



## **Cisco**

### **Exam Questions 300-410**

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

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**NEW QUESTION 1**

- (Exam Topic 3)

A newly installed spoke router is configured for DMVPN with the ip mtu 1400 command. Which configuration allows the spoke to use fragmentation with the maximum negotiated TCP MTU over GRE?

- A. ip tcp adjust-mss 1360crypto ipsec fragmentation after-encryption
- B. ip tcp adjust-mtu 1360crypto ipsec fragmentation after-encryption
- C. ip tcp adjust-mss 1360crypto ipsec fragmentation mtu-discovery
- D. ip tcp adjust-mtu 1360crypto ipsec fragmentation mtu-discovery

**Answer: A**

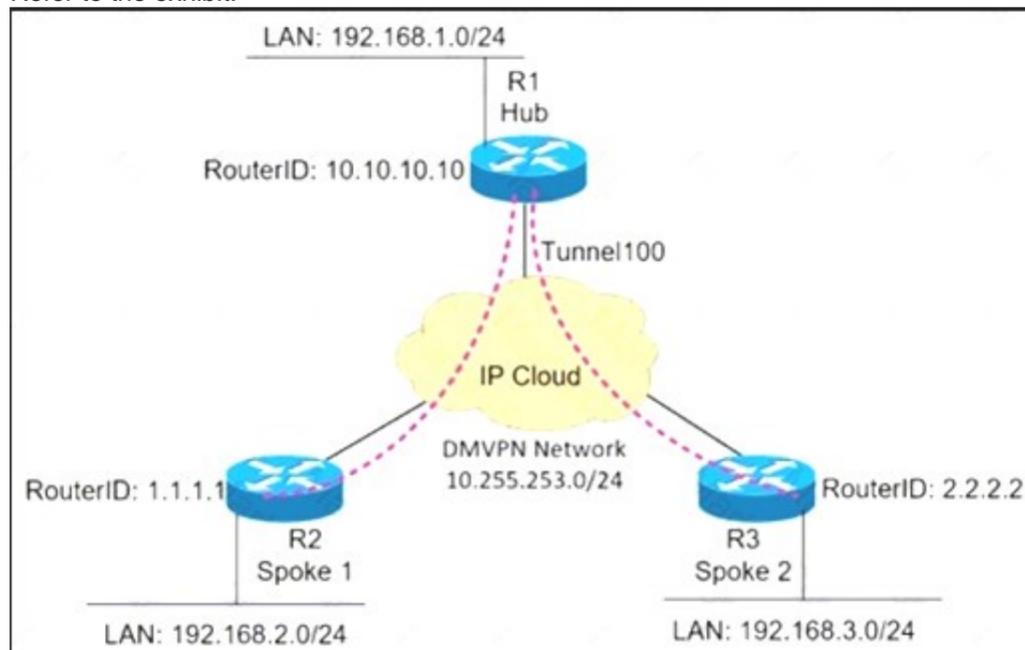
**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/security/dynamic-multipoint-vpn-dmvpn/111976-dmvpn-troublesh>

**NEW QUESTION 2**

- (Exam Topic 3)

Refer to the exhibit.



```
*Mar 1 17:19:04:051: %OSPF-5-ADJCHG: Process 100, Nbr 1.1.1.1 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:06:375: %OSPF-5-ADJCHG: Process 100, Nbr 1.1.1.1 on Tunnel100 from FULL to DOWN, Neighbor Down: Adjacency forced to reset
*Mar 1 17:19:06:627: %OSPF-5-ADJCHG: Process 100, Nbr 2.2.2.2 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:10:123: %OSPF-5-ADJCHG: Process 100, Nbr 2.2.2.2 on Tunnel100 from FULL to DOWN, Neighbor Down: Adjacency forced to reset
*Mar 1 17:19:14:499: %OSPF-5-ADJCHG: Process 100, Nbr 10.10.10.10 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:19:139: %OSPF-5-ADJCHG: Process 100, Nbr 10.10.10.10 on Tunnel100 from EXSTART to DOWN, Neighbor Down: Interface down or detached
*Mar 1 17:01:51:975: %OSPF-4-NONEIGHSR: Received database description from unknown neighbor 192.168.1.1
*Mar 1 17:01:57:783: OSPF: Rcv LS UPD from 192.168.1.1 on Tunnel100 length 88 LSA count 1
*Mar 1 17:01:57:155: OSPF: Send UPD to 10.255.253.1 on Tunnel100 length 100 LSA count 2
```

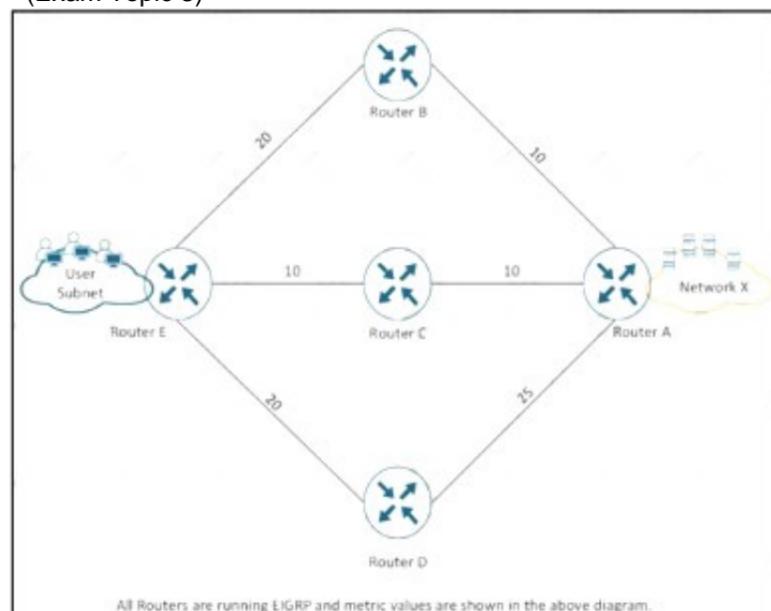
A network administrator sets up an OSPF routing protocol for a DMVPN network on the hub router. Which configuration required to establish a DMVPN tunnel with multiple spokes?

- A. ip ospf network point-to-multipoint on both spoke routers
- B. ip ospf network point-to-point on the hub router
- C. ip ospf network point-to-multipoint on One spoke router
- D. ip ospf network point-to-point on both spoke routers

**Answer: A**

**NEW QUESTION 3**

- (Exam Topic 3)



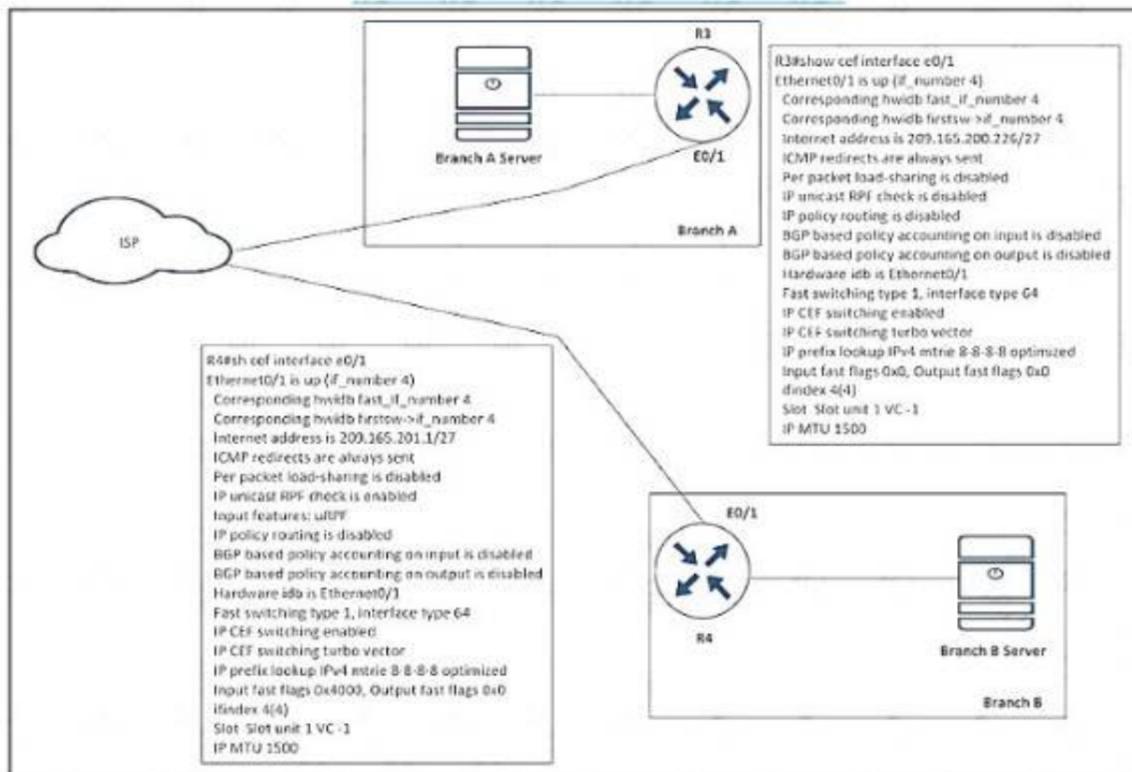
Refer to the exhibit. The IT manager received reports from users about slow application through network x. which action resolves the issue?

- A. Use the variance 2 command to enable load balancing.
- B. Increase the bandwidth from the service provider.
- C. Move the servers into the users subnet.
- D. Upgrade the IOS on router E.

Answer: A

**NEW QUESTION 4**

- (Exam Topic 3)



Refer to the exhibit.

A shoe retail company implemented the uRPF solution for an antispoofing attack. A network engineer received the call that the branch A server is under an IP spoofing attack. Which configuration must be implemented to resolve the attack?

- A)
 

```

R4
interface ethernet0/1
 ip unicast RPF check reachable-via any allow-default allow-self-ping
            
```
- B)
 

```

R4
interface ethernet0/1
 ip verify unicast source reachable-via any allow-default allow-self-ping
            
```
- C)
 

```

R3
interface ethernet0/1
 ip verify unicast source reachable-via any allow-default allow-self-ping
            
```
- D)
 

```

R3
interface ethernet0/1
 ip unicast RPF check reachable-via any allow-default allow-self-ping
            
```

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

Answer: C

**NEW QUESTION 5**

- (Exam Topic 3)

An engineer configured VRF-Lite on a router for VRF blue and VRF red. OSPF must be enabled on each VRF to peer to a directly connected router in each VRF. Which configuration forms OSPF neighbors over the network 10.10.10.0/28 for VRF blue and 192.168.0.0/30 for VRF red?

- router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.15 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.3 area 0
- router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.240 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.252 area 0
- router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.252 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.240 area 0
- router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.3 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.15 area 0

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

**Answer:** A

#### NEW QUESTION 6

- (Exam Topic 3)

Refer to the exhibit.

```
!
summary-address 10.1.0.0 255.255.0.0
!
```

The none area 0 routers in OSPF still receive more specific routes of 10.1.1.0.10.1.2.0.10.1.3.0 from area 1. Which action resolves the issue?

- A. Configure route summarization on OSPF-enabled interfaces.
- B. Summarize by using the summary-address 10.1.0.0 255.255.252.0 command.
- C. Summarize by using the area range command on ABRs
- D. Configure the summary-address 10.1.0.0 255.255.252.0 command under OSPF process.

**Answer:** C

#### NEW QUESTION 7

- (Exam Topic 3)

The network administrator must implement IPv6 in the network to allow only devices that not only have registered IP addresses but are also connecting from assigned locations. Which security feature must be implemented?

