICMP requests which are currently going to the web server to a new local security appliance which configuration must an ISPP engineer apply to router R2 to redirect the ICMP traffic?

- A)
 

```
class-map type traffic match-all B_210.10.65.1
match destination-address ipv4 210.10.65.1
match protocol 7
match ipv4 icmp-type 3
```
- B)
 

```
class-map type traffic match-all B_210.10.65.1
match destination-address ipv4 210.10.65.1
match protocol 3
match ipv4 icmp-type 5
```
- C)
 

```
class-map type traffic match-all B_210.10.65.1
match destination-address ipv4 210.10.65.1
match protocol 6
match ipv4 icmp-type 9
```
- D)
 

```
class-map type traffic match-all B_210.10.65.1
match destination-address ipv4 210.10.65.1
match protocol 1
match ipv4 icmp-type 8
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** D

#### NEW QUESTION 159

What is the role of NSO in network automation?

- A. It is GUI used to manage wireless devices in a campus infrastructure.
- B. It is a type of REST API used to configure an APIC.
- C. It is a tool that uses CLI only to configure virtual network devices.
- D. It is a tool used to bridge automation to the physical network infrastructure.

**Answer:** D

#### Explanation:

<https://www.cisco.com/c/en/us/products/collateral/cloud-systems-management/network-services-orchestrator/da>

NSO provides a robust bridge linking network automation and orchestration tools with the underlying physical and virtual infrastructure.

#### NEW QUESTION 162

What is the role of NFVI?

- A. domain name service
- B. intrusion detection
- C. monitor
- D. network address translation

**Answer:** C

#### NEW QUESTION 164

A network engineer must collect traffic statistics for an internal LAN toward the internet. The sample must include the source and destination IP addresses, the destination ports, the total number of bytes from each flow using a 64-bit counter, and all transport flag information. Because of CPU limits, the flow collector processes samples that are a maximum of 20 seconds long. Which two configurations must the network engineer apply to the router? (Choose two.)

- `collect ipv4 tcp protocol`
- `collect ipv4 destination address`
- `collect tcp destination-port`
- `collect application name`
- `collect interface output`
- `collect ipv4 cos`
- `match ipv4 destination`
- `match ipv4 port`
- `match counter packets`
- `match flow direction`
- `match transport tcp-flags`
- `match ipv4 protocol`
- `match ipv4 source address`
- `match ipv4 destination address`
- `match transport destination-port`
- `match interface output`
- `collect ipv4 source mask`
- `collect ipv4 source prefix`
- `collect ipv4 destination prefix`
- `collect ipv4 destination mask`
- `collect transport tcp destination-port`
- `collect counter bytes long`
- `collect flow direction`
- `collect transport tcp flags`

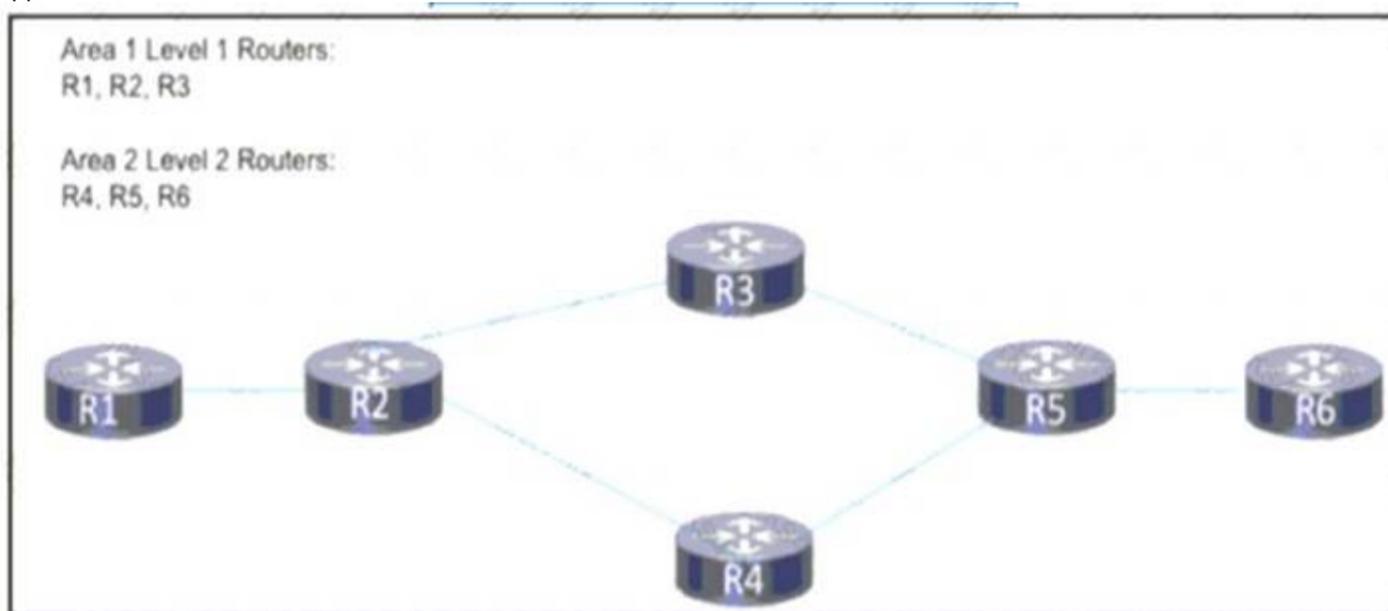
- collect ipv4 protocol
  - collect ipv4 source address
  - collect ipv4 destination address
  - collect application name
  - collect interface output
  - match ipv4 source-prefix
  - match ipv4 destination-prefix
  - match counter bytes
  - match flow direction
  - match transport tcp-flags
- cache-period timer active 20
  - data export timeout 2
- cache timeout active 20
  - template data timeout 120

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

**Answer:** BE

**NEW QUESTION 168**

Refer to the exhibit A network engineer is in the process of implementing IS-IS Area 1 and Area 2 on this network to segregate traffic between different segments of the network The hosts in the two new areas must maintain the ability to communicate with one another In both directions. Which additional change must be applied?



- A. Reconfigure either R3 or R4 as a Level 1/Level 2 router.
- B. Reconfigure routers R1, R2 R5. and R6 as Level 1/Level 2 routers.
- C. Reconfigure routers R2 and R5 as Level 1/Level 2 routers.
- D. Reconfigure routers R4, R5 and R6 as Level 1 routers

**Answer:** A

**NEW QUESTION 172**

What do Chef and Puppet have in common?

- A. use Ruby
- B. use a master server
- C. require modules to be created from scratch
- D. manage agents referred to as minions

**Answer:** B

**NEW QUESTION 173**

Which CLI mode must be used to configure the BGP keychain in Cisco IOS XR software?

- A. global configuration mode
- B. routing configuration mode
- C. BGP neighbor configuration
- D. mode BGP address-family configuration mode

**Answer:** A

#### NEW QUESTION 174

An engineer working for a telecommunication company with an employee ID: 4460:35:466 must configure an OSPF router in a multivendor network so that it performs NSF in the event of a route processor switchover. Which configuration must the engineer apply?

- A. router ospf 1 nsf Cisco
- B. router ospf 1 nsf ietf
- C. router ospf 1 nsf ietf helper
- D. router ospf 1 nsf Cisco helper

**Answer:** B

#### NEW QUESTION 178

A customer has requested that the service provider use a Cisco MPLS TE tunnel to force the E-line service to take a specific route. What is used to send the traffic over the tunnel?

- A. static route
- B. preferred path
- C. forwarding adjacency
- D. autoroute destination

**Answer:** B

#### Explanation:

[https://www.cisco.com/c/en/us/td/docs/ios/12\\_2sr/12\\_2sra/feature/guide/srtunsel.html#wp1057815](https://www.cisco.com/c/en/us/td/docs/ios/12_2sr/12_2sra/feature/guide/srtunsel.html#wp1057815)

#### NEW QUESTION 181

Refer to the exhibit:

```
R1
ip cef distributed
mpls ldp graceful-restart
interface GigabitEthernet 0/0/1
 mpls ip
 mpls label protocol ldp
```

Which effect of this configuration is true?

- A. R1 can support a peer that is configured for LDP SSO/NSF as the peer recovers from an outage
- B. R1 can failover only to a peer that is configured for LDP SSO/NSF
- C. R1 can failover to any peer
- D. R1 can support a graceful restart operation on the peer, even if graceful restart is disabled on the peer

**Answer:** B

#### NEW QUESTION 183

What causes multicast traffic to permanently stay on the shared tree and not switch to the source tree?

- A. The SPT threshold is set to infinity.
- B. The RP IP address is configured incorrectly.
- C. The RP announcements are being filtered.
- D. SSM range is being used.

**Answer:** C

#### Explanation:

Network administrators can force traffic to stay on the shared tree by using the Cisco IOS `ip pim spt-threshold infinity` command.

[https://www.cisco.com/c/en/us/td/docs/ios/solutions\\_docs/ip\\_multicast/White\\_papers/mcst\\_ovr.html](https://www.cisco.com/c/en/us/td/docs/ios/solutions_docs/ip_multicast/White_papers/mcst_ovr.html)

#### NEW QUESTION 187

The engineering team at a large ISP has been alerted a customer network is experiencing high traffic congestion. After a discussion between the ISP and technical personnel at the customer site, the team agrees that traffic to the customer network that exceeds a specific threshold will be dropped. Which task must the engineer perform on the network to implement traffic policing changes?

- A. Configure RSVP to reserve bandwidth on all interfaces when a path is congested.
- B. Enable Cisco Discovery Protocol on the interface sending the packets.
- C. Enable Cisco Express Forwarding on the interfaces sending and receiving the packets.

D. Set IP precedence values to take effect when traffic exceeds a given threshold.

**Answer: D**

**NEW QUESTION 189**

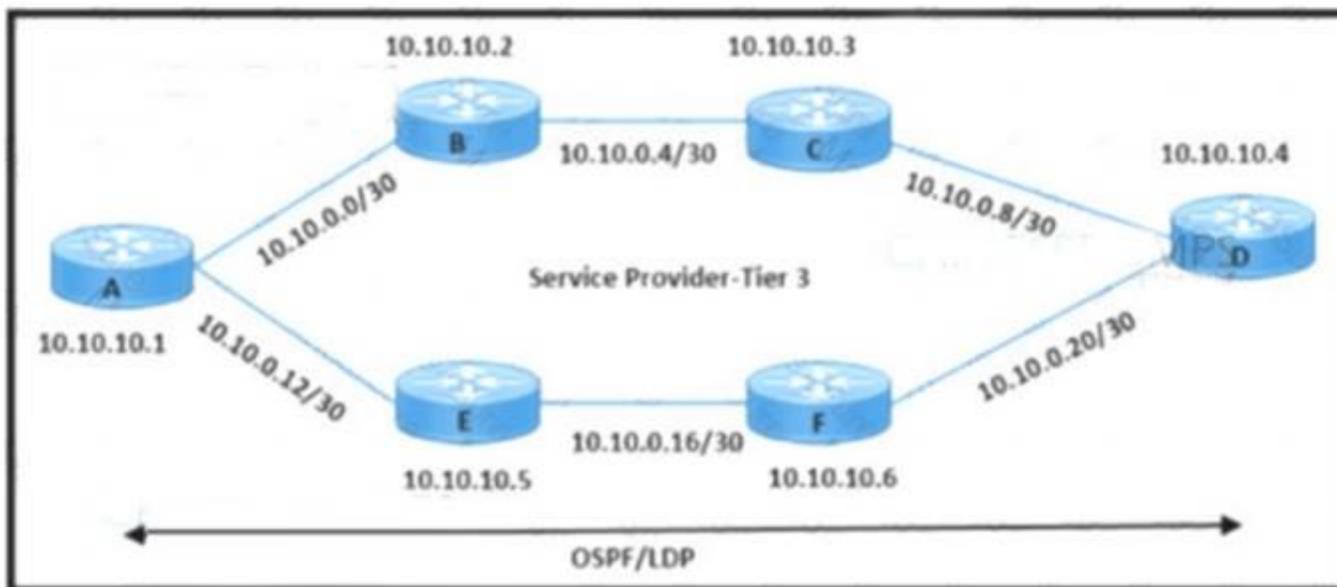
The NOC team must update the BGP forwarding configuration on the network with these requirements: BGP peers must establish a neighborhood with NSF capability and restart the session for the capability to be exchanged after 120 seconds. BGP peers must delete routes after 360 seconds of inactivity. Which action meets these requirements?

- A. Set the BGP restart-time to 120 seconds and the BGP ha-mode sso to 360 seconds.
- B. Set the stalepath-time to 120 seconds and the BGP restart-time to 360 seconds.
- C. Set the BGP ha-mode sso to 120 seconds and the BGP restart-time to 360 seconds.
- D. Set the BGP restart-time to 120 seconds and the stalepath-time to 360 seconds.

**Answer: D**

**NEW QUESTION 190**

Refer to the exhibit.



An engineering team must update the network configuration so that data traffic from router A to router D continues in case of a network outage between routers B and C. During a recent outage on the B-C link, the IGP traffic path was switched to the alternate path via routers E and F, but label forwarding did not occur on the new path. Which action ensures that traffic on the end-to-end path continues?

- A. Configure the same hello timer values for IGP and LDP
- B. Bind the BFD protocol with IGP on all routers
- C. Enable LDP Session Protection on routers A and D.
- D. Enable MPLS LDP IGP Synchronization on all routers

**Answer: D**

**NEW QUESTION 194**

Refer to the exhibit:

<https://192.168.1.100/api/mo/uni/tn-ciscotest.xml>

What is the URL used for with REST API?

- A. It is used to contact a URL filter to determine the efficacy of a web address
- B. It is used to send a TACACS+ authentication request to a server
- C. It is used to send a message to the APIC to perform an operation on a managed object or class operator
- D. It is used to initiate an FTP session to save a running configuration of a device.

**Answer: C**

**NEW QUESTION 198**

A regional MPLS VPN provider operates in two regions and wants to provide MPLS L3VPN service for a customer with two sites in these separate locations. The VPN provider approaches another organization to provide backbone carrier services so that the provider can connect to these two locations. Which statement about this scenario is true?

- A. When edge routers at different regional sites are connected over the global carrier backbone, MP-eBGP must run between the routers to exchange the customer VPNv4 routes
- B. When eBGP is used for label exchange using the send label option, MPLS-BGP forwarding is configured under the global ABC CSC PE-to-CE interface
- C. When IGP is used for route exchange and LDP for label exchange, MPLS is enabled only on the VRF interface on the backbone-earner PE side.
- D. When BGP is used for both route and label exchange, the neighbor a.b.c.d send-label command is used under the address family VPNv4 command mode.

**Answer: B**

**NEW QUESTION 200**

Refer to the exhibits:

