

## Exam Questions 350-501

Implementing and Operating Cisco Service Provider Network Core Technologies

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**NEW QUESTION 1**

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 2**

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
```

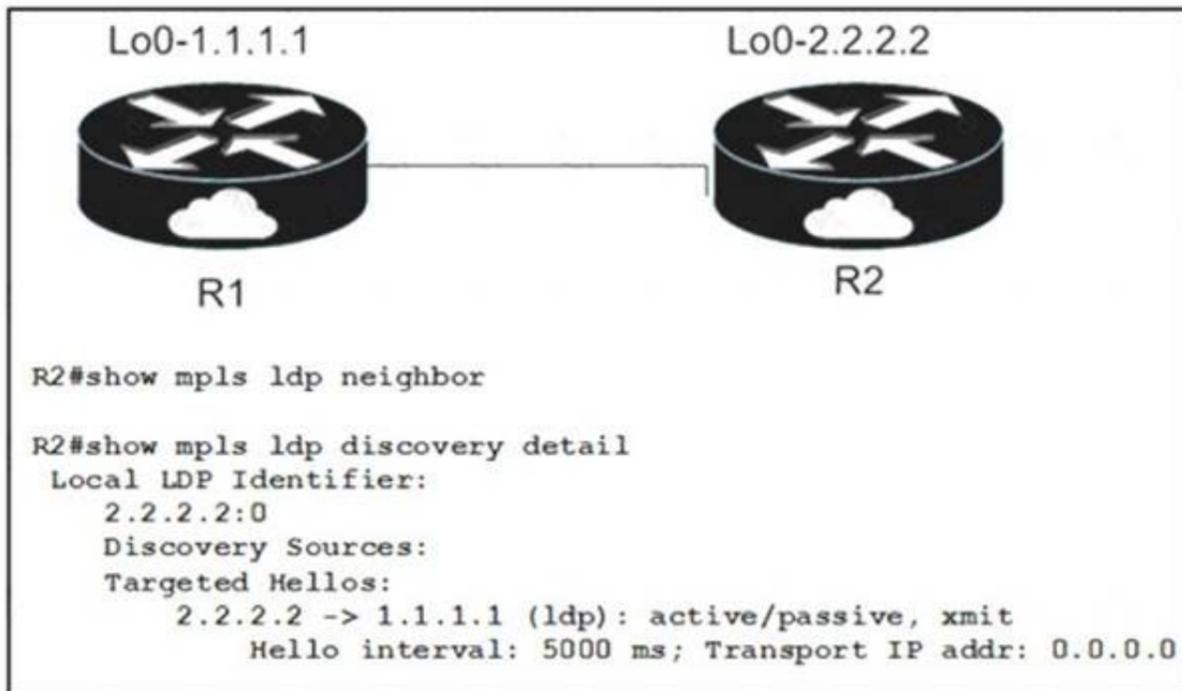
An engineer is preparing to implement data plane security configuration. Which statement about this configuration is true?

- 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 3**

Refer to the exhibit:



When implementing an LDP protocol, an engineer experienced an issue between two directly connected routers and noticed that no LDP neighbor exists for 1.1.1.1.

Which factor should be the reason for this situation?

- A. LDP needs to be enabled on the R2 physical interface
- B. R2 does not see any hellos from R1

- C. LDP needs to be enabled on the R2 loopback interface
- D. R2 sees the wrong type of hellos from R1

Answer: B

**NEW QUESTION 4**

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 5**

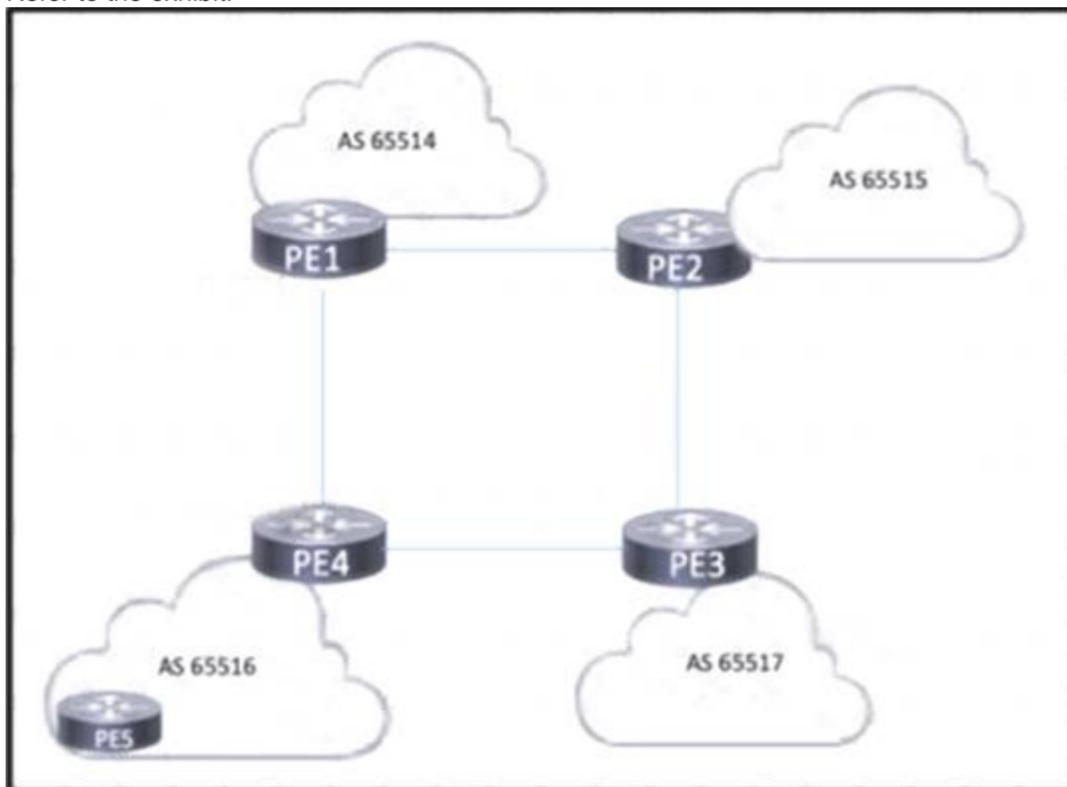
The administrator of a small company network notices that intermittent network issues occasionally cause inbound notifications to its SNMP servers to be lost. Which configuration must the administrator apply so that the SNMP servers acknowledge the notifications that they receive?

- 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 6**

Refer to the exhibit.



Four midsize service providers provide access to different customers that use Layer 3 VPN services to enable communication across geographic regions. The service providers are connected as shown in the exhibit, and the PEs have established eBGP relationships. PE4 has an iBGP relationship with PE5. The routes that PE4 learns from PE5 must reach the other PE routers, but they are absent from the routing tables on the other PEs. Which action should the engineers take to correct the problem?

- A. Configure a peering between all five PEs.
- B. Disable BGP synchronization on PE4.
- C. Enable BGP IPv4 unicast on PE4 and PE5
- D. Advertise the route targets for PE5 to the other PEs

Answer: A

**NEW QUESTION 7**

Refer to the exhibit.

snmp-server community ciscotest ro 2

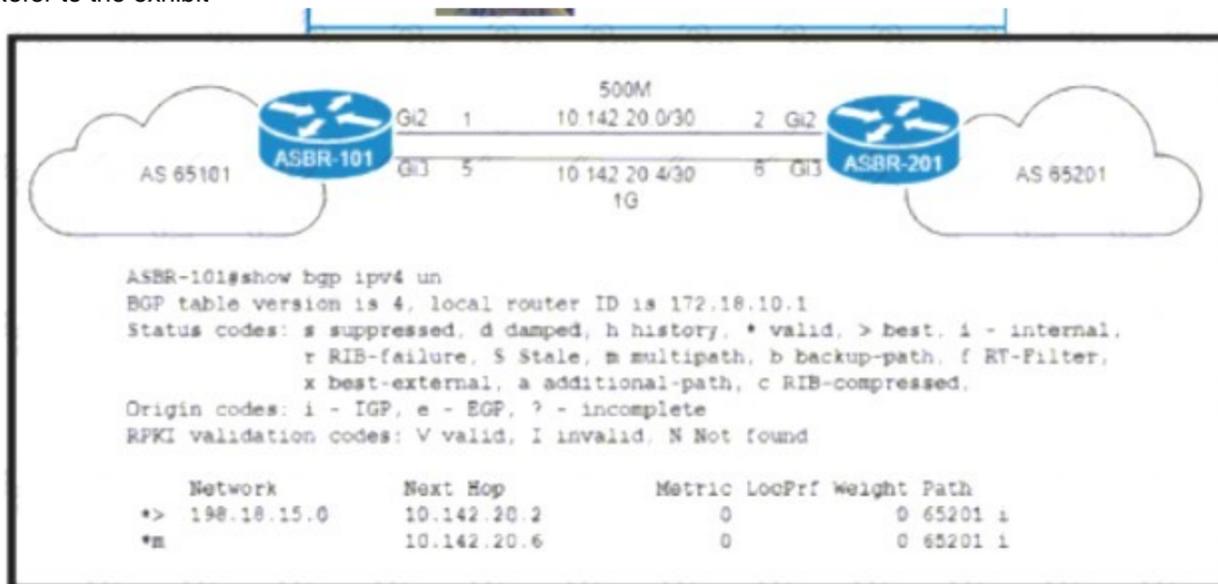
What does the number 2 mean in the configuration?

- A. It dictates the number of sessions that will be open with the SNMP manager
- B. It represents the version of SNMP running.
- C. It indicates two SNMP managers are able to read and write with the agent using community string ciscotest.
- D. It is the numeric name of the ACL that contains the list of SNMP managers with access to the agent.

Answer: D

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

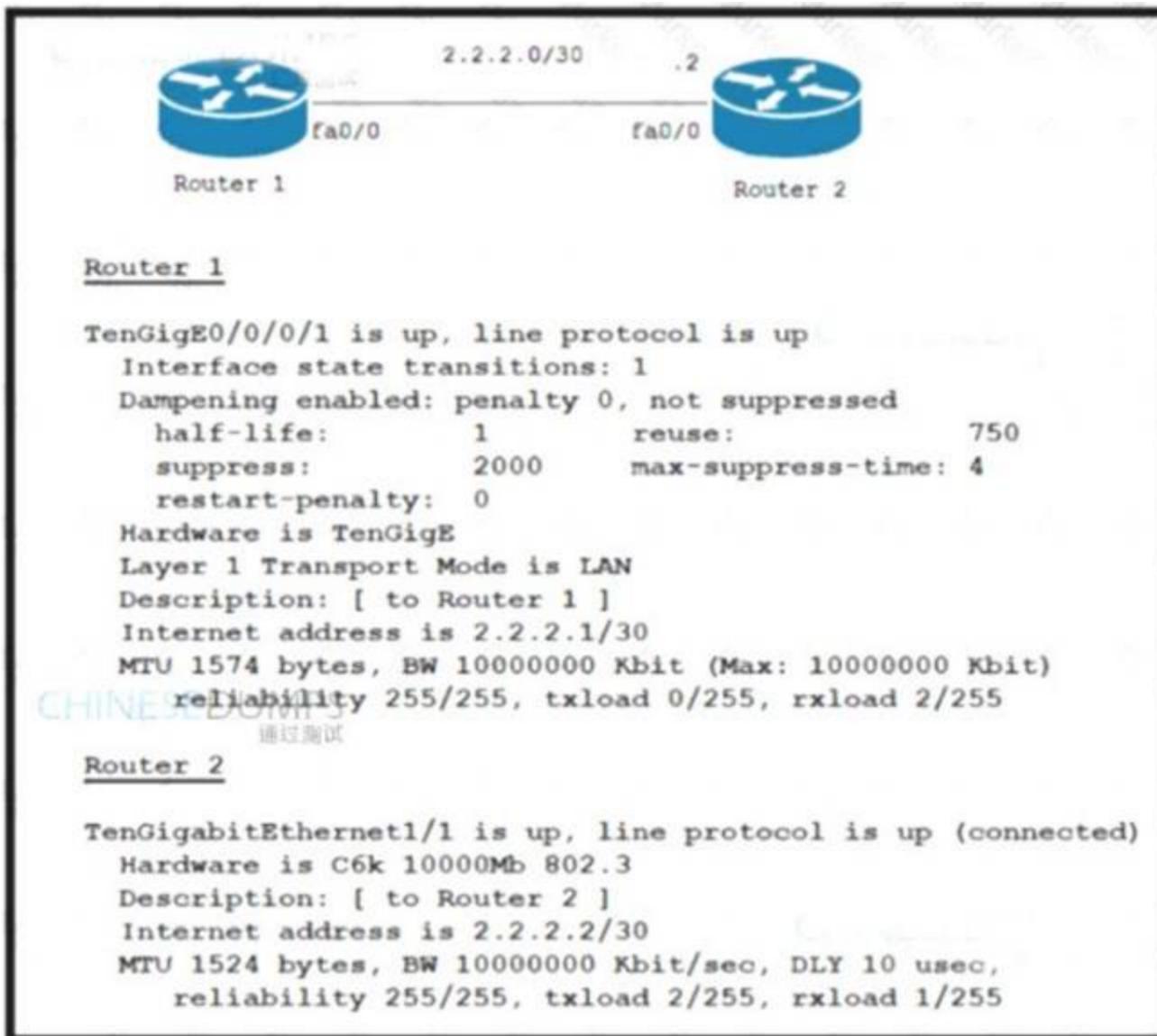
router bgp 65201
address-family ipv4
neighbor 10.142.20.5 route-map AS65101-OUT out
end
      
```

- 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**

Which feature describes the adjacency SID?

- A. It applies only to point-to-point links.
- B. It applies only to multipoint links
- C. It is locally unique
- D. It is globally unique.

Answer: C

**NEW QUESTION 10**

When configuring traffic engineering tunnels in Cisco MPLS core network, you see the traffic is not taking the expected path in the core. Which command do you use to quickly check path of a TE tunnel?

- A. Traceroute mpls ipv4 -tunnel destination
- B. Ping <tunnel destination IP>
- C. show mpls traffic-engineering tunnels
- D. traceroute <tunnel destination IP>

Answer: A

**NEW QUESTION 13**

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 16**

Refer to the exhibit.

```

R1#show running-config | a router isis
router isis 1
 redistribute isis ip level-2 into level-1 route-map LVL2_TO_LVL1
R1#show route-map LVL2_TO_LVL1
route-map LVL2_TO_LVL1, permit, sequence 10
 Match clauses:
  ip address (access-lists): 25
 Set clauses:
 Policy routing matches: 0 packets, 0 bytes

R2#show running-config | a router isis
router isis 1
 redistribute isis ip level-2 into level-1 route-map LVL2_TO_LVL1
R2#show route-map LVL2_TO_LVL1
route-map LVL2_TO_LVL1, permit, sequence 10
 Match clauses:
  ip address (access-lists): 25
 Set clauses:
 Policy routing matches: 0 packets, 0 bytes

R3#show ip route | include 198.18.
1 L2 198.18.1.0/24 [115/20] via 192.168.24.4, 00:11:38, GigabitEthernet1
1 L2 198.18.2.0/24 [115/20] via 192.168.24.4, 00:11:38, GigabitEthernet1
1 L2 198.18.3.0/24 [115/20] via 192.168.24.4, 00:11:38, GigabitEthernet1
1 L2 198.18.4.0/24 [115/20] via 192.168.24.4, 00:11:38, GigabitEthernet1

R5#show ip route | include 198.18.
1 L2 198.18.1.0/24 [115/20] via 192.168.24.4, 00:13:13, GigabitEthernet1
1 L2 198.18.2.0/24 [115/20] via 192.168.24.4, 00:13:13, GigabitEthernet1
1 L2 198.18.3.0/24 [115/20] via 192.168.24.4, 00:13:13, GigabitEthernet1
1 L2 198.18.4.0/24 [115/20] via 192.168.24.4, 00:13:13, GigabitEthernet1
    
```

Routers R2 and R3 are Level 1/Level 2 IS-IS routers that redistribute 198.18.x.x/24 prefixes to routers R5 and R6 in the Level 1 area. R2 is to be the preferred router for all redistributed prefixes in the Level 1 area. Which configuration sets this preference?

- On R2:  
**configure terminal**  
**route-map LVL2\_TO\_LVL1 permit 10**  
**set metric 5**  
**end**
- On R2:  
**configure terminal**  
**route-map LVL2\_TO\_LVL1 permit 10**  
**set metric 25**  
**end**
- On R3:  
**configure terminal**  
**route-map LVL2\_TO\_LVL1 permit 10**  
**set metric 5**  
**end**
- On R3:  
**configure terminal**  
**route-map LVL2\_TO\_LVL1 permit 10**  
**set metric 25**  
**end**

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

Answer: A

**NEW QUESTION 17**

Refer to the exhibit:

```

R1
router ospf 1
 area 2 stub no-summary

R2
router ospf 1
 area 3 nssa
    
```

In which way does router R1 operate differently than router R2?

- A. R1 sends LSA type 2 only, while R2 sends type 1 and type 7 LSAs
- B. R1 sends LSA types 1 and 2, while R2 sends type 1, 2, and 7 LSAs
- C. R1 sends LSA type 2 only and R2 sends LSA type 1 only
- D. R1 sends LSA types 5 and 7, while R2 sends type 1, 2, and 7 LSAs

Answer: B

**NEW QUESTION 20**

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 23**

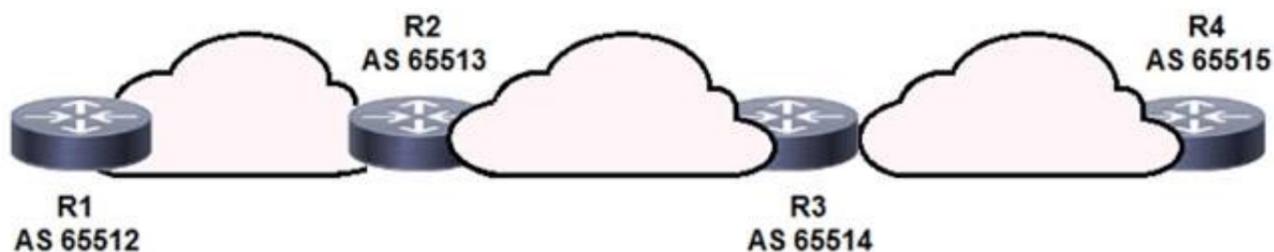
Which component is similar to an EVPN instance?

- A. MPLS label
- B. IGP router ID
- C. VRF
- D. router distinguisher

Answer: C

**NEW QUESTION 26**

Refer to the exhibit:



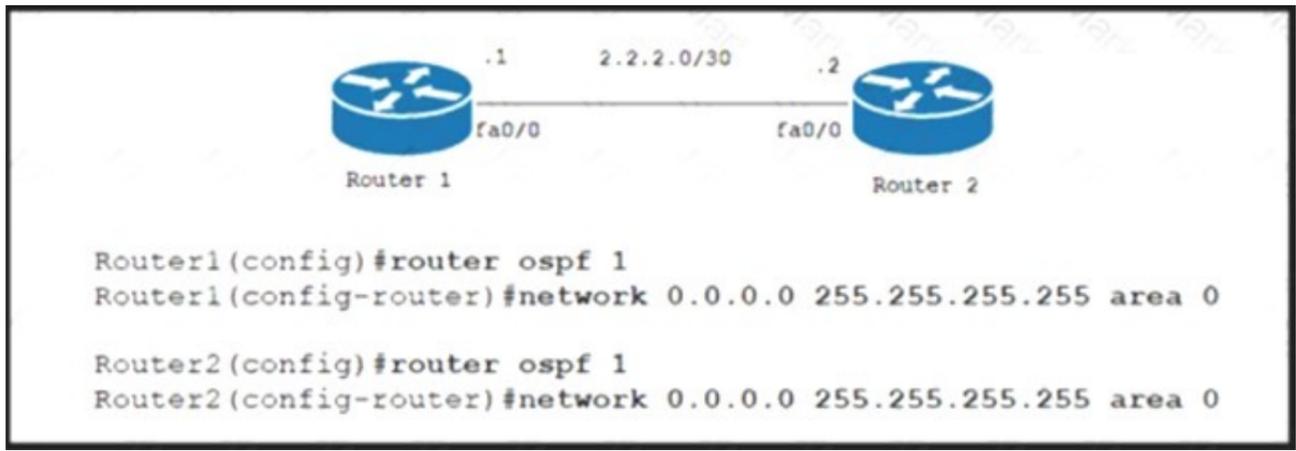
BGPsec is implemented on R1. R2, R3, and R4 BGP peering is established between neighboring autonomous systems. Which statement about implementation is true?

- 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 30**

Refer to the exhibit.



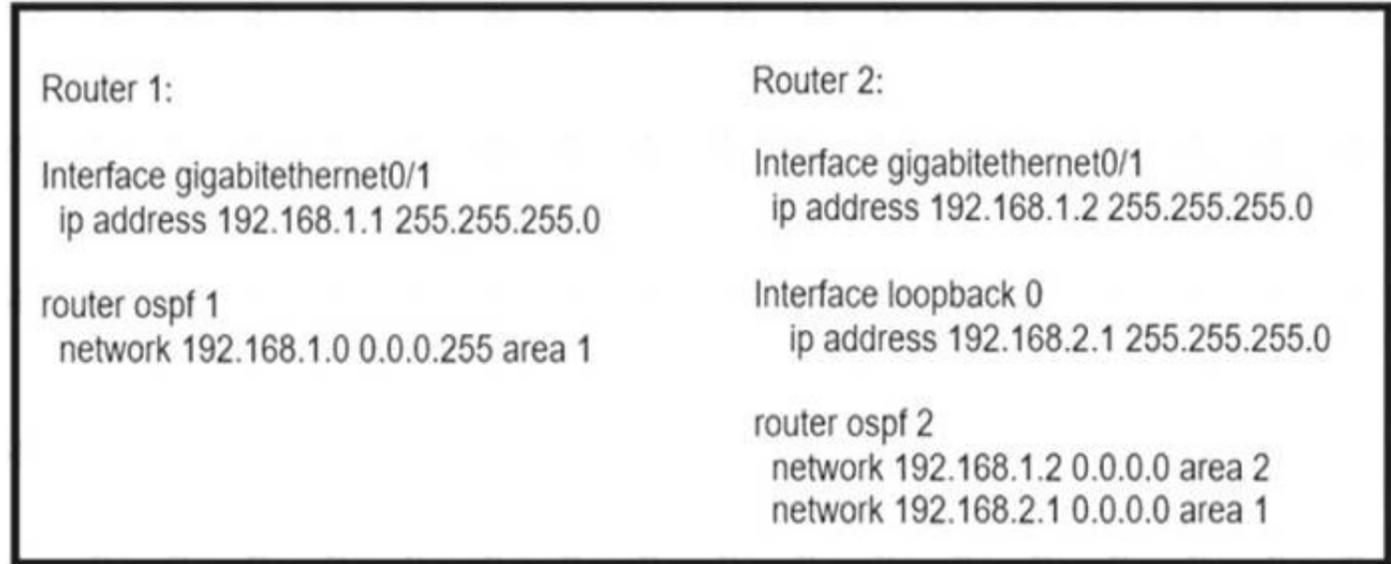
A network engineer must configure an LDP neighborship between two newly installed routers that are located in two different offices. Router 1 is the core router in the network and it has already established OSPF adjacency with router 2. On router 1 and router 2, interface fa0/0 is configured for BFD. Which additional configuration must the engineer apply to the two devices to meet the requirement?

- A. Router1(config)#int fa0/0 - Router1(config-if)#mpls ldp autoconfig Router2(config)#router ospf 1 - Router2(config-router)#mpls ip
- B. Router1(config)#int fa0/0 - Router1(config-if)#mpls ip Router1(config-if)#mpls ldp discovery transport-address interface Router2(config)#int fa0/0 Router2(config-if)#mpls ip Router2(config-if)#mpls ldp discovery transport-address interface
- C. Router1(config)#int fa0/0 - Router1(config-if)#mpls ldp autoconfig Router1(config-if)#mpls ldp discovery interface Router2(config)#router ospf 1 Router2(config-router)#mpls ldp autoconfig Router2(config-if)#mpls ldp discovery interface
- D. Router1(config)#int fa0/0 - Router1(config-if)#mpls ip - Router2(config)#router ospf 1 Router2(config-router)#mpls ldp autoconfig

Answer: D

**NEW QUESTION 35**

Refer to the exhibit.



Router 1 is missing the route for the router 2 loopback 0. What should the engineer change to fix the problem?

- A. the area numbers on Router 1 and Router 2 to be similar
- B. the wildcard mask network statement in OSPF of Router 2
- C. Router 1 to be an ABR
- D. the hello timers on Router 1 and Router 2 to be different

Answer: A

**NEW QUESTION 40**

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 41**

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 43**

Which capability does the MPLS TE FRR facility backup protection method provide?

- A. defining the set of characteristics for the backup TE LSP
- B. leveraging label stacking to protect selected TE LSPs using a single backup TE LSP
- C. creating a bypass LSP for each protected LSP at each point of local repair
- D. assigning a backup TE LSP tunnel to the protected node at the headend of the protected TE LSP

Answer: C

**NEW QUESTION 47**

Drag and drop the NAT64 descriptions from the left onto the correct NAT64 types on the right.

It is limited on the number of endpoints.	<b>Stateful</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
It uses address overloading.	
It conserves IPv4 addresses.	
It mandates IPv4-translatable IPv6 address allocation.	<b>Stateless</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
It has 1:N translation.	