- A. IPv6 Snooping
- B. IPv6 Destination Guard
- C. IPv6 Prefix Guard
- D. IPv6 Router Advertisement Guard

**Answer:** A

#### NEW QUESTION 8

- (Exam Topic 3)

```

R4#show ip route
Gateway of last resort is not set

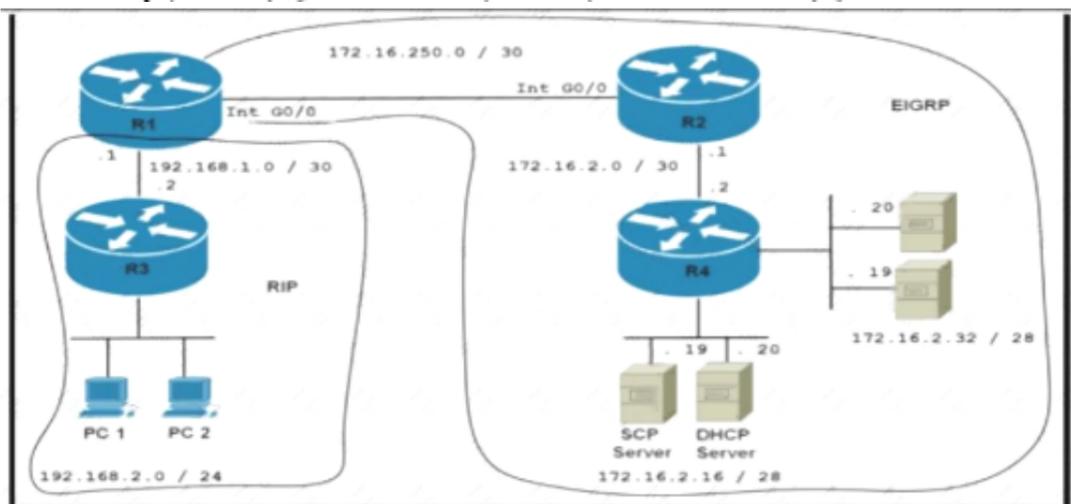
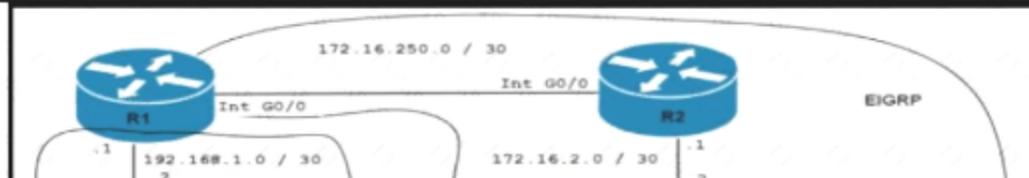
 172.16.0.0/16 is variably subnetted, 8 subnets, 3 masks
C   172.16.2.0/30 is directly connected, GigabitEthernet0/1
L   172.16.2.2/32 is directly connected, GigabitEthernet0/1
C   172.16.2.16/28 is directly connected, Loopback1
L   172.16.2.17/32 is directly connected, Loopback1
C   172.16.2.32/28 is directly connected, Loopback2
L   172.16.2.33/32 is directly connected, Loopback2
S   172.16.2.48/28 [1/0] via 172.16.2.34
D   172.16.250.0/30 [90/3072] via 172.16.2.1, 1d08h, GigabitEthernet0/1

R3#sho ip route
Gateway of last resort is not set

R   172.16.0.0/16 [120/10] via 192.168.1.1, 00:00:03, GigabitEthernet0/1
 192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.1.0/30 is directly connected, GigabitEthernet0/1
L   192.168.1.2/32 is directly connected, GigabitEthernet0/1
 192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.2.0/24 is directly connected, Loopback2
L   192.168.2.33/32 is directly connected, Loopback2
 192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.3.0/24 is directly connected, Loopback1
L   192.168.3.17/32 is directly connected, Loopback1

R1#sho running-config | begin router eigrp
router eigrp 100
 network 172.16.250.0 0.0.0.3
 redistribute rip
!
router rip
 redistribute eigrp 100 metric 10
 network 192.168.1.0
!
ip forward-protocol nd
!
route-map REDIST permit 10
 match ip address 15
!
route-map CCNP deny 10
 match route-type external
!
route-map CCNP permit 20
!
access-list 15 permit 192.168.0.0 0.0.0.255

R3#traceroute 172.16.2.33
Type escape sequence to abort.
Tracing the route to 172.16.2.33
VRF info: (vrf in name/id, vrf out name/id)
 0 192.168.1.1 27 msec 31 msec 16 msec
 1 * * *
 2 * * *
 3 * * *
 4 * * *
R3#
    
```



Refer to the exhibit Users from the 192 168.2.0/24 network cannot connect to the 172.16 2 32/28 network Which configuration resolves the issue?

A)

R4(config)#ip route 0.0.0.0 0.0.0.0 172.16.2.1

B)

```

R1(config)#route-map REDIST permit 10
R1(config-route-map)#match ip address 15
R1(config-route-map)# set metric 1000 10 255 1 1500
R1(config-route-map)#exit
R1(config)# access-list 15 permit 192.168.2.0 0.0.255.255
    
```

C)

```

R1(config-router)#router eigrp 100
R1(config-router)#redistribute rip
R1(config-router)#default-metric 10000 100 255 100 1500
    
```

D)

```

R1(config)#router eigrp 100
R1(config-router)#network 192.168.0.0
    
```

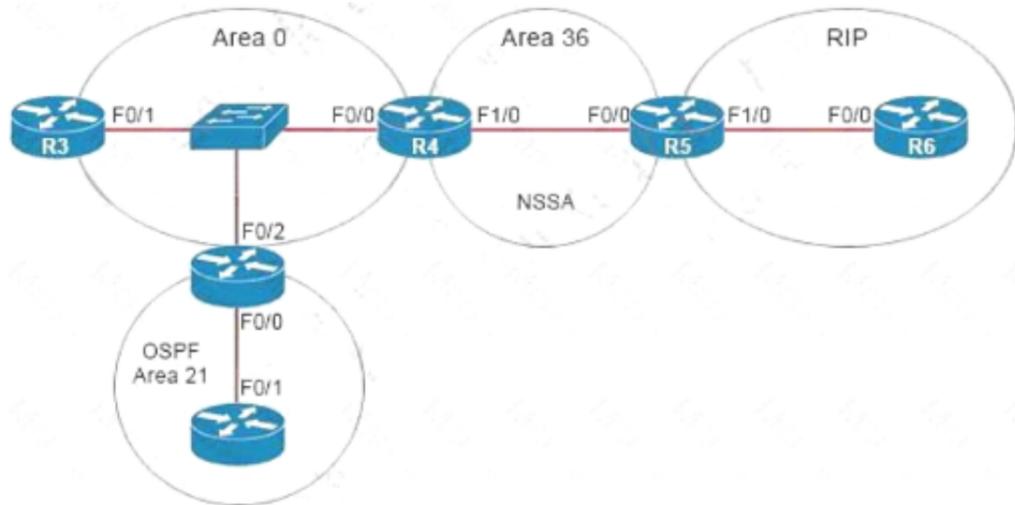
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

**NEW QUESTION 9**

- (Exam Topic 3)

Refer to the exhibit.



```
R5# show ip ospf 1 | begin Area 36
Area 36
Number of interfaces in this area is 2
It is a NSSA area
Area has no authentication
SPF algorithm last executed 00:32:46.376 ago
SFF algorithm executed 13 times
Area ranges are
172.16.0.0/16 Passive Advertise
```

The network engineer configured the summarization of the RIP routes into the OSPF domain on R5 but still sees four different 172.16.0.0/24 networks on R4. Which action resolves the issue?

- A. R5(config)#router ospf 1 R5(config-router)#no area R5(config-router)#summary-address 172.16.0.0 255.255.252.0
- B. R4(config)#router ospf 99 R4(config-router)#network 172.16.0.0 0.255.255.255 area 56 R4(config-router)#area 56 range 172.16.0.0 255.255.255.0
- C. R4(config)#router ospf 1 R4(config-router)#no area R4(config-router)#summary-address 172.16.0.0 255.255.252.0
- D. R5(config)#router ospf 99 R5(config-router)#network 172.16.0.0 0.255.255.255 area 56 R5(config-router)#area 56 range 172.16.0.0 255.255.255.0

**Answer: A**

**Explanation:**

Area 36 is a NSSA so R5 is an ASBR so we can summarize external routes using the “summary-address” command. The command “area area-id range” can only be used on ABR so it is not correct.

The summarization must be done on the ASBR which is R5, not R4 so the correct answer must be started with “R5(config)#router ospf 1”.

Note: The “no area” command is used to remove any existing “area ...” command (maybe “area 56 range ...” command).

**NEW QUESTION 10**

- (Exam Topic 3)

Refer to the exhibit.

```
R1#
ip route 10.66.66.0 255.255.255.0 10.2.2.4 track 700
ip route 10.66.66.0 255.255.255.0 10.1.1.3 20
!
track 700 ip sla 700
!
ip sla 700
icmp-echo 10.66.66.66 source-ip 10.10.10.1 type IP
threshold 100
frequency 5
ip sla schedule 700 life forever start-time now

R1#
*Nov 18 15:38:59.956: track-sta (700) Change #8 ip sla 700, state Up->Down
*Nov 18 15:38:59.956: %TRACK-6-STATE: 700 ip sla 700 state Up->Down
*Nov 18 15:38:59.956: track-sta (700) ip sla 700 state Up->Down
*Nov 18 15:38:59.956: track-que (700) Queuing CHANGED client event for Static IP Routing
*Nov 18 15:38:59.956: track-que (700) Unqueuing CHANGED client event for Static IP Routing
*Nov 18 15:39:04.965: track-sta (700) Change #9 ip sla 700, state Down->Up
*Nov 18 15:39:04.965: %TRACK-6-STATE: 700 ip sla 700 state Down->Up
*Nov 18 15:39:04.965: track-sta (700) ip sla 700 state Down->Up
*Nov 18 15:39:04.965: track-que (700) Queuing CHANGED client event for Static IP Routing
*Nov 18 15:39:04.966: track-que (700) Unqueuing CHANGED client event for Static IP Routing

R1#sh ip sla su
IPSLAs Latest Operation Summary
Codes: * active, ^ inactive, ~ pending

ID   Type   Destination   Stats   Return   Last
      (ms)   Code   Run
-----
*700  icmp-echo 10.66.66.66  RTT=1  OK      4 seconds ago
```

An engineer configured IP SLA on R1 to avoid the ISP link flapping problem. but it is not working as designed IP SLA should wait 30 seconds before switching traffic to a secondary connection and then revert to the primary link after waning 20 seconds, when the primary link is available and stabilized. Which configuration resolves the issue?

- A. R1(config)#ip sla 700 R1(config-ip-sla)#delay down 30 up 20
- B. R1(config)#ip sla 700 R1(config-ip-sla)#delay down 20 up 30
- C. R1(config)#track 700 ip sla 700 R1(config-track)#delay down 30 up 20
- D. R1(config)#track 700 ip sla 700 R1(config-track)#delay down 20 up 30

**Answer: C**



- A. access-list 100 permit ip any any!route-map POLICY permit 10 match ip address 100set ip next-hop recursive 10.1.1.1
- B. access-list 100 permit ip any 10.100.100.0 0.0.0.255!Route-map POLICY permit 10 match ip address 100set ip default next-hop 10.1.1.1
- C. access-list 100 permit ip any 10.100.100.0 0.0.0.255!route-map POLICY permit 10 match ip address 100set ip next-hop 10.1.1.1!route map POLICY permit 20
- D. access-list 100 permit ip any 10.100.100.0 0.0.0.255!route map POLICY permit 10 match ip address 100Set ip next-hop recursive 10.1.1.1!route-map POLICY permit 20

**Answer: D**

**NEW QUESTION 22**

- (Exam Topic 3)

```
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#ip address 10.10.10.10 255.255.255.252
R1(config-if)#ospfv3 1 ipv4 area 0

R2(config)#interface GigabitEthernet 0/0
R2(config-if)#ip address 10.10.10.11 255.255.255.252
R2(config-if)#ospfv3 10 ipv4 area 0
R2(config-if)#ospfv3 network broadcast
```

Refer to the exhibit An engineer is troubleshooting an OSPF adjacency issue between directly connected routers R1 and R2 Which configuration resolves the issue?