```
Apr 30 14:33:43.619: %CLNS-4-AUTH_FAIL: ISIS: LAN IIH authentication failed".
```

```
R1#show isis neighbors
```

```
Tag TEST:
```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
R2	L2	Fa0/0	UP 9			R2.01

```
R2#show isis neighbors
```

```
Tag TEST:
```

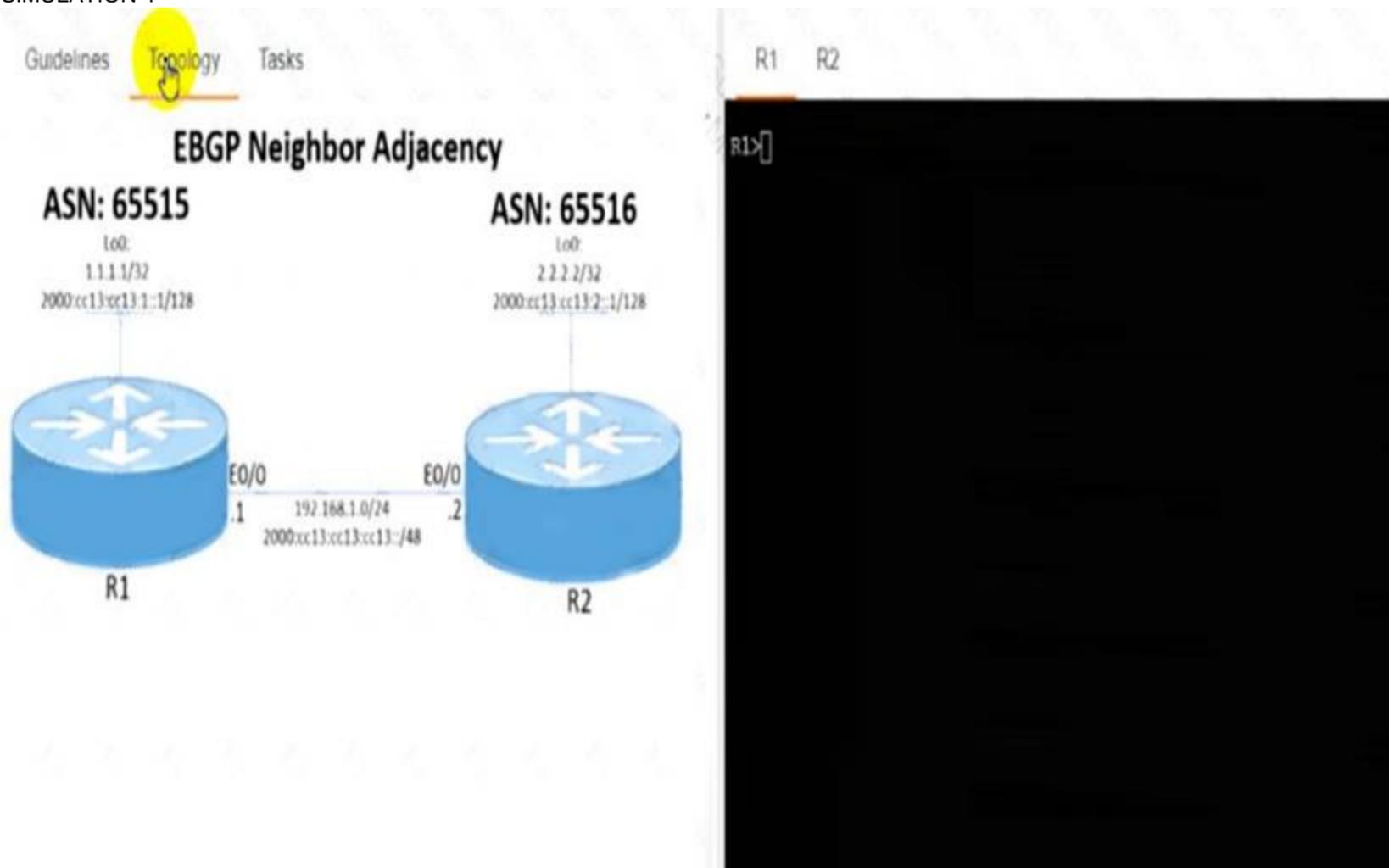
System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
R2	L1	Fa0/0	INIT 22			R2.01
R2	L2	Fa0/0	UP 24			R2.01

R1 and R2 are directly connected and IS-IS routing has been enabled between R1 and R2 R1 message periodically Based on this output, which statement is true?

- A. IS-IS neighbor authentication is failing for Level 2 first and then for Level 1 PDUs
- B. IS-IS neighbor authentication is failing for Level 1 and Level 2 PDUs .
- C. IS-IS neighbor authentication is failing for Level 1 PDUs only
- D. IS-IS neighbor authentication is failing for Level 2 PDUs only.

Answer: C

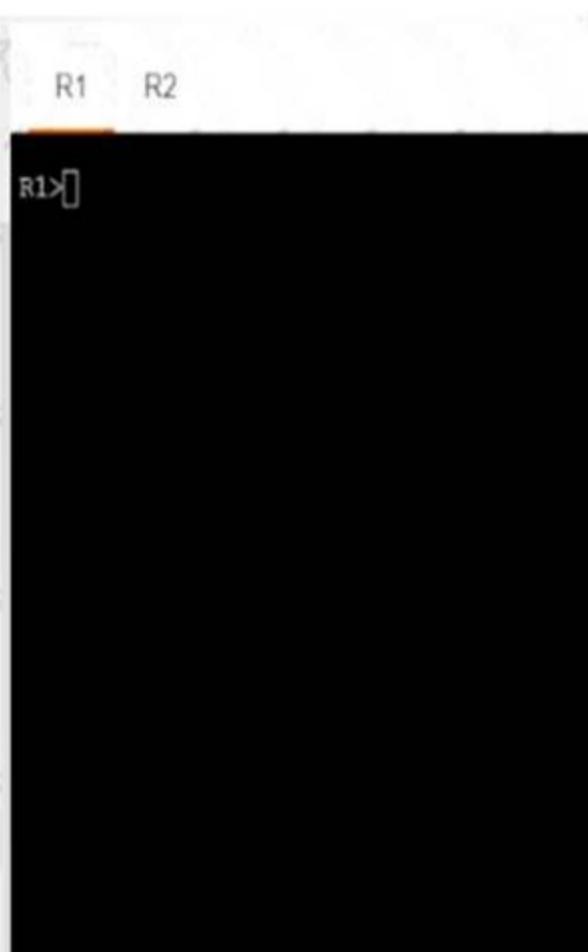
**NEW QUESTION 202**  
SIMULATION 4



Guidelines
Topology
Tasks

Configure the BGP routing protocol for R1 and R2 according to the topology to achieve these goals:

1. Configure EBGP neighbor adjacency for the IPv4 and IPv6 address family between R1 and R2 using Loopback0 IPv4 and IPv6 addresses. All BGP updates must come from the Loopback0 interface as the source. Do not use IGP routing protocols to complete this task.
2. Configure MD5 Authentication for the EBGP adjacency between R1 and R2. The password is clear text **C1sc0!**.



- A. Mastered
- B. Not Mastered

**Answer:** A

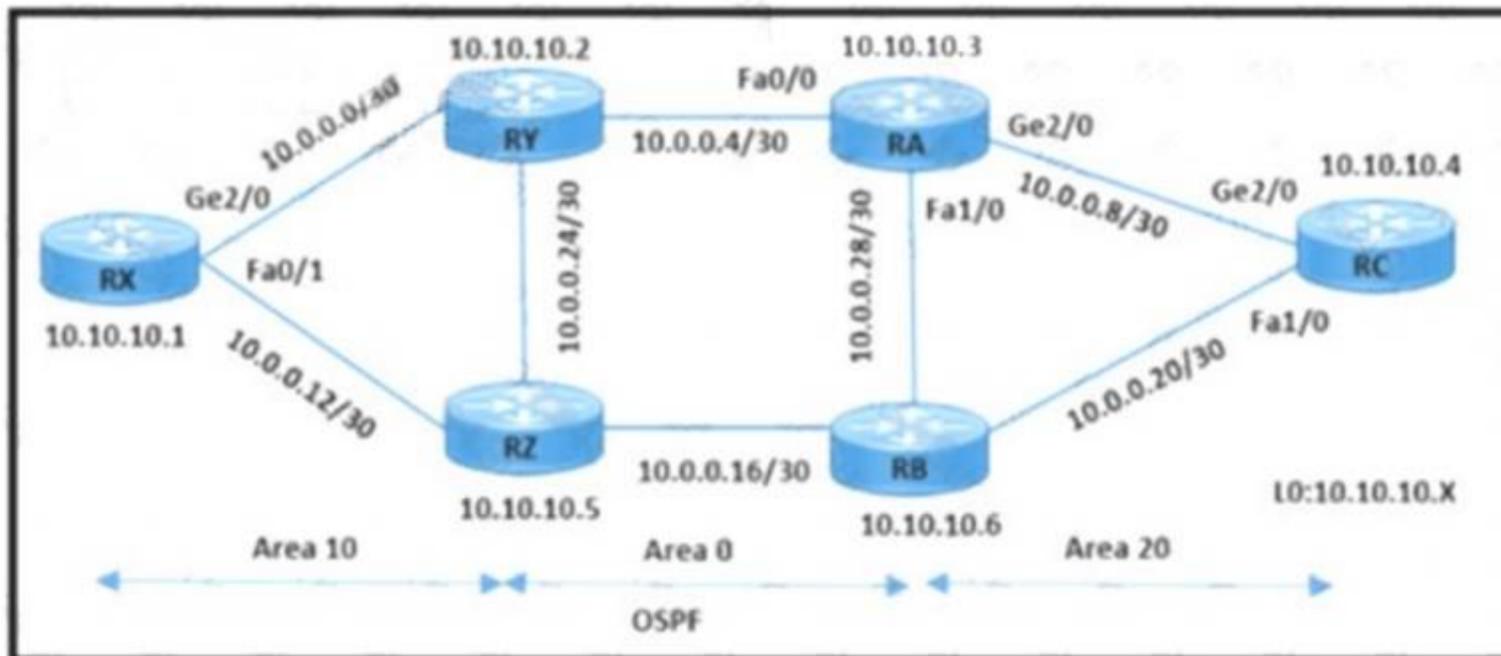
**Explanation:**

```

R1
Router bgp 65515
No bgp default ipv4-unicast Neig 2.2.2.2 remote-as 65516
Nei 2.2.2.2 update-soc loopback0 Nei 2.2.2.2 ebgp-multihop 2 Neig 2.2.2.2 pass C1sc0!
Nei 2000:cc13:cc13:2::1 remote-as 65516 Nei 2000:cc13:cc13:2::1 update-so loopback0 Nei 2000:cc13:cc13:2::1 pass C1sc0!
Nei 2000:cc13:cc13:2::1 ebgp-multihop 2 Address-family ipv4
Neig 2.2.2.2 activate Address-family ipv6
Nei 2000:cc13:cc13:2::1 activate
Ip route 2.2.2.2 255.255.255.255 192.168.1.2
Ipv6 route 2000:cc13:cc13:2::1/128 2000:cc13:cc13:cc13:2 R2
Router bgp 65516
No bgp default ipv4-unicast Neig 1.1.1.1 remote-as 65515
Nei 1.1.1.1 update-soc loopback0 Nei 1.1.1.1 pass C1sc0!
Nei 1.1.1.1 ebgp-multihop 2
Nei 2000:cc13:cc13:1::1 remote-as 65515 Nei 2000:cc13:cc13:1::1 update-so loopback0 Nei 2000:cc13:cc13:1::1 pass C1sc0!
Nei 2000:cc13:cc13:1::1 ebgp-multihop 2 Address-family ipv4
Neig 1.1.1.1 activate Address-family ipv6
Nei 2000:cc13:cc13:1::1 activate
Ip route 1.1.1.1 255.255.255.255 192.168.1.1
Ipv6 route 2000:cc13:cc13:1::1/128 2000:cc13:cc13:cc13:1
    
```

**NEW QUESTION 207**

Refer to the exhibit.



```

RC#show ip cef
Prefix          Next Hop          Interface
10.0.0.0/30     10.0.0.9          GigabitEthernet2/0
10.0.0.4/30     10.0.0.9          GigabitEthernet2/0
10.0.0.8/30     attached          GigabitEthernet2/0
10.0.0.8/32     receive           GigabitEthernet2/0
10.0.0.9/32     attached          GigabitEthernet2/0
10.0.0.10/32    receive           GigabitEthernet2/0
10.0.0.11/32    receive           GigabitEthernet2/0
10.0.0.16/30    10.0.0.9          GigabitEthernet2/0

RA#
*Mar 29 05:11:36.215: ldp: Rcvd ldp hello: FastEthernet1/0, from 10.0.0.29 (10.10.10.6:0), intf_id 0, opt 0xc
*Mar 29 05:11:37.131: ldp: Send ldp hello: FastEthernet1/0, src/dst 10.0.0.30/224.0.0.2, inst_id 0
RA#
*Mar 29 05:11:37.555: ldp: Send ldp hello: GigabitEthernet2/0, src/dst 10.0.0.9/224.0.0.2, inst_id 0
RA#
*Mar 29 05:11:38.827: ldp: Rcvd ldp hello: FastEthernet0/0, from 10.0.0.5 (10.10.10.2:0), intf_id 0, opt 0xc
*Mar 29 05:11:39.075: ldp: Send ldp hello: FastEthernet0/0, src/dst 10.0.0.6/224.0.0.2, inst_id 0
*Mar 29 05:11:39.731: ldp: Ignore rcvd dir hello to 10.10.10.3 from 10.10.10.6, FastEthernet1/0: no dchcb
RA#
*Mar 29 05:11:40.487: ldp: Rcvd ldp hello: FastEthernet1/0, from 10.0.0.29 (10.10.10.6:0), intf_id 0, opt 0xc
*Mar 29 05:11:40.927: ldp: Send ldp hello: FastEthernet1/0, src/dst 10.0.0.30/224.0.0.2, inst_id 0
*Mar 29 05:11:40.979: ldp: Data received
RA#
    