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Stateful (It has 1: N translation, It uses address overloading, It conserves IPv4 addresses)  
 Stateless (It is limited on the number of endpoints, It mandates IPv4-translatable IPv6 address allocation)

**NEW QUESTION 49**

Refer to the exhibit.

```
snmp-server view ViewDefault iso included
snmp-server group GrpMonitoring v3 priv read ViewDefault
```

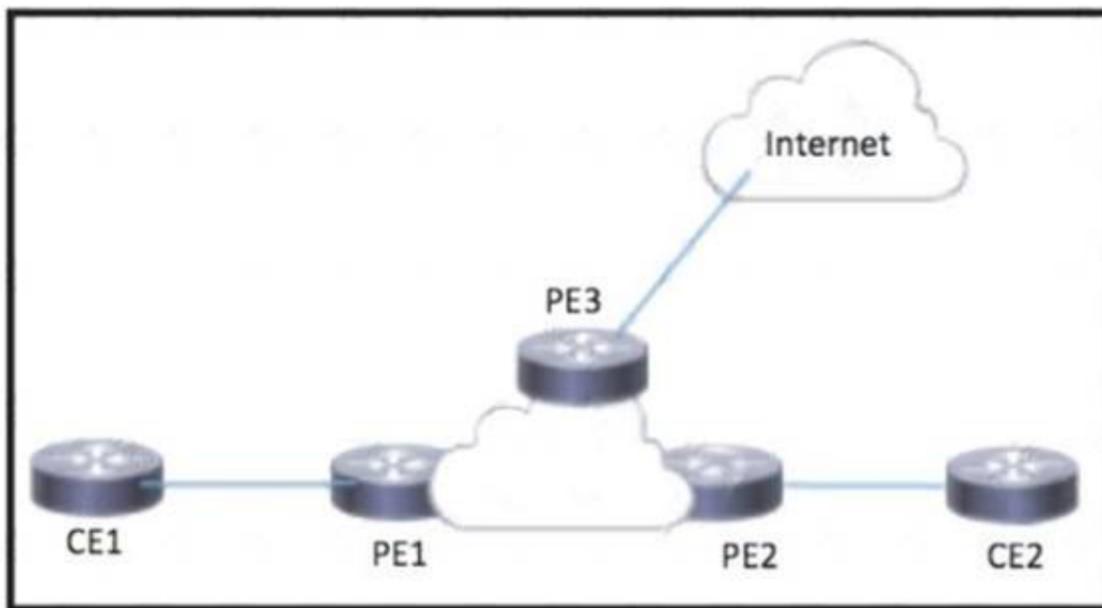
A network engineer must implement SNMPv3 on a Cisco IOS XR router running BGP. The engineer configures SNMPv3 to use SHA for authentication and AES for privacy on the routers, which are in a different data center in the same exchange as other routers. The engineer must also verify the associated MIB view family name, storage type, and status. Which set of actions meets these requirements?

- A. Add configuration snmp-server user UserJustMe GrpMonitoring v3 auth sha AuthPass1 priv 3des 128 PrivPass2 and use show snmp interface to verify the configuration.
- B. Add configuration snmp-server user AuthUser group2 remote 10.1.1.1 v3 auth sha and use show snmp mib to verify the configuration.
- C. Add configuration snmp-server user AuthUser group2 remote 10.1.1.1 v3 auth sha and use show snmp engineid to verify the configuration.
- D. Add configuration snmp-server user UserJustMe GrpMonitoring v3 auth sha AuthPass1 priv aes 128 PrivPass2 and use show snmp view to verify the configuration.

Answer: C

**NEW QUESTION 51**

Refer to the exhibit.



CE1 and CE2 require connectivity to the internet through the ISP connected to PE3. What should an engineer configure to complete this task?

- A. PE2 must be configured to serve as a route reflector for PE3 routes learned from the internet.
- B. PE2 then shares the routes with CE1 and CE2.
- C. CE1 and CE2 must be configured with a route distinguisher in the PE1 VRF that dynamically imports the route from the internet.
- D. CE1 and CE2 must be configured to use a static default route with a next-hop of PE3 to reach internet routes.
- E. PE1 must be configured with an import route target in the CE1 VRF that matches the export route target for the internet VRF on PE3.

Answer: D

**NEW QUESTION 54**

Refer to the exhibit.

```

RB#
interface ethernet 1
 ip address 192.168.10.20 255.255.255.0
 ip router isis
 isis tag 50
!
interface ethernet 2
 ip address 192.168.10.30 255.255.255.0
 ip router isis
 isis tag 80
!
interface ethernet 3
 ip address 192.168.10.40 255.255.255.0
 ip router isis
 isis tag 40
!

R2#
router isis
 net 49.0004.0004.0004.00
 metric-style wide
 redistribute isis ip level-1 into level-2 route-map redist1-2
 redistribute isis ip level-2 into level-1 route-map leak2-1
!
access-list 152 deny ip host 192.168.10.20 host 255.255.255.255
access-list 152 permit ip any any
!
route-map leak2-1 permit 10
 match tag 50
!
route-map leak2-1 permit 20
 match tag 40
!
route-map redist1-2 permit 10
 match tag 80
    
```

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 redist1-2
- C. Remove match tag 40 from route-map leak2-1
- D. Change match tag 80 to match tag 50 in route-map redist1-2.

Answer: D

**NEW QUESTION 56**

Refer to the exhibit.

```

RP/0/0/CPU0:R2#debug isis adjacencies
RP/0/0/CPU0:Apr 2 20:57:00.421 : isis[1010]: RECV P2P IIH (L2)
from GigabitEthernet0/0/0/0 SNPA fal6.3ebe.a7bc: System ID R2,
Holdtime 30, length 1429
RP/0/0/CPU0:Apr 2 20:57:01.761 : isis[1010]: SEND P2P IIH (L1)
on GigabitEthernet0/0/0/0: Holdtime 30s, Length 41
    
```

A network operator is attempting to configure an IS-IS adjacency between two routers, but the adjacency cannot be established. To troubleshoot the problem, the operator collects this debugging output. Which interface are misconfigured on these routers?

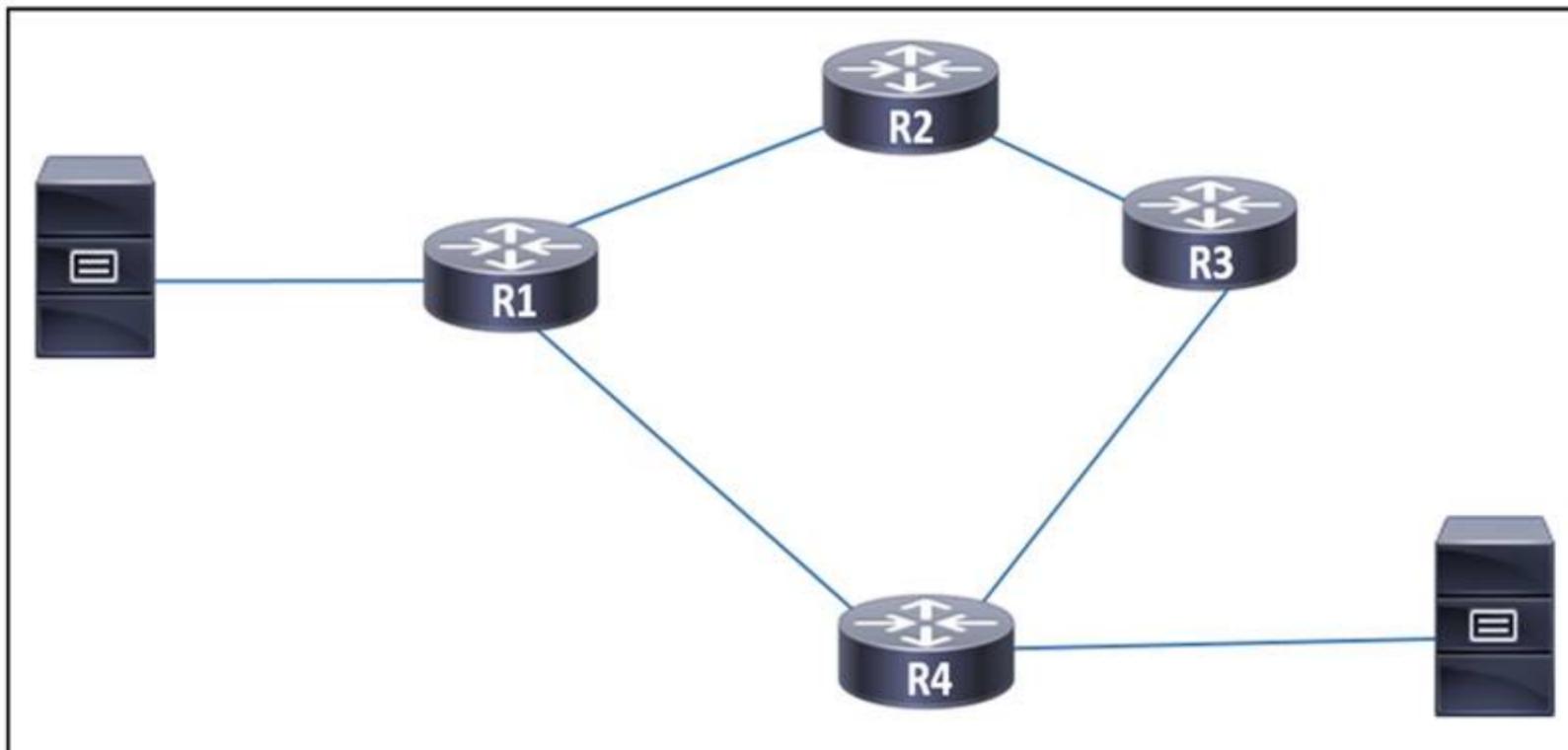
- The peer router interface is configured as Level 1 only, and the R2 interface is configured as Level 2 only.
- The R2 interface is configured as Level 1 only, and the peer router interface is configured as Level 2 only.
- The R2 interface is configured as point-to-point, and the peer router interface is configured as multipoint.
- The peer router interface is configured as point-to-point, and the R2 interface is configured as multipoint.

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

Answer: B

**NEW QUESTION 59**

Refer to the exhibit.



A network engineer observed congestion between routers R1 and R4, which are connected on a point-to-point link. Two servers that reside on networks on R1 and R4 generate heavy traffic between them with most traffic going from R4 to R1. To improve overall performance, the engineer wants to drop inbound packets that exceed a configured threshold, without disrupting traffic that passes from R4 to R3. Which action must the engineer take to resolve the issue?

- A. Implement traffic policing to drop packets that exceed the given threshold.
- B. Implement FIFO to queue excess traffic for transmission when bandwidth is available.
- C. Implement traffic shaping to drop excess packets.
- D. Implement a service policy in the outbound direction on each interface on the link to tag traffic exiting each router.

Answer: A

**NEW QUESTION 62**

Which OS uses a distributed subsystem architecture?

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

Answer: C

**NEW QUESTION 63**

Refer to the exhibit:

```
snmp-server host 192.168.1.1 version 2c public
```

A network administrator wants to enhance the security for SNMP for this configuration. Which action can the network administrator implement?

- A. Re-configure to use SNMPv2 with MD5 authentication
- B. Add a community string to the existing entry
- C. Re-configure to use SNMPv3.
- D. Maintain the configuration but switch to an encrypted password for device access through SSH

Answer: C

**NEW QUESTION 67**

Refer to the exhibit.



A network engineer is implementing a standard customer route-policy on ASBR1 with these requirements:

- It must accept only customer-assigned prefixes
- It must preserve customer advertised BGP communities
- It must set the local-preference to 110 for all prefixes
- It must attach the ORIGINATION-PE and LOCAL-CITY communities to all accepted prefixes. Which route policy must the engineer implement on ASBR1 to satisfy the requirements?

- route-policy BGP-CUSTOMER-IN(\$CUSTOMER\_PREFIX)
  - if destination in \$CUSTOMER\_PREFIX then
  - done
  - else
  - drop
  - endif
  - set local-preference 110
  - set community ORIGINATION-PE
  - set community LOCAL-CITY additive
  - end-policy
- route-policy BGP-CUSTOMER-IN(\$CUSTOMER\_PREFIX)
  - if destination in \$CUSTOMER\_PREFIX then
  - pass
  - else
  - drop
  - endif
  - set local-preference 110
  - set community ORIGINATION-PE
  - set community LOCAL-CITY additive
  - end-policy
- route-policy BGP-CUSTOMER-IN(\$CUSTOMER\_PREFIX)
  - if destination in \$CUSTOMER\_PREFIX then
  - done
  - else
  - drop
  - endif
  - set local-preference 110
  - set community ORIGINATION-PE additive
  - set community LOCAL-CITY additive
  - end-policy
- route-policy BGP-CUSTOMER-IN(\$CUSTOMER\_PREFIX)
  - if destination in \$CUSTOMER\_PREFIX then
  - pass
  - else
  - drop
  - endif
  - set local-preference 110
  - set community ORIGINATION-PE additive
  - set community LOCAL-CITY additive
  - end-policy

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

Answer: D

**NEW QUESTION 71**

Drag and drop the technologies from the left onto the correct definitions on the right.

- DWDM
- ROADM
- IPoDWDM
- EDFA

- required for routes and switches to have DWDM and ITU-T G.709 implemented
- used to amplify an optical signal
- used to drop certain lambdas within a DWDM ring at a specific location
- increases bandwidth over a single fiber by using different wavelengths

- A. Mastered
- B. Not Mastered

Answer: A

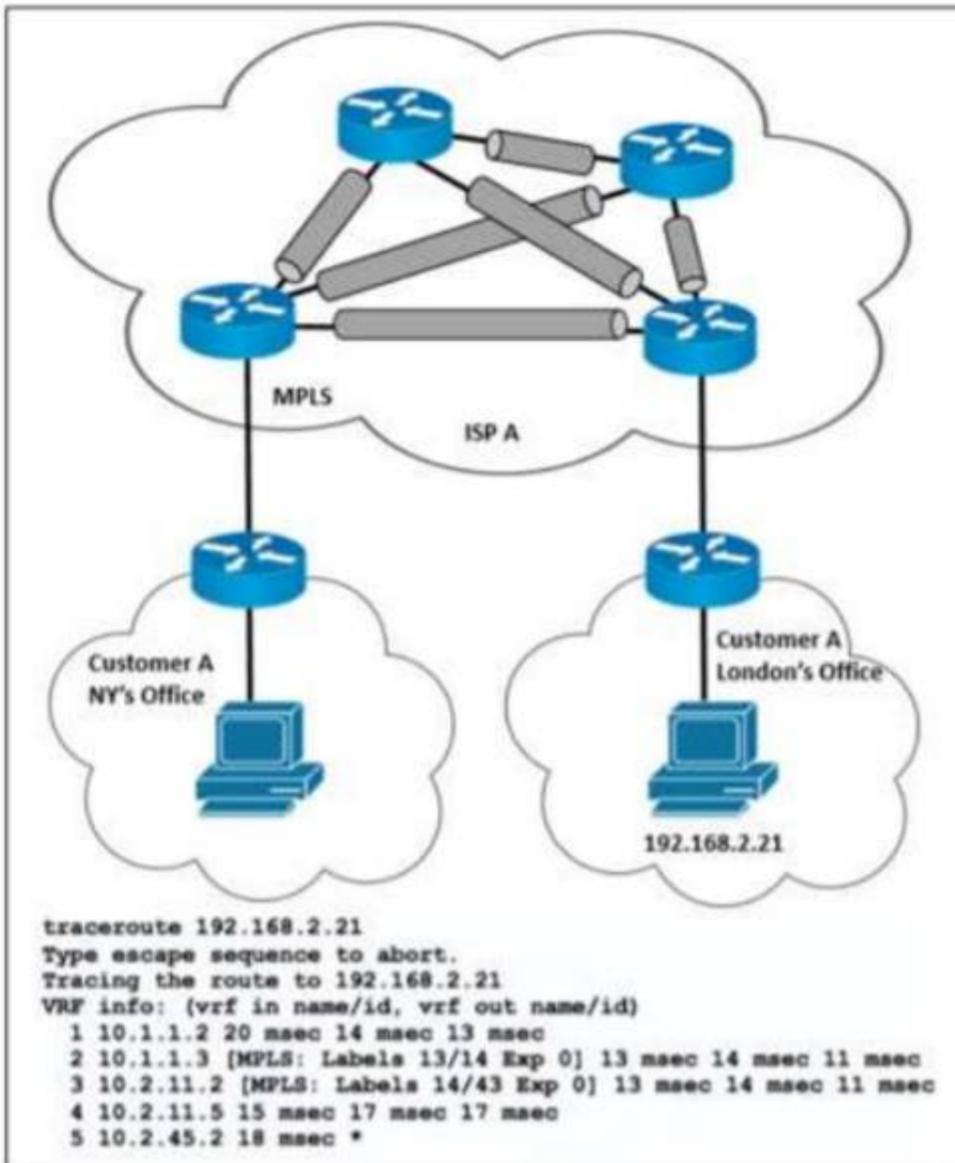
Explanation:

- DWDM
- ROADM
- IPoDWDM
- EDFA

- IPoDWDM
- EDFA
- ROADM
- DWDM

**NEW QUESTION 73**

Refer to the exhibit.



ISP A provides MPLS L3VPN service to customer A with BGP as the external routing protocol. Customer A has just opened a new branch office in London and requested the service provider to implement lossless service between its two offices. The LDP is enabled over the MPLS backbone and label exchange is working normally. Which action must the ISP engineering team take to enable the service?

- A. Configure LDP and redistribute the route from EIGRP.
- B. Configure BGP address family VPNv4.
- C. Configure IGP and redistribute the route from BGP.
- D. Configure IGP LDP synchronization

Answer: D

**NEW QUESTION 77**

Refer to the exhibit:

```
router bgp 1
network 192.168.1.2 mask 255.255.255.255
neighbor 192.168.1.1 remote-as 64512
neighbor 192.168.1.1 update-source Loopback0
neighbor 192.168.1.1 send-label
```

Which statement about the neighbor statements for 192.168.1.1 is true?

- A. The router must have TDP configured for the send-label command to operate
- B. The neighbor router receives at least four labels from this router
- C. The router sends BGP labels for its prefixes to this peer
- D. The router sends only a label for the prefix for Loopback0.

Answer: C

**NEW QUESTION 82**

Refer to the exhibit.

```
router bgp 65515
aggregate-address 192.168.0.0 255.255.0.0 summary-only as-set
```

An engineer configured BGP summarization on a customer's network. Which route is advertised to BGP peers?

- A. A.-192.0.0.0/16B.192168.0.0/16C.192.168.1.0/24D.192168.0.5/30

Answer: B

**NEW QUESTION 84**

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 labeled "IS-IS Multi-Area Topology" with three routers: R1 (Level 2), R2 (Level 2), and R3 (Level 1). R1 is connected to R2 and R3. R2 and R3 are also connected to each other. Each router has a loopback interface (Lo0) and several Ethernet interfaces (E0/0, E1/0). On the right, a terminal window for router R1 shows the following configuration commands:

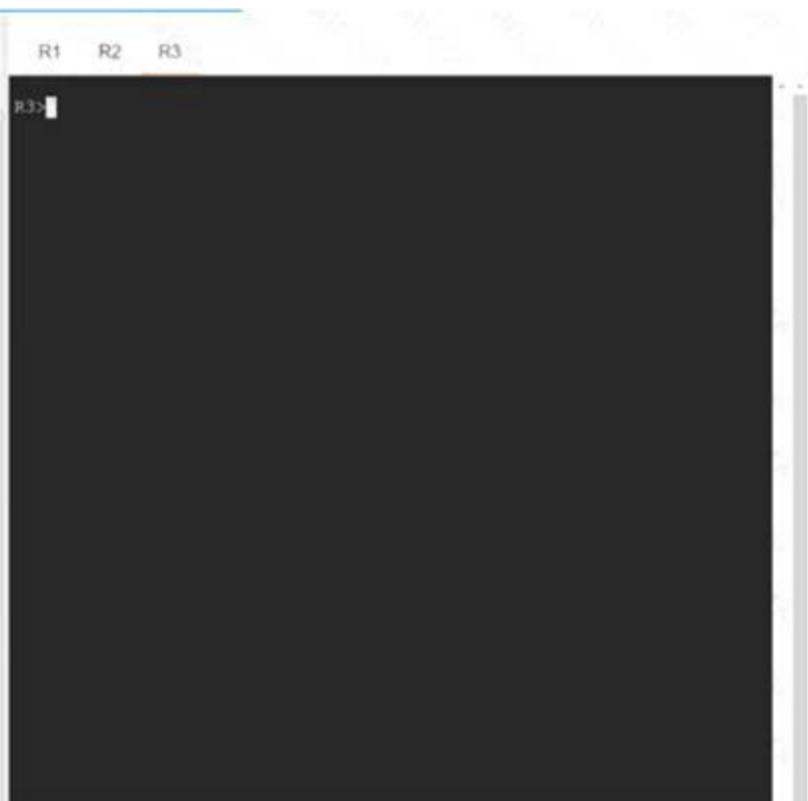
```
R1>enabler1
Translating "enabler1"...domain server (255.255.255.255)
(255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
Translating "enabler1"...domain server (255.255.255.255)
Translating "enabler1"...domain server (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.



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.



- 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 87**

What are the two uses of the YANG data modeling language? (Choose two.)

- A. It is used to access a device by HTTP.
- B. It is used to model the configuration used by NETCONF operations.
- C. It is used to shape state data of network elements.
- D. It is used to replace RESTCONF as a mechanism to install and manipulate configuration.
- E. It is used to replace the OSI model for troubleshooting.

**Answer:** BC

**NEW QUESTION 91**

Refer to the exhibit:

```

ip flow-export source loopback 0
ip flow-export destination 192.168.1.1
ip flow-export version 5 origin-as

```

If the NetFlow configuration is updated to version 9, which additional piece of information can be reported?"

- A. IPv6 flow information
- B. flow sequence numbers
- C. BGP AS information
- D. IPv4 flow information

**Answer:** A

**NEW QUESTION 94**

An engineer is setting up overlapping VPNs to allow VRF ABC and XYZ to communicate with VRF CENTRAL but wants to make sure that VRF ABC and XYZ cannot communicate. Which configuration accomplishes these objectives?

```

vrf ABC
address-family ipv4 unicast
import route-target
65000:1111
65000:3333
!
export route-target
65000:1111
65000:3333
!
vrf XYZ
address-family ipv4 unicast
import route-target
65000:2222
65000:3333
!
export route-target
65000:2222
65000:3333
!
vrf CENTRAL
address-family ipv4 unicast
import route-target
65000:3333
!
export route-target
65000:3333
!
    
```

```

vrf ABC
address-family ipv4 unicast
import route-target
65000:1111
65000:4444
!
export route-target
65000:1111
65000:3333
!
vrf XYZ
address-family ipv4 unicast
import route-target
65000:2222
65000:3333
!
export route-target
65000:2222
65000:4444
!
vrf CENTRAL
address-family ipv4 unicast
import route-target
65000:3333
!
export route-target
65000:4444
!
    
```

```

vrf ABC
address-family ipv4 unicast
import route-target
65000:1111
65000:4444
!
export route-target
65000:1111
65000:3333
!
vrf XYZ
address-family ipv4 unicast
import route-target
65000:2222
65000:4444
!
export route-target
65000:2222
65000:3333
!
vrf CENTRAL
address-family ipv4 unicast
import route-target
65000:3333
!
export route-target
65000:4444
!
    
```

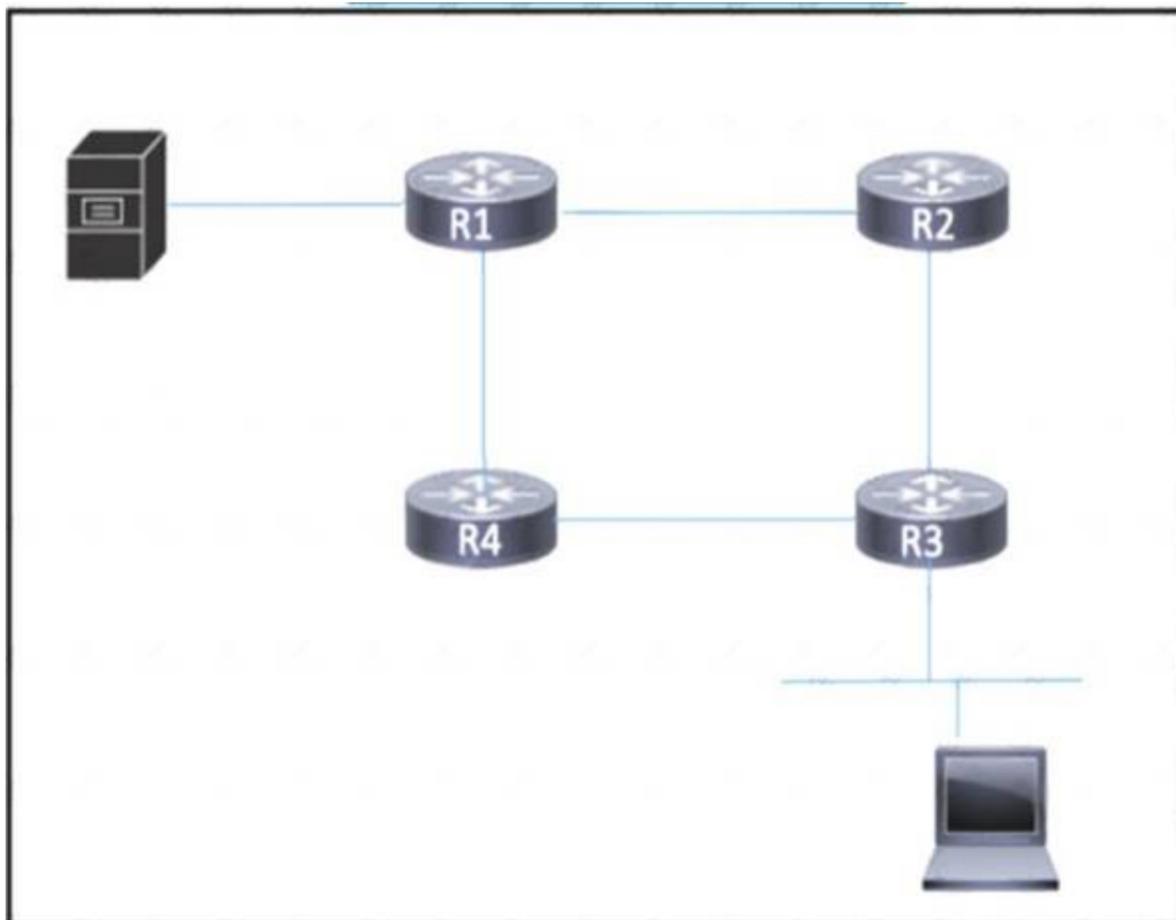
```

vrf ABC
address-family ipv4 unicast
import route-target
65000:1111
!
export route-target
65000:1111
!
vrf XYZ
address-family ipv4 unicast
import route-target
65000:2222
!
export route-target
65000:2222
65000:1111
!
vrf CENTRAL
address-family ipv4 unicast
import route-target
65000:3333
65000:1111
65000:2222
!
export route-target
65000:3333
65000:1111
65000:2222
!
    