A)

```
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#ospfv3 network broadcast
```

B)

```
R2(config)#interface GigabitEthernet 0/0
R2(config-if)#ip address 10.10.10.9 255.255.255.252
```

C)

```
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#ospfv3 10 ipv4 area 0
```

D)

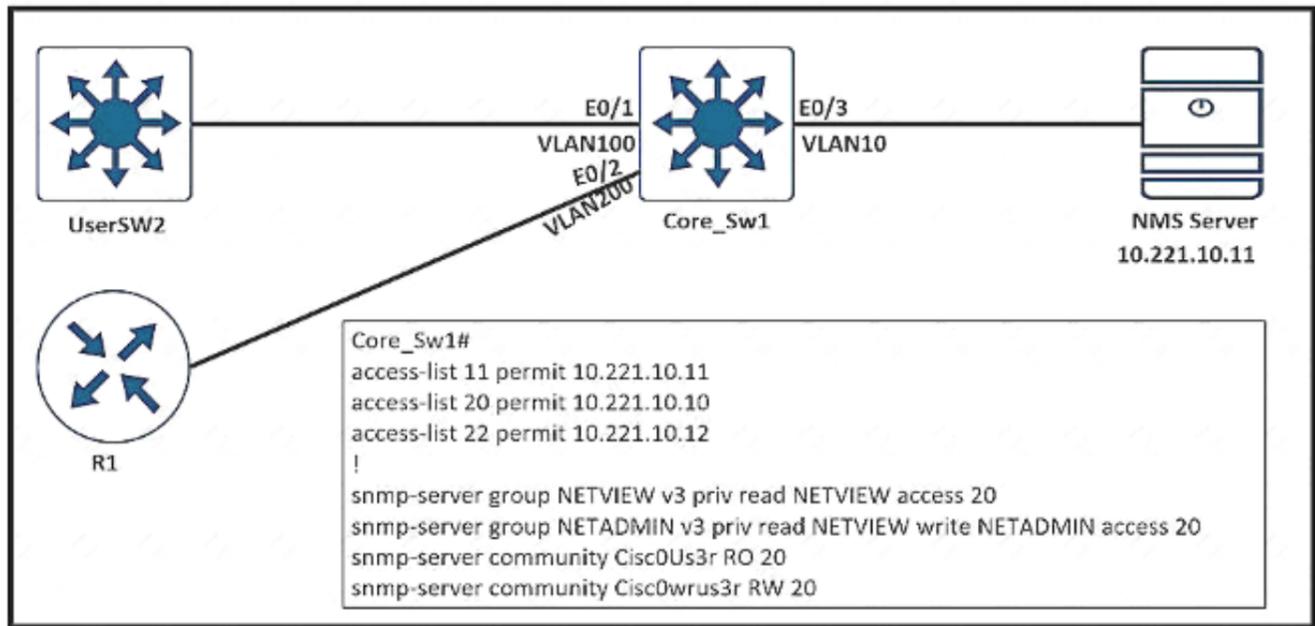
```
R2(config)#interface GigabitEthernet 0/0
R2(config-if)#no ospfv3 network broadcast
```

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

**Answer: B**

**NEW QUESTION 23**

- (Exam Topic 3)



- A. access-list 20 permit 10.221.10.12



```

○ interface GigabitEthernet0/0.5
  encapsulation dot1Q 5
  ip address 192.168.5.10 255.255.255.0
  ip helper-address 192.168.93.100
  !
interface GigabitEthernet0/0.80
  encapsulation dot1Q 80
  ip address 192.168.80.10 255.255.255.128
  ip helper-address 192.168.39.100
  !
ip dhcp excluded-address 192.168.5.1 192.168.5.1
ip dhcp excluded-address 192.168.80.1 192.168.80.10
  !
ip dhcp pool LEGAL
  network 192.168.80.0 255.255.255.128
  default-router 192.168.80.10
  !
ip dhcp pool HR
  network 192.168.5.0 255.255.255.0
  default-router 192.168.5.10
  !
○ interface GigabitEthernet0/0.5
  encapsulation dot1Q 5
  ip address 192.168.5.10 255.255.255.0
  ip helper-address 192.168.39.100
  !
interface GigabitEthernet0/0.80
  encapsulation dot1Q 80
  ip address 192.168.80.10 255.255.255.128
  ip helper-address 192.168.39.100
  !
ip dhcp excluded-address 192.168.5.1 192.168.5.5
ip dhcp excluded-address 192.168.80.1 192.168.80.110
  !
ip dhcp pool LEGAL
  network 192.168.80.0 255.255.255.128
  default-router 192.168.80.10
  !
ip dhcp pool HR
  network 192.168.5.0 255.255.255.0
  default-router 192.168.5.10
  !
  
```

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

Answer: A

**NEW QUESTION 29**

- (Exam Topic 3)

Configure individual VRFs for each customer according to the topology to achieve these goals :

Comment

Guidelines Topology Tasks
R1 R2 SW1 SW2 SW3 SW4

Topology Diagram

```

R1>
R1>
R1>
R1>
R1>
R1>
  
```













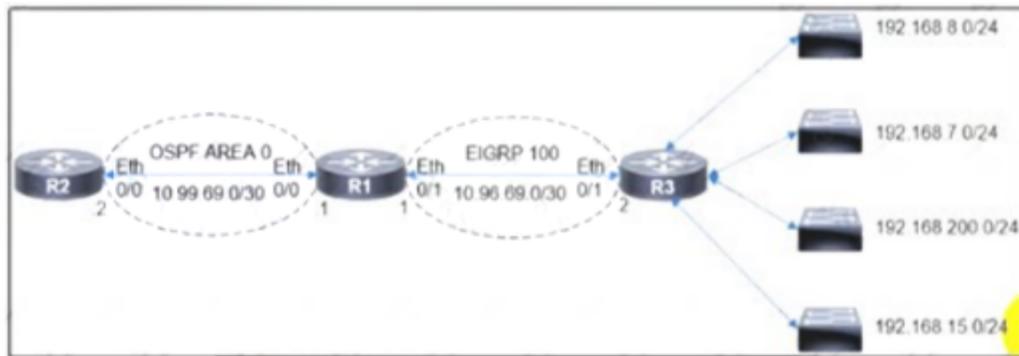




```
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
> On R1:
interface Ethernet0/2.100 mpls ip
!
interface Ethernet0/2.200 mpls ip
!
Configure BGP:
router bgp 65000
neighbor 10.10.10.2 remote-as 65000
neighbor 10.10.20.2 remote-as 65000
!
address-family vpnv4 neighbor 10.10.10.2 activate
neighbor 10.10.20.2 activate exit-address-family
!
address-family ipv4 vrf cu-green redistribute connected
exit-address-family
!
address-family ipv4 vrf cu-red redistribute connected
exit-address-family
!
R1(config)#ip vrf cu-red
R1(config-vrf)#route-target both 65000:100
!
R1(config)#ip vrf cu-green
R1(config-vrf)#route-target both 65000:200
> On R2:
interface Ethernet0/2.100
mpls ip
!
interface Ethernet0/2.200 mpls ip
!
router bgp 65000
neighbor 10.10.10.1 remote-as 65000
neighbor 10.10.20.1 remote-as 65000
!
address-family vpnv4 neighbor 10.10.10.1 activate
neighbor 10.10.20.1 activate exit-address-family
!
address-family ipv4 vrf cu-green redistribute connected
exit-address-family
!
address-family ipv4 vrf cu-red redistribute connected
exit-address-family R2(config)#ip vrf cu-red
R2(config-vrf)#route-target both 65000:100
!
R2(config)#ip vrf cu-green
R2(config-vrf)#route-target both 65000:200
> Verification:
From SW1 to SW3: SW1#ping 192.168.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.1.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
But can't Reach SW2 or SW4 in VRF cu-green: SW1#ping 192.168.22.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.22.1, timeout is 2 seconds: U.U.U
Success rate is 0 percent (0/5)
SW1#ping 192.168.20.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.20.1, timeout is 2 seconds: U.U.U
Success rate is 0 percent (0/5)
Same Test for SW2: From SW2 to SW4: SW2#ping 192.168.20.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.20.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
But can't Reach SW3 or SW1 in VRF cu-red: SW2#ping 192.168.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.1.1, timeout is 2 seconds: U.U.U
Success rate is 0 percent (0/5)
SW2#ping 192.168.2.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2 seconds: U.U.U
Success rate is 0 percent (0/5)
Both R1 & R2 has separate tables for VRFs cu-red and cu-green.
```

### NEW QUESTION 32

- (Exam Topic 3)



```
R1#show route-map
route-map FROM->EIGRP, permit, sequence 10
  Match clauses:
    ip address (access-lists): 10
  Set clauses:
  Policy routing matches: 0 packets, 0 bytes
R1#show run | sec router
router eigrp 100
network 10.96.69.0 0.0.0.3
no auto-summary
eigrp router-id 1.1.1.1
router ospf 100
router-id 1.1.1.1
log-adjacency-changes
redistribute eigrp 100 subnets route-map FROM->EIGRP
network 10.99.69.0 0.0.0.3 area 0
R1#show ip access-list
Standard IP access list 10
 10 permit 192.168.16.0, wildcard bits 0.0.3.255
 11 permit 192.168.0.0, wildcard bits 0.0.7.255
 20 deny any
```

Refer to the exhibit The engineer configured route redistribution in the network but soon received reports that R2 cannot access 192.168.7.0/24 and 192.168.15.0/24 subnets Which configuration resolves the issue?

- ```
R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.3.255
```
- ```
R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.7.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.3.255
```
- ```
R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.7.255
```
- ```
R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.4.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.12.0 0.0.3.255
```

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

Answer: D

**NEW QUESTION 36**

- (Exam Topic 3)

Which MPLS value is combined with the IP prefix to convert to a VPNv4 prefix?

- A. 16-byte Route Distinguisher
- B. 8-byte Route Target
- C. 16-byte Route Target
- D. 8-byte Route Distinguisher

Answer: D

**NEW QUESTION 39**

- (Exam Topic 3)

The network administrator configured the router for Control Plane Policing to limit OSPF traffic to be policed to 1 Mbps. Any traffic that exceeds this limit must also be allowed at this point for traffic analysis. The router configuration is:

```
access-list 100 permit ospf any any
!
class-map CM-OSPF match access-group 100
!
policy-map PM-COPP class CM-OSPF
police 1000000 conform-action transmit
!
control-plane
service-policy output PM-COPP
```

The Control Plane Policing failed to monitor and police OSPF traffic. Which configuration resolves this issue?

- no access-list 100  
access-list 100 permit tcp any any eq 179  
access-list 100 permit ospf any any  
access-list 101 permit tcp any any range 22 23  
!  
!  
class-map CM-MGMT  
no match access-group 100  
match access-group 101  
!  
control-plane  
no service-policy output PM-COPP  
service-policy input PM-COPP
- No access-list 100  
access-list 100 permit tcp any any eq 179  
access-list 100 permit tcp any any range eq 22  
access-list 100 permit tcp any any range eq 23  
access-list 100 permit ospf any any
- control-plane  
no service-policy output PM-COPP  
service-policy input PM-COPP
- no access-list 100  
access-list 100 permit tcp any any eq 179  
access-list 100 permit ospf any any  
access-list 101 permit tcp any any range 22 23  
!  
!  
class-map CM-MGMT  
no match access-group 100  
match access-group 101

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

**Answer: A**

**NEW QUESTION 40**

- (Exam Topic 3)

An engineer configured a router with this configuration

```
ip access-hst DENY TELNET
10 deny tcp any any eq 23 log-input
```

The router console starts receiving log message :%SEC-6-IPACCESSLOGP: list DENY\_TELNET denied tcp 192.168.1.10(1022)(FastEthernet1/0 D508.89gb.003f) ->192.168.2.20(23), 1 packet"

Which action stops messages on the console while still denying Telnet?

- A. Configure a 20 permit ip any any command
- B. Remove log-Input keyword from the access list.
- C. Replace log-input keyword with the log keyword in the access list.
- D. Configure a 20 permit ip any any log-input command.

**Answer: B**

**NEW QUESTION 43**

- (Exam Topic 3)

Refer to the exhibit.

```

R2#show running-config | section ospf
ip ospf area 1
ip ospf area 1
router ospf 1
log-adjacency-changes
area 1 stub no-summary
R2#show ip ospf interface brief
Interface  PID  Area  IP Address/Mask  Cost  State  Nbrs  F/C
Lo0      1   1    10.0.0.2/32      1     Loop  0/0
Fa0/0    1   1    10.10.10.1/30    1     DR    0/1

R2#show running-config interface FastEthernet 0/0
Building configuration...

Current configuration: 116 bytes
!
interface FastEthernet0/0
ip address 10.10.10.1 255.255.255.252
ip mtu 1400
ip ospf area 1
duplex full
end

R2#show ip ospf neighbor

Neighbor ID  Pri  State           Dead Time   Address      Interface
10.0.0.1    1    EXSTART/BDR     00:00:37   10.10.10.2  FastEthernet0/0

R1#show running-config | section ospf
ip ospf area 0
ip ospf area 1
router ospf 1
log-adjacency-changes
area 1 stub no-summary
R1#show ip ospf interface brief
Interface  PID  Area  IP Address/Mask  Cost  State  Nbrs  F/C
Lo0      1   0    10.0.0.1/32      1     LOOP  0/0
Lo0      1   1    10.10.10.2/30    1     BDR   0/1

R1#show running-config interface FastEthernet 1/0
Building configuration...

Current configuration: 115 bytes
!
interface FastEthernet1/0
ip address 10.10.10.2 255.255.255.252
ip ospf area 1
duplex auto
speed auto
end

R1#show ip ospf neighbor

Neighbor ID  Pri  State           Dead Time   Address      Interface
10.10.10.1  R1#  1    EXCHANGE/DR    00:00:39   10.10.10.1  FastEthernet1/0
  
```

Which action restores OSPF adjacency between R1 and R2?