```

The operations team is implementing an LDP-based configuration in the service-provider core network with these requirements:

- > RC must establish LDP peering with the loopback IP address as its Router ID
- > RA must establish LDP peering with RB, RC, and RY.

How must the team update the network configuration to successfully enable LDP peering between RA and RC?

- A. Enable the mpls ip command on RC interface Gi2/0. DUMPS
- B. Configure the mpls ldp router-id loopback0 command on RA and RC.
- C. Implement LDP session protection on RA.
- D. DUMPS Reset the discover hello hold time and interval to their default values.

**Answer: B**

**NEW QUESTION 208**

Which set of facts must the network architect consider when deciding whether to implement SaltStack or Chef?

- A. Chef is an agent-based on Ruby, and SaltStack is a module tool based on Python.
- B. Chef refers to its automation instructions as manifests, and SaltStack refers to its instructions as a playbook.
- C. Chef is written in Python, and SaltStack is written in Ruby.
- D. Chef uses a message-based system, and SaltStack uses an agent to deliver messages

**Answer: A**

**NEW QUESTION 211**

When Cisco IOS XE REST API uses HTTP request methods what is the purpose of a PUT request?

- A. retrieves the specified resource or representation
- B. submits data to be processed to the specified resource
- C. updates the specified resource with new information
- D. creates a new resource

**Answer: C**

**Explanation:**

**PUT** Updates the specified resource with new information. The data that is included in the PUT operation replaces the previous data.

- The PUT operation is used to replace or modify an existing resource. The PUT operation cannot be used to create a new resource.
- The request body of a PUT operation must contain the complete representation of the mandatory attributes of the resource.

**NEW QUESTION 214**

Which two tasks must an engineer perform when implementing LDP NSF on the network? (Choose two.)

- A. Disable Cisco Express Forwarding.
- B. Enable NSF for EIGRP.
- C. Enable NSF for the link-state routing protocol that is in use on the network.
- D. Implement direct connections for LDP peers.
- E. Enable NSF for BGP.

**Answer:** CE

**Explanation:**

LDP NSF works with LDP sessions between directly connected peers and with peers that are not directly connected (targeted sessions).  
[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_ha/configuration/15-sy/mp-ha-15-sy-book/mp-ldp-grace](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ha/configuration/15-sy/mp-ha-15-sy-book/mp-ldp-grace)

**NEW QUESTION 219**

What is one of the differences between Ansible and Chef?

- A. Ansible uses YAML and Chef uses Ruby.
- B. Chef requires the use of Windows in the environment and Ansible requires Linux.
- C. Chef is highly scalable and Ansible is highly secure.
- D. Ansible uses Ruby and Chef uses Python.

**Answer:** A

**NEW QUESTION 222**

Drag and drop the functions from the left onto the Path Computation Element Protocol roles on the right.

calculates paths through the network	<b>Path Computation Element</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px;"></div>
keeps TE topology database information	
sends path calculation request	
sends path creation request	
sends path status updates	
	<b>Path Computation Client</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px;"></div>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

PCE – 1,2,5  
 PCC- 3,4

**NEW QUESTION 226**

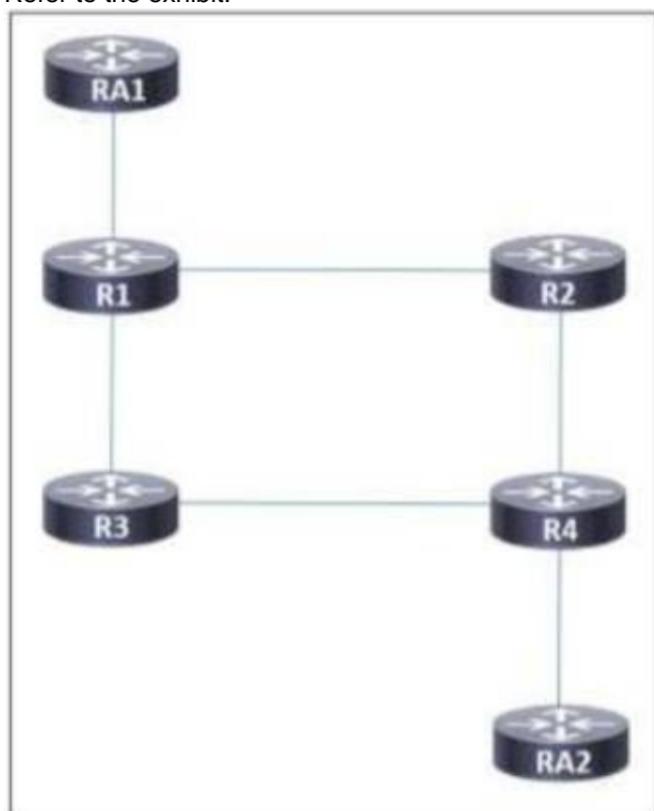
Which configuration mode do you use to apply the mpls ldp graceful-restart command in IOS XE Software? MPLS

- A. MPLS
- B. LDP neighbor
- C. global
- D. interface

**Answer:** C

**NEW QUESTION 231**

Refer to the exhibit.



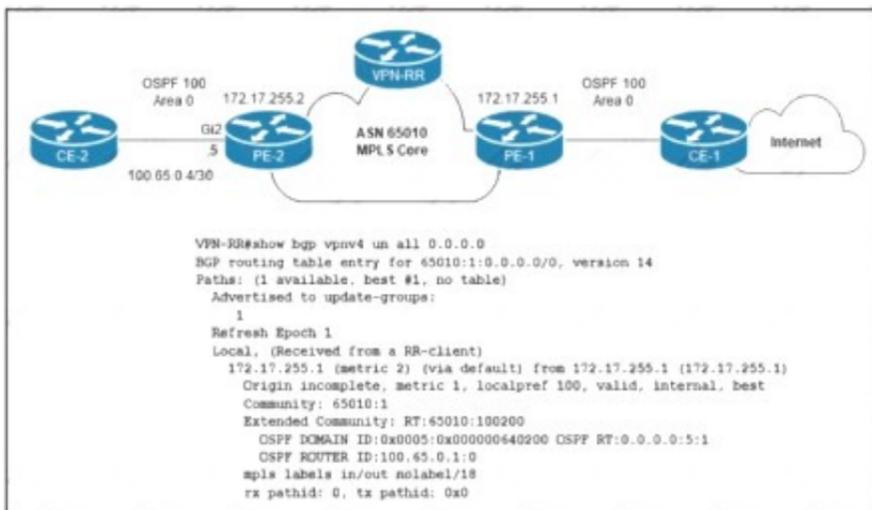
A network administrator implemented MPLS routing between routers R1, R2, R3, and R4. AToM is configured between R1 and R4 to allow Layer 2 traffic from hosts on RA1 and RA2. A targeted MPLS session is established between R1 and R4. Which additional action must the administrator take on all routers so that LDP synchronization occurs between connected LDP sessions?

- A. Disable the MPLS LDP IGP sync holddown.
- B. Configure OSPF or IS-IS as the routing protocol.
- C. Configure EIGRP as the routing protocol using stub areas only.
- D. Enable MPLS LDP sync delay timers.

**Answer: A**

**NEW QUESTION 235**

Refer to the exhibit.



The network engineer who manages ASN 65010 is provisioning a customer VRF named CUSTOMER-ABC on PE-2. The PE-CE routing protocol is OSPF Internet reachability is available via the OSPF 0 0 0.0/0 route advertised by CE-1 to PE-1. In the customer VRF Which configuration must the network engineer Implement on PE-2 so that CE-2 has connectivity to the Internet?

A)

```

vrf definition CUSTOMER-ABC
rd 65010:1
address-family ipv4
route-target both 65010:1
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
default-information originate
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external
    
```

B)

```
vrf definition CUSTOMER-ABC
rd 65010:2
address-family ipv4
route-target both 65010:100200
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external
```

C)

```
vrf definition CUSTOMER-ABC
rd 65010:1
address-family ipv4
route-target both 65010:100200
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
default-information originate
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external
```

D)

```
vrf definition CUSTOMER-ABC
rd 65010:2
address-family ipv4
route-target both 65010:1
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

#### NEW QUESTION 236

Refer to the exhibit.

```
line vty 0 4
  access-class 100 in
  transport input ssh
  login local
line vty 5 15
  access-class 100 in
  transport input ssh
  login local
```

An engineer has started to configure a router for secure remote access as shown. All users who require network access need to be authenticated by the SSH Protocol. Which two actions must the engineer implement to complete the SSH configuration? (Choose two.)

- A. Configure an IP domain name.
- B. Configure service password encryption.
- C. Configure crypto keys
- D. Configure ACL 100 to permit access to port 22.
- E. Configure a password under the vty lines.



```
Notification host: 192.168.101.1 udp-port: 162 type: trap
user: community1 security model: v1
```

Over the last few months, ISP A has doubled its user base. The IT Director asked the engineering team to monitor memory consumption and buffer statistics on all P and PE devices in the MPLS core. Most devices have CPU usage of 70% or more, so the solution must be targeted and secure. Which two commands must the engineering team implement on P and PE devices to meet these requirements? (Choose two.)

- A. snmp-server host 192.168.101.1 version 3 auth community1 memory
- B. snmp-server enable traps memory bufferpeak
- C. snmp-server host 192.168.101.1 version 2c community1 memory
- D. snmp-server host 192.168.101.1 version 1 community1 auth memory
- E. snmp-server enable snmp-traps community1 bufferpeak

**Answer:** AB

#### NEW QUESTION 254

ASN 65001 is peering with ASN 65002 to exchange IPv6 BGP routes. All routes that originate in ASN 65001 have a standard community value of 65001:100, and ASN 65002 is allowed to advertise only 2001:db8:aaaa::/48. An engineer needs to update the ASN 65001 route-filtering configuration to meet these conditions:

\* Looped routes into ASN 65001 and routes that have traversed 10 or more ASNs must be denied.

\* Routes accepted into ASN 65001 must be assigned a community value of 65001:200.

Which configuration must the engineer apply to the ASN 65001 border router?

- route-policy PEER-AS65002-IN
 

```
> if as-path length ge 10 or as-path passes-through '65001' or community matches-any (65001:100) then
  drop
endif
if destination in (2001:db8:aaaa::/48) then
  done
else
  drop
endif
set community (65001:200)
end-policy
```
- route-policy PEER-AS65002-IN
 

```
if as-path length ge 10 and as-path passes-through '65001' or community matches-any (65001:100) then
  drop
endif
if destination in (2001:db8:aaaa::/48) then
  pass
endif
set community (65001:200)
end-policy
```
- route-policy PEER-AS65002-IN
 

```
if as-path length ge 10 then
  drop
endif
if as-path passes-through '65001' or community matches-any (65001:100) then
  drop
endif
if destination in (2001:db8:aaaa::/48) then
  pass
endif
set community (65001:200)
end-policy
```
- route-policy PEER-AS65002-IN
 

```
if as-path length ge 10 then
  drop
endif
if as-path passes-through '65001' or community matches-any (65001:100) then
  drop
endif
if destination in (2001:db8:aaaa::/48) then
  set community (65001:200)
endif
```

```

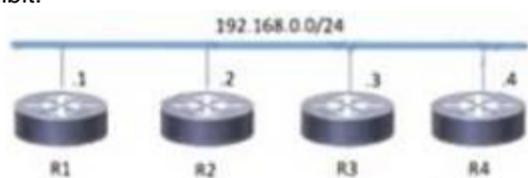
route-policy PEER-AS65002-IN
  if as-path length ge 10 then
    drop
  endif
  if as-path passes-through '65001' or community matches-any (65001:100) then
    drop
  endif
  if destination in (2001:db8:aaaa::/48) then
    set community (65001:200)
  else
    drop
  endif
end-policy
    
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

**Answer:** D

**NEW QUESTION 255**

Refer to the exhibit.



<pre> R1 router isis   net 52.0011.0000.0000.0001.00  interface gigabitethernet0/1   ip address 192.168.0.1   255.255.255.0   ip router isis                     </pre>	<pre> R3 router isis   net 52.0022.0000.0000.0003.00  interface gigabitethernet0/1   ip address 192.168.0.3   255.255.255.0   ip router isis                     </pre>
<pre> R2 router isis   net 52.0022.0000.0000.0002.00  interface gigabitethernet0/1   ip address 192.168.0.2   255.255.255.0   ip router isis                     </pre>	<pre> R4 router isis   net 52.0011.0000.0000.0004.00  interface gigabitethernet0/1   ip address 192.168.0.4   255.255.255.0   ip router isis                     </pre>

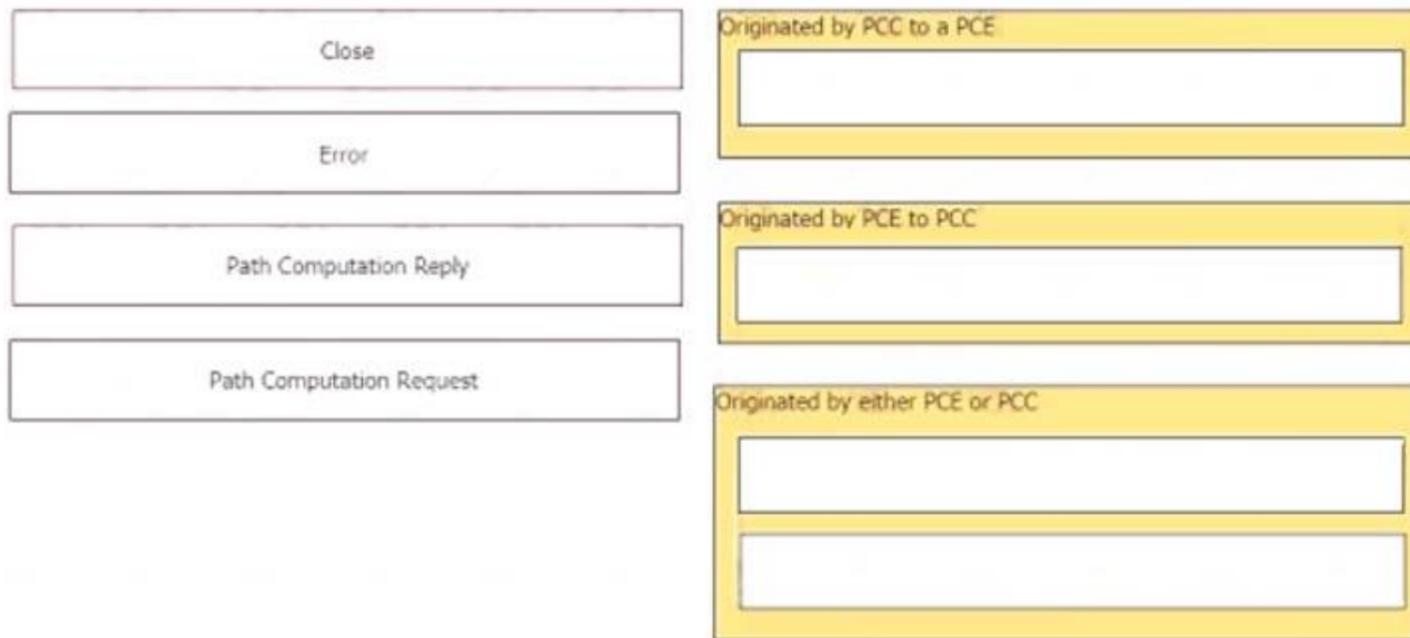
Which two topology changes happen to the IS-IS routers? (Choose two.)

- A. All four routers are operating as Level 1 routers only.
- B. All four routers are operating as Level 2 routers only.
- C. R1 and R4 are Level 2 neighbours.
- D. R1 and R2 are Level 2 neighbours.
- E. All four routers are operating as Level 1-2 routers.

**Answer:** DE

**NEW QUESTION 259**

Drag and drop the message types from the left onto the target field of the message originator on the right.



- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**



**NEW QUESTION 264**

Which utility must be used to locate MPLS faults?

- A. QoS
- B. MPLS LSP ping
- C. MPLStraceroute
- D. EEM

**Answer: C**

**NEW QUESTION 268**

Refer to the exhibit:

```
PE-A#config t
PE-A(config)#class-map VOIP
PE-A(config-cmap)#match precedence 5
PE-A(config-cmap)#policy-map MARK-TRAFFIC
PE-A(config-pmap)#class VOIP
```

Which command is used to complete this configuration for QoS class-based marking?

- A. PE-A(config-pmap-c)#set dscp ef
- B. PE-A(config-pmap-c)#fair-queue
- C. PE-A(config-pmap-c)#random-detect
- D. PE-A(config -pmap-c)#priority

**Answer: A**

**NEW QUESTION 269**

How do intent APIs make it easier for network engineers to deploy and manage networks?

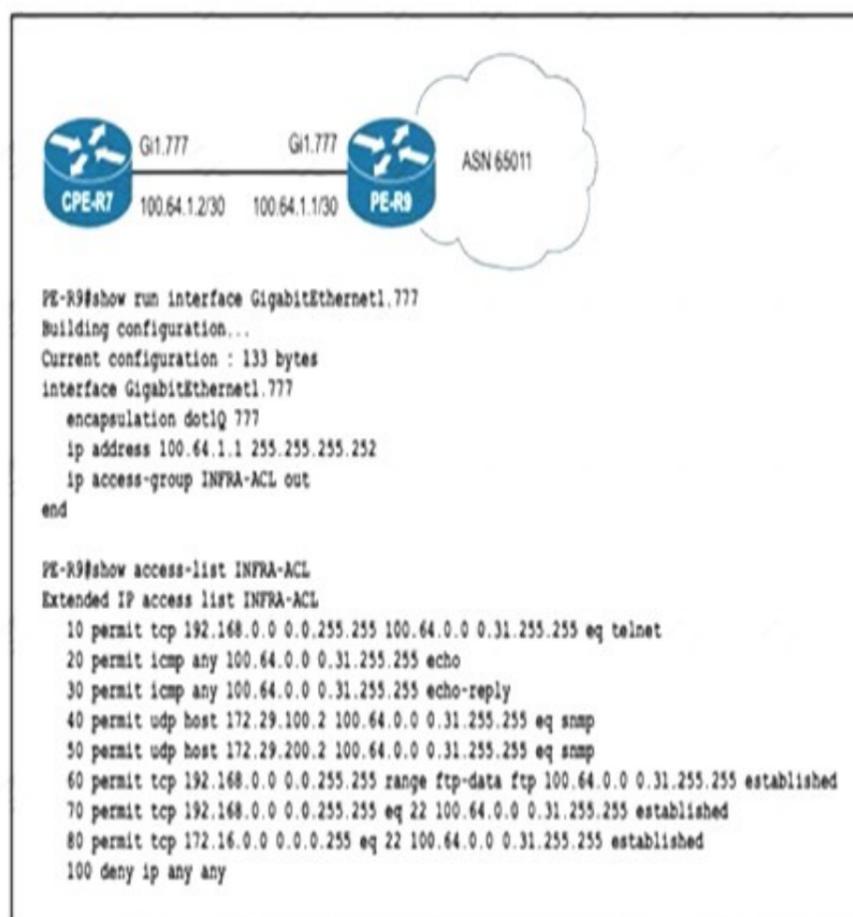
- They allow the engineer to use a single interface as the entry point for control access to the entire device.
- They pull stored SNMP data from a single network location to multiple monitoring tools.
- They extend the Layer 2 infrastructure and reduce the necessary number of virtual connections to Layer 3 devices.
- They streamline repetitive workflows and support more efficient implementation.

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: D**

**NEW QUESTION 272**

Refer to the exhibit.



```

PE-R9#show run interface GigabitEthernet1.777
Building configuration...
Current configuration : 133 bytes
interface GigabitEthernet1.777
 encapsulation dot1q 777
 ip address 100.64.1.1 255.255.255.252
 ip access-group INFRA-ACL out
end

PE-R9#show access-list INFRA-ACL
Extended IP access list INFRA-ACL
 10 permit tcp 192.168.0.0 0.0.255.255 100.64.0.0 0.31.255.255 eq telnet
 20 permit icmp any 100.64.0.0 0.31.255.255 echo
 30 permit icmp any 100.64.0.0 0.31.255.255 echo-reply
 40 permit udp host 172.29.100.2 100.64.0.0 0.31.255.255 eq snmp
 50 permit udp host 172.29.200.2 100.64.0.0 0.31.255.255 eq snmp
 60 permit tcp 192.168.0.0 0.0.255.255 range ftp-data ftp 100.64.0.0 0.31.255.255 established
 70 permit tcp 192.168.0.0 0.0.255.255 eq 22 100.64.0.0 0.31.255.255 established
 80 permit tcp 172.16.0.0 0.0.0.255 eq 22 100.64.0.0 0.31.255.255 established
100 deny ip any any
    
```

To protect in-band management access to CPE-R7, an engineer wants to allow only SSH management and provisioning traffic from management network 192.168.0.0/16. Which infrastructure ACL change must be applied to router PE-R9 to complete this task?

- A)
 

```
ip access-list extended INFRA-ACL
15 permit tcp 192.168.0.0 0.0.255.255 range 49152 65535 100.64.0.0 0.31.255.255 eq 443
```
- B)
 

```
ip access-list extended INFRA-ACL
no 10
15 permit tcp 192.168.0.0 0.0.255.255 eq 22 100.64.0.0 0.31.255.255 eq 22
```
- C)
 

```
ip access-list extended INFRA-ACL
15 permit tcp 192.168.0.0 0.0.255.255 range 49152 65535 100.64.0.0 0.31.255.255 eq 22
```
- D)
 

```
ip access-list extended INFRA-ACL
no 10
15 permit tcp 192.168.0.0 0.0.255.255 range 49152 65535 100.64.0.0 0.31.255.255 eq 22
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

**NEW QUESTION 273**

A network engineer is configuring Flexible NetFlow and enters these commands

sampler NetFlow1  
mode random one-out-of 100

interface fastethernet 1/0  
flow-sampler NetFlow1

What are two results of implementing this feature instead of traditional NetFlow? (Choose two.)

- A. CPU and memory utilization are reduced.
- B. Only the flows of top 100 talkers are exported.
- C. The data export flow is more secure
- D. The number of packets to be analyzed are reduced.
- E. The accuracy of the data to be analyzed is improved.

Answer: AD

**NEW QUESTION 277**

Refer to the exhibit:

```
RP/0/0/CPU0:iosxrv-1#show mpls ldp discovery brief
Sat Apr  2 22:43:11.362 UTC

Local LDP Identifier: 192.168.0.2:0

Discovery Source      VRF Name      Peer LDP Id      Holdtime
Session
-----
--
Gi0/0/1              default       192.168.0.3:0    15        Y
Gi0/0/2              default       192.168.0.4:0    15        Y
Gi0/0/3              default       192.168.0.5:0    15        Y
Tgt:192.168.0.1     default       192.168.0.1:0    90        Y
Tgt:192.168.0.3     default       192.168.0.3:0    90        Y
Tgt:192.168.0.5     default       -                 -         N
```

With which router does IOSXRV-1 have LDP session protection capability enabled but session hold up is not active?

- A. 192.168.0.1
- B. 192.168.0.3
- C. 192.168.0.4
- D. 192.168.0.5

Answer: B

**NEW QUESTION 281**

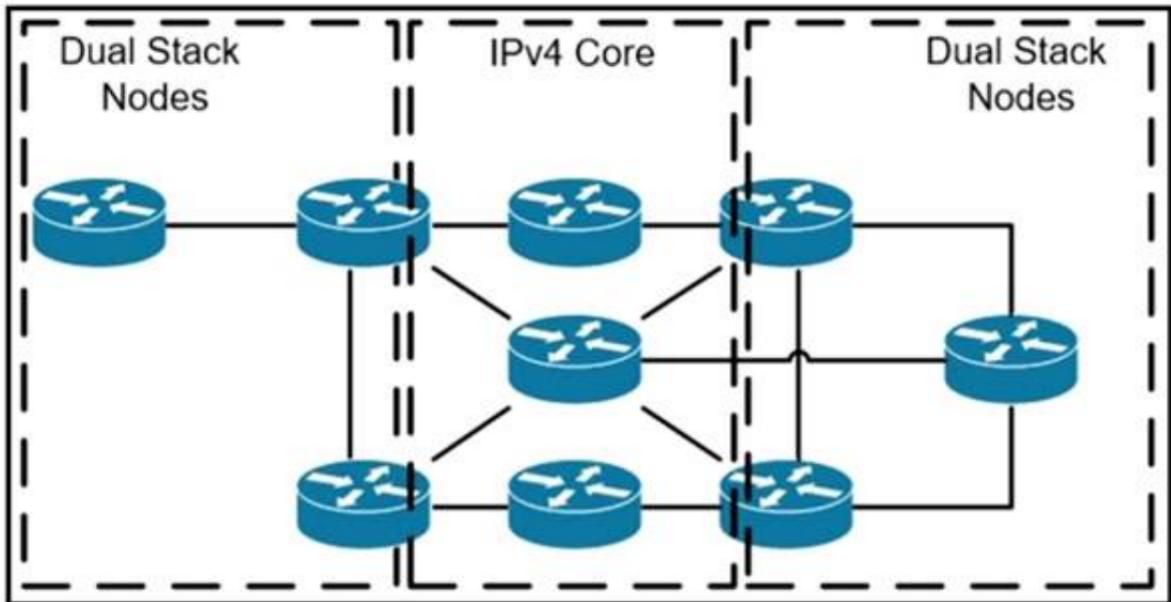
Which two features will be used when defining SR-TE explicit path hops if the devices are using IP unnumbered interfaces? (Choose two.)

- A. router ID
- B. labels
- C. node address
- D. next hop address
- E. output interface

Answer: BC

**NEW QUESTION 286**

Refer to the exhibit.



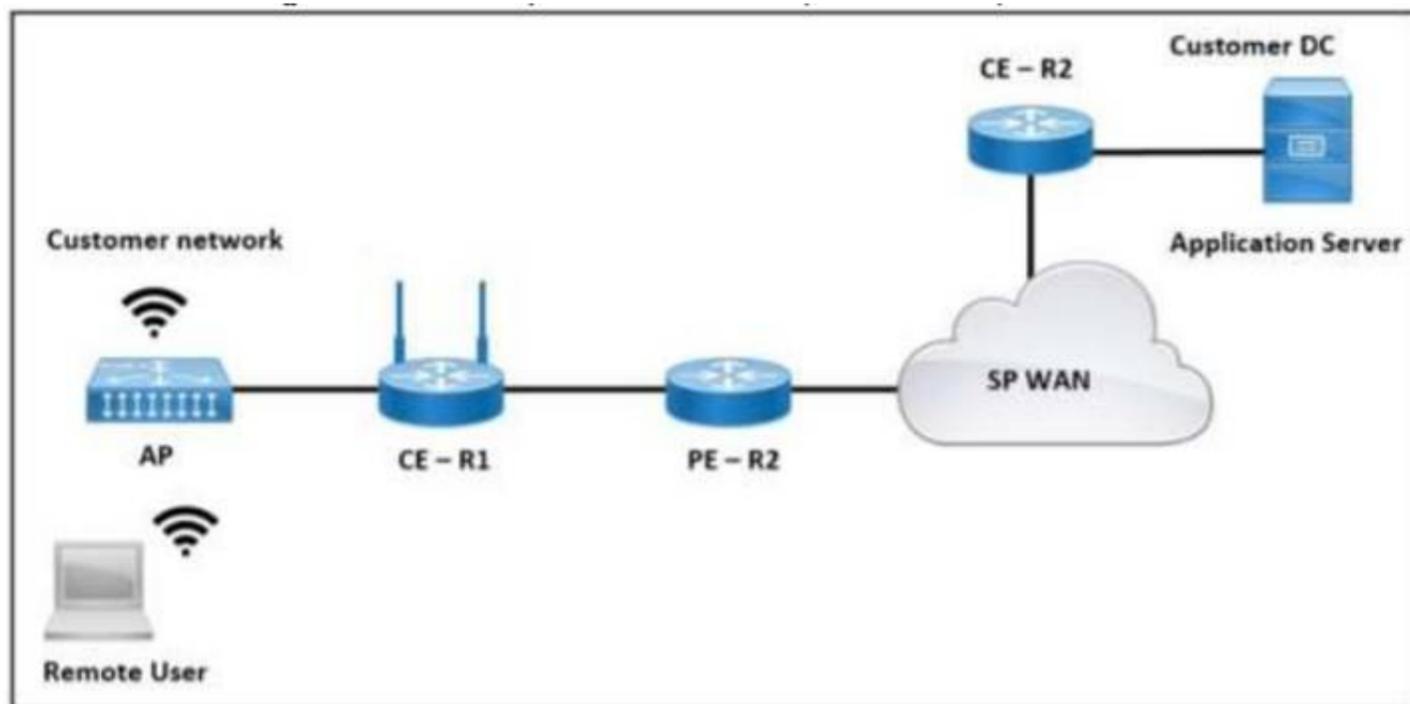
A network operator has two IPv4 and IPv6 dual-stacked network on each side of the IPv4 core network. The operator must be able to provide connectivity between them while using specific assigned IPv6 space provided from the company IP administrator team. Which technology should the network operator use to accomplish this goal?

- A. 6rd
- B. NAT46
- C. DS-Lite
- D. NAT44

**Answer:** B

**NEW QUESTION 288**

Refer to the exhibit.



The application server in the data center hosts voice, video, and data applications over the internet. The data applications run more slowly than the voice and video applications. To ensure that all applications run smoothly, the service provider decided to implement a QoS policy on router PER 2 to apply traffic shaping. Which two actions must an engineer take to implement the task? (Choose two.)

- A. Configure the scheduling function to handle delayed packets.
- B. Enable packet remarking for priority traffic.
- C. Configure a queue to buffer excess traffic.
- D. Set the token value for secondary traffic.
- E. Set a threshold to discard excess traffic.