```

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

Answer: C

**NEW QUESTION 95**  
 Refer to the exhibit.



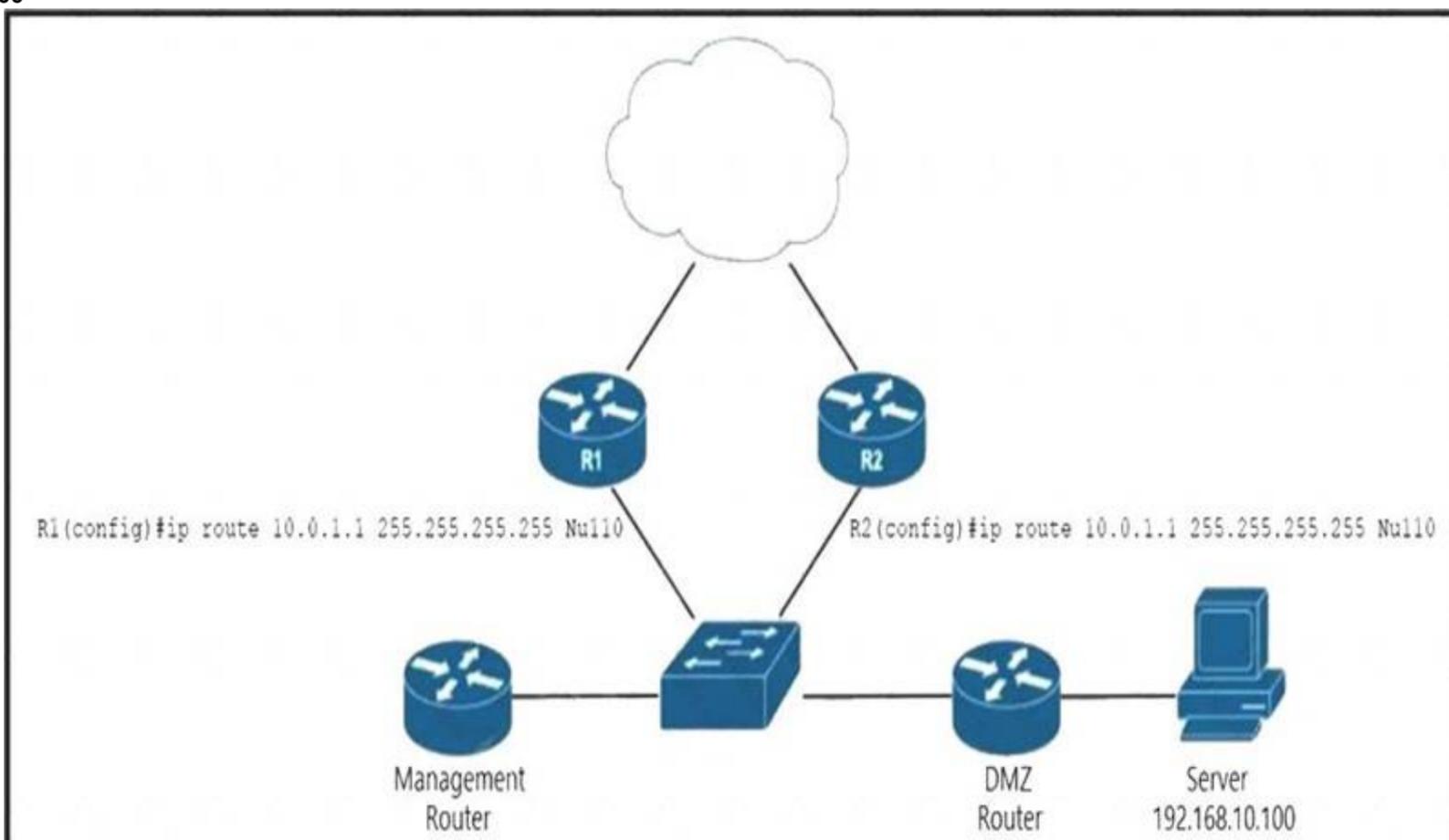
A host connected to R3 must connect with a server on R1 that provides critical, time-sensitive data. Traffic between the host and server must always be given bandwidth to traverse the links when they are congested, with other traffic being dropped. How must the network engineer implement a QoS strategy with classification to ensure that the traffic is given the appropriate bandwidth?

- A. Implement FIFO to guarantee that the server traffic is sent first while other traffic is queued.
- B. Implement policing to rate-limit noncritical traffic that exceeds designated thresholds.
- C. Implement traffic shaping to delay noncritical traffic when the link is congested.
- D. Implement strict priority to guarantee bandwidth for the server traffic.

Answer: D

**NEW QUESTION 100**

Refer to the exhibit.



router(config)# route-map blackhole-trigger router(config-route-map)# match tag 777 router(config-route-map)# set ip next-hop 10.0.1.1 router(config-route-map)# set origin igp router(config-route-map)# set community no-export  
 EIGRP is running across the core to exchange internal routes, and each router maintains iBGP adjacency with the other routers on the network. An operator has configured static routes on the edge routers R1 and R2 for IP address 10.0.1.1, which is used as a black hole route as shown. Which configuration should the operator implement to the management router to create a route map that will redistribute tagged static routes into BGP and create a static route to blackhole traffic with tag 777 that is destined to the server at 192.168.10.100?

- A. router(config)# router bgp 55100router(config-router)# redistribute static route-map blackhole-trigger router(config)# ip route 10.0.1.1 255.255.255.255 Null0 tag 777
- B. router(config)# router bgp 55100router(config-router)# redistribute static route-map blackhole-trigger router(config)# ip route 192.168.10.100 255.255.255.255 Null0 tag 777
- C. router(config)# router bgp 55100 router(config-router)# redistribute connectedrouter(config)# ip route 192.168.10.100 255.255.255.255 tag 777
- D. router(config)# router bgp 55100router(config-router)# redistribute connected route-map blackhole-trigger router(config)# ip route 192.168.10.100

255.255.255.255 Null0 tag 777

Answer: B

#### NEW QUESTION 102

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 106

What is a characteristics of the Pipe model for MPLS QoS?

- A. The same QoS policy is applied to all customer traffic on the egress PE.
- B. If the outer EXP is changed, it is copied to the DSCP value.
- C. The MPLS EXP bits are set by the CE.
- D. The DSCP value determines how the packet is forwarded

Answer: A

#### NEW QUESTION 107

Refer to the exhibit.

```
configure
policy-map ciscopolicy
 class ciscotest
  set precedence 1
 exit
exit
interface pos 0/2/0/0
 service-policy output ciscopolicy
commit
```

An engineer needs to implement this QoS policy on customer's network due to ongoing slow network issues. What will be the effect on the network when the engineer implements this configuration?

- A. Traffic that is identified in the ciscotest class map will be remarked from IP precedence 1 to DSCP AF11 when it enters the pos0/2/0/0 interface.
- B. Traffic that is identified in the ciscopolicy class map will be marked with IP precedence 1 when it enters the pos0/2/0/0 interface.
- C. Traffic that is identified in the ciscopolicy class map will be remarked from IP precedence 1 to DSCP AF11 when it exits the pos0/2/0/0 interface.
- D. Traffic that is identified in the ciscotest class map will be marked with IP precedence 1 when it exits the pos0/2/0/0 interface.

Answer: D

#### NEW QUESTION 108

Refer to the exhibit.

```
router bgp 65515
  bgp router-id 192.168.1.1
  no bgp default ipv4-unicast
  bgp log-neighbor-changes
  neighbor 192.168.1.2 remote-as 65515
  neighbor 192.168.2.2 remote-as 65515
```

A network engineer is configuring a new router for iBGP to improve the capacity of a growing network. The router must establish an iBGP peer relationship with its neighbor. The underlay network is already configured with the correct IP addresses. Which step should the engineer apply to complete this task?

- A. Implement multicast routing on the router to support BGP hellos.
- B. Configure the AS number for the router to share with its iBGP peers.
- C. Configure the new router as an iBGP route reflector to support multiple iBGP peers.
- D. Activate the BGP peers under the correct address family on the router.

**Answer: D**

#### NEW QUESTION 109

Which action occurs during the traceback phase of the six-phase approach to service provider security?

- A. Trace action occur flows from the stacked sections of the network toward the network edges
- B. Detect unusual activity or behavior and activate appropriate measures after an alert is raised.
- C. Review the whole attack-handling process
- D. Mitigate the attack that flows using various mechanisms.

**Answer: A**

#### NEW QUESTION 111

Refer to the exhibit.

```
R1
interface Ethernet1/1
 ip address 172.16.33.1 255.255.255.255
interface Ethernet1/0
 ip address 172.16.32.1 255.255.255.0
router ospf 20
 network 172.16.0.0 0.0.255.255 area 0

R2
interface Ethernet1/1
 ip address 172.16.30.1 255.255.255.255
interface Ethernet1/0
 ip address 172.16.32.2 255.255.255.0
router ospf 20
 network 172.16.0.0 0.0.255.255 area 0
 distribute-list 1 in
 access-list 1 permit 172.16.32.0. 0.0.0.255

R2# show ip route
172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C    172.16.32.0/24 is directly connected, Ethernet1/0
C    172.16.30.1/32 is directly connected, Ethernet1/1
```

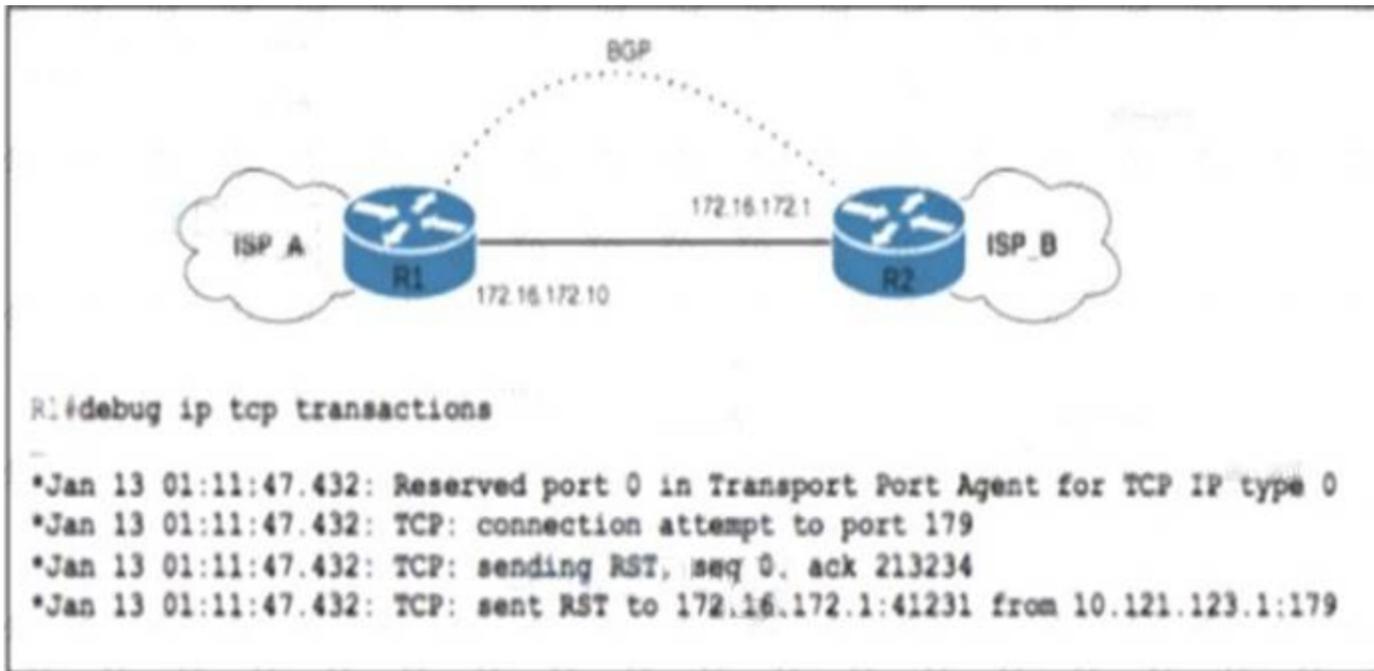
A network engineer notices that router R2 is failing to install network 172.16.33.1/32 in the routing table. Which configuration must the engineer apply to R2 to fix the problem?

- A. R2(config)# access-list 1 permit 172.16.33.0 255.0.0.0
- B. R2(config)# access-list 1 permit 172,16,33.0 255,255,255,0
- C. R2(config)# access-list 1 permit 172.16.33.0 0.0.0.255
- D. R2(config)# access-list 1 permit 172,16,33.0 255.255,0,0

**Answer: C**

#### NEW QUESTION 116

Refer to the exhibit.



ISP\_A and ISP\_B use AS numbers 38321 and 16213 respectively. After a network engineer reloaded router R1, the BGP session with R2 failed to establish. The engineer confirmed BGP next-hop availability with a connectivity test between the router loopback addresses 10.121.123.2 and 10.121.123.1, as well as between interfaces Gi1/1 and Gi1/2. EBGP multihop has been configured on both routers. Which action must the engineer take to resolve the issue?

- A. Configure transport connection-mod@ passive on R2.
- B. Configure neighbor 172.16.172.1 authentication on R1
- C. Configure neighbor update-source lo0 on R2
- D. Configure remote-as 16213 on R1.

Answer: C

**NEW QUESTION 117**

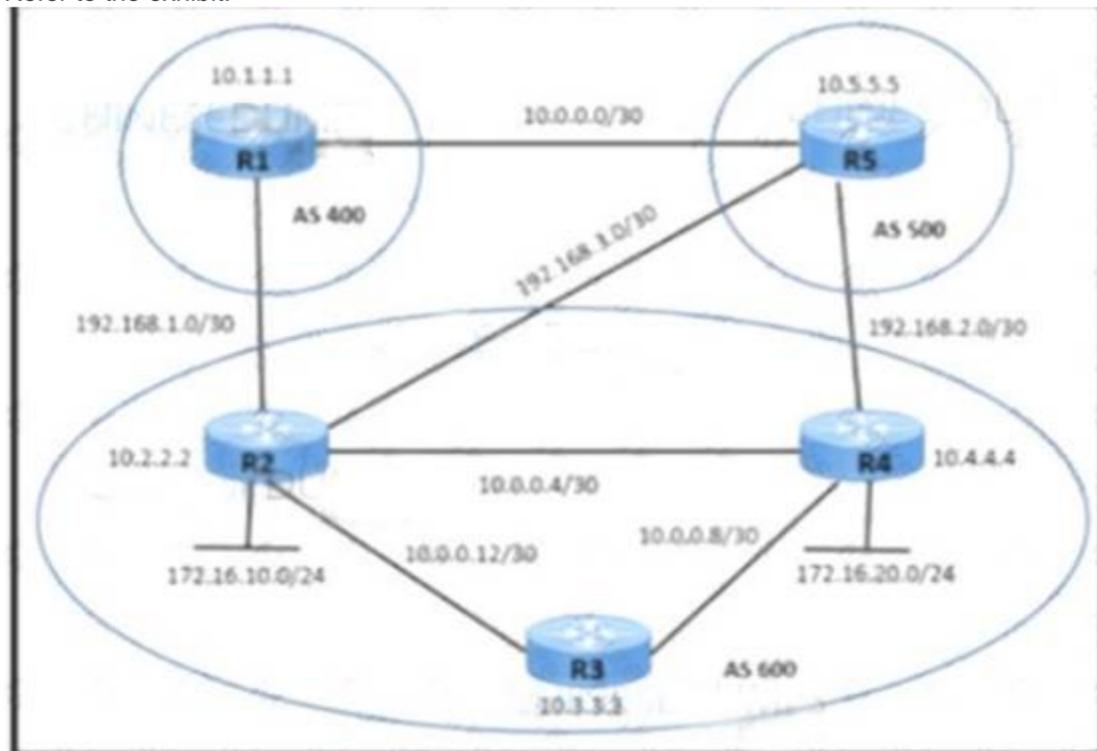
Which function does RSVP perform in a Cisco MPLS TE environment?

- 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 120**

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 125**

Refer to the exhibit.

```

CPE-1#show run int gig 0/0
interface GigabitEthernet0/0
 ip address 100.65.15.2 255.255.255.252
 negotiation auto
 ipv6 address 2001:DB8:0:A000:100:65:15:2/126
 service-policy output WAN-OUTPUT
end

CPE-1#show run int gig 0/1
interface GigabitEthernet0/1
 ip address 192.168.2.1 255.255.255.0
 negotiation auto
 ipv6 address 2001:DB8:0:A001:192:168:2:1/120
 service-policy input LAN-INPUT
end

CPE-1#show access-list
Standard IP access list SELF_V4
 10 permit 100.65.15.2
IPv6 access list SELF_V6
 permit ipv6 host 2001 :DB8:0:A000:100:65:15:2 any sequence 10

CPE-1#show policy-map
Policy Map WAN-OUTPUT

Policy Map LAN-INPUT
    
```

A network engineer configures CPE-1 for QoS with these requirements: IPv4 and IPv6 traffic originated by the CPE-1 WAN IP address must be marked with DSCP CS3. IPv4 LAN traffic must be marked with DSCP CS1. IPv6 LAN traffic must be marked with DSCP default. Which configuration must the engineer implement on CPE-1?

- A. class-map match-any SELF\_TRAFFIC match access-group name SELF\_V4 match access-group name SELF\_V6 class-map match-all V4\_TRAFFIC match protocol ip class-map match-all V6\_TRAFFIC match protocol ipv6 class-map match-all QG\_4 match qos-group 4 class-map match-all QG\_6 match qos-group 6! policy-map LAN-INPUT class V4\_TRAFFIC set qos-group 4 class V6\_TRAFFIC set qos-group 6! policy-map WAN-OUTPUT class SELF\_TRAFFIC set ip dscp cs3 class QG\_4 set ip dscp cs1 class QG\_6 set ip dscp default
- B. class-map match-all SELF\_TRAFFIC match access-group name SELF\_V4 match access-group name SELF\_V6 class-map match-all V4\_TRAFFIC match protocol ip class-map match-all V6\_TRAFFIC match protocol ipv6 class-map match-all QG\_4 match qos-group 4 class-map match-all QG\_6 match qos-group 6! policy-map LAN-INPUT class V4\_TRAFFIC set qos-group 4 class V6\_TRAFFIC set qos-group 6! policy-map WAN-OUTPUT class SELF\_TRAFFIC set dscp cs3 class QG\_4 set ip dscp cs1 class QG\_6 set dscp default
- C. class-map match-all SELF\_TRAFFIC match access-group name SELF\_V4 match access-group name SELF\_V6 class-map match-all V4\_TRAFFIC match protocol ip class-map match-all V6\_TRAFFIC match protocol ipv6 class-map match-all QG\_4 match qos-group 4 class-map match-all QG\_6 match qos-group 6! policy-map LAN-INPUT class V4\_TRAFFIC set qos-group 4 class V6\_TRAFFIC set qos-group 6! policy-map WAN-OUTPUT class SELF\_TRAFFIC set ip dscp cs3 class QG\_4 set ip dscp cs1 class QG\_6 set ip dscp default
- D. class-map match-any SELF\_TRAFFIC match access-group name SELF\_V4 match access-group name SELF\_V6 class-map match-all V4\_TRAFFIC match protocol ip class-map match-all V6\_TRAFFIC match protocol ipv6 class-map match-all QG\_4 match qos-group 4 class-map match-all QG\_6 match qos-group 6! policy-map LAN-INPUT class V4\_TRAFFIC set qos-group 4 class V6\_TRAFFIC set qos-group 6! policy-map WAN-OUTPUT class SELF\_TRAFFIC set dscp cs3 class QG\_4 set ip dscp cs1 class QG\_6 set dscp default

Answer: A

**NEW QUESTION 126**

Refer To the exhibit:

```

R2#sh cins neighbors detail
Tag TEST:
System Id  Interface  SNPA          State Holdtime  Type Protocol
R1        Fa0/0      ca01.2178.0008 Up    89         L1L2 IS-IS
Area Address(es): 49
Uptime: 00:03:29
NSF capable
Interface name: FastEthernet0/0
    
```

On R1, which output does the show isis neighbors command generate?

A)

Tag TEST						
System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
R2	L1	Fa0/0		UP	7	R2 01

B)

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

C)

Tag TEST						
System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
R2	L2	Fa0/0		UP	7	R2 01
R2	L2	Fa0/0		UP	9	R2 01

D)

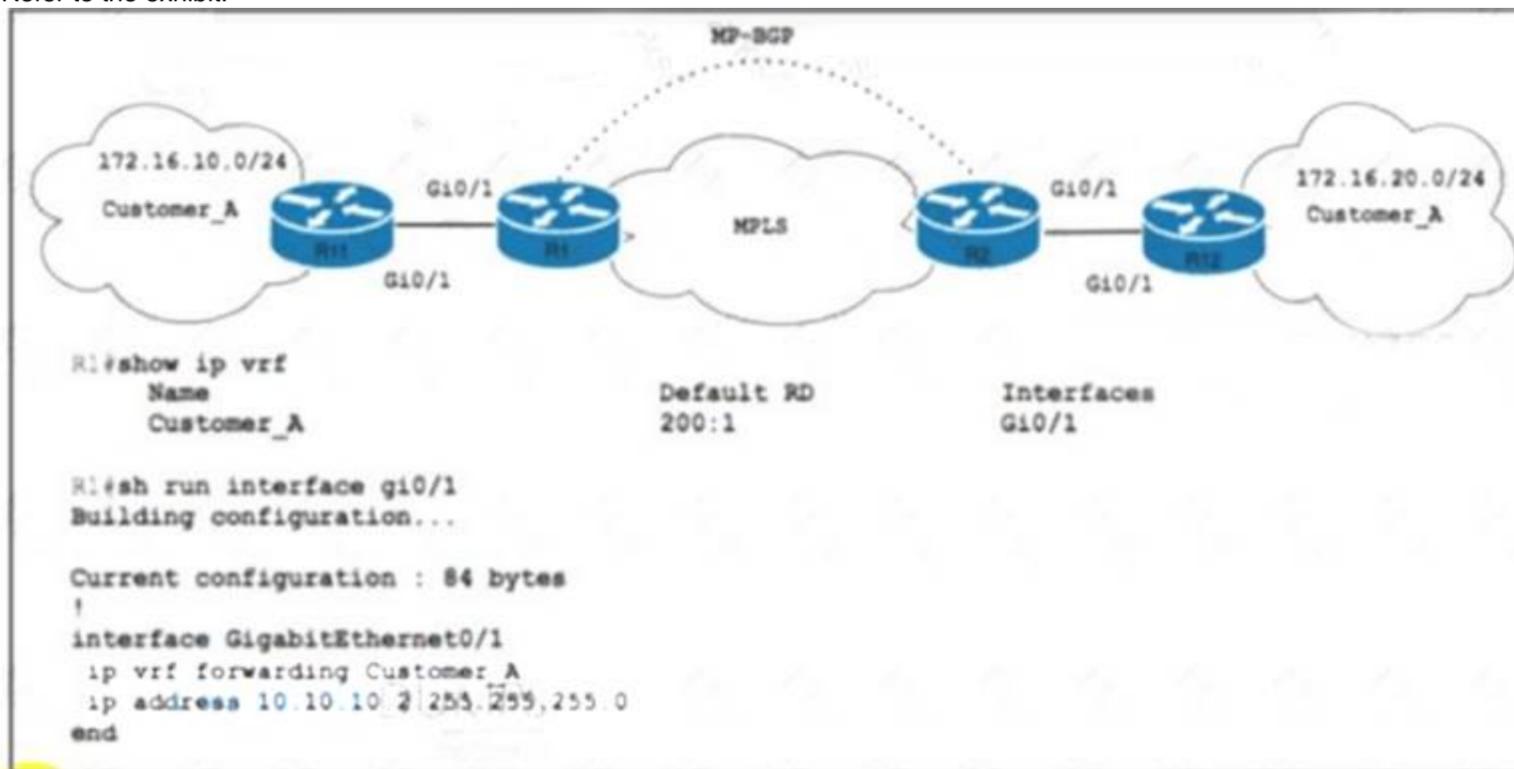
Tag TEST						
System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
R2	L1	Fa0/0		UP	7	R2 01
R2	L2	Fa0/0		UP	9	R2 01

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

Answer: D

**NEW QUESTION 129**

Refer to the exhibit.



Customer\_A asked ISP\_A to connect two offices via an MPLS L3 VPN. Customer\_A is currently using only the default route toward ISP\_A. The engineer at ISP\_A already configured the ip route vrf Customer\_A 172.16.10.0 255.255.255.0 10.10.10.1 command on R1. Which action completes the configuration?

- A. Configure the network 172.16.10.0 and redistribute-internal static commands under the BGP address family for Customer\_A in the global BGP configuration on R1.
- B. Enable the bgp default route-target filter and default-Information originate commands under the global BGP configuration on R2.
- C. Configure the route-target both 200:1 and route-replicate vrf Customer\_A commands under the Ip vrf configuration on R2.
- D. Configure the redistribute static and redistribute connected commands on R1.

Answer: D

**NEW QUESTION 131**

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
    
```

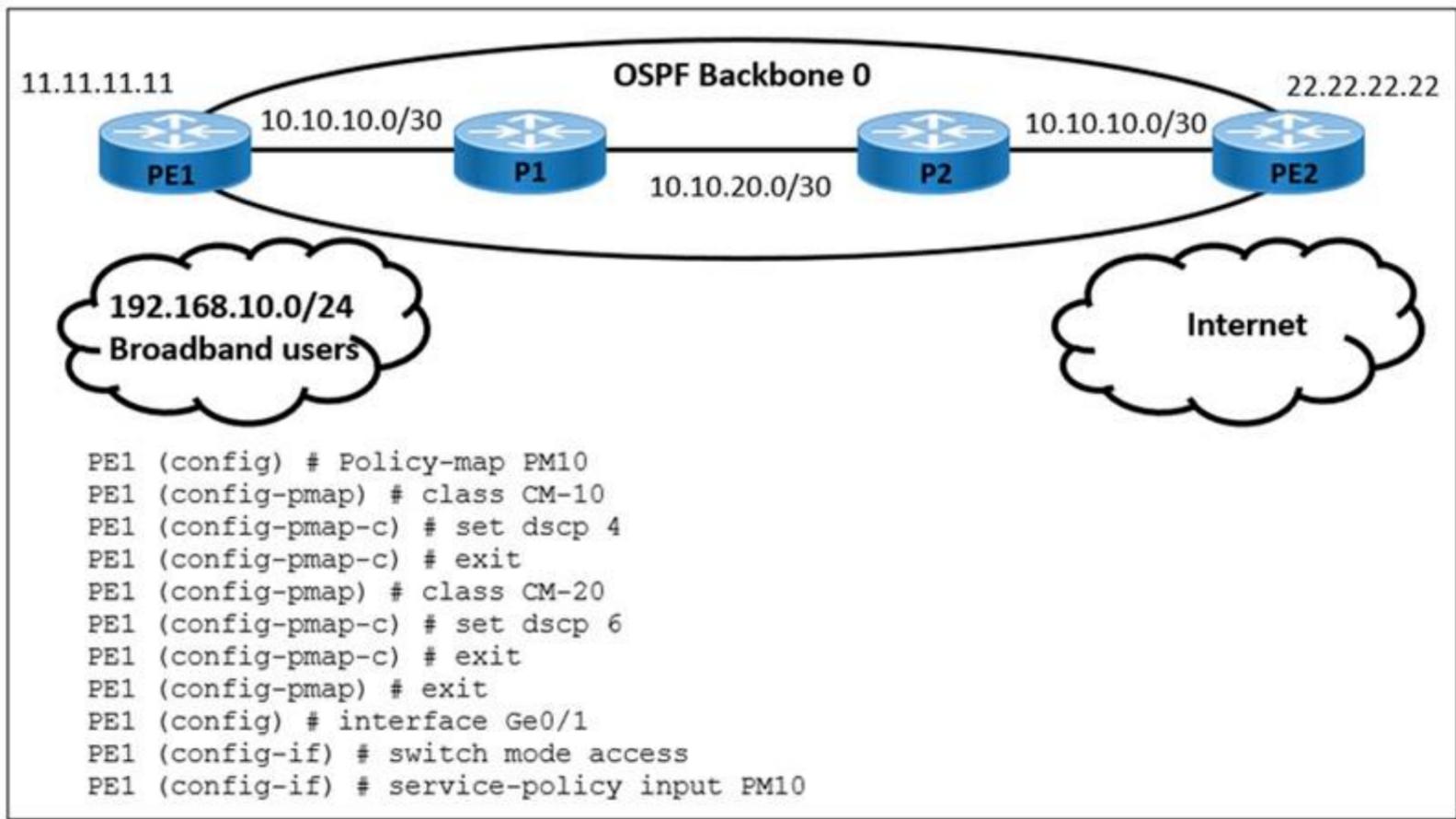
Which statement about the status of the neighbor relationship between R1 and R2 is true?