- A. Change the IP MTU of R1 Fa1/0 to 1300
- B. Change the IP MTU of R2 Fa0/0 to 1300
- C. Change the IP MTU of R1 Fa1/0 to 1500
- D. Change the IP MTU of R2 Fa0/0 to 1500

**Answer: D**

**NEW QUESTION 44**

- (Exam Topic 3)

A company is expanding business by opening 35 branches over the Internet. A network engineer must configure DMVPN at the branch routers to connect with the hub router and allow NHRP to add spoke routers securely to the multicast NHRP mappings automatically Which configuration meets this requirement at the hub router?

A)

```

interface Tunnel0
ip address 10.0.0.1 255.255.255.0
ip nhrp authentication KEY1
ip nhrp nhs dynamic
ip nhrp network-id 10
tunnel mode mgre auto
  
```

B)

```

interface Tunnel0
ip address 10.0.0.1 255.255.255.0
ip nhrp authentication KEY1
ip nhrp registration no-unique
ip nhrp network-id 10
tunnel mode gre nmba
  
```

C)

```

interface Tunnel0
ip address 10.0.0.1 255.255.255.0
ip nhrp authentication KEY1
ip nhrp map multicast dynamic
ip nhrp network-id 10
tunnel mode gre multipoint
  
```

D)

```

interface Tunnel0
ip address 10.0.0.1 255.255.255.0
ip nhrp authentication KEY1
ip nhrp map multicast 224.0.0.0
ip nhrp network-id 10
tunnel mode gre ipv4
  
```

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

**Answer: C**

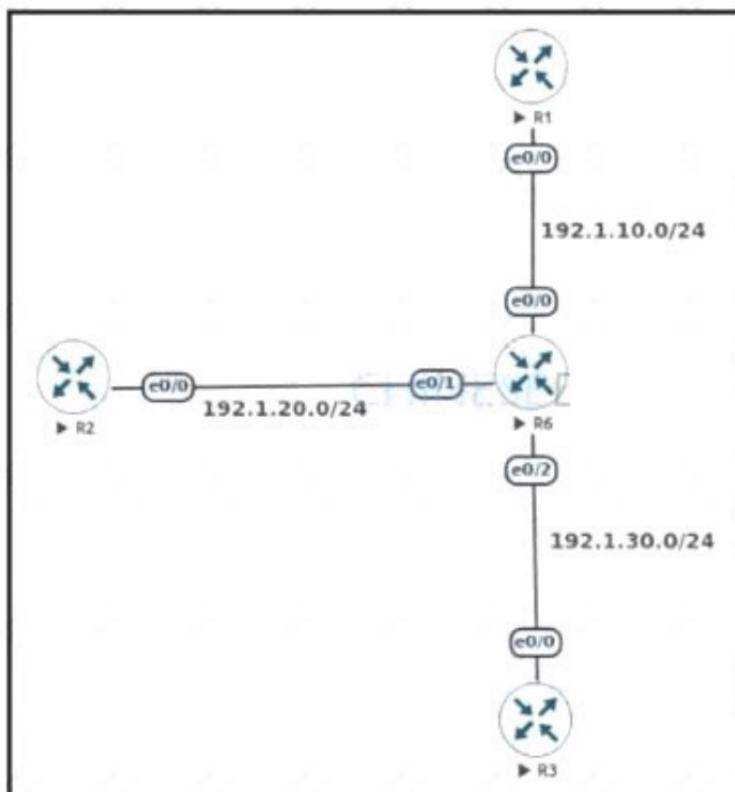
**Explanation:**

The command "ip nhrp map multicast dynamic" allows NHRP to automatically add spoke routers to the multicast NHRP mappings.

**NEW QUESTION 49**

- (Exam Topic 3)

Refer to the exhibit.



An engineer must configure DMVPN Phase 3 hub-and-spoke topology to enable a spoke-to-spoke tunnel. Which NHRP configuration meets the requirement on R6?

- Interface Tunnel1  
 ip address 192.168.1.1 255.255.255.0  
 tunnel source e 0/0  
 tunnel mode gre multipoint  
 ip nhrp network-id 1
- interface Tunnel1  
 ip nhrp authentication Cisco123  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 ip nhrp holdtime 300  
 ip nhrp redirect
- interface Tunnel1  
 ip nhrp authentication Cisco123  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 ip nhrp holdtime 300  
 ip nhrp shortcut
- Interface Tunnel 1  
 ip address 192.168.1.1 255.255.255.0  
 tunnel source e 0/1  
 tunnel mode gre multipoint  
 ip nhrp network-id 1  
 ip nhrp map 192.168.1.2 192.1.20.2

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

Answer: B

**NEW QUESTION 52**

- (Exam Topic 3)

```

router eigrp 1
variance 2

R1#show ip eigrp topology 172.16.100.5 255.255.255.255
IP-EIGRP (AS 1): Topology entry for 172.16.100.5/32
State is Passive, Query origin flag is 1, 1 Successor(s), FD is 409600
Routing Descriptor Blocks:
10.4.1.5 (Ethernet1/0), from 10.4.1.5, Send flag is 0x0
Composite metric is (409600/128256), Route is Internal
Vector metric:
Minimum bandwidth is 10000 Kbit
Total delay is 6000 microseconds
Reliability is 255/255
Load is 1/255
Minimum MTU is 1500
Hop count is 1
10.3.1.6 (Serial2/0), from 10.3.1.6, Send flag is 0x0
Composite metric is (435200/409600), Route is Internal
Vector metric:
Minimum bandwidth is 10000 Kbit
Total delay is 7000 microseconds
Reliability is 255/255
Load is 1/255
Minimum MTU is 1500
Hop count is 1
10.3.1.6 (Serial2/0), from 10.3.1.6, Send flag is 0x0
Composite metric is (435200/409600), Route is Internal
Vector metric:
Minimum bandwidth is 10000 Kbit
Total delay is 7000 microseconds
Reliability is 255/255
Load is 1/255
Minimum MTU is 1500
Hop count is 2
    
```

Refer to the exhibit. A network engineer troubleshooting a packet drop problem for the host 172.16.100.5 notices that only one link is used and installed on the routing table, which saturates the bandwidth. Which action must the engineer take to resolve the high bandwidth utilization problem and share the traffic toward this host between the two available links?

- A. Set the eigrp variance equal to 4 to install a second route with a metric not larger than 4 times of the best metric.
- B. Change the EIGRP delay metric to meet the feasibility condition.
- C. Set the eigrp variance equal to 3 to install a second route with a metric not larger than 3 times of the best metric.
- D. Disable the eigrp split horizon loop protection mechanism.

**Answer: B**

**NEW QUESTION 56**

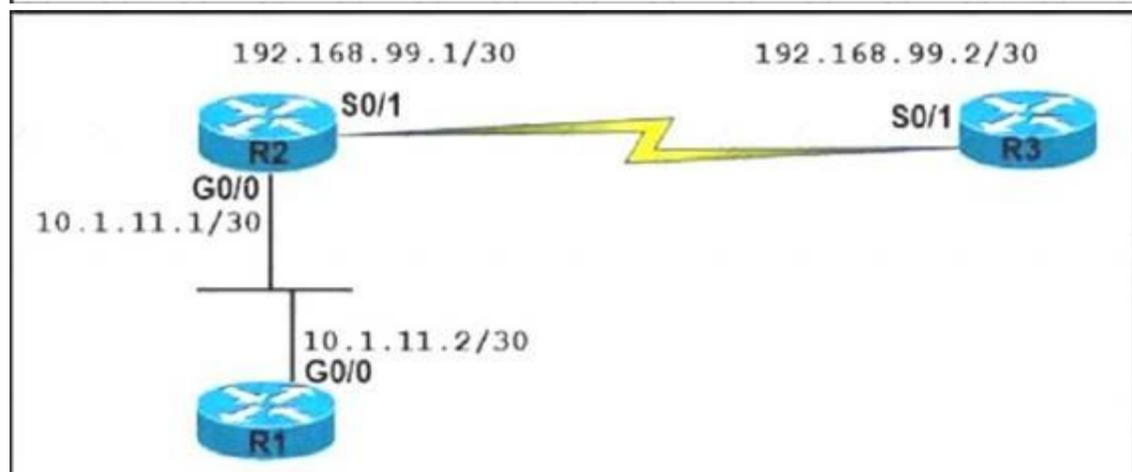
- (Exam Topic 3)

Refer to the exhibit.

```

R2# show ip ospf neighbor
Neighbor ID   Pri  State           Dead Time   Address        Interface
192.168.99.2  1    EXCHANGE/      00:00:36   192.168.99.1  Serial0/1
router-6#

R3# show ip ospf neighbor
Neighbor ID   Pri  State           Dead Time   Address        Interface
192.168.99.1  1    EXSTART/       00:00:33   192.168.99.2  Serial0/1
    
```



An OSPF neighbor relationship between R2 and R3 is showing stuck in EXCHANGE/EXSTART state. The neighbor is established between R1 and R2. The

network engineer can ping from R2 to R3 and vice versa, but the neighbor is still down. Which action resolves the issue?

- A. Restore the Layer 2/Layer 3 connectivity issue in the ISP network.
- B. Match MTU on both router interfaces or ignore MTU.
- C. Administrative "shut then no shut" both router interfaces.
- D. Enable OSPF on the interface, which is required.

**Answer: B**

**Explanation:**

After two OSPF neighboring routers establish bi-directional communication and complete DR/BDR election (on multi-access networks), the routers transition to the exstart state. In this state, the neighboring routers establish a master/slave relationship and determine the initial database descriptor (DBD) sequence number to use while exchanging DBD packets.

**Neighbors Stuck in Exstart/Exchange State**

The problem occurs most frequently when attempting to run OSPF between a Cisco router and another vendor's router. The problem occurs when the maximum transmission unit (MTU) settings for neighboring router interfaces don't match. If the router with the higher MTU sends a packet larger than the MTU set on the neighboring router, the neighboring router ignores the packet.

**NEW QUESTION 58**

- (Exam Topic 3)

A network administrator successfully established a DMVPN tunnel with one hub and two spokes using EIGRP. One of the requirements was to enable spoke-to-spoke tunnels through the hub router using EIGRP. Which configuration command must the engineer configure to meet the requirement?

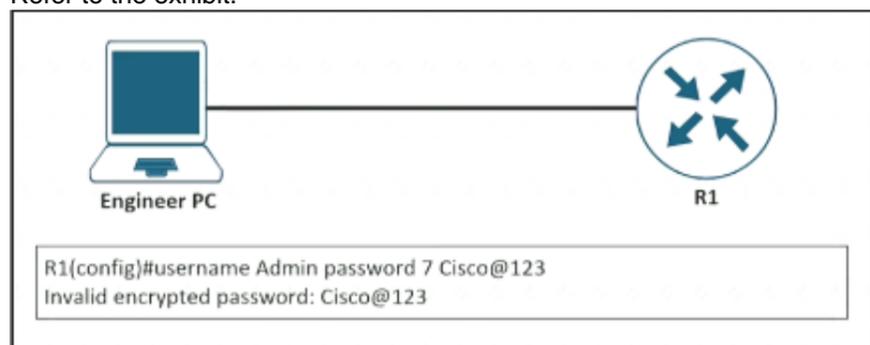
- A. no ip eigrp 1 mode multipoint
- B. no ip eigrp 1 split-horizon
- C. no ip eigrp 1 tunnel-redirect
- D. no ip eigrp 1 mode mgre

**Answer: B**

**NEW QUESTION 62**

- (Exam Topic 3)

Refer to the exhibit.