**Answer:** AC

**NEW QUESTION 292**

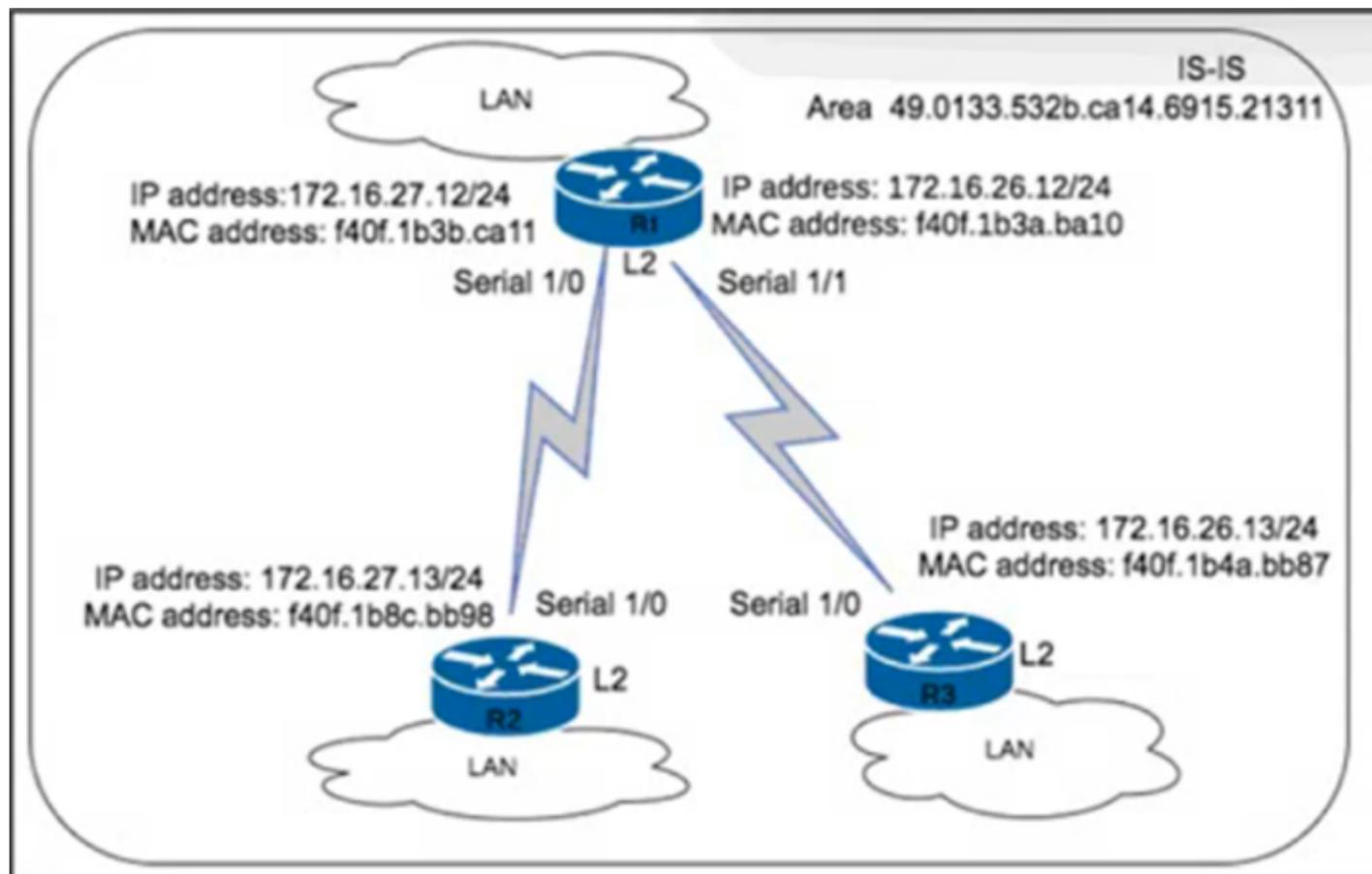
How can a network administrator secure rest APIs?

- A. They can allow read and write privileges to all users
- B. They can ensure that user sessions are authenticated using TACACS+ only
- C. They can have a general administrator login for multiple users to access that has command entries logged
- D. They can authenticate user sessions and provide the appropriate privilege level

**Answer:** D

**NEW QUESTION 295**

Refer to the exhibit.



An engineer with an employee 10:4350:47:853 is implementing IS-IS as the new routing protocol in the network. All routers in the network operate as Level 2 routers in the same private autonomous system, and the three branches are connected via dark fibre. The engineer has already implemented IS-IS on router R1 with NET address 49.0133.532b.ca14.6915.21311.F40F.1B3a.ba10.00. Which IS-IS NET address configuration must be implemented on R3 to establish IS-IS connectivity?

- A. 49.0133.532b.ca14.6915.21311.f40f.1b4a.bb87.00
- B. 49.0135.332b.ca14.6975.28371.1721.1b3b.ca11.10
- C. 48.0133.532b.ca14.6915.21311.f40f.1626.bb98.00
- D. 49.0133.532b.ca14.6915.21311.1721.1b4a.0013.01

**Answer:** A

**Explanation:**

IS-IS uses NET addresses to identify each router in the network, and the NET address of each router must be unique. In order for IS-IS to establish connectivity between R1 and R3, the NET address of R3 must be different from the NET address of R1, but it must also follow the same structure. In this case, the NET address of R1 is 49.0133.532b.ca14.6915.21311.F40F.1B3a.ba10.00, so the NET address of R3 must be 49.0133.532b.ca14.6915.21311.F40F.1B4a.bb87.00.

**NEW QUESTION 299**

Refer to the exhibit.

```
R10(config)#interface G0/1
R10(config-if)#ip address 172.16.0.1 255.255.255.0
R10(config-if)#ip ospf 1 area 0
R10(config-if)#ip ospf multi-area 10
R10(config-if)#ip ospf multi-area 10 cost 5
```

A network engineer is implementing OSPF multiarea. Which command on interface GO/1 resolves adjacency issues in the new area?

- A. ip ospf network broadcast
- B. ip ospf network point-to-point
- C. ip ospf network non-broadcast
- D. ip ospf network point-to-multipoint

**Answer:** B

**NEW QUESTION 301**

The network-engineering team of a service provider is integrating several recently acquired networks into a more scalable common Unified MPLS architecture. The new network architecture will support end-to-end VPNv4 and VPNv6 services with these requirements:

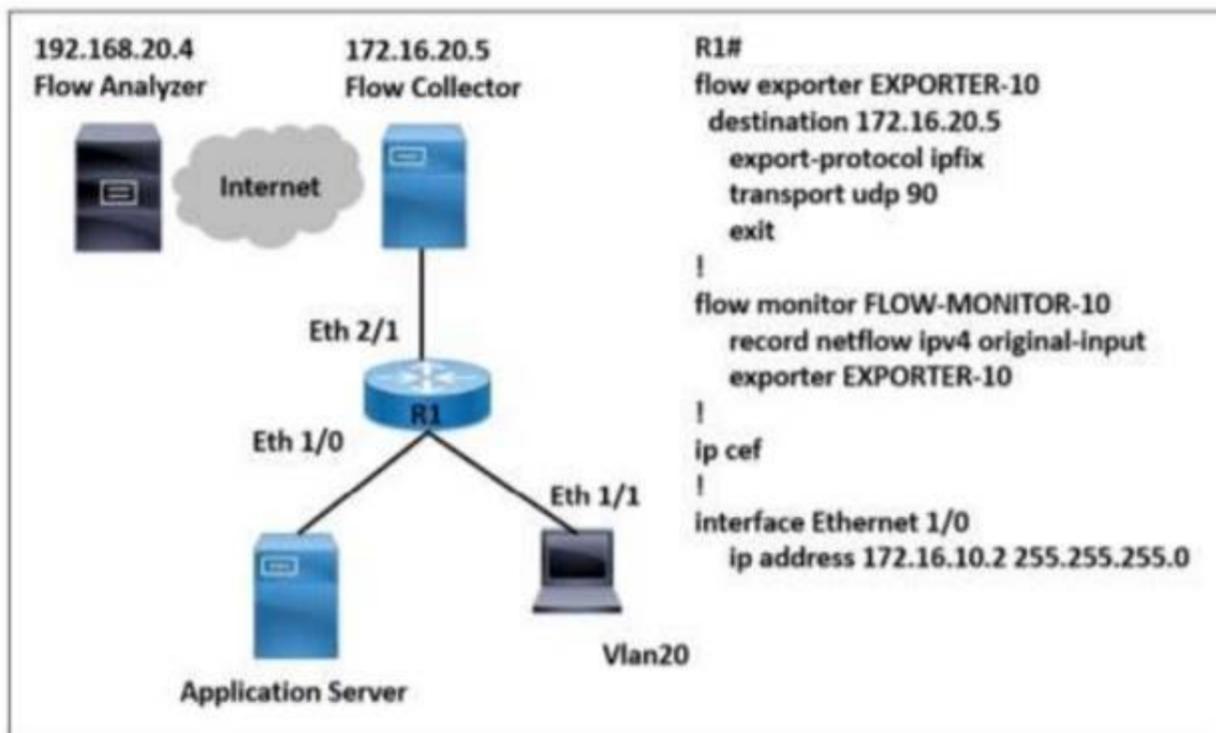
- The IGP of the core layer is IS-IS In Area 0.
  - The IGP of the aggregation layers is OSPF in Area 0.
  - The LDP protocol is used to distribute label bindings within each IGP domain.
- Which task must the network engineer perform when implementing this new architecture?

- A. Configure BGP-LU between ABR routers of each IGP domain to carry MPLS label information in NLRI.
- B. Configure a BGP session between the ABR routers of each IGP domain to exchange VPNv4 or VPNv6 prefixes
- C. Configure the ABR in each IGP domain to preserve next-hop information on all VPNv4 and VPNv6 prefixes advertised by the PE.
- D. Configure mutual redistribution of each IGP domain's loopback prefix to provide end-to-end LDP LSP

**Answer:** A

**NEW QUESTION 302**

Refer to the exhibit.



A network engineer wants to monitor traffic from the application server and send the output to the external monitoring device at 172.16.20.5. Application server traffic should pass through the R1 Eth2/1 interface for further analysis after it is monitored. Which configuration must be applied on the R1 router?

- A. Configure the FLOW-MONITOR-20 command.
- B. Configure the flow exporter EXPORTER-10 destination 192.168.20.4 command.
- C. Configure the ip flow monitor FLOW-MONITOR-10 input command on the Ethernet1/0 interface.
- D. Configure the ip flow monitor FLOW-MONITOR-10 output command on the Ethernet 2/1 interface.

**Answer: C**

**NEW QUESTION 305**

Refer to the exhibit.

```

R2# configure terminal
R2(config)# interface Ethernet1/0
R2(config-if)# ip address 10.1.1.1 255.255.255.255
    
```

An engineer is configuring two routers to support MPLS LDP sessions between them. The R1 configuration is complete, and work has started on R2 as shown. Which additional configuration must the engineer apply to R2 to complete the task?

- R2(config)# mpls label protocol ldp  
R2(config)# interface Ethernet1/0  
R2(config-if)# mpls bgp forwarding
- R2(config)# mpls label protocol ldp  
R2(config)# interface Ethernet1/1  
R2(config-if)# ip vrf forwarding CISCO  
R2(config-if)# ip ospf network point-to-point
- R2(config)# mpls ip  
R2(config)# mpls label protocol ldp  
R2(config)# interface Ethernet1/0  
R2(config-if)# mpls ip
- R2(config)# mpls label protocol ldp  
R2(config)# interface Ethernet1/0  
R2(config-if)# ip vrf forwarding CISCO  
R2(config-if)# ip ospf 1 area 0

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

**NEW QUESTION 309**

Refer to the exhibit:

```
R1:
interface FastEthernet0/0
ip address 10.1.12.1 255.255.255.0
duplex full
end
!
!
!
R1(config)#interface FastEthernet0/0
R1(config-if)#ospfv3 1 area 1 ipv4
% IPv6 routing not enabled
```

A network engineer is implementing an OSPF configuration Based on the output, which statement is true?

- A. In the ospfv3 1 area 1 ipv4 command, area 0 must be configured instead of area 1.
- B. OSPFv3 does not run for IPv4 on FastEthernet0/0 until IPv6 routing is enabled on the router and IPv6 is enabled on interface FastEthernet0/0
- C. OSPFv3 cannot be configured for IPv4; OSPFv3 works only for IPv6.
- D. "IPv6 routing not enabled" is just an informational message and OSPFv3 runs for IPv4 on interface FastEthernet0/0 anyway

**Answer: B**

**NEW QUESTION 312**

An engineer is trying to implement BGP in a multihomed architecture. What must the engineer configure to influence inbound path selection?

- A. A route map with WEIGHT attribute to control the inbound traffic.
- B. An offset list to set the metric for routes received from neighboring autonomous systems.
- C. An access list to identify traffic and enable it on both of the provider-facing interfaces.
- D. A route map with AS\_PATH attribute to control the inbound traffic.

**Answer: D**

**NEW QUESTION 314**

Refer to the exhibit.

```
Router(config)# ip access-list standard Suppressed
Router(config-std-nacl)# permit 10.16.6.0 0.0.0.255
Router(config)# route-map SuppressMap
Router(config-route-map)# match ip address Suppressed
```

An engineer is implementing BGP selective prefix suppression. The router must advertise only 10.16.4.0/24, 10.16.5.0/24. and summarized route 10.16.0.0/21. and suppress 10.16.6.0/24. Which configuration must the engineer apply to the router?