- 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 133**

Refer to the exhibit



A user is performing QoS marking on internet traffic and sending it with IPv4 and IPv6 headers on the provider edge device PE1. IPv4 traffic is classified with DSCP 4 and IPv6 traffic is classified with DSCP 6. Which action must the engineer take to begin implementing a QoS configuration on PE1 for the IPv6 traffic?

- A. Create an access list that includes any IPv6 traffic and apply it to CM-20.
- B. Create access list IPv6-match and configure match ip dscp 4 and match ip dscp 6 in class maps CM-10 and CM-20.
- C. Configure match ip dscp 4 in class map CM-10 and match ip dscp 6 in class map CM-20.
- D. Create access list IPv6-filter and remove DSCP value 4 and 6 in class maps CM-10 and CM-20.

Answer: A

**NEW QUESTION 136**

A customer site is being connected to a Frame Relay network via a T1 link. The customer has a contract for 512 kbps service with a Tc value of 125 ms. Under peak line conditions, customer traffic can reach four times the contracted speed. Which QoS configuration must the service provider implement to limit the customer to the contracted values?

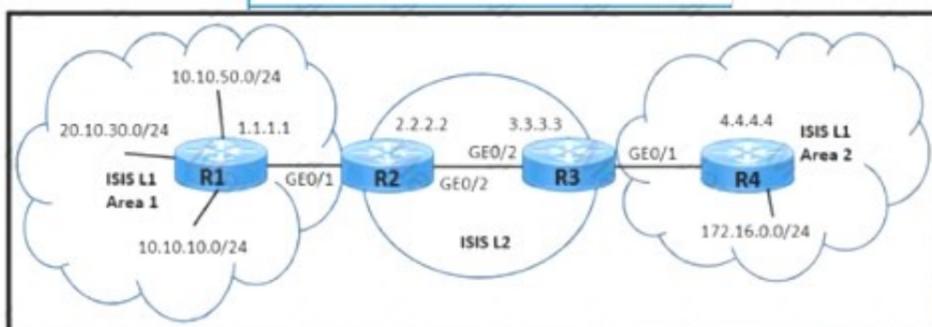
- policy-map policy\_map  
class class\_map  
police cir 512000 bc 64000 pir 20480000 be 192000  
conform-action transmit  
exceed-action drop
- policy-map policy\_map  
class class\_map  
police cir 512kbps bc 256kbps pir 2Mbps be 9600 kbps  
conform-action transmit  
exceed-action set-de-bit transmit  
violate-action drop
- policy-map policy\_map  
class class\_map  
police cir 512000 bc 128000 pir 256000 be 32000  
conform-action transmit  
exceed-action set-be-bit transmit  
exceed-action drop
- policy-map policy\_map  
class class\_map  
police cir 512000 bc 32000 pir 64000 be 6400  
conform-action transmit  
violate-action set-dscp-transmit default  
exceed-action drop

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

Answer: A

**NEW QUESTION 138**

Refer to the exhibit.



A network engineer must meet these requirements to provide a connects, solution:

- The Customer must not have access to the 20.10 30.0/24 subnet.
  - The service provider must make sure that the Area 2 routing database limits the number of IP addresses in the routing table
- Which two configurations must be implemented to meet the requirements? (Choose two)

- A. Set a tag value of 200 to match the summary address 10.0.0/16 on R2.
- B. Set a tag value of 200 to match the summary address 10.0.0.0/16 on R3.
- C. Apply the route map for tag 200 and leak Level 2 routes into Level 1 Area 2 on R3
- D. Apply the route map for tag 200 and teak Level 2 routes into Level 1 Area 2 on R4.
- E. Set a tag value of 200 to match the summary address 10.0.0./16 on R1.

Answer: BC

**NEW QUESTION 140**

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 142

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 147

What is the purpose of RSVP tear messages?

- A. to notify the tail-end router of resource unavailability on the transit router
- B. to inform the headend router of LSP issues
- C. to reuse router resources for other reservation requests
- D. to confirm successful end-to-end resource allocation

**Answer:** C

#### NEW QUESTION 149

Which two routing protocols support Cisco MPLS TE tunnels? (Choose two.)

- A. IS-IS
- B. RIP
- C. BGP
- D. OSPF
- E. EIGRP

**Answer:** AD

#### NEW QUESTION 150

Which is the benefit of implementing model-driven telemetry in a service provider environment?

- A. It reduces the number of network monitoring tools that are necessary to verify device statistics.
- B. It increases the efficiency of SNMP by pulling system data to requesting servers.
- C. It reduces or eliminates the need to monitor Layer 2 traffic between switches.
- D. It uses reliable transport to push Information to network monitoring tools

**Answer:** D

#### NEW QUESTION 155

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

**Answer:** D

#### Explanation:

<https://www.cisco.com/c/en/us/support/docs/multiprotocol-label-switching-mpls/mpls/215215-segment-routing->

#### NEW QUESTION 156

Which regular expression query modifier function indicates the start of a string?

- A. ^
- B. [^]
- C. +
- D. \$

**Answer:** A

**NEW QUESTION 160**

What are two features of 6RD IPv6 transition mechanism? (Choose two.)

- A. It inserts IPv4 bits into an IPv6 delegated prefix.
- B. It uses a native IPv6-routed network between CE routers and the BR router.
- C. It allows dynamic 1:N translation of IPv6 address.
- D. It uses stateful automatic 6to4 tunnels between CE routers and the BR router.
- E. It uses stateless automatic 6to4 tunnels between CE routers and the BR router.

**Answer:** AE

**NEW QUESTION 161**

Refer to the exhibit:

```
telemetry model-driven
sensor-group cisco
sensor-path Cisco-IOS-XR-infra-statsd-oper:infra-statistics/interfaces/interface/latest/generic-counters
commit
```

This configuration is being applied on an IOS XR router. Which statement about this configuration is true?

- A. It is used to create a subscription to specify the streaming interval
- B. It is used to identify traps for SNMP polling
- C. It is used to identify MIB entries and has a list of YANG models
- D. It is used to create a sensor-group and has a list of YANG models for streaming

**Answer:** D

**NEW QUESTION 164**

A new PE router is configured to run OSPF as an IGP with LDP on all interfaces. The engineer is trying to prevent black holes after convergence when the PERSON device loses an LDP session with other PE routers. Which action must the engineer take to implement LDP session protection on a new PE router?

- A. Configure the mpls ldp session protection and mpls label protocol ldp commands on the interfaces on the new PE router that connect to the CENTER routers.
- B. Configure the mpls ldp discovery targeted-hello accept and mpls ldp session protection commands on the interfaces on the new PE router that connect to the CE routers.
- C. Configure the new PE router with the mpls ldp session protection command and on neighboring routers that connect to this new PE router.
- D. Configure the new PE router with the mpls ldp session protection command on interfaces with directly connected neighbors.

**Answer:** C

**NEW QUESTION 168**

How does model-driven telemetry use YANG?

- A. to reset network devices that malfunction
- B. to set informs and traps on clients to report back to a centralized server
- C. to subscribe to data that is streamed from a device
- D. to poll network devices on a 30-minute interval

**Answer:** C

**NEW QUESTION 172**

Refer to the exhibit.

```
PE-A:

vrf definition Customer-A
 rd 65000:1111
  route-target export 65000:1111
  route-target import 65000:1111
 !
 address-family ipv4
  mdt default 233.15.38.120
  mdt data 233.15.38.121 0.0.0.0 threshold 100
  mdt mtu 5000
 !
 interface GigabitEthernet0/0
  vrf forwarding Customer-A
  ip address 10.10.10.1 255.255.255.252
 !
 ip multicast-routing vrf Customer-A
```

An engineer is implementing Auto-RP and reviewing the configuration of the PE-A. Which configuration permits Auto-RP messages to be forwarded over this interface?

- A. PE-A(config-if)#ip pim sparse-mode
- B. PE-A(config-if)#no ip pim bsr-border

- C. PE-A(config-if)#ip igmp version 3
- D. PE-A(config-if)#ip pim sparse-dense-mode

Answer: D

**NEW QUESTION 173**

Refer to the exhibit:

<pre>PE-A ! interface FastEthernet0/0  ip address 10.10.10.1 255.255.255.252  ip ospf authentication null  ip ospf 1 area 0  duplex full end  ! router ospf 1  log-adjacency-changes  passive-interface Loopback0  network 10.10.10.0 0.0.0.3 area 0  default-metric 200 !</pre>	<pre>PE-B ! interface FastEthernet0/0  ip address 10.10.10.2 255.255.255.252  ip ospf authentication null  ip mtu 1400  ip ospf 1 area 0  duplex half end  ! R1#sho run   b router ospf router ospf 1  log-adjacency-changes  passive-interface Loopback10  network 10.10.10.0 0.0.0.255 area 0  default-metric 100</pre>
--	---

Which configuration prevents the OSPF neighbor from establishing?

- A. mtu
- B. duplex
- C. network statement
- D. default-metric

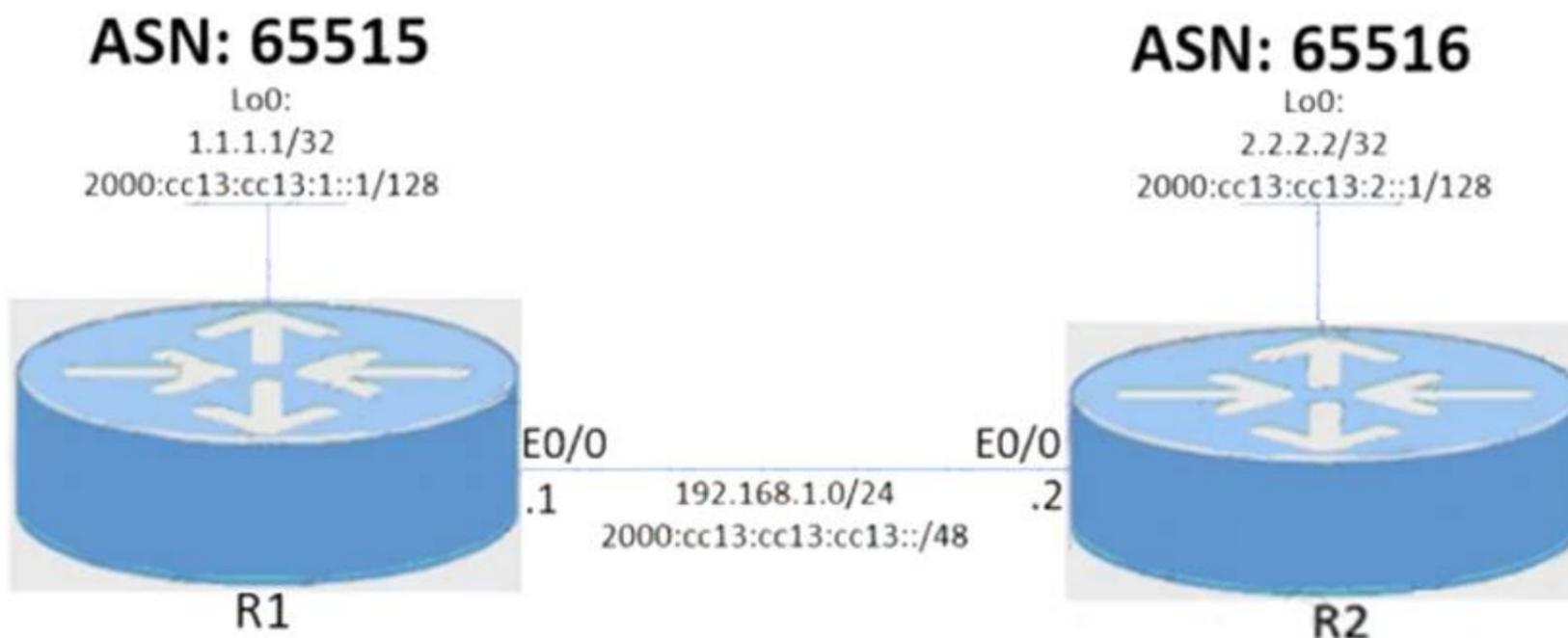
Answer: A

**NEW QUESTION 175**

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. Topology:

## EBGP Neighbor Adjacency



**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:**

Here is the solution:

Text Description automatically generated

**R1:**

```
conf t
```

```
ip route 2.2.2.2 255.255.255.255 192.168.1.2
ip route 2000:cc13:cc13:2::1/128 2000:cc13:cc13:cc13::2
```

```
router bgp 65515
neighbor 2000:cc13:cc13:2::1 remote-as 65516
neighbor 2000:cc13:cc13:2::1 update-source lo0
neighbor 2000:cc13:cc13:2::1 disable-connected-check
neighbor 2000:cc13:cc13:2::1 ebgp-multihop 2
neighbor 2000:cc13:cc13:2::1 password C1sc0!
neighbor 2.2.2.2 remote-as 65516
neighbor 2.2.2.2 update-source lo0
neighbor 2.2.2.2 disable-connected-check
neighbor 2.2.2.2 ebgp-multihop 2
neighbor 2.2.2.2 password C1sc0!
```

```
address-family ipv4 unicast
neighbor 2.2.2.2 activate
```

```
address-family ipv6
neighbor 2000:cc13:cc13:2::1 activate
do copy running-config startup-config
```

**R2:**

```
conf t
```

```
ip route 1.1.1.1 255.255.255.255 192.168.1.1
ip route 2000:cc13:cc13:1::1/128 2000:cc13:cc13:cc13::1
```

```
router bgp 65516
neighbor 2000:cc13:cc13:1::1 remote-as 65515
neighbor 2000:cc13:cc13:1::1 update-source lo0
neighbor 2000:cc13:cc13:1::1 disable-connected-check
neighbor 2000:cc13:cc13:1::1 ebgp-multihop 2
neighbor 2000:cc13:cc13:1::1 password C1sc0!
neighbor 1.1.1.1 remote-as 65515
neighbor 1.1.1.1 update-source lo0
neighbor 1.1.1.1 disable-connected-check
neighbor 1.1.1.1 ebgp-multihop 2
neighbor 1.1.1.1 password C1sc0!
```

```
address-family ipv4 unicast
neighbor 1.1.1.1 activate
```

**NEW QUESTION 177**

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

Answer: D

**NEW QUESTION 178**

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 179**

Refer to the exhibit:

```
class-map match-any class1
match-protocol ipv4
match qos-group 4
```

A network engineer is implementing QoS services. Which two statements about the QoS-group keyword on Cisco IOS XR 3re true? (Choose two )

- A. The QoS group numbering corresponds to priority level
- B. QoS group marking occurs on the ingress
- C. It marks packets for end to end QoS pokey enforcement across the network
- D. QoS group can be used in fabric QoS policy as a match criteria
- E. It cannot be used with priority traffic class

**Answer:** BD

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/routers/ncs6000/software/ncs6k\\_r6-1/qos/configuration/guide/b-qos-cg-n](https://www.cisco.com/c/en/us/td/docs/routers/ncs6000/software/ncs6k_r6-1/qos/configuration/guide/b-qos-cg-n) Fabric QoS policy class maps are restricted to matching a subset of these classification options:

precedence dscp  
qos-group discard-class  
mpls experimental topmost

**NEW QUESTION 182**

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 187**

After a possible security breach, the network administrator of an ISP must verify the times that several different users logged into the network. Which command must the administrator enter to display the login time of each user that activated a session?

- A. show netconf-yang sessions detail
- B. show netconf-yang datastores
- C. show platform software yang-management process
- D. show netconf-yang sessions

**Answer:** A

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/167/b\\_167\\_programmability\\_cg/configur](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/167/b_167_programmability_cg/configur)

```
Device# show netconf-yang sessions detail
```

```
R: Global-lock on running datastore
C: Global-lock on candidate datastore
S: Global-lock on startup datastore

Number of sessions      : 1

session-id              : 19
transport               : netconf-ssh
username                : admin
source-host             : 2001:db8::1
login-time              : 2018-10-26T12:37:22+00:00
in-rpcs                 : 0
in-bad-rpcs             : 0
out-rpc-errors          : 0
out-notifications       : 0
global-lock             : None
```

**NEW QUESTION 189**

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 193**

Which two IS-IS parameters must match before two Level 2 peers can form an adjacency? (Choose two)

- A. authentication settings
- B. area ID
- C. system ID
- D. MTU
- E. hello timer setting

**Answer: AD**

**NEW QUESTION 195**

Refer to the exhibit.

```
R1(config)# router isis areal
R1(config-router)# net 49.0001.0000.0000.000b.00

R1(config-router)# interface loopback 0
R1(config-if)# ipv6 address 2001:0000:1001:1000::1/128
R1(config-if)# exit

R1(config)# interface Ethernet 1/2
R1(config-if)# ipv6 address 2001:0000:1001:100A::1/64
R1(config-if)# ipv6 router isis areal
R1(config-if)# exit
```

A network engineer with an employee id: 3812:12:993 has started to configure router R1 for IS-IS as shown. Which additional configuration must be applied to

configure the IS-IS instance to advertise only network prefixes associated to passive interfaces?

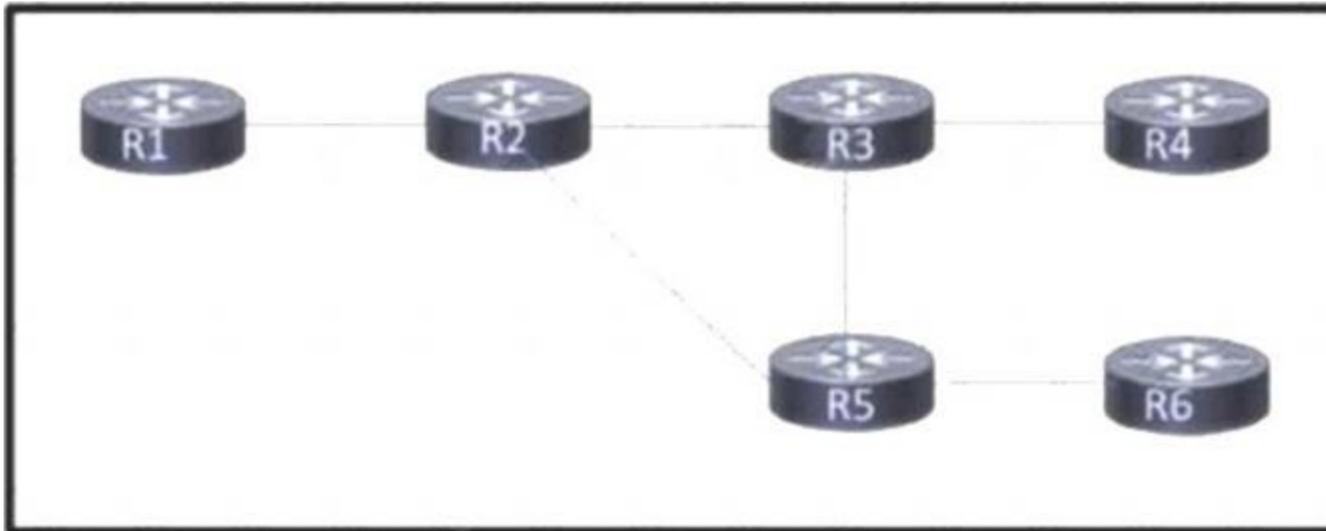
- R1(config)# router isis area1  
R1(config-router)# passive-interface loopback 0  
R1(config-router)# address-family ipv6  
R1(config-router-af)# advertise passive-only
- R1(config-router)# address-family ipv6  
R1(config-router-af)# advertise passive-only
- R1(config)# router isis area1  
R1(config-router)# loopback 0 passive-interface  
R1(config-router)# address-family ipv6  
R1(config-router-af)# prc-interval 20
- R1(config)# router isis area1  
R1(config-router)# passive-interface loopback 0

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

Answer: A

**NEW QUESTION 197**

Refer to the exhibit.



Customers report occasional forwarding issues from hosts connected to R6 to hosts connected to R1. A network engineer has just updated the MPLS configuration on the network, and a targeted LDP session has been established between R1 and R5. Which additional task must the engineer perform so that the team can identify the path from R6 to R1 in case the forwarding issues continue?

- A. Configure an MPLS TE from R4 to R1 that routes through R5.
- B. Implement MPLS OAM within the network.
- C. Implement MPLS VPLS within the network.
- D. Configure MPLS LDP Sync on each router.

Answer: B

**NEW QUESTION 202**

Refer to the exhibit:

```

interface gigabitethernet1/0/1
switchport mode access
switchport access vlan 5
channel-group 1 mode desirable
  
```

An engineer is preparing to implement link aggregation configuration. Which statement al about this configuration is true?

- A. The switch port actively sends packets to negotiate an EtherChannel using PAGP
- B. The switch port accepts LACP and PAGP packets from a connected peer and negotiate an EtherChannel using the common EtherChannel mode.
- C. The switch port passively negotiates an EtherChannel if it receives PAGP packets from a connected peer
- D. The switch port negotiates an EtherChannel if it receives LACP packets from a connected peer

Answer: A

**NEW QUESTION 206**

Refer to Exhibit.

```
username cisco privilege 15 password 0 cisco
!
ip http server
ip http authentication local
ip http secure-server
!
snmp-server community private RW
!
netconf-yang
netconf-yang cisco-ia snmp-community-string cisco
restconf
```

A network engineer is trying to retrieve SNMP MIBs with RESTCONF on the Cisco switch but fails. End-to-end routing is in place. Which configuration must the engineer implement on the switch to complete?

- A. netconf-yang cisco-ia snmp-community -string Public
- B. snmp-server community cisco RW
- C. snmp-server community public RO
- D. netconf-yang cisco-ia snmp-community-string Private

Answer: B

**NEW QUESTION 209**

A network engineer must enable the helper router to terminate the OSPF graceful restart process if it detects any changes in the LSA. Which command enables this feature?