An engineer is trying to add an encrypted user password that should not be visible in the router configuration. Which two configuration commands resolve the issue? (Choose two)

- A. password encryption aes
- B. username Admin password Cisco@maedeh motamedi
- C. username Admin password 5 Cisco@maedeh motamedi
- D. username Admin secret Cisco@maedeh motamedi
- E. no service password-encryption
- F. service password-encryption

**Answer: DF**

**NEW QUESTION 64**

- (Exam Topic 3)

Refer to the exhibit.

```

ipv6 inspect udp idle-time 3600
ipv6 inspect name ipv6-firewall tcp
ipv6 inspect name ipv6-firewall udp
!
ipv6 access-list ipv6-internet
deny ipv6 any FEC0::/10
deny ipv6 any FF00::/8
permit ipv6 any FF02::/16
permit ipv6 any FF0E::/16
permit udp any any eq domain log
!
Interface gi0/1
ipv6 traffic-filter ipv6-internet in
ipv6 inspect ipv6-firewall in
ipv6 inspect ipv6-firewall out

```

A network administrator configured name resolution for IPv6 traffic to be allowed through an inbound access list. After the access list is applied to resolve the issue, name resolution still did not work. Which action does the network administrator take to resolve the name resolution problem?

- A. Remove `ipv6 inspect ipv6-firewall in` from interface `gi0/1`
- B. Add `permit udp any eq domain any log` in the access list.
- C. `inspect ipv6 inspect name ipv6-firewall udp 53` in global config.
- D. Add `permit any eq domain 53 any log` in the access list.

**Answer:** A

#### NEW QUESTION 67

- (Exam Topic 3)

The network administrator is tasked to configure R1 to authenticate telnet connections based on Cisco ISE using RADIUS. ISE has been configured with an IP address of 192.168.1.5 and with a network device pointing towards R1 (192.168.1.1) with a shared secret password of Cisco123. If ISE is down, the administrator should be able to connect using the local database with a username and password combination of admin/cisco123. The administrator has configured the following on R1:

```

aaa new-model
!
username admin password cisco123
!
radius server ISE1
address ipv4 192.168.1.5
key Cisco123
!
aaa group server tacacs+ RAD-SERV
server name ISE1
!
aaa authentication login RAD-LOCAL group RAD-SERV

```

ISE has gone down. The Network Administrator is not able to Telnet to R1 when ISE went down. Which two configuration changes will fix the issue? (Choose two.)

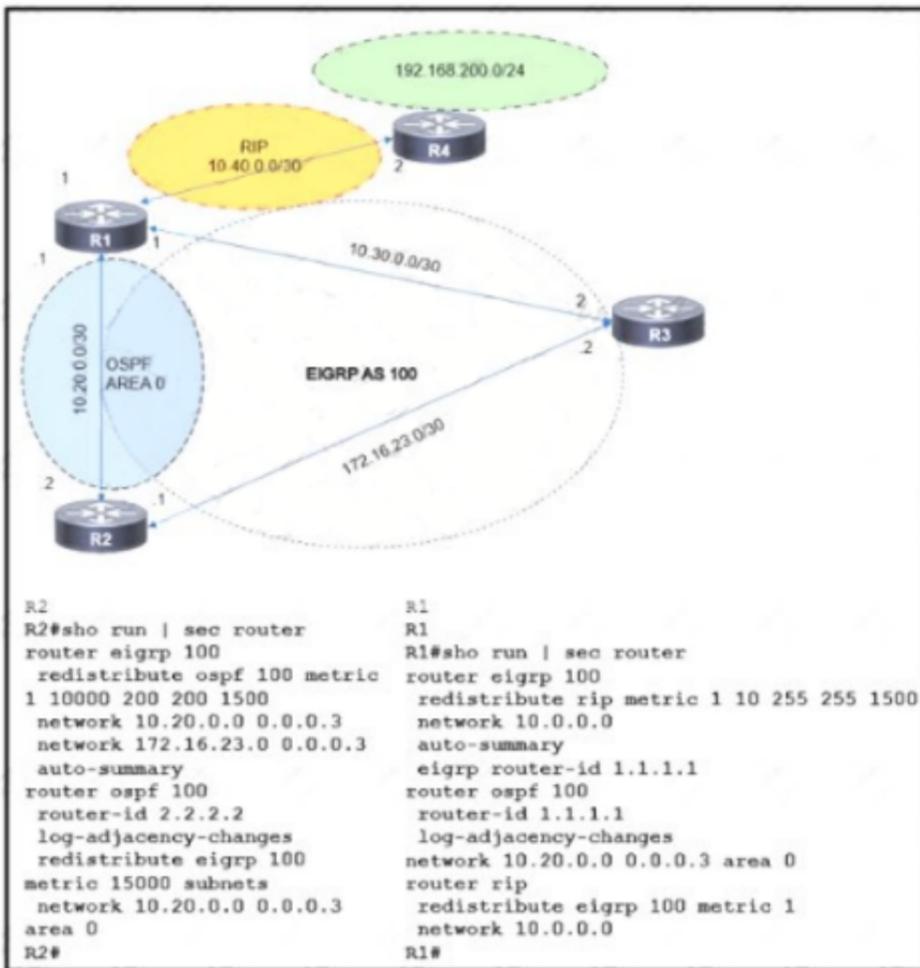
- line vty 0 4  
login authentication RAD-LOCAL
- line vty 0 4  
login authentication default
- line vty 0 4  
login authentication RAD-SERV
- aaa authentication login RAD-SERV group RAD-LOCAL local
- aaa authentication login RAD-LOCAL group RAD-SERV local

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

**Answer:** CE

**NEW QUESTION 69**

- (Exam Topic 3)



Refer to the exhibit The route to 192 168 200 0 is flapping between R1 and R2 Which set of configuration changes resolves the flapping route?

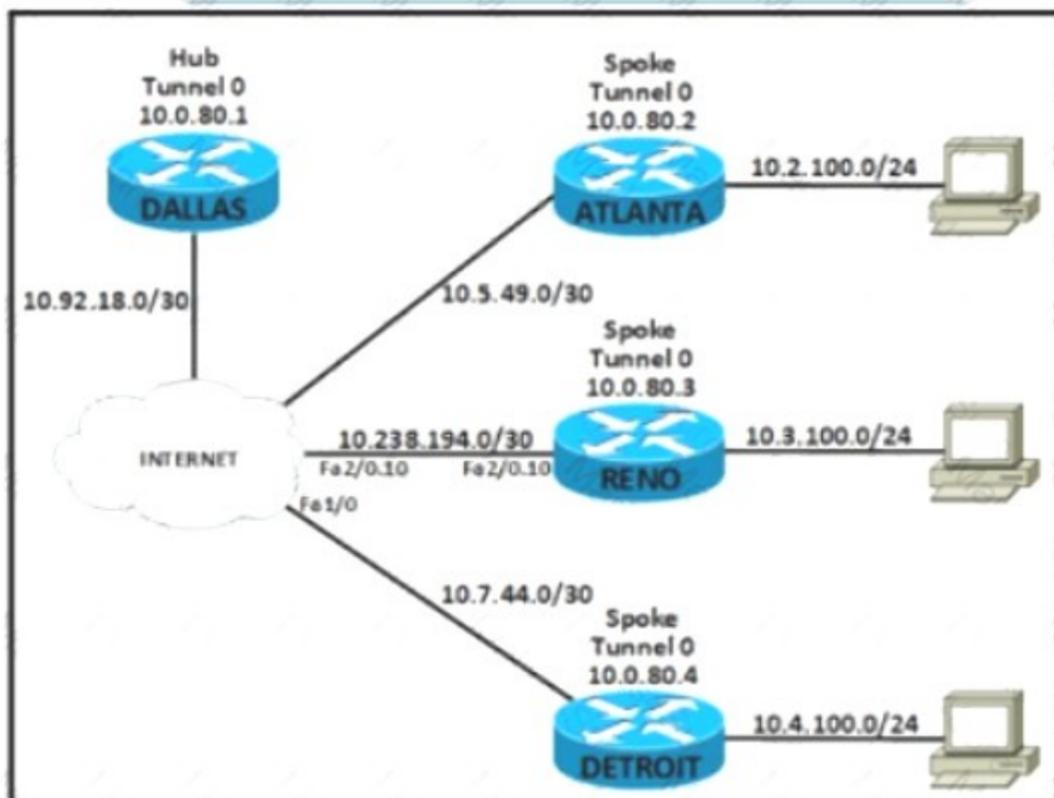
- R2(config)#router ospf 100  
R2(config-router)#no redistribute eigrp 100  
R2(config-router)#redistribute eigrp 100 metric 1 subnets
- R1(config)#no router rip  
R1(config)#ip route 192.168.200.0 255.255.255.0 10.40.0.2
- R2(config)#router eigrp 100  
R2(config-router)#no redistribute ospf 100  
R2(config-router)#redistribute rip
- R1(config)#router ospf 100  
R1(config-router)#redistribute rip metric 1 metric-type 1 subnets

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

Answer: D

**NEW QUESTION 74**

- (Exam Topic 3)



Refer to the exhibit An engineer must connect the Reno and Detroit spokes using DMVPN phase 2 Hub tunnel configuration is

Dallas  
interface Tunnel0  
ip address 10.0.80.1 255.255.255.0  
ip nhrp authentication cisco123  
ip nhrp map multicast dynamic  
ip nhrp network-id 5  
tunnel source Serial0/0  
tunnel mode gre multipoint

Which configuration accomplishes the task?

Reno  
interface Tunnel0  
ip address 10.0.80.3 255.255.255.0  
ip nhrp authentication cisco321  
ip nhrp map multicast 10.92.18.2  
ip nhrp map 10.0.80.1 10.92.18.2  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.238.194.2  
tunnel mode gre multipoint

Detroit  
interface Tunnel0  
ip address 10.0.80.4 255.255.255.0  
ip nhrp authentication cisco321  
ip nhrp map 10.0.80.1 10.92.18.2  
ip nhrp map multicast 10.92.18.2  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.7.44.2  
tunnel mode gre multipoint

Reno  
interface Tunnel0  
ip address 10.0.80.3 255.255.255.0  
ip nhrp authentication cisco123  
ip nhrp map multicast 10.92.18.2  
ip nhrp map 10.92.18.2 10.0.80.1  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.238.194.2  
tunnel mode gre multipoint

Detroit  
interface Tunnel0  
ip address 10.0.80.4 255.255.255.0  
ip nhrp authentication cisco123  
ip nhrp map 10.92.18.2 10.0.80.1  
ip nhrp map multicast 10.92.18.2  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.7.44.2  
tunnel mode gre multipoint

Reno  
interface Tunnel0  
ip address 10.0.80.3 255.255.255.0  
ip nhrp authentication cisco123  
ip nhrp map broadcast 10.92.18.2  
ip nhrp map 10.0.80.1 10.92.18.2  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.238.194.2  
tunnel mode gre multipoint

Detroit  
interface Tunnel0  
ip address 10.0.80.4 255.255.255.0  
ip nhrp authentication cisco123  
ip nhrp map 10.0.80.1 10.92.18.2  
ip nhrp map broadcast 10.92.18.2  
ip nhrp network-id 5  
ip nhrp nhs 10.0.80.1  
tunnel source 10.7.44.2  
tunnel mode gre multipoint

```

Reno
interface Tunnel0
ip address 10.0.80.3 255.255.255.0
ip nhrp authentication cisco123
ip nhrp map multicast 10.92.18.2
ip nhrp map 10.0.80.1 10.92.18.2
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.238.194.2
tunnel mode gre multipoint

Detroit
interface Tunnel0
ip address 10.0.80.4 255.255.255.0
ip nhrp authentication cisco123
ip nhrp map 10.0.80.1 10.92.18.2
ip nhrp map multicast 10.92.18.2
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.7.44.2
tunnel mode gre multipoint
    
```

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

**Answer: C**

**NEW QUESTION 76**

- (Exam Topic 3)

What is considered the primary advantage of running BFD?

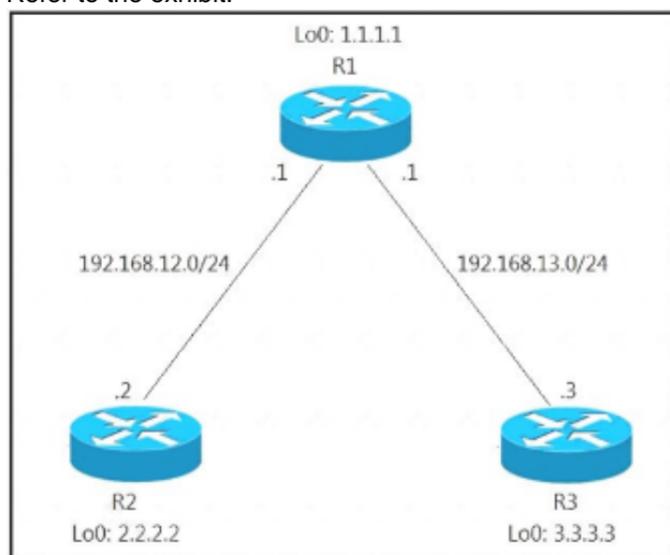
- A. reduction in time needed to detect Layer 2 switched neighbor failures
- B. reduction in time needed to detect Layer 3 routing neighbor failures
- C. reduction in CPU needed to detect Layer 2 switch neighbor failures
- D. reduction in CPU needed to detect Layer 3 routing neighbor failures

**Answer: B**

**NEW QUESTION 77**

- (Exam Topic 3)

Refer to the exhibit.