- A)

```
Router (config)# router bgp 300
Router(config-router)# aggregate-address 10.16.6.0 255.255.252.0 as-set suppress-map SuppressMap
```
- B)

```
Router (config)# router bgp 300
Router(config-router)# aggregate-address 10.16.0.0 255.255.248.0 as-set suppress-map SuppressMap
```
- C)

```
Router (config)# router bgp 300
Router(config-router)# aggregate-address 10.16.6.0 255.255.255.0 as-set suppress-map SuppressMap
```
- D)

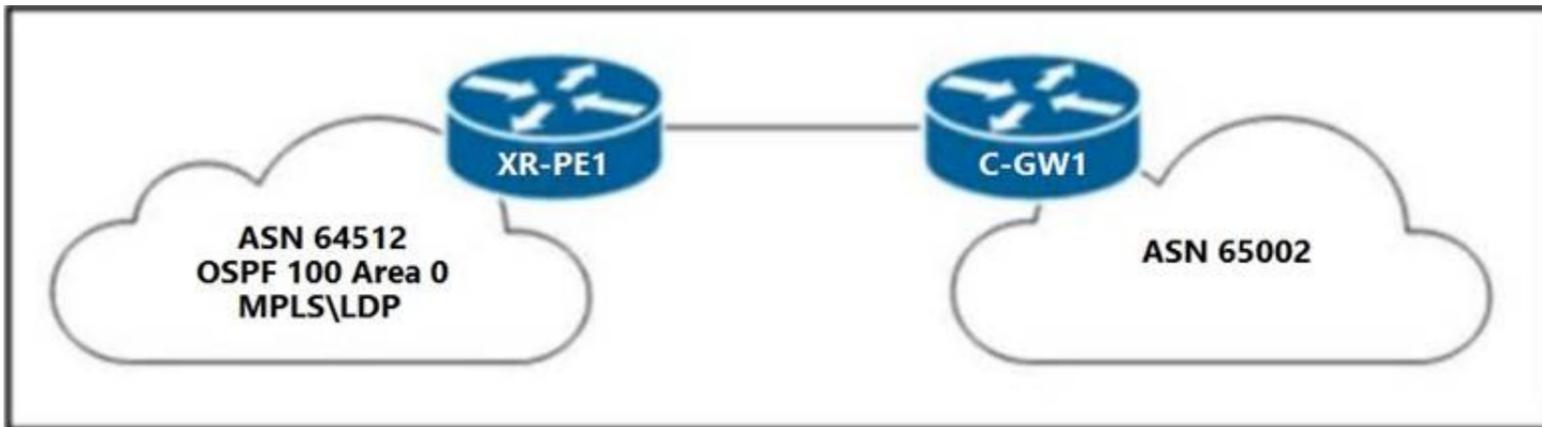
```
Router (config)# router bgp 300
Router(config-router)# aggregate-address 10.16.0.0 255.255.255.0 as-set suppress-map unSuppressMap
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

**NEW QUESTION 318**

Refer to the exhibit.



A network engineer must configure XR-PE1 for uninterruptible failover from active RP to the standby RP. Neither peer devices CGW1 nor the network of ASN 64512 support restart extensions. Which configuration must the engineer apply to XR-PE1 to complete tasks?

- A)
 

```
router bgp 64512 nsr
router ospf 100 nsr
mpls ldp nsr
```
- B)
 

```
nsr process-failures switchover
router ospf 100 nsf cisco
```
- C)
 

```
nsr process-failures switchover
router ospf 100 nsf ietf
```
- D)
 

```
nsr process-failures switchover
router bgp 64512 nsr
router ospf 100 nsr
mpls ldp nsr
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: D**

**NEW QUESTION 320**

Refer to the exhibit.

An engineer began to configure LDP between R1 and R2, but R1 and R2 cannot yet establish an LDP TCP connection. Which additional task must be completed to finish the implementation?

- A. Configure the `mpls ldp neighbor 172.16.0.1 password` command on R1
- B. Configure the `mpls ldp neighbor 10.0.12.1 password` command on R1
- C. Configure the `no mpls ldp password option 1` command on R2
- D. Configure the `no mpls ldp password option 1` command on R1

**Answer: A**

**NEW QUESTION 325**

What is the characteristic of the TI-LFA?

- A. It guarantees a loop-free path for all interfaces in the OSPF- super backbone .
- B. It applies on each area and instance and makes all the interfaces inherit the configuration
- C. It guarantees a loop-free path for all areas configured m OSPF
- D. It applies only on the instance and makes at the interfaces inherit the configuration

**Answer:** A

**NEW QUESTION 326**

Drag and drop the LDP features from the left onto the correct usages on the right.

session protection	It prevents valid routes from being overwritten with new ones until labels are assigned.
IGP synchronization	It allows stale label bindings to be used for a period of time while an LDP neighbor is unreachable.
targeted-hello accept	It uses LDP Targeted hellos to protect LDP sessions.
graceful restart	It uses LDP to form neighborhood between non-directly connected routers.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

1: graceful restart 2: IGP synchronization 3: session protection 4: targeted-hello accept

**NEW QUESTION 331**

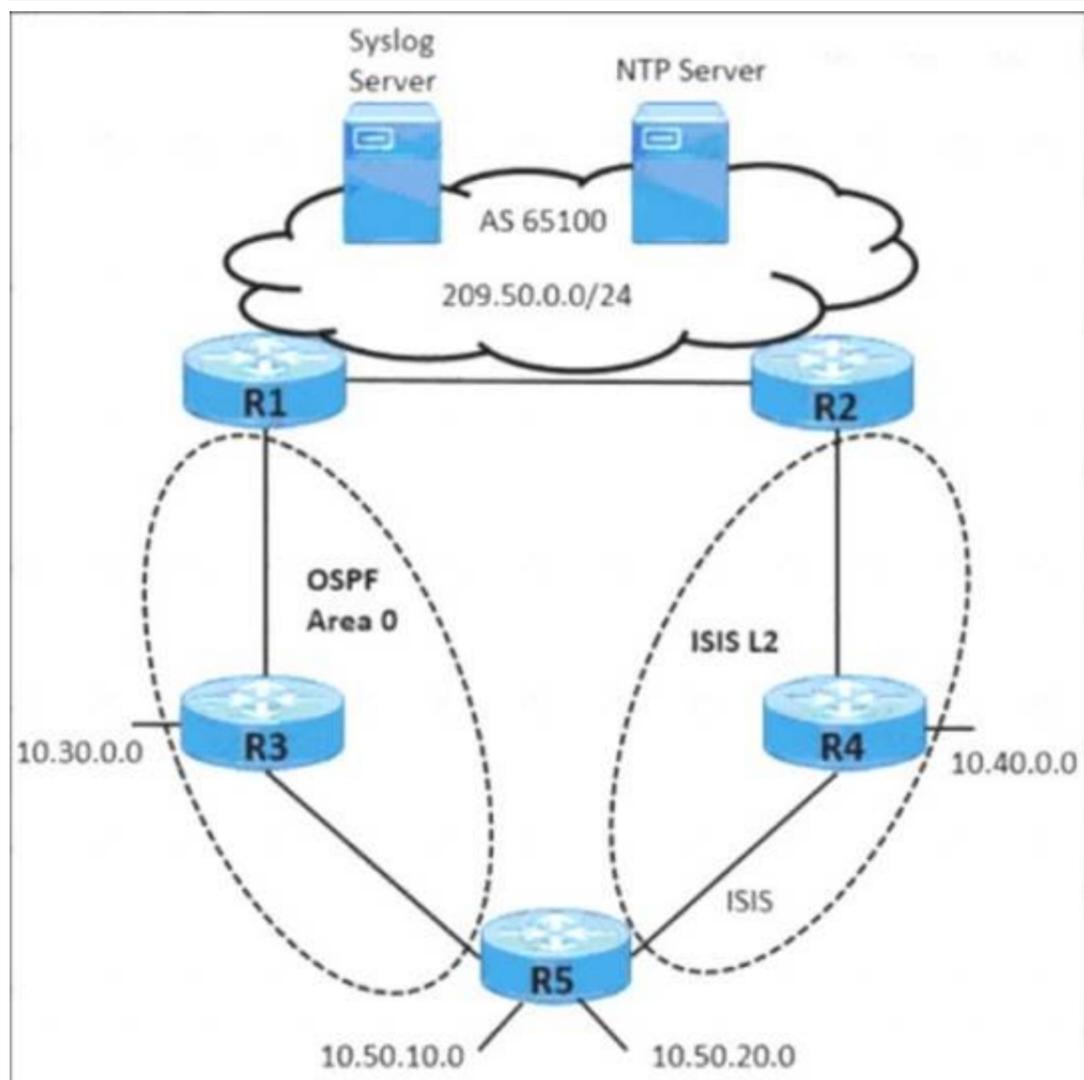
What occurs when a high bandwidth multicast stream is sent over an MVPN using Cisco hardware?

- A. The traffic uses the default MDT transmit the data Only if it is a (S, G) multicast route entry.
- B. A data MDT is created if is a Multicast route entries
- C. A data and default MDT are created to flood the multicast stream of all PIM-SM neighbors.
- D. A data MDT is created to allow for the best transmit through the core for multicast route entries.

**Answer:** D

**NEW QUESTION 334**

Refer to the exhibit.



A network operator working for a telecommunication company with an employee ID: 4350:47:853 must implement an IGP solution based on these requirements:

- Subnet 10.50.10.0 traffic must exit through the R1 router to connect with the Syslog server.
  - Subnet 10.50.20.0 traffic must exit through the R2 router to connect with the NTP server.
  - In case of link failure between R2 and R4, traffic must be routed via R1 and R3.
- Which two configurations must be implemented on R5 to meet these requirements? (Choose two.)

- A. Apply a route policy to redistribute 10.50.0.0 prefixes in OSPF to ISIS and ISIS to OSPF.
- B. Apply a route policy to redistribute 10.50.20.0 from ISIS-L2 to OSPF Area 0 at a higher cost.
- C. Enable a route policy to advertise 10.50.20.0 in ISIS-L2 at a higher cost.
- D. Apply a route policy to redistribute 10.50.10.0 from OSPF Area 0 to ISIS-L2 at a lower cost.
- E. Enable a route policy to advertise 10.50.10.0 in OSPF Area 0 at a low cost.

**Answer: CE**

**NEW QUESTION 337**

Refer to the exhibit:

```
route-policy qppb-as6000
if as-path in (ios-regex '61100, 61200, 61300') then
set qos-group 10

router bgp 100 bgp
table-policy qppb-as6000
```

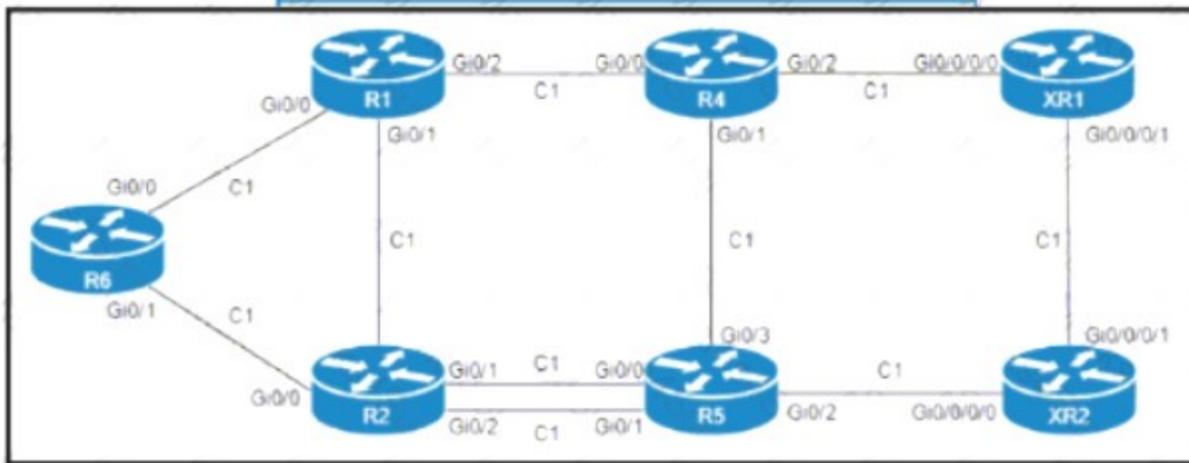
Which statement supports QPPB implementation?

- A. QoS policies are identified in the MPLS forwarding table
- B. QoS policies rely exclusively on BGP attributes to manipulate traffic
- C. QoS policies use BGP to gain full coverage on the network.
- D. QPPB policies affect only egress traffic

**Answer: B**

**NEW QUESTION 342**

Refer to the exhibit.



An engineer configured R6 as the headend LSR of an RSVP-TE LSP to router XR2, with the dynamic path signaled as R6-R2-R5-XR2. and set the OSPF cost of all links to 1. MPLS autotunnel backup is enabled on all routers to protect the LSP. Which two NNHOP backup tunnels should the engineer use to complete the implementation? (Choose two.)

- A. The R6 backup tunnel path R6-R1-R4-R5.
- B. The R2 backup tunnel path R2-R5 across the alternate link.
- C. The R2 backup tunnel path R2-R1-R4-XR1-XR2.
- D. The R6 backup tunnel path R6-R2-R5
- E. The R6 backup tunnel path R6-R1-R2.

**Answer: AC**

**NEW QUESTION 346**

Simulation2 TOPOLOGY

Guidelines Topology Tasks

### Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM** before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

R1 R2

Guidelines **Topology** Tasks

**BGP AS 100**

Lo0:  
10.1.1.1/32

R1

**BGP AS 200**

Lo0:  
10.2.2.2/32

R2

172.16.0.0/24

R1 R2

Guidelines Topology **Tasks**

R1 and R2 are having issues forming an eBGP neighbor relationship. Troubleshoot and resolve the issue to achieve these goals:

1. Configure R1 and R2 to form a BGP neighborhood using their Loopback interfaces.
2. Form the neighbor relationship using a BGP multihop mechanism. Use minimal values to solve the issue.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

R1

```

R1  R2

R1>enabler1
Translating "enabler1"...domain server (255.255.255.255)
(255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
% Bad IP address or host name
% Unknown command or computer name, or unable to find computer address
R1>
R1>
R1>en
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#router bgp 100
R1(config-router)#nei
R1(config-router)#neighbor 10.2.2.2 rem
R1(config-router)#neighbor 10.2.2.2 remote-as 200
R1(config-router)#nei
R1(config-router)#neighbor 10.2.2.2 eb
R1(config-router)#neighbor 10.2.2.2 ebgp-multihop 2
R1(config-router)#nei
R1(config-router)#neighbor 10.2.2.2 up
R1(config-router)#neighbor 10.2.2.2 update-source lo
R1(config-router)#neighbor 10.2.2.2 update-source lo0
R1(config-router)#exit
R1(config)#exit
R1#copy run s
*Apr  9 13:59:08.990: %SYS-5-CONFIG_I: Configured from console by console

```

R2

```

R1  R2
R2>
R2>
R2>en
R2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#router bgp 200
R2(config-router)#nei
R2(config-router)#neighbor 10.1.1.1 remo
R2(config-router)#neighbor 10.1.1.1 remote-as 100
R2(config-router)#nei
R2(config-router)#neighbor 10.1.1.1 up
R2(config-router)#neighbor 10.1.1.1 update-source lo
R2(config-router)#neighbor 10.1.1.1 update-source lo0
R2(config-router)#nei
R2(config-router)#neighbor 10.1.1.1 e
R2(config-router)#neighbor 10.1.1.1 ebgp-multihop 2
R2(config-router)#^Z
R2#
*Apr  9 13:59:48.470: %BGP-5-ADJCHANGE: neighbor 10.1.1.1 Up
*Apr  9 13:59:48.646: %SYS-5-CONFIG_I: Configured from console by console
R2#
R2#copy run star
R2#copy run startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#

```

```

R2#
*Apr  9 13:59:48.470: %BGP-5-ADJCHANGE: neighbor 10.1.1.1 Up
*Apr  9 13:59:48.646: %SYS-5-CONFIG_I: Configured from console by console
R2#

```

**NEW QUESTION 348**

Refer to the exhibit.

```

R1
ip cef distributed
mpls ldp graceful-restart
interface GigabitEthernet 0/0/1
    mpls ip
    mpls label protocol ldp

```

What is the effect of this configuration?