- A. nsf ietf helper disable
- B. nsf cisco enforce global
- C. nsf ietf helper strict-lsa-checking
- D. nsf Cisco helper disable

Answer: C

**NEW QUESTION 210**

Refer to the exhibit.

```
RZ#
*Dec  8 06:25:39.147: OSPF: Rcv hello from 10.10.10.2 area 0 from GigabitEthernet2/0 10.0.0.25
*Dec  8 06:25:39.151: OSPF: End of hello processing
*Dec  8 06:25:39.747: OSPF: Send hello to 224.0.0.5 area 100 on FastEthernet0/0 from 10.0.0.14
*Dec  8 06:25:40.015: OSPF: Rcv hello from 192.168.10.1 area 100 from FastEthernet0/0 10.0.0.13
*Dec  8 06:25:40.019: OSPF: Hello from 10.0.0.13 with mismatched Stub/Transit area option bit
RZ#
*Dec  8 06:25:47.287: OSPF: Send hello to 224.0.0.5 area 0 on GigabitEthernet2/0 from 10.0.0.26
*Dec  8 06:25:48.187: OSPF: Send hello to 224.0.0.5 area 0 on FastEthernet1/0 from 10.0.0.17
RZ#
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
10.10.10.5	1	FULL/BDR	00:00:39	10.0.0.26	Ethernet3/0

A network engineer received a complaint about these problems in OSPF stub area 100:

- > The Ethernet link is down between routers RX and RY because the fiber was cut.
- > CE site A traffic to the hub site is being dropped. Which action resolves these issues?

- A. Set the OSPF authentication type to MD5 between RX and RY DUMPS
- B. Change the OSPF area 100 type to stub on RZ.

- C. Change the OSPF priority to 100 on the interfaces that connect RX and RY.  
D. DUMPS Set the OSPF MTU to 1500 on the link between RX and RZ.

Answer: B

#### NEW QUESTION 214

What is the role of NFVI?

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

Answer: C

#### NEW QUESTION 215

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 220**

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 224**

What is a characteristic of prefix segment identifier?

- A. It contains a router to a neighbor
- B. It contains the interface address of the device per each link
- C. It is globally unique.
- D. It is locally unique.

**Answer:** C

**NEW QUESTION 227**

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 232**

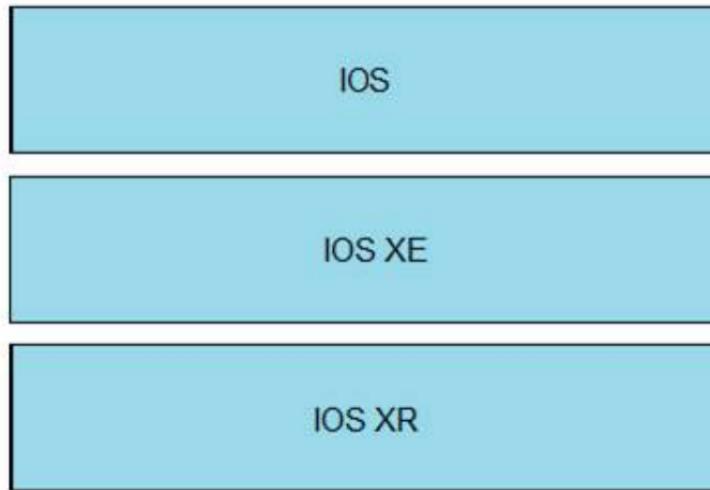
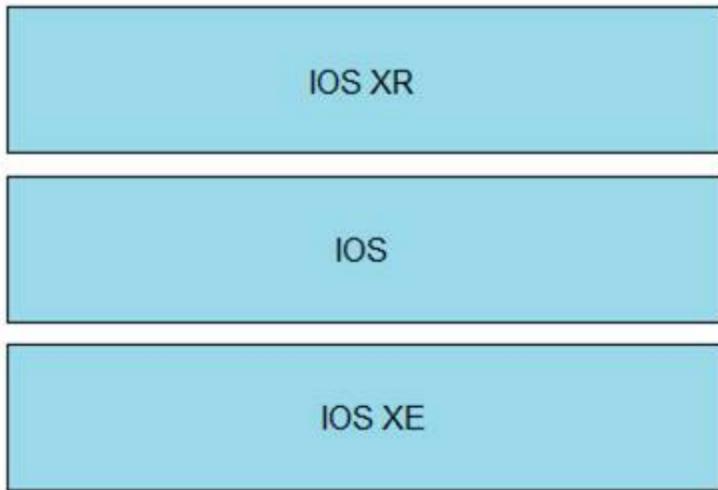
Drag and drop the OSs from the left onto the correct deceptions on the right.

IOS XR	It is a monolithic architecture that runs all modules on one memory space.
IOS	It runs over a Linux platform and pulls the system functions out of the main kernel and into separate processes.
IOS XE	It segments ancillary processes into separate memory spaces to prevent system crashes from errant bugs.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**



**NEW QUESTION 237**

Which benefit is provided by FRR?

- A. It provides fast forwarding path failure detection times for all media.
- B. It provides rapid failure detection between forwarding engines.
- C. It provides performance data for the service provider network.
- D. It protects Cisco MPLS TE LSPs from link and node failures.

**Answer: D**

**NEW QUESTION 239**

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 242**

Refer to the exhibit.

```
R1(config)# ipv6 unicast-routing
R1(config)# ipv6 router ospf 100
R1(config-rtr)# router-id 1.1.1.1
```

An engineer is configuring router R1 for OSPFv3 as shown. Which additional configuration must be performed so that the three active interfaces on the router will advertise routes and participate in OSPF IPv6 processes?

A)

```
R1(config)# interface Ethernet1/1
R1(config-if)# ipv6 ospf 100 area 0
```

```
R1(config)# interface Ethernet1/2
R1(config-if)# ipv6 ospf 100 area 10
```

```
R1(config)# interface Ethernet1/3
R1(config-if)# ipv6 ospf 100 area 20
```

B)

```
R1(config)# interface Ethernet1/1
R1(config-if)# ip ospf hello-interval 1
R1(config-if)# ip ospf 1 area 0
```

```
R1(config)# interface Ethernet1/2
R1(config-if)# ip ospf hello-interval 1
R1(config-if)# ip ospf 1 area 10
```

```
R1(config)# interface Ethernet1/3
R1(config-if)# ip ospf hello-interval 1
R1(config-if)# ip ospf 1 area 20
```

C)

```
R1(config)# interface Ethernet1/1
R1(config-if)# ip ospf 1 area 0
```

```
R1(config)# interface Ethernet1/2
R1(config-if)# ip ospf 1 area 10
```

```
R1(config)# interface Ethernet1/3
R1(config-if)# ip ospf 1 area 20
```

A.

**Answer:** A

#### NEW QUESTION 246

Refer to the exhibit.

```
CE1#
interface FastEthernet0/0/1
description **** HUB CE router ****
ip address 10.0.12.1 255.255.255.0

router ospf 100
log-adjacency-changes
network 10.0.12.0 0.0.255.255 area 0

CE2#
interface Serial0/0/9
description **** SPOKE CE router ****
encapsulation ppp
ip address 10.0.12.12 255.255.255.0

router ospf 100
log-adjacency-changes
network 10.0.12.0 0.0.255.255 area 0
```

A network engineer is configuring customer edge routers to finalize a L2VPN over MPLS deployment. Assume that the AToM L2VPN service that connects the two CEs is configured correctly on the service provider network. Which action causes the solution to fail?

- A. A loopback with a /32 IP address has not been used
- B. OSPF does not work with L2VPN services
- C. The xconnect statement has not been defined
- D. The routing protocol network types are not compatible

**Answer:** D

#### NEW QUESTION 251

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 252

Refer to the exhibit.

```
R1# show ip bgp summary
Neighbor      V  AS   MsgRcvd  MsgSent  TblVer  InQ  OutQ  Up/Down  State/PfxRcd
11.11.11.11   4  5400  0         0         0       0    0    never     Active

R1
interface Loopback0
 ip address 2.2.2.2 255.255.255.255
interface Ethernet1/0
 ip address 11.11.11.11 255.255.255.0
router bgp 5400
 neighbor 11.11.11.12 remote-as 5400
 neighbor 11.11.11.12 update-source Loopback0
 ip route 1.1.1.1 255.255.255.255 11.11.11.12

R2
interface Loopback0
 ip address 1.1.1.1 255.255.255.255
interface Ethernet1/0
 ip address 11.11.11.12 255.255.255.0
router bgp 5400
 neighbor 11.11.11.11 remote-as 5400
 neighbor 11.11.11.11 update-source Loopback0
 ip route 2.2.2.2 255.255.255.255 11.11.11.11
```

Router R1 is reporting that its BGP neighbor adjacency to router R2 is down, but its state is Active as shown. Which configuration must be applied to routers R1 and R2 to fix the problem?

A)

```
R1
router bgp 5400
neighbor 2.2.2.2 remote-as 5400
```

```
R2
router bgp 5400
neighbor 1.1.1.1 remote-as 5400
```

B)

```
R1
router bgp 5400
 neighbor 11.11.11.11 remote-as 5400
 neighbor 11.11.11.11 update-source Loopback0
```

```
R2
router bgp 5400
 neighbor 11.11.11.12 remote-as 5400
 neighbor 11.11.11.12 update-source Loopback0
```

C)

```
R1
router bgp 5400
 neighbor 1.1.1.1 remote-as 5400
 neighbor 1.1.1.1 update-source Loopback0
```

```
R2
router bgp 5400
 neighbor 2.2.2.2 remote-as 5400
 neighbor 2.2.2.2 update-source Loopback0
```

D)

```
R1
router bgp 5400
 neighbor 2.2.2.2 remote-as 5400
 neighbor 2.2.2.2 update-source Loopback0
```

```
R2
router bgp 5400
 neighbor 1.1.1.1 remote-as 5400
 neighbor 1.1.1.1 update-source Loopback0
```

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

Answer: C

#### NEW QUESTION 256

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 261**

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
```

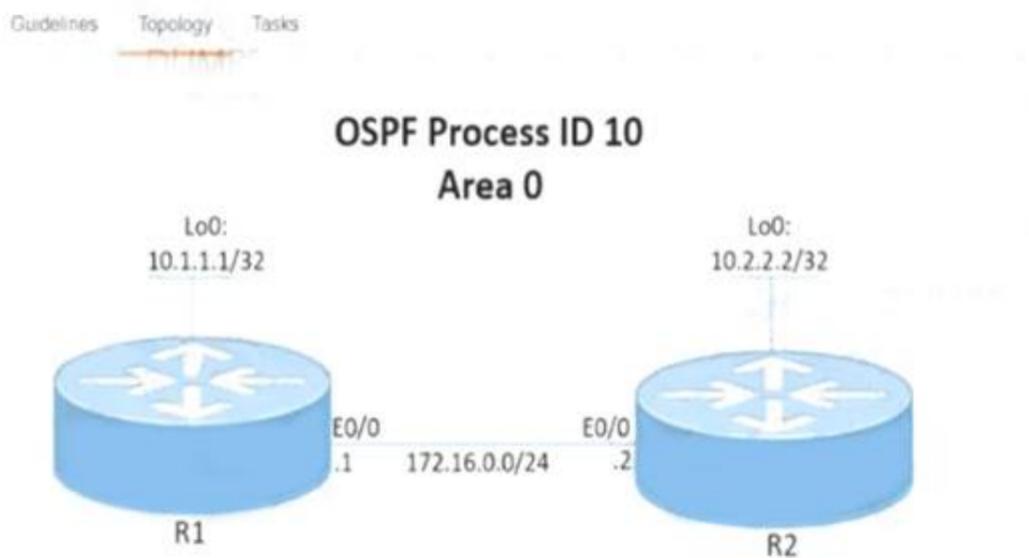
R1 and R2 are directly connected and IS-IS routing has been enabled between R1 and R2 R1 message periodically Based on this output, which statement is true?

- A. IS-IS neighbor authentication is failing for Level 2 first and then for Level 1 PDUs
- B. 1S-1S 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 265**

Simulation 5



Configure and verify the OSPF neighbor adjacency between R1 and R2 in OSPF area 0 according to the topology to achieve these goals:

1. Configure OSPF cost to 15 on R1 and R2.
2. Redistribute all the static routes defined in R1 and R2 to the OSPF routing protocol.
3. Set the OSPF hello interval to 5 and the OSPF dead interval to 10 between R1 and R2.

Submit feedback about this item.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

```
R1
router ospf 10 redistribute static int et0/0
ip ospf hello-interval 5 ip ospf dead-interval 10 ip ospf cost 15
ip ospf 10 area 0 copy run start R2
R2
router ospf 10 redistribute static
int et0/0
ip ospf hello-interval 5 ip ospf dead-interval 10 ip ospf cost 15
ip ospf 10 area 0 copy run start
```

**NEW QUESTION 268**

Which two actions describe ISP delegation to PCE servers? (Choose two)

- A. adding a new PCE server with lower precedence than the primary PCE
- B. changing the precedence of any of the PCE servers
- C. removing TE re-optimization timer timeouts
- D. entering the mpls traffic-eng reoptimize command
- E. adding a new PCE server with higher precedence than the primary PCE

**Answer:** AC

**NEW QUESTION 270**

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

calculates paths through the network	Path Computation Element
keeps TE topology database information	
sends path calculation request	
sends path creation request	Path Computation Client
sends path status updates	

- A. Mastered
- B. Not Mastered

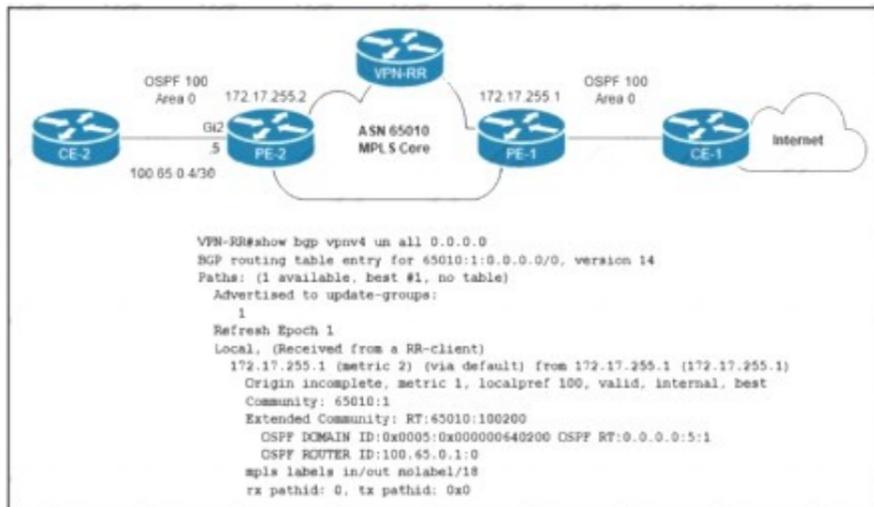
**Answer:** A

**Explanation:**

PCE – 1,2,5  
 PCC- 3,4

**NEW QUESTION 274**

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 279

After a series of unexpected device failures on the network, a Cisco engineer is deploying NSF on the network devices so that packets continue to be forwarded during switchovers. The network devices reside in the same holding, but they are physically separated into two different data centers. Which task must the engineer perform as part of the deployment?

- A. implement OSPF to maintain the link-state database during failover.
- B. implement VRFs and specify the forwarding instances that must remain active during failover.
- C. implement an L2VPN with the failover peer to share state information between the active and standby devices.
- D. implement Cisco Express Forwarding to provide forwarding during failover.

Answer: B

#### NEW QUESTION 280

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.

Answer: AC

#### NEW QUESTION 285

Refer to the exhibit.

```
Control Plane Interface
Service policy CoPP-normal
Hardware Counters:
class-map: CoPP-normal (match-all)
Match: access-group 100
police :
6000 bps 1000 limit 1000 extended limit
Earl in slot 3 :
0 bytes
5 minute offered rate 0 bps
aggregate-forwarded 0 bytes action: transmit
exceeded 0 bytes action: drop
aggregate-forward 0 bps exceed 0 bps
Earl in slot 5 :
0 bytes
5 minute offered rate 0 bps
aggregate-forwarded 0 bytes action: transmit
exceeded 0 bytes action: drop
aggregate-forward 0 bps exceed 0 bps
```

Which show command shows statistics for the control plane policy and is used to troubleshoot?

- A. show control-plane CoPP
- B. show control-plane
- C. show policy-map control-plane
- D. show policy control-plane

**Answer: C**

**Explanation:**

```
Router# show policy-map control-plane
```

```
Control Plane
```

```
Service-policy input:TEST
```

```
Class-map:TEST (match-all)
```

```
20 packets, 11280 bytes
```

```
5 minute offered rate 0 bps, drop rate 0 bps
```

```
Match:access-group 101
```

```
police:
```

```
8000 bps, 1500 limit, 1500 extended limit
```

```
conformed 15 packets, 6210 bytes; action:transmit
```

```
exceeded 5 packets, 5070 bytes; action:drop
```

```
violated 0 packets, 0 bytes; action:drop
```

```
conformed 0 bps, exceed 0 bps, violate 0 bps
```

#### NEW QUESTION 287

A router is advertising multiple networks to its BGP neighbor in AS 5200 with peer IP address 1.1.1.1. Which configuration must be applied so that the router permits updates only for networks with a prefix mask length less than or equal to 21?

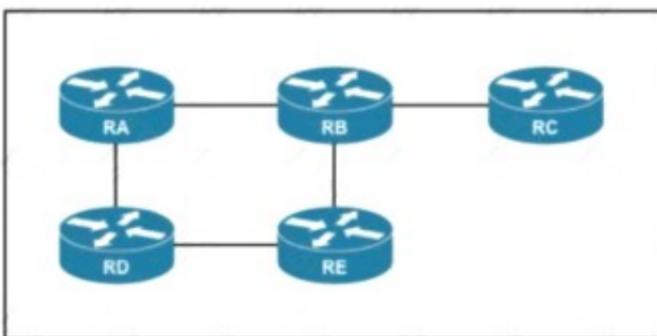
- router bgp 5100  
neighbor 1.1.1.1 remote-as 5200  
neighbor 1.1.1.1 prefix-list SELECTED in  
  
ip prefix-list SELECTED seq 10 permit 0.0.0.0/0 le 21
- router bgp 5100  
neighbor 1.1.1.1 remote-as 5200  
neighbor 1.1.1.1 prefix-list SELECTED  
  
ip prefix-list SELECTED seq 10 permit 0.0.0.0/0 ge 8 le 24
- router bgp 5100  
neighbor 1.1.1.1 remote-as 5200  
neighbor 1.1.1.1 prefix-list SELECTED  
  
ip prefix-list SELECTED seq 10 permit 0.0.0.0/0 ge 21
- router bgp 5100  
neighbor 1.1.1.1 remote-as 5200  
neighbor 1.1.1.1 prefix-list SELECTED in  
  
ip prefix-list SELECTED seq 10 permit 0.0.0.0/0 ge 21 le 24

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

Answer: A

**NEW QUESTION 292**

Refer to the exhibit.



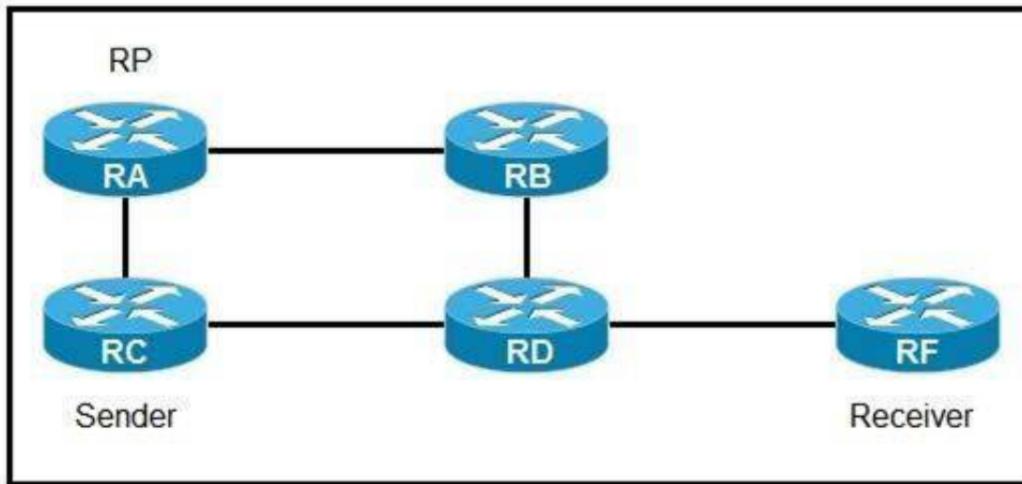
If RC is a stub router, which entry must be injected so that it will send traffic outside the OSPF domain?

- A. virtual link between RB and RC
- B. sham link
- C. more specific route
- D. default route

Answer: C

**NEW QUESTION 294**

Refer to the exhibit:



If router A is the RP, which PIM mode can you configure so that devices will send multicast traffic toward the RP?

- A. PIM-SM
- B. PIM-DM
- C. BIDIR-PIM
- D. PIM-SSM

Answer: C

**NEW QUESTION 297**

Refer to the exhibit.

```
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 299**

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

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

Answer: A

**NEW QUESTION 301**

Drag and drop the multicast concepts from the left onto the correct descriptions on the right.

IGMP	multicast routing protocol that floods traffic to all peers
PIM-DM	technology that manages the process of joining and leaving multicast groups
PIM-SM	technology that requires an RP
shared tree	technology that uses the RP as the single common root
source tree	shortest-path tree

- A. Mastered
- B. Not Mastered

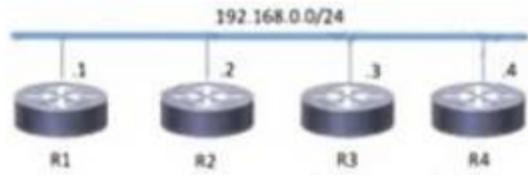
Answer: A

**Explanation:**

1: PIM-DM 2:IGMP 3:PIM-SM 3:shared tree 4:source tree

**NEW QUESTION 303**

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 306**

Refer to the exhibit.

```
EDGE-GW-1#show bgp ipv4 unicast summary
BGP router identifier 198.19.45.6, local AS number 65502
BGP table version is 19, main routing table version 19

Neighbor      V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/PfxRcd
192.168.26.2  4      65503    0      0        1    0    0 00:0956  Idle

EDGE-GW-1#show log
Log Buffer (4096 bytes):
BGP Notification sent
Dec 7 08:02:29.619: %BGP-5-ADJCHANGE: neighbor 192.168.26.2 passive Down BGP Notification sent
Dec 7 08:02:32.695: %BGP-3-NOTIFICATION: sent to neighbor 192.168.26.2 active 2/2 (peer in wrong AS) 2 bytes FE63
Dec 7 08:02:32.695: %BGP-4-MSGDUMP: unsupported or mal-formatted message received from 192.168.26.2:
FFFF FFFF FFFF FFFF FFFF FFFF FFFF FFFF 0039 0104 FE63 00B4 0AFF FF02 1C02 0601
0400 0100 0102 0280 0002 0202 0002 0246 0002 0641 0400 00FE 63
Dec 7 08:02:36.558: %BGP-3-NOTIFICATION: sent to neighbor 192.168.26.2 passive 2/2 (peer in wrong AS) 2 bytes FE63
Dec 7 08:02:36.558: %BGP-4-MSGDUMP: unsupported or mal-formatted message received from 192.168.26.2:
FFFF FFFF FFFF FFFF FFFF FFFF FFFF FFFF 0039 0104 FE63 00B4 0AFF FF02 1C02 0601
0400 0100 0102 0280 0002 0202 0002 0246 0002 0641 0400 00FE 63
Dec 7 08:02:37.812: %BGP-5-NRB_RESET: Neighbor 192.168.26.2 active reset (BGP Notification sent)
Dec 7 08:02:37.812: %BGP-5-ADJCHANG: neighbor 192.168.26.2 active Down BGP Notification sent
Dec 7 08:02:37.812: %BGP_SESSION-5-ADJCHANGE: neighbor 192.168.26.2 IPv4 Unicast topology base removed from session
BGP Notification sent
Dec 7 08:02:40.883: %BGP-5-NBR_RESET: Neighbor 192.168.26.2 passive reset (BGP Notification sent)
Dec 7 08:02:40.884: %BGP-5-ADJCHANGE: neighbor 192.168.26.2 passive Down BGP Notification sent
Dec 7 08:02:47.822: %BGP-3-NOTIFICATION: sent to neighbor 192.168.26.2 passive 2/2 (peer in wrong AS) 2 bytes FE63
Dec 7 08:02:77.822: %BGP-4-MSGDUMP: unsupported or mal-formatted message received from 192.168.26.2:
FFFF FFFF FFFF FFFF FFFF FFFF FFFF FFFF 0039 0104 FE63 00B4 0AFF FF02 1C02 0601
0400 0100 0102 0280 0002 0202 0002 0246 0002 0641 0400 00FE 63
```

A network support engineer for ASN 65502 receives a technical support ticket from a customer in ASN 65503 who reports that an eBGP session is down. The engineer determines that the peering failed after a recent change to the device at 192.168.26.2. EDGE-GW-1 must establish an eBGP session with the peering router 192.168.26.2. Which configuration establishes this session?

- A. configure terminalno router bgp 65502 router bgp 65503neighbor 192.168.26.2 remote-as 65503 address-family ipv4neighbor 192.168.26.2 activate end
- B. configure terminal router bgp 65502 address-family ipv4neighbor 192.168.26.2 activate end
- C. configure terminal no router bgp 65502 router bgp 65503neighbor 192.168.26.2 remote-as 65123 address-family ipv4neighbor 192.168.26.2 activate end
- D. configure terminal router bgp 65502no neighbor 192.168.26.2 remote-as 65503neighbor 192.168.26.2 remote-as 65123 address-family ipv4neighbor 192.168.26.2 activateend

Answer: B

**NEW QUESTION 309**

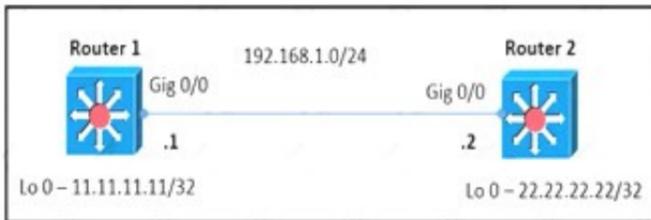
Which control plane protocol is used between Cisco SD-WAN routers and vSmart controllers?

- A. OTCP
- B. OMP
- C. UDP
- D. BGP

Answer: B

**NEW QUESTION 314**

Refer to the exhibit.



Router 1 and router 2 are running OSPF Area 0. The router logs on both routers show that the LDP link has flapped. Which configuration must the engineer apply to the two routers to implement session protection on the link?

- Router 1(config)# ip cef distributed  
Router 1(config)# mpls ldp session protection global
- Router 2(config)# ip cef distributed  
Router 2(config)# mpls ldp session protection global
- Router 1(config)# ip cef distributed  
Router 1(config)# interface gigabitethernet 0/0  
Router 1(config-if)# ip address 192.168.1.1 255.255.255.0  
Router 1(config-if)# mpls ldp session protection
- Router 2(config)# interface gigabitethernet 0/0  
Router 2(config-if)# ip address 192.168.1.2 255.255.255.0  
Router 2(config-if)# mpls ldp session protection
- Router 1(config)# ip cef distributed  
Router 1(config)# interface gigabitethernet 0/0  
Router 1(config-if)# ip address 192.168.1.1 255.255.255.255  
Router 1(config-if)# exit  
Router 1(config)# mpls ldp session protection
- Router 2(config)# ip cef distributed  
Router 2(config)# interface gigabitethernet 0/0  
Router 2(config-if)# ip address 192.168.1.2 255.255.255.255  
Router 2(config-if)# exit  
Router 2(config)# mpls ldp session protection
- Router 1(config)# ip cef distributed  
Router 1(config)# interface gigabitethernet 0/0  
Router 1(config-if)# ip address 192.168.1.1 255.255.255.0  
Router 1(config-if)# mpls label protocol ldp  
Router 1(config-if)# mpls ip  
Router 1(config-if)# exit  
Router 1(config)# mpls ldp session protection
- Router 2(config)# ip cef distributed  
Router 2(config)# interface gigabitethernet 0/0  
Router 2(config-if)# ip address 192.168.1.2 255.255.255.0  
Router 2(config-if)# mpls label protocol ldp  
Router 2(config-if)# mpls ip  
Router 2(config-if)# exit  
Router 2(config)# mpls ldp session protection

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

Answer: D

**NEW QUESTION 319**

In an MPLS network, which protocol can be used to distribute a Segment Prefix?

- A. OSPF
- B. LDP
- C. RSVP-TE
- D. EIGRP

Answer: A

**NEW QUESTION 324**

Why is the keyword none needed when implementing management plane security using TACACS?

- A. It allows the local database to authenticate when the TACACS+ server is unreachable.
- B. It allows authentication to succeed when the TACACS+ server is unreachable.
- C. It prevents all users from accessing router 1 unless the TACACS+ server is reachable,

Answer: C

**NEW QUESTION 326**

Refer to the exhibit:

```
RP/0/0/CPU0:router# show bgp neighbors 192.168.2.2

BGP neighbor is 192.168.2.2, remote AS 1, local AS 140, external link
Remote router ID 0.0.0.0
BGP state = Idle
Last read 00:00:00, hold time is 180, keepalive interval is 60 seconds
Received 0 messages, 0 notifications, 0 in queue
Sent 0 messages, 0 notifications, 0 in queue
Minimum time between advertisement runs is 15 seconds

For Address Family: IPv4 Unicast
BGP neighbor version 0
Update group: 0.1
eBGP neighbor with no inbound or outbound policy; defaults to 'drop'
Route refresh request: received 0, sent 0
0 accepted prefixes
Prefix advertised 0, suppressed 0, withdrawn 0, maximum limit 524288
Threshold for warning message 75%

Connections established 0; dropped 0
Last reset 00:02:03, due to BGP neighbor initialized
External BGP neighbor not directly connected.
```

Based on the show/ command output, which result is true after BGP session is established?

- A. The IOS XR router advertises all routes to the neighbor 192.168.2.2, but it does not accept any routes from 192.168.2.2
- B. The IOS XR router advertises and accepts all routes to and from eBGP neighbor 192.168.2.2
- C. No routes are accepted from the neighbor 192.168.2.2, nor are any routes advertised to it
- D. The IOS XR router does not advertise any routes to the neighbor 192.168.2.2, but it accepts all routes from 192.168.2.2.

Answer: B

**NEW QUESTION 329**

Refer to the exhibit.