An engineer has configured R1 as EIGRP stub router. After the configuration, router R3 failed to reach to R2 loopback address. Which action advertises R2 loopback back into the R3 routing table?

- A. Add a static route for R2 loopback address in R1 and redistribute it to advertise to R3.
- B. Use a leak map on R1 that matches the required prefix and apply it with the distribute list command toward R3.
- C. Use a leak map on R3 that matches the required prefix and apply it with the EIGRP stub feature.
- D. Add a static null route for R2 loopback address in R1 and redistribute it to advertise to R3.

**Answer: B**

**Explanation:**

The EIGRP stub feature is useful to prevent unnecessary EIGRP queries and to filter some routes that you advertise. What if you want to configure your router as a stub router but still make an exception to some routes that it advertises? That is possible with the leak-map feature. This is how to configure leak-map in this question:

```

R1(config)#ip access-list standard R2_L0 R1(config-std-nacl)#permit host 2.2.2.2 R1(config)#route-map R2_L0_LEAK R2(config-route-map)#match ip address R2_L0 R1(config)#router eigrp 1
R1(config-router)#eigrp stub leak-map R2_L0_LEAK
    
```

**NEW QUESTION 81**

- (Exam Topic 2)

Refer to the exhibit.

```
Router# show ip route

 2.0.0.0/24 is subnetted, 1 subnets
C   2.2.2.0 is directly connected, Ethernet0/0
C   3.0.0.0/8 is directly connected, Serial1/0
O E2 200.1.1.0/24 [110/20] via 2.2.2.2, 00:16:17, Ethernet0/0
O E1 200.2.2.0/24 [110/104] via 2.2.2.2, 00:00:41, Ethernet0/0
 131.108.0.0/24 is subnetted, 2 subnets
O   131.108.2.0 [110/74] via 2.2.2.2, 00:16:17, Ethernet0/0
O IA 131.108.1.0 [110/84] via 2.2.2.2, 00:16:17, Ethernet0/0

Router# show ip bgp

Network        Next Hop        Metric LocPrf Weight Path
*> 2.2.2.0/24   0.0.0.0         0      32768 ?
*> 131.108.1.0/24 2.2.2.2        84     32768 ?
*> 131.108.2.0/24 2.2.2.2        74     32768 ?
```

The OSPF routing protocol is redistributed into the BGP routing protocol, but not all the OSPF routes are distributed into BGP Which action resolves the issue?

- A. Include the word external in the redistribute command
- B. Use a route-map command to redistribute OSPF external routes defined in an access list
- C. Include the word internal external in the redistribute command
- D. Use a route-map command to redistribute OSPF external routes defined in a prefix list.

**Answer: C**

**Explanation:**

If you configure the redistribution of OSPF into BGP without keywords, only OSPF intra-area and inter-area routes are redistributed into BGP, by default. You can use the internal keyword along with the redistribute command under router bgp to redistribute OSPF intra- and inter-area routes.

Use the external keyword along with the redistribute command under router bgp to redistribute OSPF external routes into BGP.

-> In order to redistribute all OSPF routes into BGP, we must use both internal and external keywords. The full command would be (suppose we are using OSPF 1):

redistribute ospf 1 match internal external

Note: The configuration shows match internal external 1 external 2. This is normal because OSPF automatically appends "external 1 external 2" in the configuration. In other words, keyword external = external 1 external 2. External 1 = O E1 and External 2 = O E2. Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/5242-bgp-ospf-redistribution.html>

**NEW QUESTION 82**

- (Exam Topic 3)

What is a function of an end device configured with DHCPv6 guard?

- A. If it is configured as a server, only prefix assignments are permitted.
- B. If it is configured as a relay agent, only prefix assignments are permitted.
- C. If it is configured as a client, messages are switched regardless of the assigned role.
- D. If it is configured as a client, only DHCP requests are permitted.

**Answer: C**

**Explanation:**

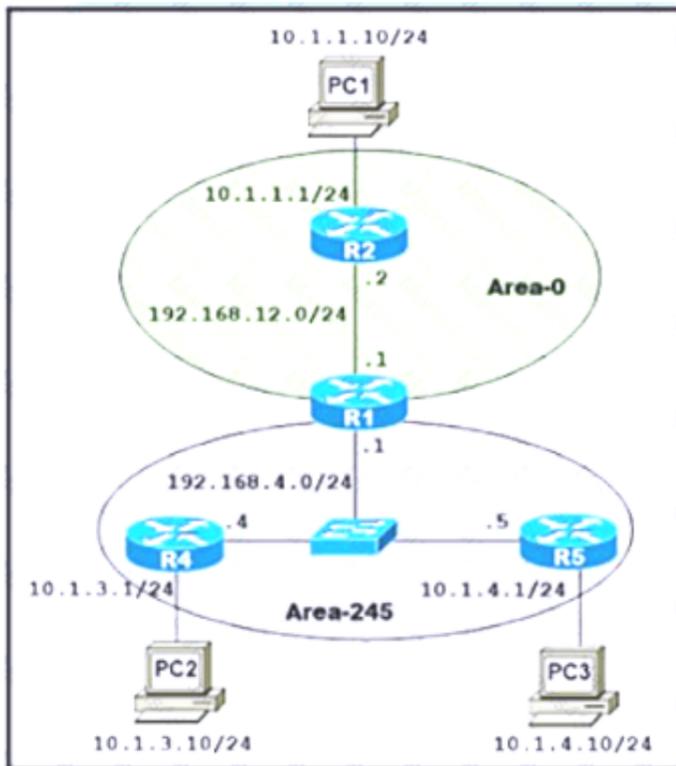
The DHCPv6 Guard feature blocks reply and advertisement messages that come from unauthorized DHCP servers and relay agents.

Packets are classified into one of the three DHCP type messages. All client messages are always switched regardless of device role. DHCP server messages are only processed further if the device role is set to server. Further processing of server messages includes DHCP server advertisements (for source validation and server preference) and DHCP server replies (for permitted prefixes).

If the device is configured as a DHCP server, all the messages need to be switched, regardless of the device role configuration.

**NEW QUESTION 83**

- (Exam Topic 3)



Refer to the exhibit A network administrator is troubleshooting to reduce the routing table of R4 and R5 to learn only the default route to communicate from Inter-Area and Intra-Area networks Which configuration resolves the issue?

A)

- R-1#default area 245
- R-4#default area 245 default-cost
- R-5#default area 245 default-cost
- R-1#area 245 stub no-summary

B)

- R-1#area 245 stub no-summary
- R-4#area 245 stub
- R-5#area 245 stub

C)

- R-1#default area 245 default-cost
- R-4#default area 245
- R-5#default area 245

D)

- R-1#area 245 stub
- R-4#area 245 stub no-summary
- R-5#area 245 stub no-summary

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

**Answer: D**

**NEW QUESTION 84**

- (Exam Topic 3)

An administrator attempts to download the pack NBAR2 file using TFTP from the CPE router to another device over the Gi0/0 interface. The CPE is configured as below:

```
hostname CPE
!
ip access-list extended WAN
<...>
remark => All UDP rules below for WAN ID: S420T92E35F99
permit udp any eq domain any
permit udp any any eq tftp
deny udp any any
!
interface GigabitEthernet0/0
<...>
ip access-group WAN in
<...>
!
tftp-server flash:pp-adv-csr1000v-1612.1a-37-53.0.0.pack
```

The transfer fails. Which action resolves the issue?

- A. Change the WAN ACL to permit the UDP port 69 to allow TFTP
- B. Make the permit udp any eq tftp any entry the last entry in the WAN ACL.
- C. Change the WAN ACL to permit the entire UDP destination port range
- D. Shorten the file name to the 8+3 naming convention.

Answer: B

**NEW QUESTION 87**

- (Exam Topic 3)

What is a characteristic of IPv6 RA Guard?

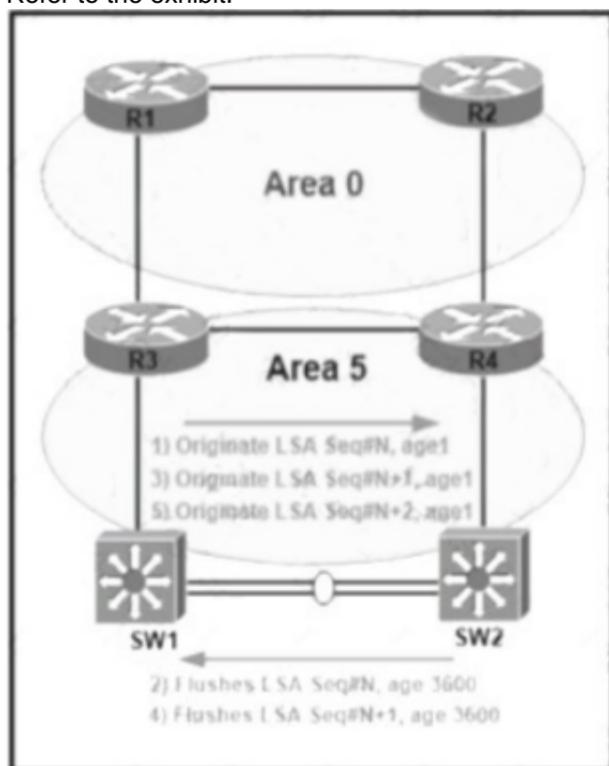
- A. RA messages are allowed from the host port to the switch
- B. It is unable to protect tunneled traffic
- C. It filters rogue RA broadcasts from connected hosts
- D. It is supported on the egress direction of the switch

Answer: C

**NEW QUESTION 89**

- (Exam Topic 3)

Refer to the exhibit.



An error message "an OSPF-4-FLOOD\_WAR" is received on SW2 from SW1. SW2 is repeatedly receiving its own link-state advertisement and flushes it from the network. Which action resolves the issue?

- A. Change area 5 to a normal area from a nonstub area
- B. Resolve different subnet mask issue on the link
- C. Configure Layer 3 port channel on interfaces between switches
- D. Resolve duplicate IP address issue in the network

Answer: D

**NEW QUESTION 91**

- (Exam Topic 3)

A network administrator added a new spoke site with dynamic IP on the DMVPN network. Which configuration command passes traffic on the DMVPN tunnel from the spoke router?

- A. ip nhrp registration ignore
- B. ip nhrp registration no-registration
- C. ip nhrp registration dynamic
- D. ip nhrp registration no-unique

Answer: D

**NEW QUESTION 95**

- (Exam Topic 3)

Refer to the exhibit.

```
ipv6 dhcp pool DHCPPOOL
address prefix 2001:0:1:4::/64 lifetime infinite infinite
```

```
interface FastEthernet0/0
ip address 10.0.0.1 255.255.255.240
duplex auto
speed auto
ipv6 address 2001:0:1:4::1/64
ipv6 enable
ipv6 nd ra suppress
ipv6 ospf 1 area 1
ipv6 dhcp server DHCPPOOL
```

Reachability between servers in a network deployed with DHCPv6 is unstable. Which command must be removed from the configuration to make DHCPv6 function?