- A. R1 supports a graceful restart operation on the peer, even if graceful restart is disabled on the peer.
- B. R1 supports a peer that is configured for LDP SSO/NSF as the peer recovers from an outage.
- C. R1 failovers only to a peer that is configured for LDP SSO/NSF.
- D. R1 failovers to any peer.

**Answer: B**

**NEW QUESTION 350**

Refer to the exhibit.

```
R1# show ip ospf neighbor
Neighbor ID Pri State Dead Time Address Interface
192.168.1.1 1 EXCHANGE/ - 00:00:34 192.168.1.1 fastethernet1/0

R2# show ip ospf neighbor
Neighbor ID Pri State Dead Time Address Interface
192.168.1.2 1 EXSTART/ - 00:00:32 192.168.1.2 fastethernet1/0
```

A company recently deployed a new network using OSPF in the core to share routes. The network administrator selected OSPF as the routing protocol because of its ability to maintain a route database. When the new network was started up, all routers booted normally, but the link between routers R1 and R2 failed to come up. The two routers are located in the same rack at the data center. Which task should an engineer perform to correct the problem?

- A. Synchronize the dead timers.
- B. Change one of the OSPF router IDs so that the router IDs are in different subnets
- C. Change the OSPF process ID on one of the devices so that the two IDs match
- D. Configure the MTUs on the interface to match.

Answer: D

**NEW QUESTION 351**

Refer to the exhibit:

```
router ospf 1
  nsf ietf restart interval 90
```

Which purpose of implementing NSF with this configuration is true?

- A. The router uses NSF to load balance traffic between two links, with the primary link alternating every 90 seconds
- B. The router uses NSF to reduce neighbor-relationship downtime during RP switchover
- C. The router uses NSF to load balance traffic on a routed EtherChannel
- D. The router uses NSF to handle RP switchover while allowing neighbor relationships to remain up

Answer: D

**NEW QUESTION 354**

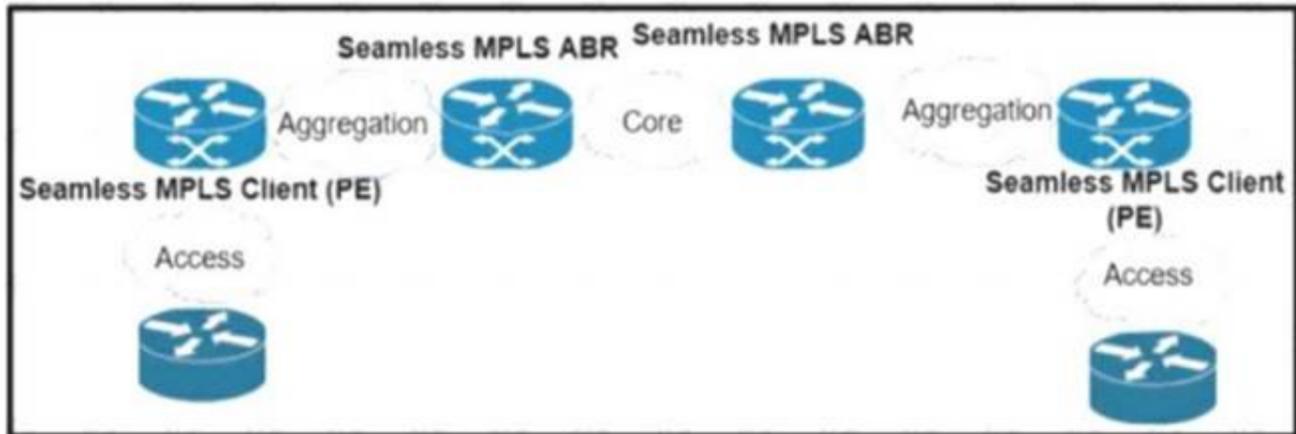
A network engineer is configuring a router to send multicast traffic for the 239.10.10.10 group. Which configuration must an .... forward the traffic?

- A. Cisco(config)# interface ethernet 1/0 Cisco(config-if)# ip igmp max-groups action replace
- B. Cisco(config)# interface ethernet 1/0 Cisco(config-if)# ip igmp filter
- C. Cisco(config)# interface ethernet 1/0 Cisco(config-if)# ip igmp access-group 239.10.10.10
- D. Cisco(config)# interface ethernet 1/0 Cisco(config-if)# ip igmp join-group 239.10.10.10

Answer: D

**NEW QUESTION 356**

Refer to the exhibit.



A network operator working for a telecommunication company with an employee 3994:37:650 is implementing a cisco Unified MPLS solution. What is the effect of this implementation?

- A. EIGRP is deployed between the PEs and ABRs with RFC 3107.
- B. OSPF is deployed between the PEs and ABRs with RFC 3107.
- C. IS-IS is deployed between the PEs and ABRs with RFC 3107.
- D. BGP is deployed between the PEs and ABRs with RFC 3107.

Answer: D

**Explanation:**

Carry Label Information in **BGP-4 (RFC 3107)**

It is a prerequisite to have a scalable method in order to exchange prefixes between network segments. You could simply merge the IGP (Open Shortest Path First (OSPF), Intermediate System-to-Intermediate System (IS-IS), or Enhanced Interior Gateway Routing Protocol (EIGRP)) into a single domain. However an IGP is not designed to carry 100,000s of prefixes. **The protocol of choice for that purpose is BGP.** It is a

**NEW QUESTION 358**

Refer to the exhibit.

```

PE-1#show xconnect name ENNI-ID-100150
Legend:  XC ST=Xconnect State  S1=Segment1 State  S2=Segment2 State
         UP=Up  DN=Down  AD=Admin Down  IA=Inactive
         SB=Standby  HS=Hot Standby  RV=Recovering  NH=No Hardware

XC ST Segment 1 S1 Segment 2 S2
-----+-----+-----+-----+
UP pri ac Gi2:150(Eth VLAN) UP mpls 172.20.20.2:100150 UP

PE-2#show xconnect name UNI-ID-100150
Legend:  XC ST=Xconnect State  S1=Segment1 State  S2=Segment2 State
         UP=Up  DN=Down  AD=Admin Down  IA=Inactive
         SB=Standby  HS=Hot Standby  RV=Recovering  NH=No Hardware

XC ST Segment 1 S1 Segment 2 S2
-----+-----+-----+-----+
UP pri ac Gi2:10(Eth VLAN) UP mpls 172.20.20.1:100150 UP

CE-2#show run interface gigabitEthernet 2.10
interface GigabitEthernet2.10
 encapsulation dot1q 10
 ip address 100.65.0.2 255.255.255.252

CE-1#show run interface gigabitEthernet 0/0/0/1.150
interface GigabitEthernet0/0/0/1.150
 ipv4 address 100.65.0.1 255.255.255.252
 encapsulation dot1ad 150 dot1q 10
    
```

An Ethernet access provider is configuring routers PE-1 and PE-2 to provide E-Access EVPL service between UNI and ENNI. ENNI service multiplexing is based on 802.1ad tag 150, and service-multiplexed UNI is based on 802.1q tag 10. Which EFP configurations must the provider implement on PE-1 and PE-2 to establish end-to-end connectivity between CE-1 and CE-2?

- A. On PE-1:interface GigabitEthernet2 service instance 100 ethernet encapsulation dot1ad 150rewrite ingress tag pop 1 symmetric On PE-2:interface GigabitEthernet2 service instance 2 ethernet encapsulation dot1q 10
- B. On PE-1:interface GigabitEthernet2 service instance 100 ethernet encapsulation dot1q 150rewrite ingress tag pop 1 symmetric On PE-2:interface GigabitEthernet2 service instance 2 ethernet encapsulation dot1q 10
- C. On PE-1:interface GigabitEthernet2 service instance 100 ethernetencapsulation dot1ad 150 dot1q 10rewrite ingress tag pop 2 symmetric On PE-2:interface GigabitEthernet2 service instance 2 ethernet encapsulation dot1q 10
- D. On PE-1:interface GigabitEthernet2 service instance 100 ethernet encapsulation dot1ad 150rewrite ingress tag pop 1 symmetric On PE-2:interface GigabitEthernet2 service instance 2 ethernet encapsulation dot1q 10rewrite ingress tag pop 1 symmetric

Answer: C

**NEW QUESTION 362**

The service provider is serving hosts with two different multicast streams from source X and source Y. Source X is multicast group 224.0.0.0/8, and source Y is multicast group 226.0.0.0/8. Multicast source X should send its stream through bidirectional RP address 10.20.1.1, and multicast source Y should send its stream through RP address 10.20.2.1. Which configuration meets these requirements?

- A. Enable ip pim ssm default on RA and RB.
- B. Add ip pim bidir-enable in global mode on RB.
- C. Permit the source X and source Y IP addresses in the access list on RB.
- D. Set PIM sparse mode with a static RP address of 10.20.2.1 on RA and RC.

Answer: B

**NEW QUESTION 364**

An engineer is configuring IEEE 802.1 ad on the access port on a new Cisco router. The access port handles traffic from multiple customer VLANs, and it is expected to mark all customer traffic to the same VLAN without dropping any traffic. Which configuration must the engineer apply?

```

A)
interface gigabitEthernet0/0/1
 ethernet dot1ad uni c-port
    
```

B)

```
interface gigabitethernet0/0/1
 ethernet dot1ad uni nni
```

C)

```
interface gigabitethernet0/0/1
 encapsulation dot1q 10
```

D)