```
POST http://192.168.1.1 api/changeSelfPassword.json

{
  "aaaChangePassword" : {
    "attributes" : {
      "userName" : "ciscotest",
      "oldPassword" : "s@nfr@nc1sc0",
      "newPassword" : "s@nfr@nc1sco"
    }
  }
}
```

What is the purpose of this JSON script?

- A. It changes the existing password.
- B. It updates a user authentication record.
- C. It deletes a user's authentication record.
- D. It confirms a user's login credentials.

Answer: A

**NEW QUESTION 333**

Drag and drop the functionalities from the left onto the 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 334**

You are writing an RPL script to accept routes only from certain autonomous systems Consider this code.

```
RP/0/RP0/CPU0:router(config-rpl)# if as-path in (ios-regex '.*77$')
RP/0/RP0/CPU0:router(config-rpl-if)# pass
RP/0/RP0/CPU0:router(config-rpl-if)# endif
```

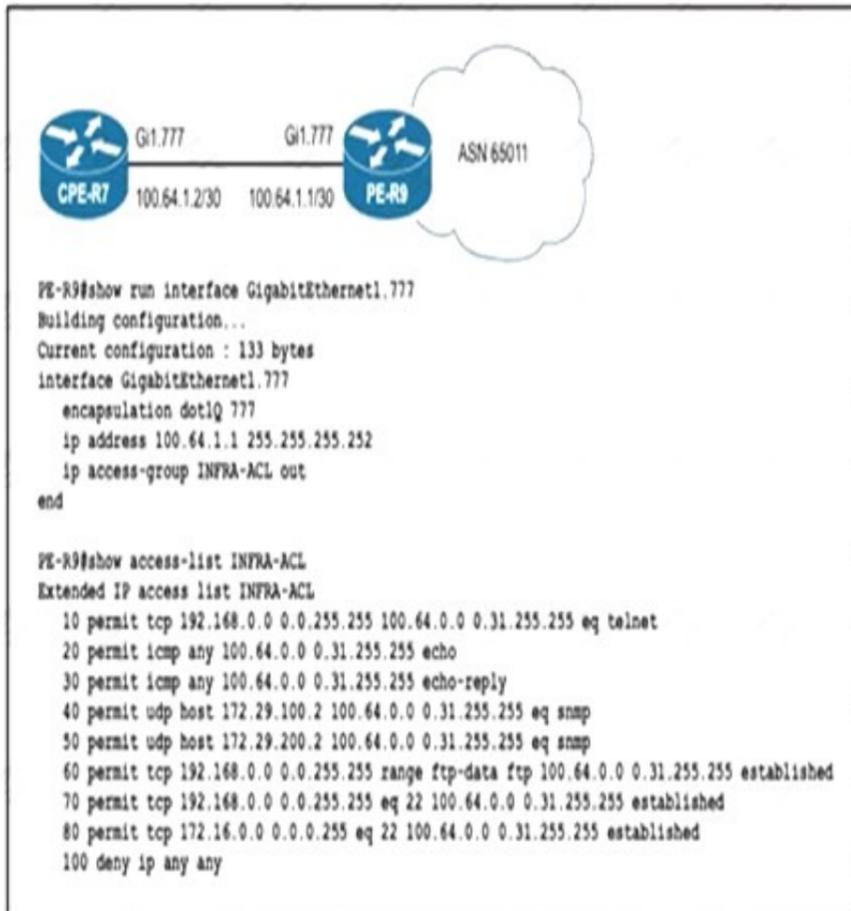
If you apply this code to BGP filters, which effect does the code have on your router?

- A. denies routes from AS 7070
- B. allows routes from AS 7077
- C. denies routes from AS 7007
- D. allows routes from AS 770

Answer: B

**NEW QUESTION 338**

Refer to the exhibit.



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 339**

What is a feature of mVPN?

- A. It requires-uncast to be disabled on the multicast domain
- B. It establishes multiple static MDTs for each multicast domain.
- C. It provides the ability to support multicast over a Layer 3 VPN.
- D. It requires the no ip mroute-cache command to be configured on the loopback interface of each BGP peer

Answer: C

**NEW QUESTION 340**

Which statement describes the advantage of a Multi-Layer control plane?

- A. It automatically provisions monitors, and manages traffic across Layer 0 to Layer 3
- B. It minimizes human error configuring converged networks
- C. It supports dynamic wavelength restoration in Layer 0
- D. It provides multivendor configuration capabilities for Layer 3 to Layer 1

Answer: C

**NEW QUESTION 345**

Drag and drop the characteristics from the left onto the automation tool on the right.

**Answer Area**

- It is the standard transport protocol for communicating with network devices.
- It is a standard data modeling language.
- It retrieves operational data.
- It develops data models.
- It shapes state data.
- It sets and reads configuration data.

**NETCONF**

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

**Answer Area**

- It is the standard transport protocol for communicating with network devices.
- It is a standard data modeling language.
- It retrieves operational data.
- It develops data models.
- It shapes state data.
- It sets and reads configuration data.

**NETCONF**

It is a standard data modeling language.

It retrieves operational data.

It sets and reads configuration data.

**NEW QUESTION 348**

Refer to the exhibit.

```
interface gigabitethernet 0/2
no ip directed-broadcast
```

Which type of DDoS attack will be mitigated by this configuration?

- A. SYN flood
- B. smurf attack
- C. SIP INVITE flood attacks
- D. teardrop attack

Answer: B

**NEW QUESTION 350**

How does an untrusted interface at the boundary of an administrative domain handle incoming packets?

- A. It remarks all values to a CoS of 0.
- B. It forwards only traffic with a DSCP value of 48.
- C. It translates the IP precedence value to the corresponding DSCP value.
- D. It drops all traffic ingressing the network.

Answer: A

## NEW QUESTION 352

Refer to the exhibit.

```
R5#show run | s router ospf
router ospf 1
  router-id 172.16.0.5
  network 192.168.0.0 0.0.63.255 area 0

R5#show run int GigabitEthernet1.58
Building configuration...
Current configuration : 245 bytes
interface GigabitEthernet1.58
  description LINK TO R8 G11.58
  encapsulation dot1Q 58
  ip address 192.168.58.5 255.255.255.0
  ip mtu 1600
  ip ospf network point-to-point
  ip ospf 1 area 0.0.0.2
end
```

Which configuration must be implemented on router R8 so that it will establish OSPF adjacency with R5?

A)

```
router ospf 1
network 192.168.58.0 0.0.0.255 area 0.0.0.2
interface GigabitEthernet 1.58
ip mtu 1600
ip ospf network point-to-multipoint
```

B)

```
router ospf 1
network 192.168.58.0 0.0.0.255 area 2
interface GigabitEthernet 1.58
ip mtu 1600
```

C)

```
router ospf 1
network 192.168.58.0 0.0.0.255 area 0.0.0.2
interface GigabitEthernet 1.58
ip ospf network point-to-point
```

D)

```
router ospf 1
network 192.168.58.0 0.0.0.255 area 0.0.0.2
interface GigabitEthernet 1.58
ip mtu 1600
ip ospf network point-to-point
ip ospf 1 area 0
```

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

Answer: A

## NEW QUESTION 356

An engineer is implementing a router redistribution within BGP. The route map must be configured to permit all unmatched routes. Which action must the engineer perform to complete this task?

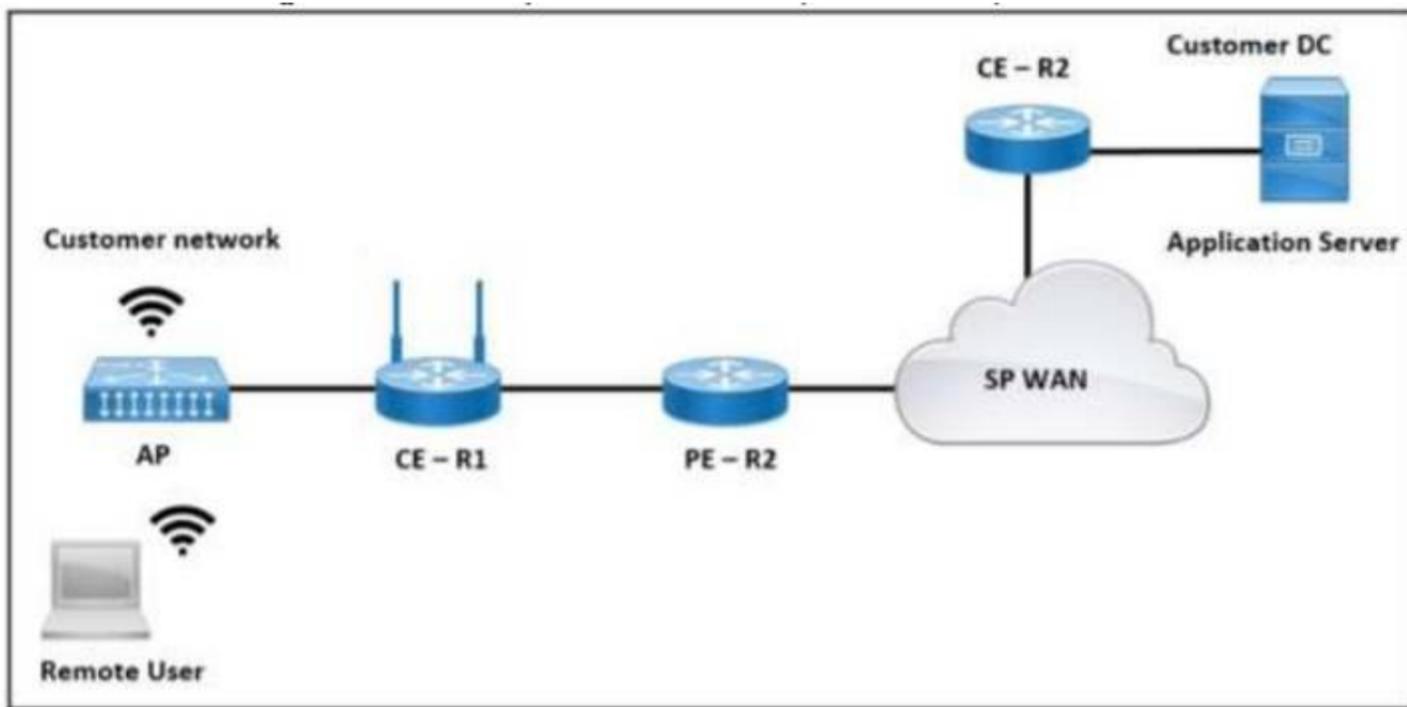
- Include a **permit** statement as the first entry.
- Include at least one explicit **deny** statement.
- Remove the implicit **deny** entry.
- Include a **permit** statement as the last entry.

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

Answer: D

**NEW QUESTION 360**

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 PE-R2 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 365**

Why do Cisco MPLS TE tunnels require a link-state routing protocol?

- A. Link-state routing protocols use SPF calculations that the tunnel endpoints leverage to implement the tunnel
- B. The link-state database provides a data repository from which the tunnel endpoints can dynamically select a source ID
- C. The tunnel endpoints can use the link-state database to evaluate the entire topology and determine the best path
- D. The link state database provides segmentation by area, which improves the path-selection process

**Answer:** C

**NEW QUESTION 367**

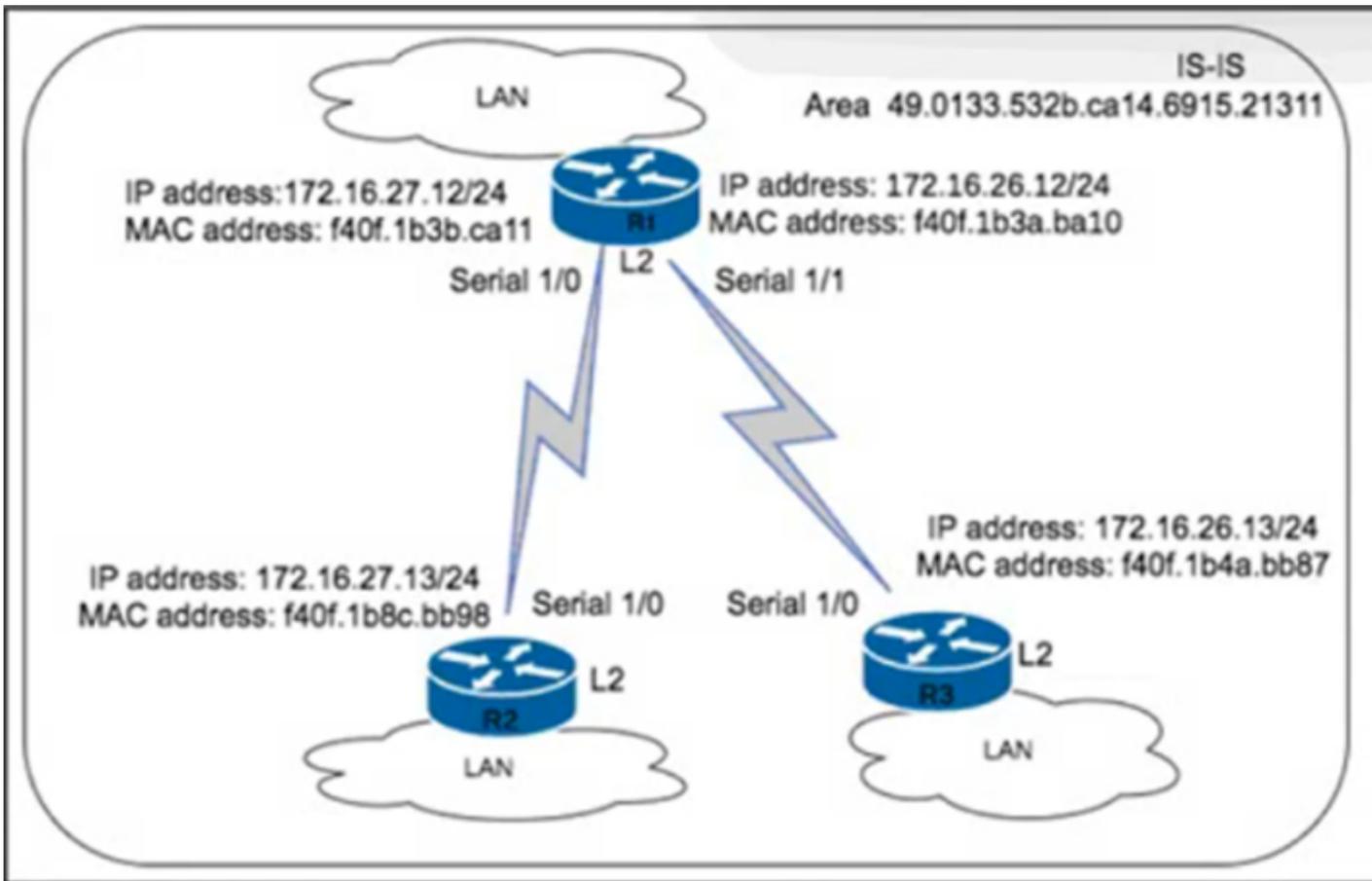
What is the primary role of Ansible in a network?

- A. It is used as a debugging tool for connectivity issues between the DMZ and an enterprise intranet.
- B. It is used to diagnose Layer 11 issues in data centers that span more than one city block.
- C. It is used to deploy IPv6 configuration in networks that are dual stack.
- D. It is used as a network automation provisioning and configuration tool.

**Answer:** D

**NEW QUESTION 368**

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

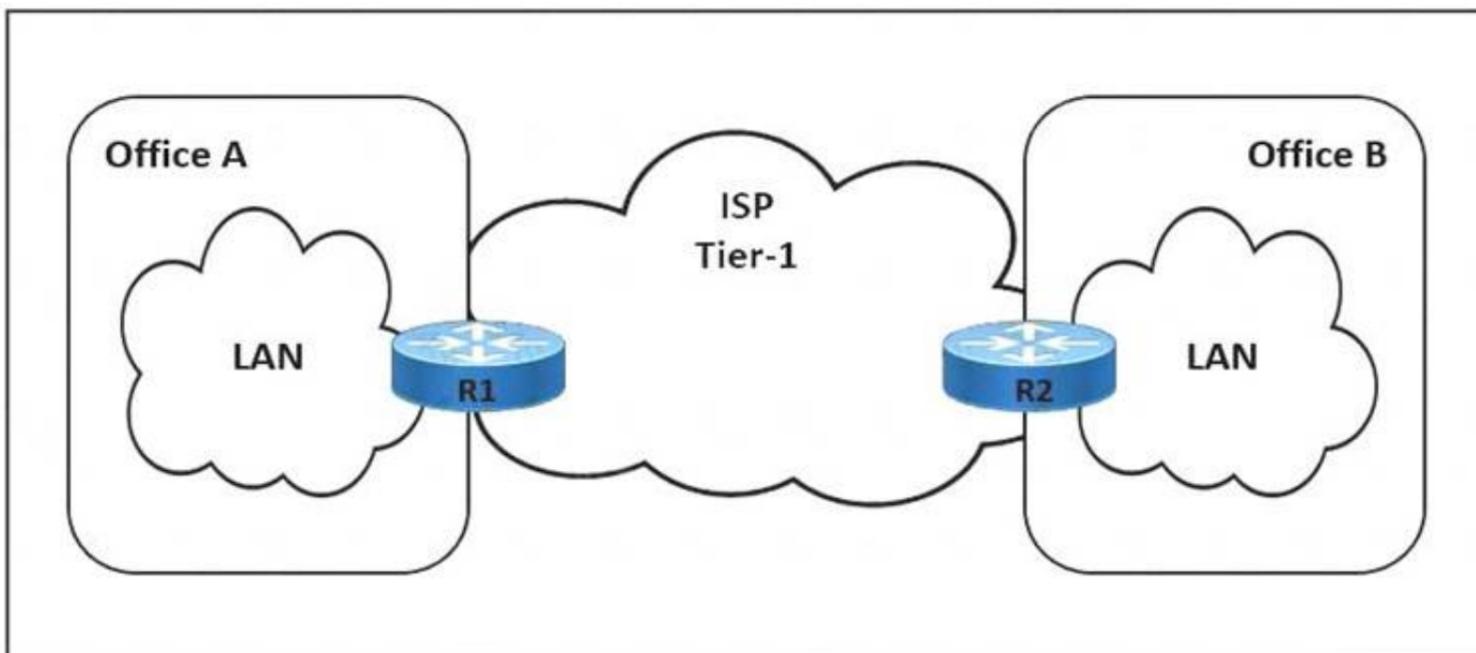
Answer: A

**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 369**

Refer to the exhibit.



The link between Office A and Office B is running at 90% load, and occasionally the CPU on router R1 is overloaded. The company implemented QoS for business-critical applications at both offices as a temporary solution. A network engineer must update the R1 configuration to 600 ms to reduce CPU load and limit downtime after connection failure to avoid data loss. Which action meets this requirement?

- A. Configure the fast-hello feature for OSPF with the command ip ospf dead-interval minimal hello-multiplier 3.
- B. Configure BFD demand mode with the command bfd-demand timer 150 interval 250 retransmit 5.
- C. Configure BFD non-echo mode with the command echo interval 250 minimal 300 echo-multiplier 2.
- D. Configure BFD echo mode with the command bfd interval 150 min\_rx 200 multiplier 3.

Answer: D

**NEW QUESTION 374**

Refer to the exhibit:

```
mpls label protocol ldp
mpls ldp router-id loopback 0
mpls ip
ip cef
```

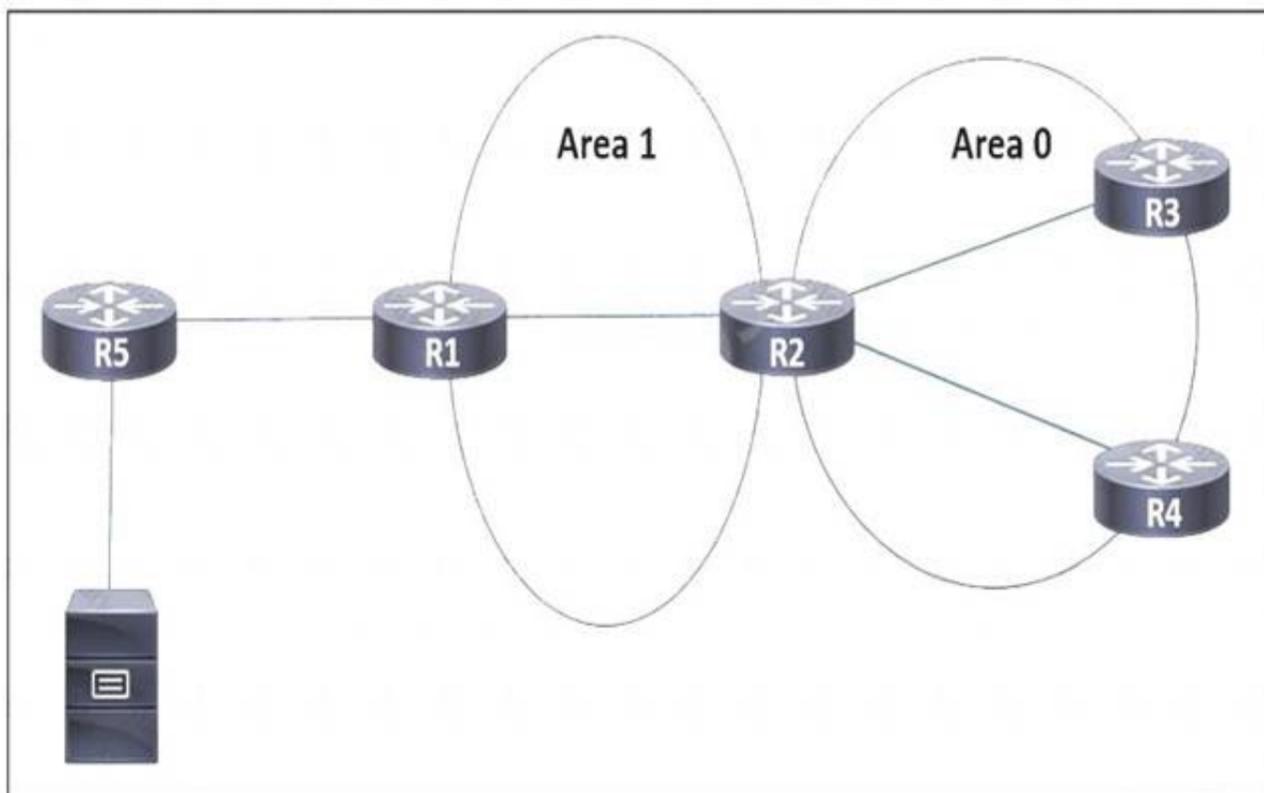
A network operator working for service provider with an employee id 3715 15:021 applied this configuration to a router. Which additional step should the engineer use to enable LDP?

- A. Disable Cisco Express Forwarding globally
- B. Delete the static router ID
- C. Enable MPLS LDP on the interface
- D. Configure the both keyword to enable LDP globally

**Answer: C**

#### NEW QUESTION 377

Refer to the exhibit.



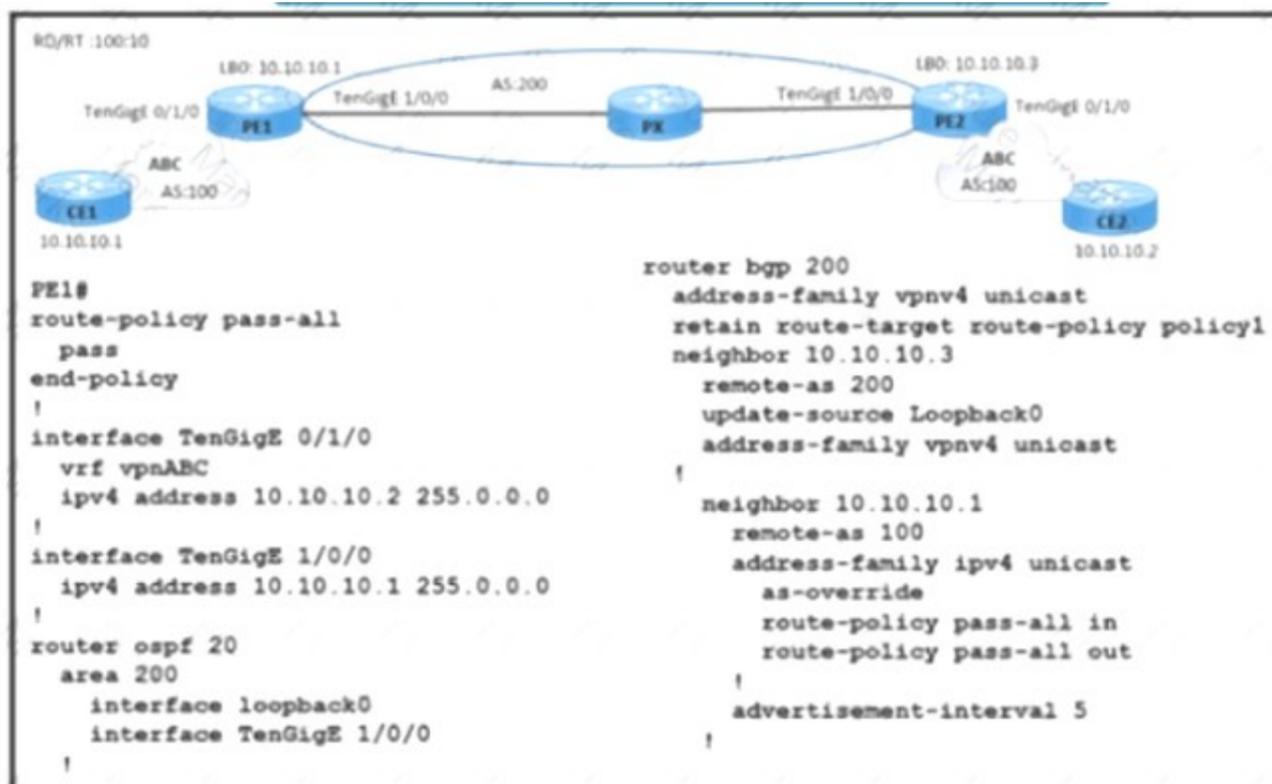
EIGRP is running between routers R5 and R1, and OSPF is used in the rest of the network. Users in a network attached to router R3 need to access a server connected to R5. Which task must the engineer perform so that only the users attached to R3 are able to access the server, but no other network is shared to OSPF?

- A. Configure redistribution using route maps to filter the routes that are shared
- B. Configure redistribution using an offset list to filter the routes that are shared.
- C. Configure an OSPF virtual link between R1 and R3 to route traffic between the two areas.
- D. Configure R1 as a stub router for EIGRP and OSPF so that only the default route is shared

**Answer: A**

#### NEW QUESTION 382

Refer to the exhibit.



A service provider engineer is configuring the connection between CE1 and CE2. AS 200 of the service provider and AS 100 of enterprise ABC should connect using BGP. The engineer already completed the configuration of VRF RT 100:10 of enterprise ABC. Which configuration must the engineer apply on PE1 to meet the requirement?

- vrf vpn1  
rd 100:1  
address-family vpnv4 unicast  
redistribute connected
- vrf vpn1  
rd 100:1  
address-family ipv4 unicast  
redistribute connected
- router bgp 200  
neighbor 10.10.10.1  
remote-as 100  
address-family vpnv4 unicast
- router bgp 200  
address-family ipv4 unicast  
neighbor 10.10.10.3

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

Answer: B

**NEW QUESTION 385**

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.

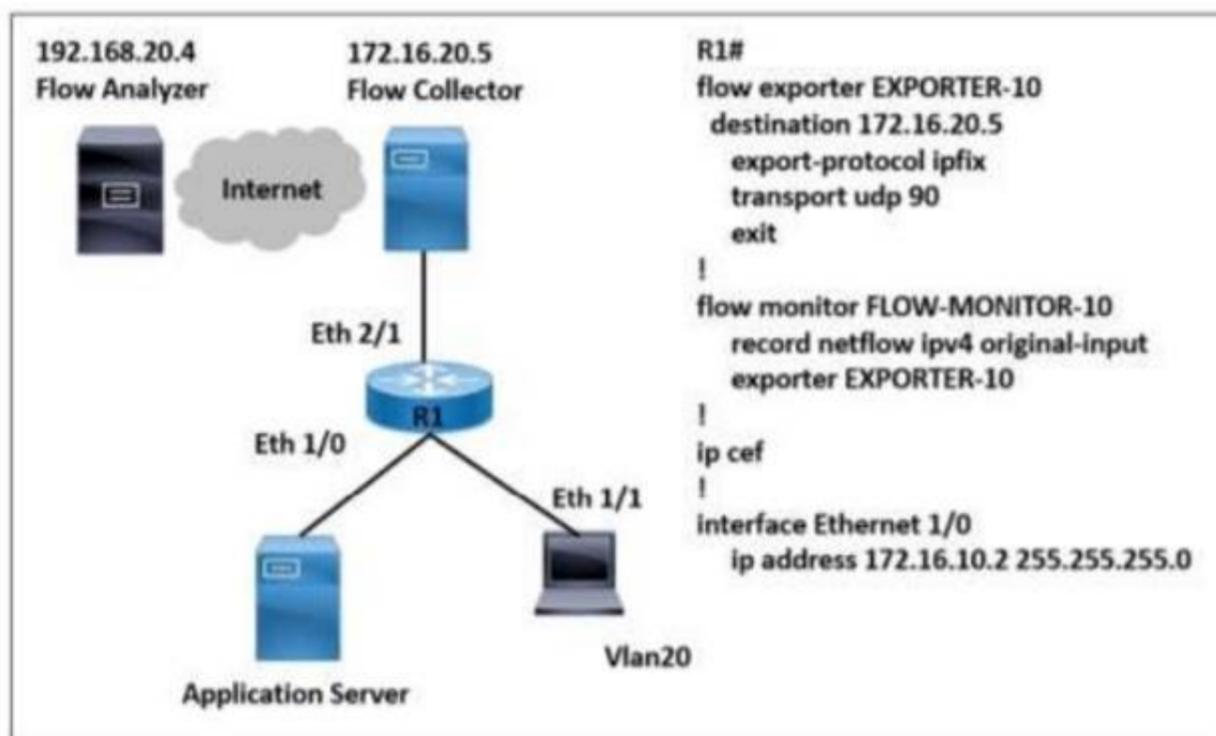
Which task must the network engineer perform when implementing this new architecture?

- 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 390**

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 391**

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 393**

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
```

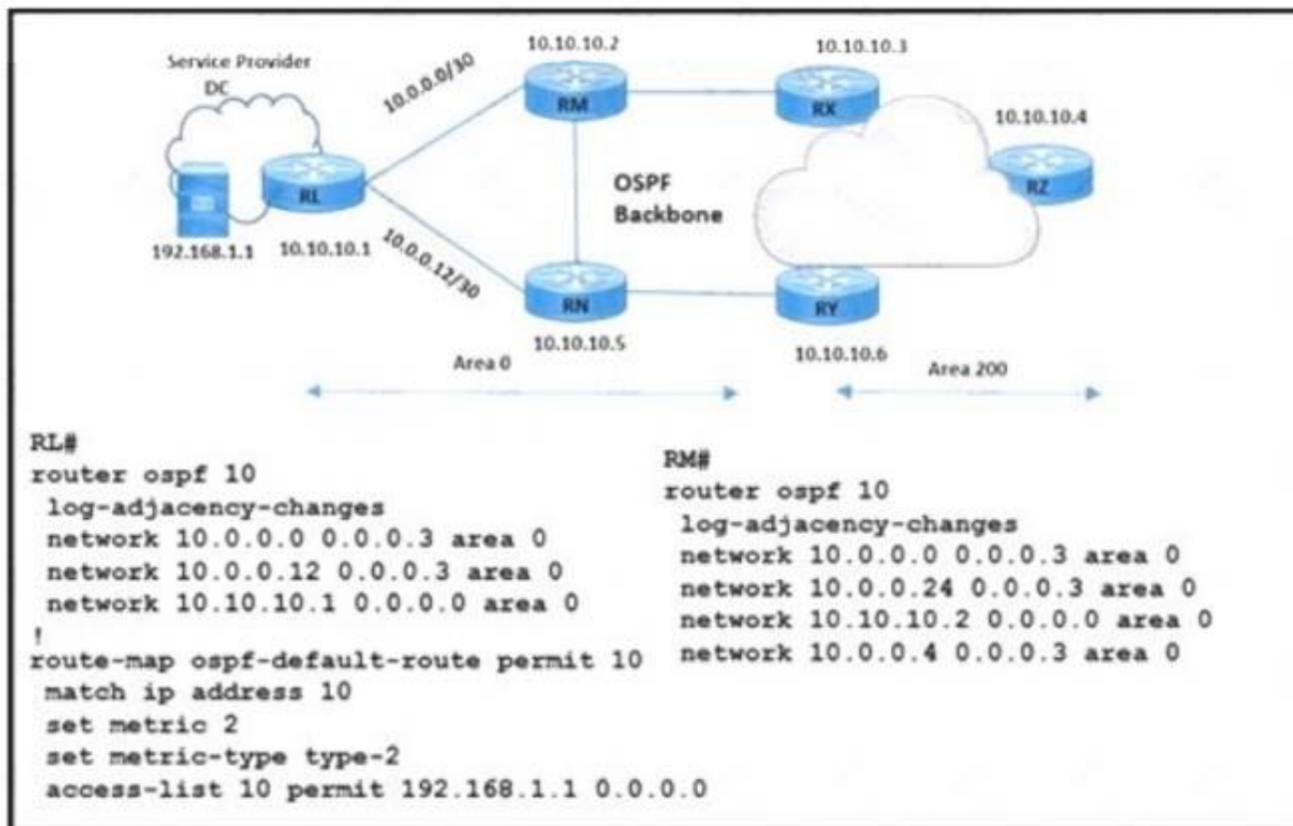
A network engineer is implementing an OSPF configuration Based on the output, which statement is true?

- 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 395**

Refer to the exhibit.



The operations team for a service provider network is implementing a route map policy. OSPF area 0 should originate the default route with a type 2 metric of 2 when the application server on the connected interface (192.168.1.1) is up. Routers RL and RM have set up OSPF peering with other adjacent routers. Which action meets this requirement?

- A. Apply default-information originate route-map ospf-default-route on router RL.
- B. Configure distribute-list route-map ospf-default-route out on router RM.
- C. Configure distribute-list route-map ospf-default-route out on router RL.
- D. Apply default-information originate route-map ospf-default-route on router RM.

Answer: D

**NEW QUESTION 397**

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 401**

Refer to the exhibit.

```
PE1#show ospfv3 database external 0.0.0.0
      OSPFv3 100 address-family ipv4 (router-id 172.20.20.1)
      Type-5 AS External Link States

LS age: 6
LS Type: AS External Link
Link State ID: 0
Advertising Router: 172.20.20.5
LS Seq Number: 80000006
Checksum: 0xF7AA
Length: 32
Prefix Address: 0.0.0.0
Prefix Length: 0, Options: None
Metric Type: 1 (Comparable directly to link state metric)
Metric: 50
External Route Tag: 100
```

Routers P4 and P5 receive the 0.0.0.0/0 route from the ISP via eBGP peering. P4 is the primary Internet gateway router, and P5 is its backup. P5 is already advertising a default route into the OSPF domain. Which configuration must be applied to P4 so that it advertises a default route into OSPF and becomes the primary Internet gateway for the network?

- A. configure terminalrouter ospfv3 100address-family ipv4 unicastdefault-information originate metric 40 metric-type 2 end
- B. configure terminal router ospfv3 100address-family ipv4 unicastdefault-information originate metric 40 metric-type 1 end
- C. configure terminal router ospfv3 100address-family ipv4 unicastredistribute bgp 65500 metric 40 metric-type 1 end
- D. configure terminal router ospfv3 100address-family ipv4 unicastdefault-information originate always metric 40 metric-type 1 end

Answer: A

**NEW QUESTION 405**

Refer to the exhibit:

```
Router 1:
netconf-yang
netconf-yang feature candidate-datastore
```

Which statement describes this configuration?

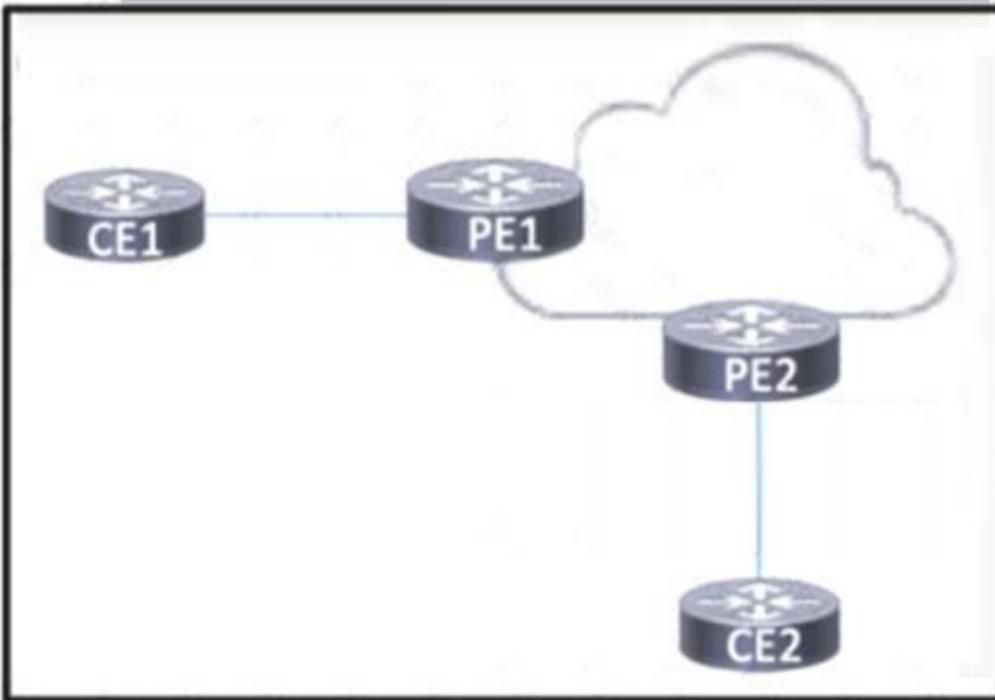
- A. Router 1 has its running configuration locked so changes can be made only when the administrator issues a kill session

- B. Router 1 can be remotely managed by the CLI using Telnet
- C. Router 1 has a new data store to collect SNMP information, but configuration must still be done at the CLI only
- D. Router 1 has a temporary data store where a copy of the running configuration can be manipulated and verified before committing the configuration

Answer: D

**NEW QUESTION 410**

Refer to the exhibit



BGP is running in the core of the service provider to exchange routes for its customers, and OSPF serves as the PE-CE routing protocol. The service provider's existing customer at CE1 is opening a new office in a different geographical location connected via CE2. A network engineer must update the BGP implementation so that PE1 and PE2 will share routes and provide communication between CE1 and CE2. Which action must the engineer take?

- A. Configure CE2 to establish a BGP relationship with PE1 and PE2
- B. Configure CE1 and CE2 with a pseudowire that will run over the service provider core.
- C. Configure PE1 and PE2 to mutually redistribute BGP and OSPF in the VRF for the customer.
- D. Configure PE1 and PE2 to redistribute OSPF from the VRF for the customer into BGP

Answer: C

**NEW QUESTION 411**

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 416**

A network engineer is configuring a BGP route policy for the SUBNET prefix set. Matching traffic must be dropped, and other traffic must have its MED value set to 400 and community 4:400 added to the route. Which configuration must an engineer apply?

- route-policy CISCO
  - if destination in SUBNET then
  - drop
  - else
  - set med 400
  - set community (4:400) additive
  - endif
  - end-policy
  - end
- route-policy CISCO
  - if destination in SUBNET then
  - drop
  - endif
  - set med 400
  - if community matches-any SUBNET then
  - set local-preference 400
  - set med 500
  - set community (4:400) additive
  - endif
  - end-policy
  - end
- route-policy SUBNET
  - if destination in SUBNET then
  - drop
  - endif
  - set med 400
  - set local-preference 400
  - if community matches-any SUBNET then
  - set community (4:400)
  - endif
  - end-policy
  - end
- route-policy SUBNET
  - if destination in BGP then
  - drop
  - else
  - set med 400
  - set community (4:400)
  - endif
  - end-policy
  - end

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

**Answer: A**

**NEW QUESTION 421**

Which feature will an operator use while implementing MPLS TE on customer's network, to prevent an LSP from using any overseas inks?

- A. bandwidth
- B. affinity
- C. explicit path
- D. SLRG

**Answer: C**

**NEW QUESTION 425**

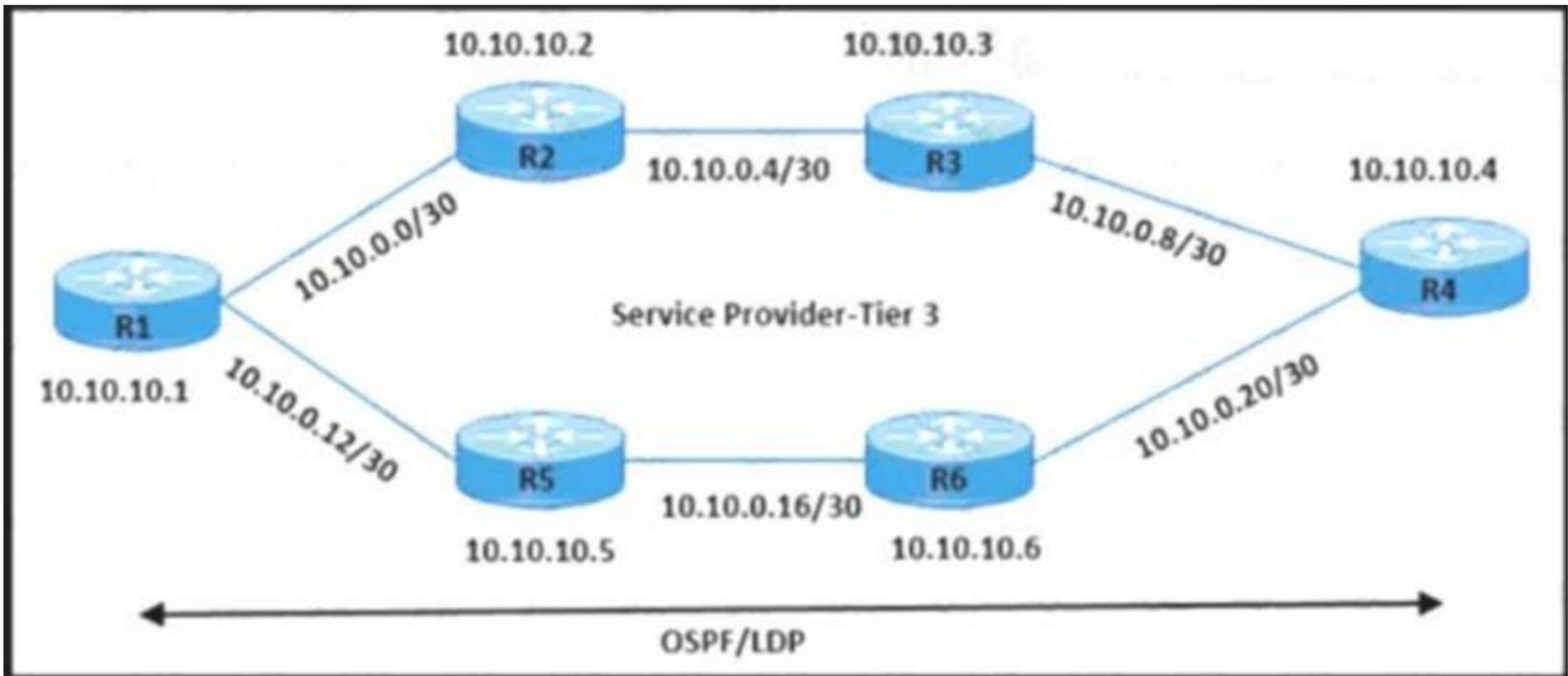
What is a role of NSO?

- A. It automates the deployment of access points with its built-in wireless LAN controller.
- B. It manages WAN infrastructure using a virtual switch.
- C. It provides full lifecycle management of a device.
- D. It resides on a hypervisor that runs the Windows OS.

**Answer: C**

**NEW QUESTION 426**

Refer to the exhibit.



The network engineer is performing end-to-end MPLS path testing with these conditions:

- Users must perform MPLS OAM for all available same-cost paths from R1 to R4.
- Traceroute operations must return all of the next-hop IP details. Which configuration meets these requirements?

- A. traceroute mpls ipv4 10.10.10.4 255.255.255.255 verbose
- B. traceroute mpls multipath ipv4 10.10.10.4 255.255.255.255
- C. traceroute mpls multipath ipv4 10.10.10.4 255.255.255.255 verbose
- D. traceroute mpls ipv4 10.10.10.4 255.255.255.255 source 10.10.10.1

Answer: B

**NEW QUESTION 428**

Refer to the exhibit.

```

R1#show ip bgp
BGP table version is 3, local router ID is 50.50.50.1
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
               r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network        Next Hop           Metric LocPrf Weight Path
*> 22.22.22.22/32  50.50.50.2         0      100   100 500 ?
*                  40.40.40.2         0      200    0 400 ?
*                  30.30.30.2         0           0 300 300 ?
*                  20.20.20.2         0           0 200 ?

R1#show ip bgp 22.22.22.22
BGP routing table entry for 22.22.22.22/32, version 3
Paths: (4 available, best #1, table Default-IP-Routing-Table)
Flag: 0x820
Advertised to update-groups:
  1
  500
  50.50.50.2 from 50.50.50.2 (50.50.50.2)
    Origin incomplete, metric 0, localpref 100, weight 100, valid, external, best
  400
  40.40.40.2 from 40.40.40.2 (40.40.40.2)
    Origin incomplete, metric 0, localpref 200, valid, external
  300 300
  30.30.30.2 from 30.30.30.2 (30.30.30.2)
    Origin incomplete, metric 0, localpref 100, valid, external
  200
  20.20.20.2 from 20.20.20.2 (20.20.20.2)
    Origin incomplete, metric 0, localpref 100, valid, external
    
```

An engineer wants to determine which paths are best, second best, third best, and fourth best. Drag and drop the peer addresses on the left to the corresponding BGP best-path selection order on the right.

20.20.20.2	Best Path
30.30.30.2	2nd Best Path
40.40.40.2	3rd Best Path
50.50.50.2	4th Best Path

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Best – 50.50.50.2  
2nd Best – 40.40.40.2  
3rd Best – 20.20.20.2  
44th Best – 30.30.30.2

**NEW QUESTION 432**

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 435**

Egress PE NAT is being used via a single centralized router to provide Internet access to L3VPN customers. Which description of the NAT operation is true?

- A. Users in different VRFs cannot share the same outside global IP address
- B. The NAT table contains a field to identify the inside VRF of a translation
- C. Multiple address pools are needed for the same L3VPN because each site has a separate NAT
- D. The different L3VPNs using the Internet access must not have IP overlaps internally

Answer: B

**NEW QUESTION 436**

Refer to the exhibit.

```
RP/0/RP0/CPU0:XR1#sh lpts pifib hardware entry location 0/0/CPU0
-----
L4 Protocol      : ICMP
VRF ID           : any
Destination IP   : any
Source IP/BFD Disc: any
Port/Type        : Port:8
Source Port      : any
Is Fragment      : 0
Is SYN           : any
Is Bundle        : na
Is Virtual       : na
Interface        : any
Slice            : 0
V/L/T/F         : 0/IPv4_STACK/0/ICMP-local
DestNode         : Local
DestAddr         : Punt
Accepted/Dropped : 16810/14
Po/Ar/Bu        : 19/0pps/100ms
State            : pl_pifib_state_complete
-----
```

While troubleshooting the network, a network operator with an employee id: 3812:12:993 is trying to ping XR1. Which result should the operator expect when trying

to ping to an XR1 local address?

- A. ICMP traffic works at a policed rate of 19 bytes per second every 100 ms
- B. All ICMP traffic responds successfully.
- C. All ICMP traffic is dropped.
- D. ICMP traffic works at a policed rate of 19 packets every 100 ms.

**Answer: B**

#### NEW QUESTION 438

Refer to the exhibit:

```

PE-A#show ip bgp vpnv4 vrf Customer-A neighbors 10.10.10.2 routes
BGP table version is 13148019, local router ID is 10.10.10.10
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
               r RIB-failure, S Stale, m multipath, b backup-path, f RT-Filter,
               x best-external, a additional-path, c RIB-compressed,
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found

   Network          Next Hop          Metric LocPrf Weight Path
Route Distinguisher: 65000:1111 (default for vrf Customer-A)
*> 192.168.0.0/19   10.10.10.2        0             0 4282 65001 ?
*> 192.168.0.0/17   10.10.10.2        0             0 4282 65001 ?
*> 192.168.0.0/16   10.10.10.2        0             0 4282 65001 ?

Total number of prefixes 5

PE-A#config t
Enter configuration commands, one per line. End with CNTL/Z.
PE-A(config)#ip prefix-list ALLOW permit 192.168.0.0/16 ge 17 le 19
PE-A(config)#router bgp 65000
PE-A(config-router)#address-family ipv4 vrf Customer-A
PE-A(config-router-af)#neighbor 10.10.10.2 prefix-list ALLOW in
    
```

Which three outcomes occur if the prefix list is added to the neighbor? (Choose three)

- A. 192.168 0.0/19 is denie
- B. 192.168 0.0/17 is denied.
- C. 192.168 0.0/17 is permitted
- D. 192.168.0.0/16 is denied
- E. 192.168 0.0/16 is permitted
- F. 192.168 0.0/19 is permitted

**Answer: CDF**

#### NEW QUESTION 439

What is a characteristic of data modeling language?

- A. It provides an interface for state data.
- B. It separates configuration and state data.
- C. It ensures devices are individually configured.
- D. It replaces SNMP.