- A. ipv6 dhcp server DHCPPOOL
- B. ipv6 address 2001:0:1:4::/64
- C. ipv6 nd ra suppress
- D. address prefix 2001:0:1:4::/64 lifetime infinite infinite

Answer: C

**NEW QUESTION 96**

- (Exam Topic 3)

Refer to the exhibit.

```
R1# show ip int br | ex una
Interface      IP-Address  OK? Method Status  Protocol
Ethernet1/0    203.0.113.1 YES manual up      up
Loopback1      172.16.50.1 YES manual up      up
Loopback2      172.16.100.1 YES manual up      up
Loopback3      172.16.150.1 YES manual up      up

R1# show ip eigrp neighbors
EIGRP-IPv4 Neighbors for AS(1)
H  Address          Interface Hold Uptime  SRTT  RTO  Q  Seq
      (sec)          (ms)  Cnt Num
0  203.0.113.2      Et1/0  14 00:31:16 1018 5000 0 24

R1# show ip eigrp topo all-links
EIGRP-IPv4 Topology Table for AS(1)/ID(172.16.10.1)
Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply,
       r - reply Status, s - sia Status

P 192.168.10.0/24, 1 successors, FD is 409600, serno 34
   via 203.0.113.2 (409600/128256), Ethernet1/0
P 172.16.100.0/24, 1 successors, FD is 128256, serno 32
   via Connected, Loopback2
P 192.168.30.0/24, 1 successors, FD is 409600, serno 36
   via 203.0.113.2 (409600/128256), Ethernet1/0
P 203.0.113.0/24, 1 successors, FD is 281600, serno 33
   via Connected, Ethernet1/0
P 172.16.150.0/24, 1 successors, FD is 128256, serno 31
   via Connected, Loopback3
P 172.16.50.0/24, 1 successors, FD is 128256, serno 30
   via Connected, Loopback1
P 192.168.20.0/24, 1 successors, FD is 409600, serno 35
   via 203.0.113.2 (409600/128256), Ethernet1/0
```

Routers R1 and R2 have established a network adjacency using EIGRP, and both routers are advertising subnets to its neighbor. After issuing the show ip EIGRP topology all-links command in R1, some prefixes are no showing R2 as a successor. Which action resolves the issue?

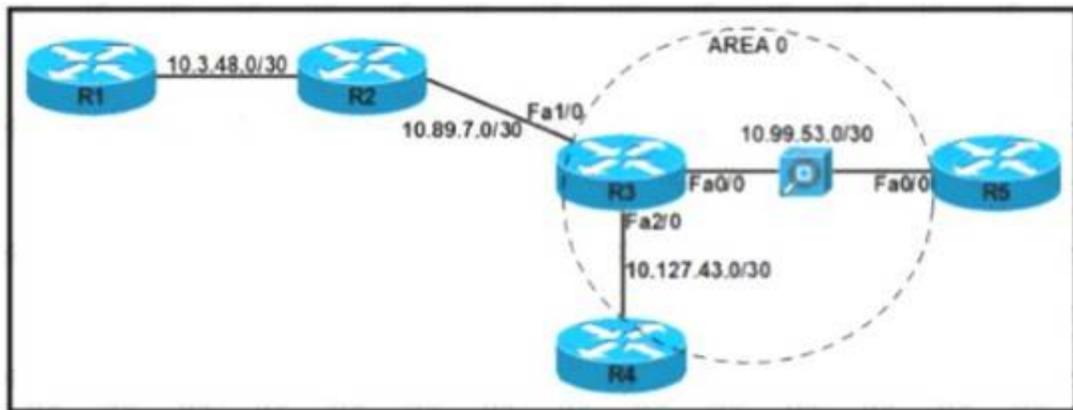
- A. Rectify the incorrect router ID in R2.
- B. Enable split-horizon.
- C. Configure the network statement on the neighbor.
- D. Resolve the incorrect metric on the link.

Answer: D

**NEW QUESTION 100**

- (Exam Topic 3)

Refer to the exhibit.



The security department recently installed a monitoring device between routers R3 and R5, which a loss of network connectivity for users connected to R5. Troubleshooting revealed that the monitoring device cannot forward multicast packets. The team already updated R5 with the correct configuration. Which configuration must be implemented on R3 to resolve the problem by ensuring R3 as the DR for the R3-R5 segment?

A)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network point-to-point
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 88 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 88 any any
```

B)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network non-broadcast
ip ospf priority 0
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 88 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 88 any any
access-list 122 permit tcp any any
access-list 122 permit udp any any
access-list 122 permit icmp any any
```

C)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network non-broadcast
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 88 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 88 any any
access-list 122 permit tcp any any
access-list 122 permit udp any any
access-list 122 permit icmp any any
```

D)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network point-to-point
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 88 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 88 any any
```

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

**Answer: C**

**NEW QUESTION 104**

- (Exam Topic 3)  
Refer to Exhibit.

```
R1#sh ipv6 access-list GUARD
IPv6 access list GUARD
deny tcp any host 2001:DB8:A:B::10 eq telnet (6 matches) sequence 10
permit tcp host 2001:DB8:A:A::20 host 2001:DB8:A:B:10 eq telnet sequence 20
permit tcp host 2001:DB8:A:A::2 host 2001:DB8:D::1 eq www sequence 30
permit ipv6 2001:DB8:A:A::/64 any (67 matches) sequence 40
```

PC2 is directly connected to R1. A user at PC2 cannot Telnet to 2001:db8:a:b::10. The user can ping 2001:db8:a:b::10 and receive DHCP-related information from the DHCP server. Which action resolves the issue?

- A. Remove sequence 10 and put it back as sequence 25.
- B. Remove sequence 20 and put it back as sequence 45.
- C. Remove sequence 30 and put it back as sequence 5.
- D. Remove sequence 40 and put it back as sequence 15.

**Answer: A**

**NEW QUESTION 106**

- (Exam Topic 3)



```
%DUAL-3-SIA: Route 10.10.1.1/32 stuck-in-active state in IP-EIGRP(0) 1. Cleaning up
%DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.1.1 (Serial0/0) is down:
stuck in active
```

Refer to the exhibit. An engineer notices a connectivity problem between routers R1 and R2. The frequency of this problem is high during peak business hours. Which action resolves the issue?

- A. Increase the MTU on the interfaces that connect R1 and R2.
- B. Increase the available bandwidth between R1 and R2.
- C. Decrease the EIGRP keepalive and hold down timers on R1 and R2.
- D. Set static EIGRP neighborship between R1 and R2.

**Answer: B**

**NEW QUESTION 109**

- (Exam Topic 3)

Which table is used to map the packets in an MPLS LSP that exit from the same interface, via the same next hop, and have the same queuing policies?

- A. RIB
- B. FEC
- C. LDP

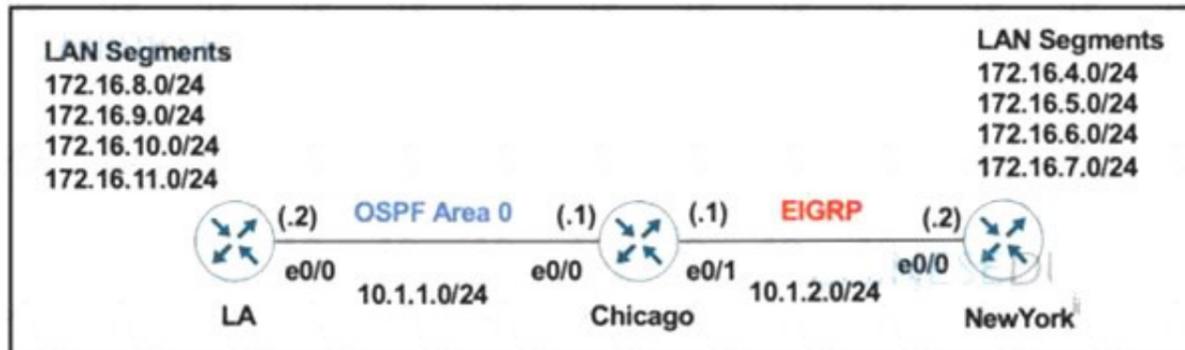
D. CEF

Answer: B

**NEW QUESTION 111**

- (Exam Topic 3)

Refer to the exhibit.



The network administrator configured the Chicago router to mutually redistribute the LA and NewYork routes with OSPF routes to be summarized as a single route in EIGRP using the longest summary mask:

```
router eigrp 100
 redistribute ospf 1 metric 10 10 10 10 10
router ospf 1
 redistribute eigrp 100 subnets
!
interface E 0/0
 ip summary-address eigrp 100 172.16.0.0 255.255.0.0
```

After the configuration, the New York router receives all the specific LA routes but the summary route. Which set of configurations resolves the issue on the Chicago router?

- interface E 0/1  
ip summary-address eigrp 100 172.16.0.0 255.255.0.0
- interface E 0/1  
ip summary-address eigrp 100 172.16.8.0 255.255.252.0
- router eigrp 100  
summary-address 172.16.8.0 255.255.252.0
- router eigrp 100  
summary-address 172.16.0.0 255.255.0.0

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

Answer: B

**NEW QUESTION 116**

- (Exam Topic 3)

What is the function of BFD?

- A. It provides uniform failure detection regardless of media type.
- B. It creates high CPU utilization on hardware deployments.
- C. It negotiates to the highest version if the neighbor version differs.
- D. It provides uniform failure detection on the same media type.

Answer: A

**NEW QUESTION 118**

- (Exam Topic 3)

Refer to the exhibit.

```
ip address 4.4.4.4 255.255.255.0
!
interface FastEthernet1/0
Description **** WAN link ****
ip address 10.0.0.1 255.255.255.0
!
interface FastEthernet1/1
Description **** LAN Network ****
ip address 192.168.1.1 255.255.255.0
!
!
router ospf 1
router-id 4.4.4.4
log-adjacency-changes
network 4.4.4.4 0.0.0.0 area 0
network 10.0.0.1 0.0.0.0 area 0
network 192.168.1.1 0.0.0.0 area 10
!
```

- A)  
**interface loopback0**  
**ip address 4.4.4.4 255.255.255.0**  
**ip ospf network broadcast**
- B)  
**interface loopback0**  
**ip address 4.4.4.4 255.255.255.0**  
**ip ospf interface type network**
- C)  
**interface loopback0**  
**ip address 4.4.4.4 255.255.255.0**  
**ip ospf network point-to-point**
- D)  
**interface loopback0**  
**ip address 4.4.4.4 255.255.255.0**  
**ip ospf interface area 10**

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

**Answer: A**

**NEW QUESTION 121**

- (Exam Topic 3)

Refer to the exhibit.

```
*Sep 26 19:50:43.504: SNMP: Packet received via UDP from
192.168.1.2 on GigabitEthernet0/1SrParseV3SnmplibMessage: No
matching Engine ID.

SrParseV3SnmplibMessage: Failed.
SrDoSnmplib: authentication failure, Unknown Engine ID

*Sep 26 19:50:43.504: SNMP: Report, reqid 29548, errstat 0,
erridx 0
internet.6.3.15.1.1.4.0 = 3
*Sep 26 19:50:43.508: SNMP: Packet sent via UDP to 192.168.1.2
process_mgmt_req_int: UDP packet being de-queued
```

Which two commands provide the administrator with the information needed to resolve the issue? (Choose two.)

- A. Show snmp user  
 B. debug snmp engine-id  
 C. debug snmpv3 engine-id  
 D. debug snmp packet  
 E. showsnmplib3 user

**Answer: AD**

**Explanation:**

There are 3 values in the SNMPv3 header that must match for the communication to take place: snmpEngineID, snmpEngineTime, snmpEngineBoots. The error received indicates a problem with the EngineID value: "authentication failure, Unknown Engine ID"

To specify the Engine ID, we can use the command "show snmp user". The following example specifies the username as abcd with Engine ID: 0000000902000000C025808:

```
Router#show snmp user abcd
User name: abcd
Engine ID: 00000009020000000C025808
storage-type: nonvolatile active access-list: 10
Rowstatus: active
Authentication Protocol: MD5
Privacy protocol: 3DES
Group name: VacmGroupName
Group name: VacmGroupName
```

The "debug snmp packet" command displays all SNMP packets that are arriving and being replied to.

### NEW QUESTION 123

- (Exam Topic 3)

```
CPE# copy flash:packages.conf ftp://192.0.2.40/
Address or name of remote host [192.0.2.40]?
Destination filename [packages.conf]?
Writing packages.conf
%Error opening ftp://192.0.2.40/packages.conf (Incorrect
Login/Password)
CPE#
```

Refer to the exhibit. An administrator must upload the packages.conf file to an FTP server. However, the FTP server rejected anonymous service and required users to authenticate. What are the two ways to resolve the issue? (Choose two.)

- A. Use the ftp username and ftp password configuration commands to specify valid FTP server credentials.
- B. Use the copy flash:packages.conf scp: command instead and enter the FTP server credentials when prompted.
- C. Enter the FTP server credentials directly in the FTP URL using the ftp://username:password@192.0.2.40/ syntax.
- D. Create a user on the router matching the username and password on the FTP server and log in before attempting the copy.
- E. Use the copy flash:packages.conf ftp: command instead and enter the FTP server credentials when prompted.

**Answer:** AC

### NEW QUESTION 128

- (Exam Topic 3)

```
R1#show ip route ospf
      10.0.0.0/24 is subnetted, 7 subnets
O E1   10.4.9.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
O IA   10.4.27.0 [110/2] via 10.4.15.5, 00:06:44,
FastEthernet0/1
O E1   10.4.49.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
O E1   10.4.59.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
```

Refer to the exhibit. An engineer configured two ASBRs, 10.4.17.6 and 10.4.15.5, in an OSPF network to redistribute identical routes from BGP. However, only prefixes from 10.4.17.6 are installed into the routing table on R1. Which action must the engineer take to achieve load sharing for the BGP-originated prefixes?