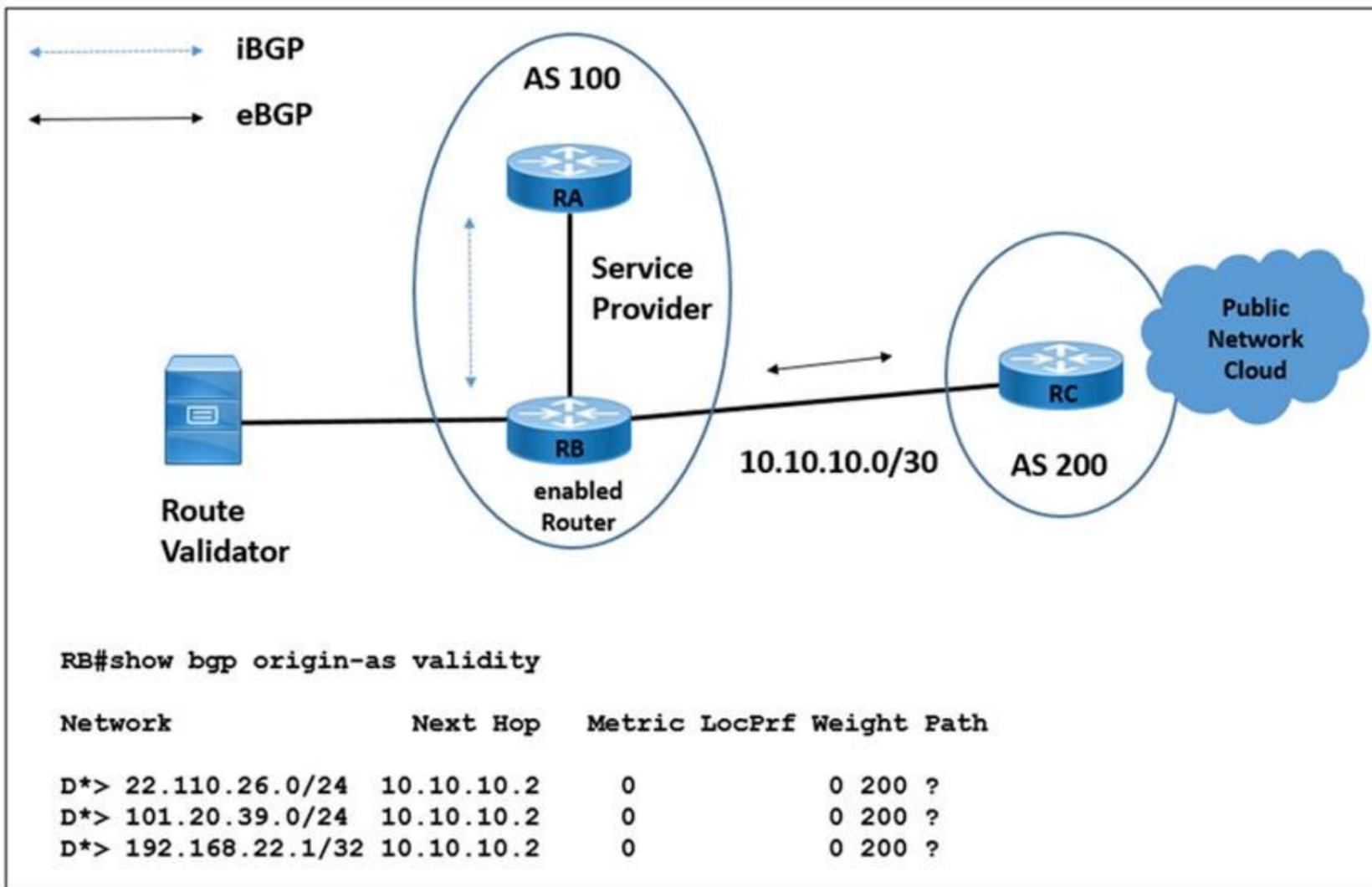
```
interface gigabitethernet0/0/1
 ethernet dot1ad uni s-port
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

**NEW QUESTION 367**

Refer to the exhibit.



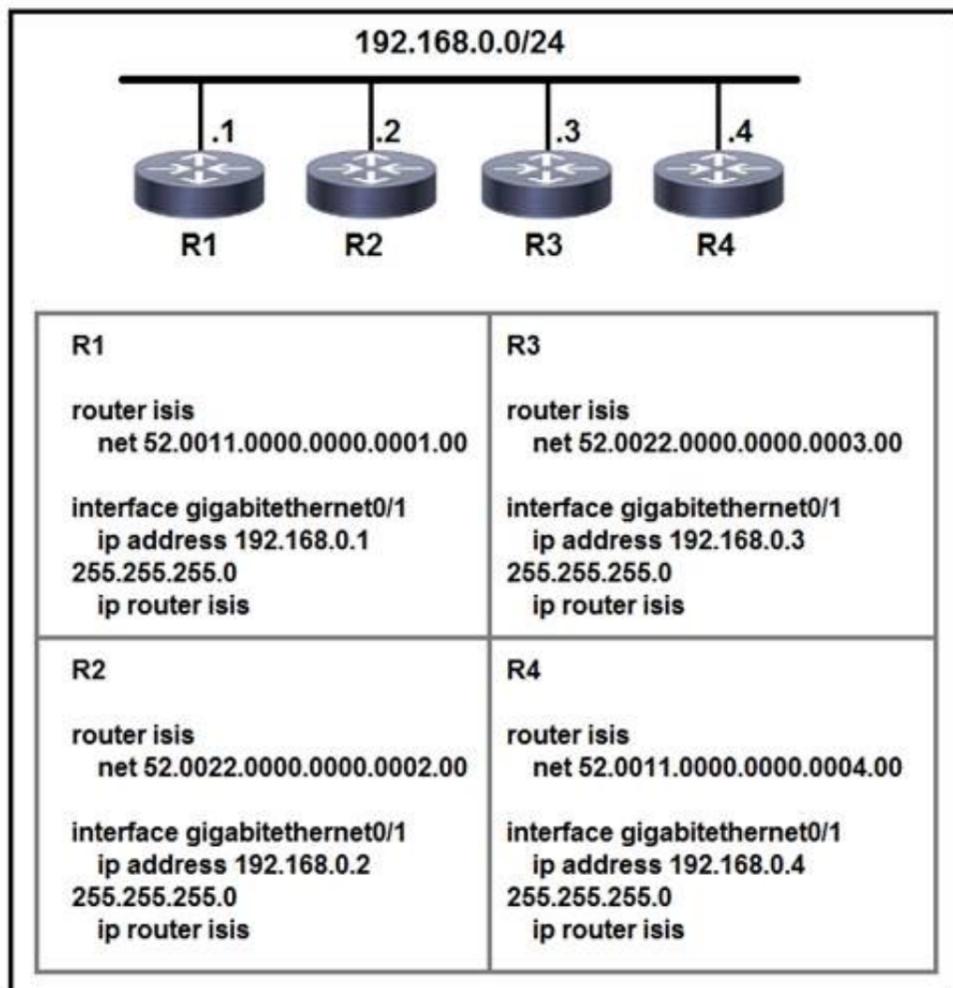
A network engineer is configuring router RB to secure BGP advertisements against route hijacking activity. RB must validate all prefixes that it receives from origin AS 200 before installing them in the BGP route table. Which configuration meets the requirement?

- A. RB(config)# router bgp 100RB(config-router)# address-family ipv4 unicast RB(config-router-af)# bgp bestpath origin-as use validity
- B. RB(config-bgp)# router bgp 100RB(config-bgp)# bgp origin-as validation signal ibgp RB(config-bgp)# bgp bestpath origin-as allow invalid
- C. RB(config-bgp)# router bgp 100RB(config-bgp)# bgp origin-as validation time off
- D. RB(config)# router bgp 100RB(config-router)# address-family ipv4 unicast RB(config-router-af)# bgp origin-as validation enable

Answer: C

**NEW QUESTION 372**

Refer to the exhibit:



Which two statements about the ISIS topology are true? (Choose two.)

- A. All four routers are operating as Level 1 routers only.
- B. All four routers are operating as Level 2 routers only.
- C. All four routers are operating as Level 1-2 routers.
- D. R1 and R2 are Level 2 neighbors.
- E. R1 and R4 are Level 2 neighbors

**Answer:** CD

**NEW QUESTION 376**

After implement MPLS protocol for multiple VRFs on a single Cisco device, the engineer notices all VRFs on the router still do not LDP session protection feature enabled. Which configuration must the engineer apply to enable the LDP session protection feature FOR LDP neighbors within each VRF?

- A. Configure LDP session protection globally on the device only.
- B. Configure LDP session protection globally on the device and on each neighbor that requires session protection.
- C. Configure LDP session authentication on the device to enable LDP session protection on each VRF automatically.
- D. Configure LDP session protection within the individual VRFs.

**Answer:** D

**NEW QUESTION 379**

An engineer is implementing MPLS to monitor within the MPLS domain. Which must the engineer perform to prevent packets from being forwarded beyond the service provider domain when the LSP is down?

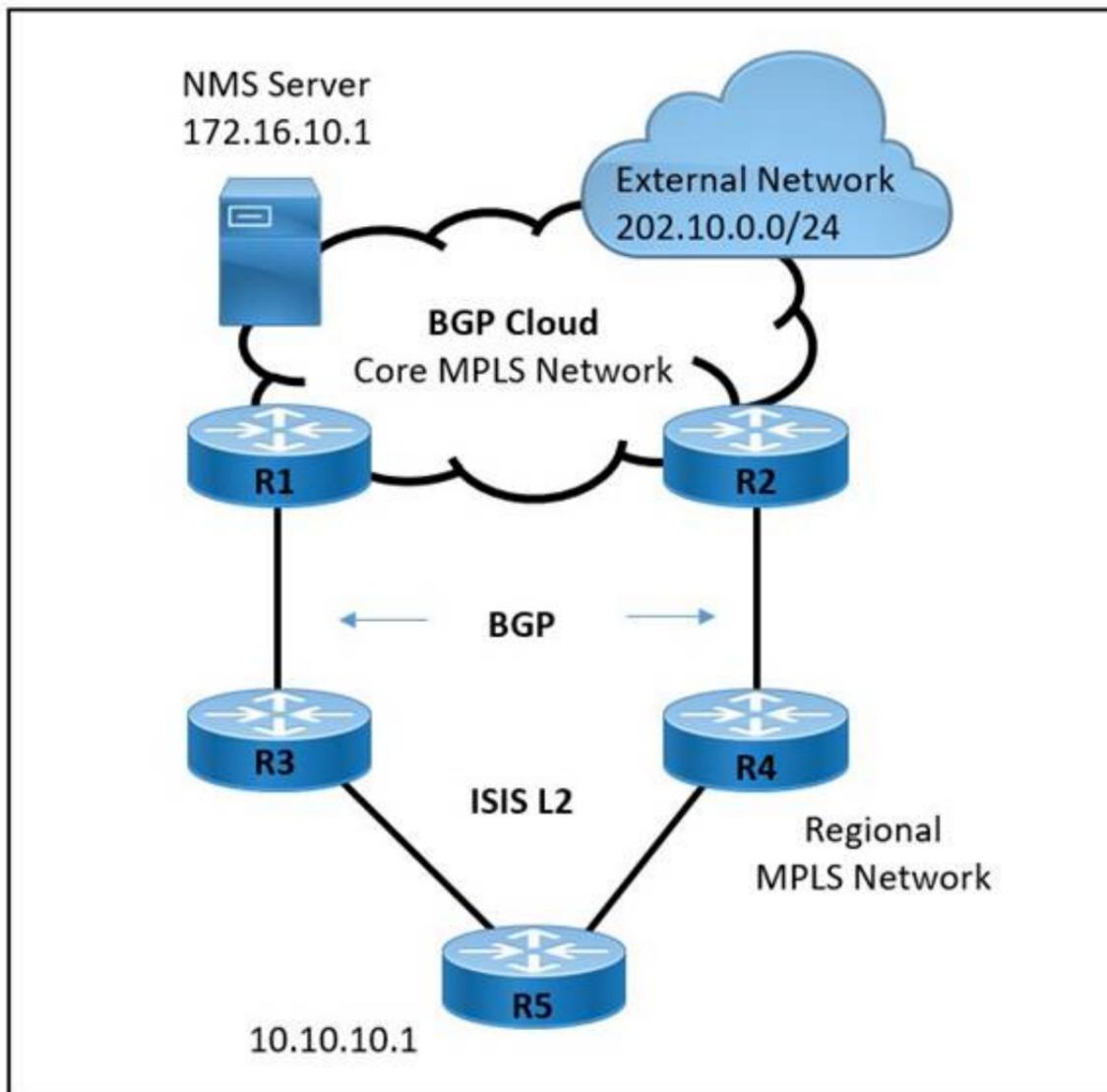
- Disable IP redirects only on outbound interfaces.
- Implement the destination address for the LSP echo request packet in the 127.x.y.z/8 network.
- Disable IP redirects on all ingress interfaces.
- Configure a private IP address as the destination address of the headend router of Cisco MPLS TE.

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** B

**NEW QUESTION 384**

Refer to the exhibit.



A large service provider is migrating device management from Layer 2 VLAN-based to Layer 3 IP-based solution. An engineer must configure the ISIS solution with these requirements:

Network management server IP 172.16.10.1 must be advertised from the core MPLS network to the regional domain.

The external network 202.10.0.0/24 must not establish ISIS peering with the R5 router.

The regional network must prevent sending unnecessary hello packets and flooding the routing tables of the R5 router.

Which two ISIS parameters must be implemented to meet these requirements? (Choose two.)

- A. LSP lifetime maximum
- B. advertise-passive-only
- C. overload bit passive
- D. attached-bit on ISIS instance
- E. passive-interface Loopback0

**Answer:** AD

**NEW QUESTION 385**

Drag and drop the functionalities from the left onto the correct target fields on the right.

MAP-T	Can translate RFC1918 IPv4 to Public IPv4
NAT 64	Can be Stateless or stateful
NAT 44	Provides reachability of IPv6 host over IPv4 domains
DS Lite	Provides reachability of IPv4 host over IPv6 domains
6RD	Requires IPv6 access network.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

MAP-T	NAT 44
NAT 64	NAT 64
NAT 44	6RD
DS Lite	DS Lite
6RD	MAP-T

#### NEW QUESTION 386

A network team has failed to implement IS-IS multitenancy. What is the reason for it?

- A. The router did not support VRFs.
- B. The routing process did not support extended metrics.
- C. The router did not have Cisco Discovery Protocol and Cisco Express Forwarding disabled.
- D. The routing process supported Level 1 only.

**Answer: B**

#### NEW QUESTION 390

Which technology enables the addition of new wavelengths in a fiber-optic network?

- A. IPoDWDM
- B. CWDM
- C. DWDM
- D. ROADM

**Answer: C**

#### Explanation:

Wavelength-division multiplexing (WDM) is a technology which multiplexes a number of optical carrier signals onto a single fiber [1], using different wavelengths of light to carry different signals. This allows for a greater capacity for data transfer and enables the addition of new wavelengths in a fiber-optic network

#### NEW QUESTION 392

A network engineer is implementing BFD configuration changes on a customer's equipment. How is the bfd interval configuration on the interface disconnected?

- A. The status of the interface changes.
- B. The IPv4 or IPv6 address configuration on the interface changes.
- C. It is automatically disconnected when the BFD-configured subinterface is removed.
- D. It is automatically disconnected when the BFD main interface is removed.

**Answer: D**

#### NEW QUESTION 393

A router is configured to perform MPLS LDP graceful restart.

Which three steps are included when the RP sends an LDP initialization to a neighbor to establish an LDP session? (Choose three)

- A. Reconnect Timeout field
- B. Learn from Neighbor (N) flag, set to 1
- C. Graceful restart capability in OPEN message
- D. Recovery Time field
- E. Learn from Network (L) flag, set to 1
- F. Type-9 LSA

**Answer: ADE**

#### NEW QUESTION 395

A company needs to improve the use of the network resources that is used to deploy internet access service to customers on separate backbone and internet access network. Which two major design models should be used to configure MPLS L3VPNs and internet service in the same MPLS backbone? (Choose two.)

- A. Carriage of full internet routes in a VPN, in the case of internet access VPNS
- B. Internet routing through global routing on a PE router.
- C. Internet access routing as another VPN in the ISP network.
- D. Internet access through leaking of internet routed from the global table into the L3VPN VRF
- E. Internet access for global routing via a separate interface in a VRF

**Answer:** CE

**Explanation:**

<http://etutorials.org/Networking/MPLS+VPN+security/Part+II+Advanced+MPLS+VPN+Security+Issues/Chapter+4.+Secu>

**NEW QUESTION 396**

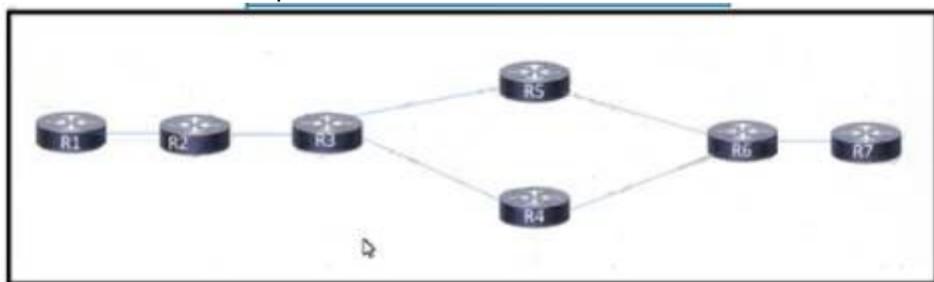
According to RFC5305 on IS-IS extensions for traffic engineering, what is the 4-octet sub-TLV type 10 of extended IS-IS reachability TLV type 22?

- A. TE default metric
- B. maximum reservable link bandwidth
- C. administrative group (color)
- D. IPv4 neighbor address

**Answer:** B

**NEW QUESTION 399**

Refer to the exhibit. After a networking team configured this MPLS topology, the supervisor wants to view MPLS labels to verify the path that packets take from router R1 to router R7. The team already issued an ICMP ping to verify connectivity between the devices. Which task must the team perform to allow the supervisor to view the label switch path?



- A. Configure MPLS TE to display the labels in the stack between the head and tail-end routers
- B. Implement MPLS LDP to assign labels to all the routes in the transit path.
- C. Configure MPLS LDP Sync to sync labels from the routing table to the MPLS forwarding table.
- D. Implement MPLS OAM to display the labels for each hop along the path

**Answer:** D

**NEW QUESTION 403**

An engineer needs to implement QoS mechanism on customer's network as some applications going over the internet are slower than others. Which two actions must the engineer perform when implementing traffic shaping on the network in order to accomplish this task? (Choose two)

- A. Configure a queue with sufficient memory to buffer excess packets.
- B. Configure the token values in bytes.
- C. Implement packet remarking for excess traffic.
- D. Implement a scheduling function to handle delayed packets.
- E. Configure a threshold over which excess packets are discarded.

**Answer:** AD

**NEW QUESTION 405**

In an EVPN operation, how does the PE determine and advertise Ethernet segment reachability?

- A. The PE discovers the remote PEs in the EVI and builds a flood list linked with the EVI.
- B. The PE discovers and shared routing information for the B-MAC addresses associated with local Ethernet segments.
- C. The PE discovers other PEs in the same Ethernet segment and elects a DF.
- D. The PE discovers remote ESIs and determines their redundancy mode.

**Answer:** A

**NEW QUESTION 407**

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