**Answer: B**

#### NEW QUESTION 443

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 446

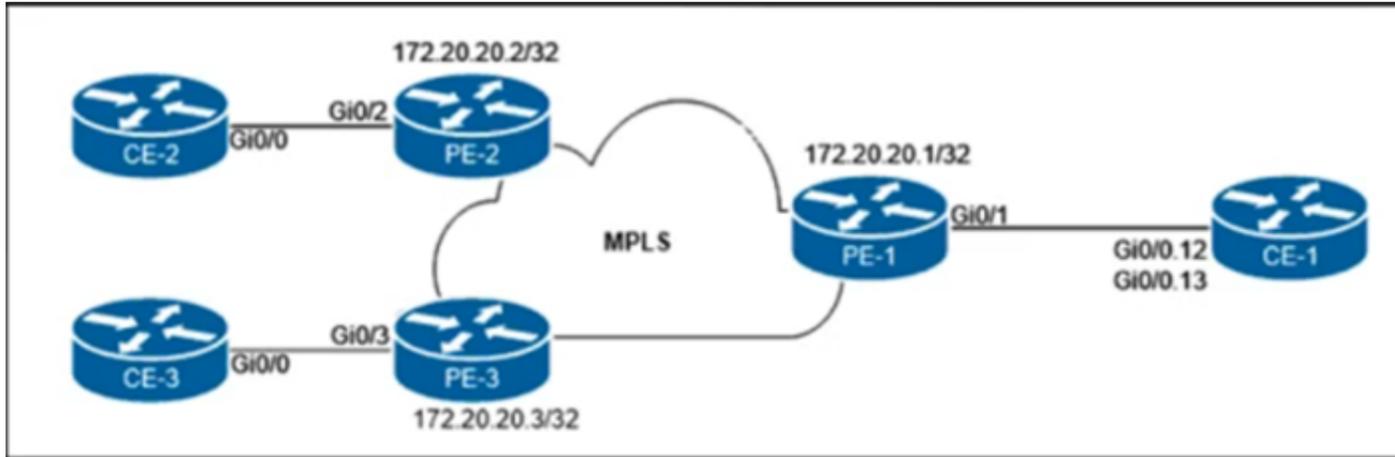
An engineer is implementing NSR with OSPF on a large campus that requires high availability. Which task must an engineer perform to complete the process with minimal disruption to traffic?

- A. Reset OSPF neighbor sessions to maintain state information during router switchover
- B. Configure the device to repopulate state information using routing updates received from the BDR
- C. increase the keepalive interval on the OSPF neighbors so that traffic continues to pass during the switchover.
- D. Ensure that the dual RP has synchronized their state information before performing the switchover operation.

**Answer: D**

#### NEW QUESTION 447

Refer to the exhibit.



The customer that owns the CE-1, CE-2, and CE-3 routers purchased point-to-point E-Line services from the Carrier Ethernet provider. The service provider is delivering multiplexed UNI at the customer HQ location on PE-1 and untagged UNIs at the PE-2 and PE-3 locations. Additionally, the customer provided these VLAN to EVC mapping requirements:

- EVC 1 between CE-1 and CE-2 must be provisioned with C-VLAN 12 at the HQ location.
- EVC 2 between CE-1 and CE-3 must be provisioned with C-VLAN 13 at the HQ location.

Which configuration must the network engineer implement on the PE routers to provide end-to-end Carrier Ethernet service to the customer?

A. Text Description automatically generated

```

On PE-1:
interface GigabitEthernet0/1
service instance 1 ethernet
encapsulation dot1q 12
rewrite ingress tag pop 1
xconnect 172.20.20.2 1001201 encapsulation mpls
!
service instance 2 ethernet
encapsulation dot1q 13
rewrite ingress tag pop 1
xconnect 172.20.20.3 1001301 encapsulation mpls

On PE-2:
interface GigabitEthernet0/2
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001201 encapsulation mpls

On PE-3:
interface GigabitEthernet0/3
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001301 encapsulation mpls
    
```

B. Text Description automatically generated

```
On PE-1:  
interface GigabitEthernet0/1  
service instance 1 ethernet  
encapsulation dot1q 12  
rewrite ingress tag pop 1  
xconnect 172.20.20.2 1001201 encapsulation mpls  
!  
service instance 2 ethernet  
encapsulation dot1q 13  
rewrite ingress tag pop 1  
xconnect 172.20.20.3 1001301 encapsulation mpls
```

```
On PE-2:  
interface GigabitEthernet0/2  
service instance 1 ethernet  
encapsulation untagged  
rewrite ingress tag push dot1q 12 symmetric  
xconnect 172.20.20.1 1001201 encapsulation mpls
```

```
On PE-3:  
interface GigabitEthernet0/3  
encapsulation untagged  
rewrite ingress tag push dot1q 13 symmetric  
xconnect 172.20.20.1 1001301 encapsulation mpls
```

C. Text Description automatically generated

```
On PE-1:  
interface GigabitEthernet0/1  
service instance 1 ethernet  
encapsulation dot1q 12  
rewrite ingress tag pop 1  
xconnect 172.20.20.2 1001301 encapsulation mpls  
!  
service instance 2 ethernet  
encapsulation dot1q 13  
rewrite ingress tag pop 1  
xconnect 172.20.20.3 1001201 encapsulation mpls
```

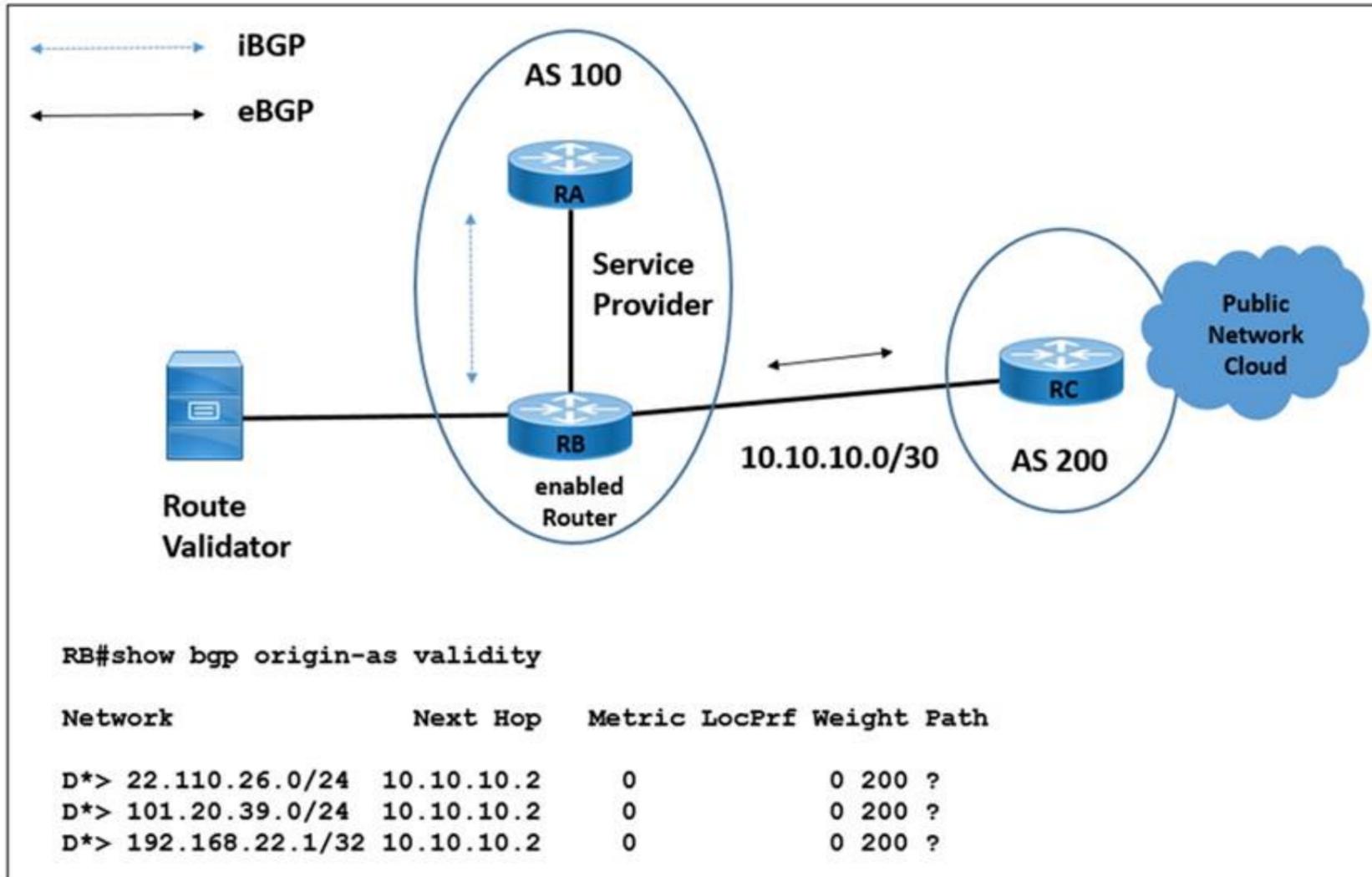
```
On PE-2:  
interface GigabitEthernet0/2  
service instance 1 ethernet  
encapsulation untagged  
xconnect 172.20.20.1 1001201 encapsulation mpls
```

```
On PE-3:  
interface GigabitEthernet0/3  
service instance 1 ethernet  
encapsulation untagged  
xconnect 172.20.20.1 1001301 encapsulation mpls
```

D. Text, letter Description automatically generated



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 456**

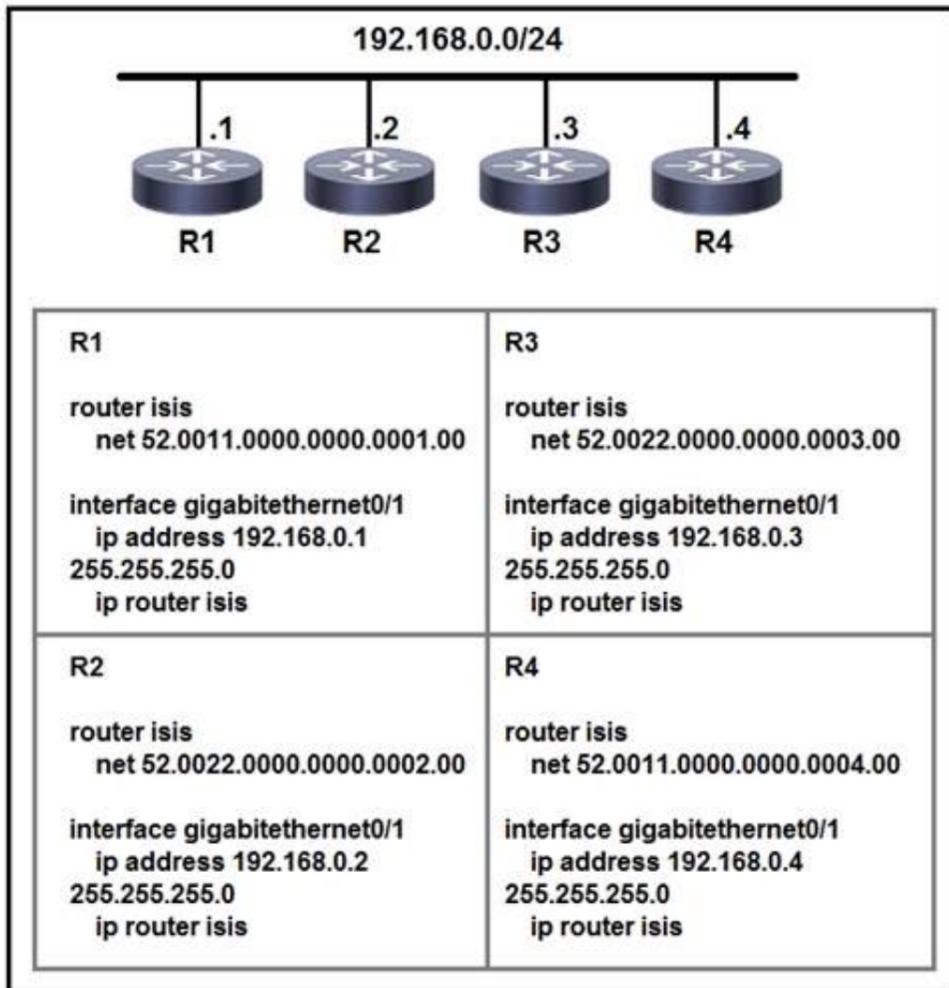
A network engineer is implementing NetFlow to observe traffic patterns on the network. The engineer is planning to review the patterns to help plan future strategies for monitoring and preventing congestion as the network grows. If the captures must include BGP next-hop flows, which configuration must the engineer apply to the router?

- A. ip cefip flow-export version 5 bgp-nexthopip flow-export destination 192.168.1.1 9995 interface gigabitethernet 1/0/1ip flow egress
- B. ip cefip flow-export version 9 bgp-nexthopip flow-export destination 192.168.1.1 9996 interface gigabitethernet 1/0/1ip flow ingress
- C. ip cefip flow-export version 5ip flow-export destination 192.168.1.1 9995 interface gigabitethernet 1/0/1ip flow ingresscdp enable
- D. no ip cefip flow-export version 9ip flow-export destination 192.168.1.1 9996 interface gigabitethernet 1/0/1ip flow ingress ip flow egress

Answer: B

**NEW QUESTION 458**

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 461**

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 465**

Which type of attack is a Protocol attack?

- A. HTTP flood
- B. TFTP flood
- C. SYN flood
- D. Slowloris

**Answer:** C

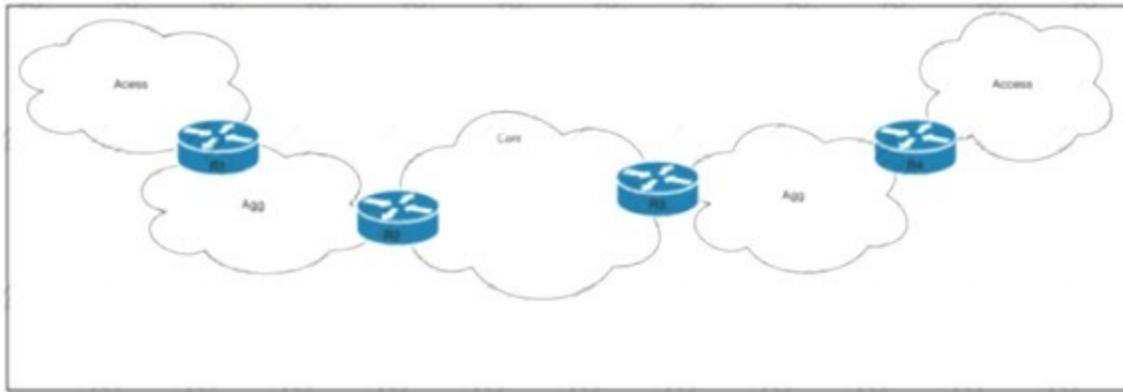
**Explanation:**

Protocol Attacks

Includes SYN floods, fragmented packet attacks, Ping of Death, Smurf DDoS and more. This type of attack consumes actual server resources,

**NEW QUESTION 470**

Refer to the exhibit.



Tier 1 ISP A purchased several Tier 2 ISPs to increase their customer base and provide more regional coverage. ISP A plans to implement MPLS services in the access layer, with scalability up to 100.1 devices in one packet network and service recovery up to 50 ms. The network architect decided to use different independent IGP and LDP domains and interconnect LSPs that are based on RFC 3107. Which two actions must the network engineer perform to meet the requirements? (Choose two.)

- A. Implement BGP PIC core functionality on routers R2 and R3.
- B. Configure three OSPF areas, with Area 0 in the core domain, and Areas 2 and 3 in the aggregation domain.
- C. Implement BGP connectivity between routers R1 and R4 with VPNv4 address family enabled.
- D. Implement BGP inline RR functionality with next-hop-self capabilities on routers R2 and R3.
- E. Implement the IS-IS routing protocol on the access domain.

Answer: AD

**NEW QUESTION 475**

A network architect decides to expand the scope of the multicast deployment within the company network the network is already using PIM-SM with a static RP that supports a high-bandwidth, video-based training application that is heavily used by the employees, but excessive bandwidth usage is a concern How must the engineer update the network to provide a more efficient multicast implementation?

- A. Configure IGMP to manage the multicast hosts on each LAN
- B. implement BSR to support dynamic RP notification.
- C. Deploy ICMP to improve multicast reachability across the network using static RP.
- D. Implement STP to improve switching performance for multicast data.

Answer: B

**NEW QUESTION 478**

A network team has failed to implement IS-IS multitopology. 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 480**

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 482**

Refer to the exhibit.

```

R1
router bgp 65000
  router-id 192.168.1.1
  no bgp default ipv4-unicast
  neighbor 192.168.1.2 remote-as 65001
    
```

Which task completes the configuration?

- A. Specify the maximum number of prefixes that R1 receives from neighbor 192.168.1.2.
- B. Specify the source interface in the neighbor statement.
- C. Specify the activate neighbor 192.168.1.2 under the IPv4 address family.
- D. Specify the local-as value in the neighbor statement.

Answer: C

**NEW QUESTION 484**

Refer to the exhibit.

```

router bgp 65001
 no synchronization
 bgp log-neighbor-changes
 neighbor 10.10.10.1 remote-as 4282
 neighbor 10.10.10.1 distribute-list 1 out
 no auto-summary
!
ip as-path access-list 1 permit ^$
!

```

An engineer is reviewing the BGP configuration. Which routes must be advertised to 10.10.10.1

- A. Local routes are permitted, and routes from other ASNs are denied.
- B. All routes whether local or from other ASNs are denied.
- C. Local routes are denied, and routes from other ASNs are permitted.
- D. All routes whether local or from other ASNs are permitted.

Answer: D

**NEW QUESTION 486**

A network engineer is configuring RIP as the routing protocol between multiple PEs and CEs. The engineer must avoid advertising the same routes back to their sources. Which action should be performed on the routers to accomplish this task?

- A. Configure a different route distinguisher for each prefix.
- B. Define the site of origin on each interface.
- C. Define VRFs on each device to separate the traffic.
- D. Enable bidirectional forwarding detection on each device.

Answer: B

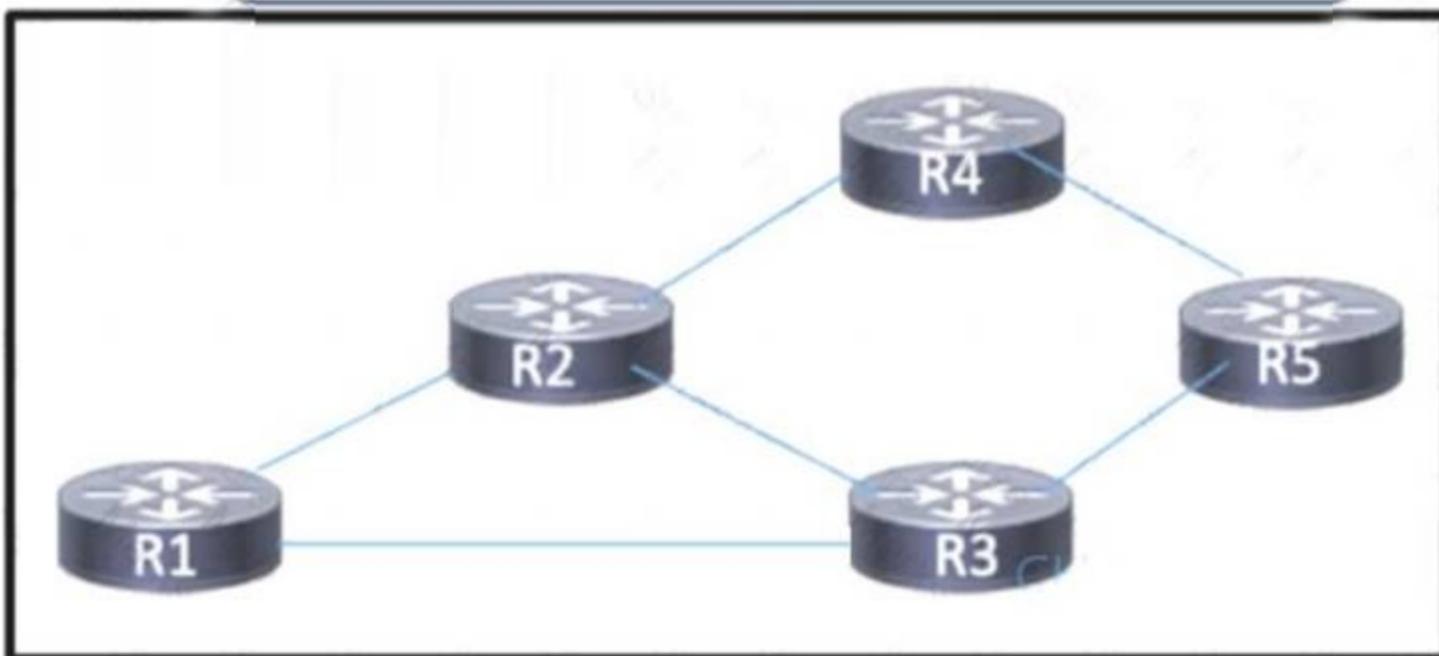
**Explanation:**

Although the SoO is set on BGP address family configuration mode not interface mode, but it is applied to the interface based on this reference. "The configuration of the SoO extended community allows MPLS VPN traffic to be filtered on a per-site basis. The SoO extended community is configured in an inbound BGP route map on the PE router and is applied to the interface."

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3850/software/release/16-12/configuration\\_guide/m](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3850/software/release/16-12/configuration_guide/m)

**NEW QUESTION 489**

Refer to the exhibit.



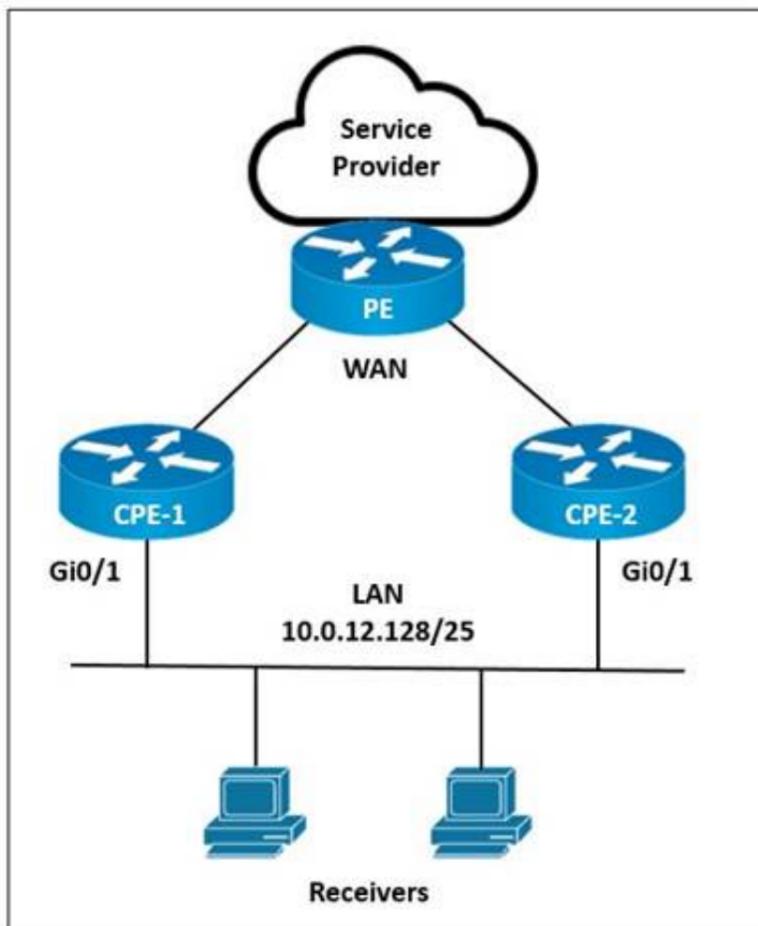
Routers R1 through R5 are being deployed within the core of a service provider running BGP. The core supports distribution of VPNv4 routes using MPLS. R3 currently has multiple paths to reach R4. A network engineer must implement BGP attributes so that R3 can reach R4 via R1. Which action must the engineer take to meet the requirement?

- A. Configure R3 so the route to R4 through R1 will have a higher weight than the route from R2 or R5.
- B. Configure R2 to send the route from R4 to R1 using a higher metric than what is advertised to R3.
- C. Configure R5 to send the route from R4 to R1 using a longer AS path than the AS path that it receives from R1 or R2.
- D. Configure R3 so the route to R4 through R1 will have a lower local preference than the route from R2 or R5.

Answer: D

**NEW QUESTION 493**

Refer to the exhibit.



A network engineer is implementing multicast services on CPE-1 and CPE-2. CPE-1 must be configured as the preferred IGMP querier for the LAN segment. PIM-SM must be implemented on the LAN interfaces with an IGMP version that supports (\*, G) joins only. Which configurations must the engineer implement on CPE-1 and CPE-2?

- A. On CPE-1:interface GigabitEthernet0/1ip address 10.0.12.129 255.255.255.128ip pim sparse-mode ip igmp version 2 On CPE-2:interface GigabitEthernet0/1ip address 10.0.12.130 255.255.255.128ip pim sparse-mode ip igmp version 2
- B. On CPE-1:interface GigabitEthernet0/1ip address 10.0.12.130 255.255.255.128ip pim sparse-mode ip igmp version 3 On CPE-2:interface GigabitEthernet0/1ip address 10.0.12.129 255.255.255.128ip pim sparse-mode ip igmp version 3
- C. On CPE-1:interface GigabitEthernet0/1ip address 10.0.12.130 255.255.255.128ip pim sparse-mode ip igmp version 2 On CPE-2:interface GigabitEthernet0/1ip address 10.0.12.129 255.255.255.128ip pim sparse-mode ip igmp version 2
- D. On CPE-1:interface GigabitEthernet0/1ip address 10.0.12.129 255.255.255.128ip pim sparse-mode ip igmp version 3 On CPE-2:interface GigabitEthernet0/1ip address 10.0.12.130 255.255.255.128ip pim sparse-mode ip igmp version 3

Answer: A

**NEW QUESTION 495**

Refer to the exhibit:

```
POST https://router1:8000/api/mo/uni/Descriptions.xml
```

What does the REST API command do?

- A. It retrieves the information requested by Descriptions xml
- B. It removes the information identified by Descriptions xml
- C. It executes the commands specified in Descriptions xml
- D. It displays the information identified by Descriptions xml

Answer: C

**NEW QUESTION 496**

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