- A. The ASBRs are advertising the redistributed prefixes with the iBGP metric and must be modified to Type 1 on ASBR 10.4.17.6.
- B. The ASBRs are advertising the redistributed prefixes with a different admin distance and must be changed to 110 on ASBR 10.4.15.5.
- C. The admin distance of the prefixes must be adjusted to 20 on ASBR 10.4.15.5 to advertise prefixes to R1 identically from both ASBRs.
- D. The ASBRs are advertising the redistributed prefixes as Type 1 and must be modified to Type 2.

**Answer:** D

### NEW QUESTION 131

- (Exam Topic 3)

What is a MPLS PHP label operation?

- A. Downstream node signals to remove the label.
- B. It improves P router performance by not performing multiple label lookup.
- C. It uses implicit-NULL for traffic congestion from source to destination forwarding.
- D. PE removes the outer label before sending to the P router.

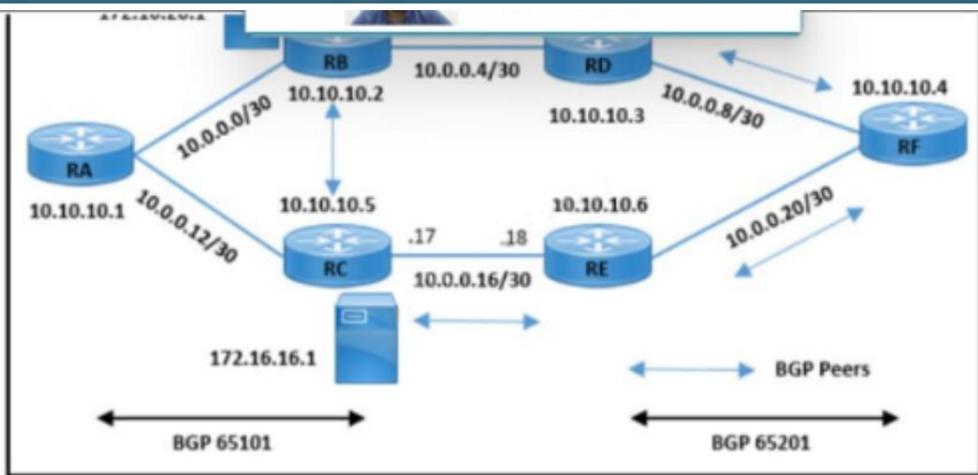
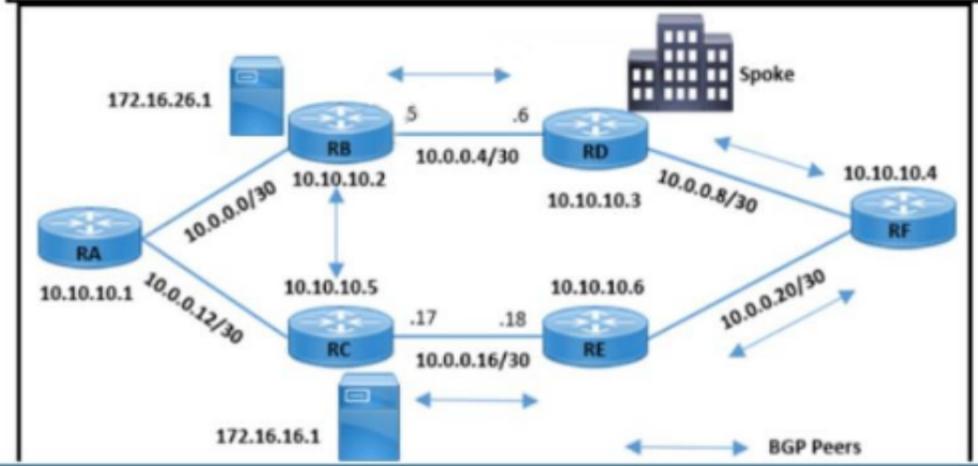
**Answer:** A

### NEW QUESTION 135

- (Exam Topic 3)

```
RB#show ip bgp 172.16.16.1
BGP routing table entry for 172.16.16.1/32, version 11
Paths: (1 available, no best path)
Not advertised to any peer
Local
 10.10.10.5 (metric 3) from 10.10.10.5 (172.16.16.1)
  Origin IGP, metric 0, localpref 100, valid, internal, not synchronized

RD#traceroute 172.16.16.1
Tracing the route to 172.16.16.1
 1 10.0.0.10 [MPLS: Label 29 Exp 0] 64 msec 56 msec 60 msec
 2 10.0.0.21 60 msec 56 msec 72 msec
 3 * * *
```



Refer to the exhibit A customer reported an issue with a fiber link failure between RC and RE Users connected through the spoke location face disconnection and packet drops with the primary email server (172.16.16.1) but have no issues with the backup email server (172.16.26.1). All the router loopback IPs are advertised through the OSPF protocol. Which configuration resolves the issue?

- RB(config)#router bgp 65101  
RB(config-router)#no synchronization
- RC(config)#router bgp 65101  
RC(config-router)#neighbor 10.10.10.2 next-hop-self
- RB(config)#router bgp 65101  
RB(config-router)#neighbor 10.10.10.5 next-hop-self
- RC(config)#router bgp 65101  
RC(config-router)#no synchronization

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

Answer: B

**NEW QUESTION 136**

- (Exam Topic 3)

Refer to the exhibit.

```
ipv6 access-list INTERNET
permit ipv6 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA14::/64
permit tcp 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA13::/64 eq telnet
permit tcp 2001:DB8:AD59:BA21::/64 any eq http
permit ipv6 2001:DB8:AD59::/48 any
deny ipv6 any any log
```

While monitoring VTY access to a router, an engineer notices that the router does not have any filter and anyone can access the router with username and password even though an ACL is configured. Which command resolves this issue?

- A. access-class INTERNET in
- B. ip access-group INTERNET in
- C. ipv6 traffic-filter INTERNET in

D. ipv6 access-class INTERNET in

Answer: D

**NEW QUESTION 137**

- (Exam Topic 3)

Refer to the exhibit.

```
R1# show ip ospf database self-originate
OSPF Router with ID (10.255.255.1) (Process ID 1)
Router Link States (Area 0)
Link ID      ADV Router   Age         Seq#         Checksum
Link count
10.255.255.1 10.255.255.1 4           0x800003BD  0x001AD9
3
Summary Net Link States (Area 0)
Link ID      ADV Router   Age         Seq#         Checksum
10.0.34.0    10.255.255.1 3604        0x80000380  0x00276C
10.255.255.4 10.255.255.1 3604        0x80000380  0x00762B
Type-5 AS External Link States
Link ID      ADV Router   Age         Seq#         Checksum
Tag
0.0.0.0     10.255.255.1 3604        0x800001D0  0x001CBC
0
*Feb 22 22:50:39.523: %OSPF-4-FLOOD_WAR: Process 1 flushes LSA
ID 0.0.0.0 type-5 adv-rtr 10.255.255.1 in area 0
```

After configuring OSPF in R1, some external destinations in the network became unreachable. Which action resolves the issue?

- A. Clear the OSPF process on R1 to flush stale LSAs sent by other routers.
- B. Change the R1 router ID from 10.255.255.1 to a unique value and clear the process.
- C. Increase the SPF delay interval on R1 to synchronize routes.
- D. Disconnect the router with the OSPF router ID 0.0.0.0 from the network.

Answer: B

**NEW QUESTION 142**

- (Exam Topic 3)

An engineer configures PBR on R5 and wants to create a policy that matches traffic destined toward 10.10.10.0/24 and forward 10.1.1.1. The traffic must also have its IP precedence set to 5. All other traffic should be forward toward 10.1.1.2 and have its IP precedence set to 0. Which configuration meets the requirements?

- A. access-list 1 permit 10.10.10.0 0.0.0.255 access-list 2 permit any route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5! route-map CCNP permit 20 match ip address 2 set ip next-hop 10.1.1.2 set ip precedence 0! route-map CCNP permit 30
- B. access-list 100 permit ip any 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 100 set ip next-hop 10.1.1.1 set ip precedence 0! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 5! route-map CCNP permit 30
- C. access-list 1 permit 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 0
- D. access-list 100 permit ip any 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 100 set ip next-hop 10.1.1.1 set ip precedence 5! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 0

Answer: D

**NEW QUESTION 143**

- (Exam Topic 3)

Refer to the exhibit.

```
R1#show ip route
1.0.0.0/32 is subnetted, 1 subnets
C 1.1.1.1/32 is directly connected, Loopback0
2.0.0.0/32 is subnetted, 1 subnets
O 2.2.2.2/32 [110/2] via 10.10.10.2, 00:09:30, GigabitEthernet0/0/0
10.0.0.0/8 is variably subnetted, 7 subnets, 2 masks
C 10.10.10.0/30 is directly connected, GigabitEthernet0/0/0
L 10.10.10.1/32 is directly connected, GigabitEthernet0/0/0
C 10.10.20.0/30 is directly connected, GigabitEthernet0/0/1
L 10.10.20.1/32 is directly connected, GigabitEthernet0/0/1
D 10.20.10.0/30 [90/3072] via 10.10.10.2, 00:09:30, GigabitEthernet0/0/0
D 10.30.10.0/30 [90/3328] via 10.10.10.2, 00:05:48, GigabitEthernet0/0/0
S 10.40.10.0/30 [1/0] via 10.10.20.2
```

Routers R1, R2, R3, and R4 use EIGRP. However, traffic always prefers R1 to R5 backup links in nonfailure scenarios. Which configuration resolves the issue?

- A)
 

```
R1(config)#no ip route 10.40.10.0 255.255.255.252 10.10.20.2
R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.2
```
- B)
 

```
R1(config)#int gigabitEthernet 0/0/0
R1(config-if)#bandwidth 10000000
```
- C)

```
R1(config)#no ip route 10.40.10.0 255.255.255.252 10.10.20.2
R1(config)#ip route 10.40.10.0 255.255.255.252 10.10.20.2 115
```

```
D)
R1(config)#int gigabitEthernet 0/0/0
R1(config-if)#bandwidth 10000
```

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

**Answer:** A

**NEW QUESTION 147**

- (Exam Topic 3)

What is the purpose of the DHCPv6 Guard?

- A. It messages between a DHCPv6 server and a DHCPv6 client ( or relay agent).
- B. It shows that clients of a DHCPv5 server are affected.
- C. It block DHCPv6 messages from relay agents to a DHCPv6 server.
- D. It allows DHCPv6 replay and advertisements from (rouge) DHCPv6 servers.

**Answer:** A

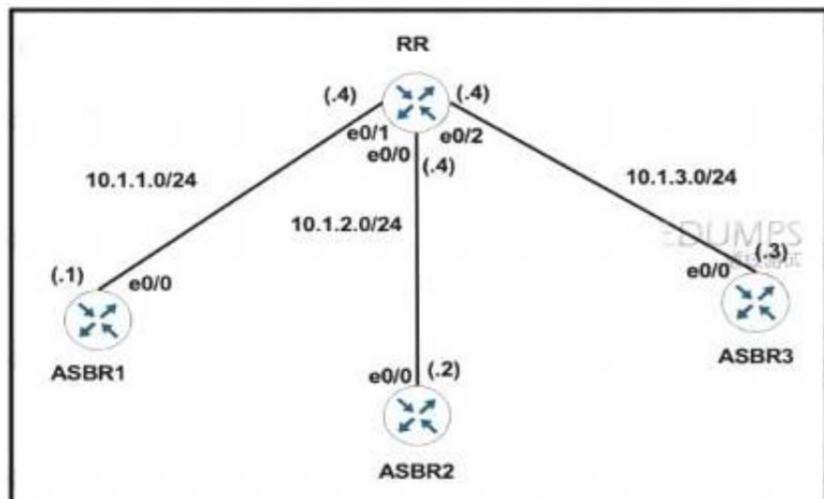
**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xr-16/ip6fxe-16-book/ip6-dhcpv6-guard.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xr-16/ip6fxe-16-book/ip6-dhcpv6-guard.html)

**NEW QUESTION 152**

- (Exam Topic 3)

Refer to the exhibit.



RR Configuration:

```
router bgp 100
neighbor IBGP peer-group
neighbor IBGP route-reflector-client
neighbor 10.1.1.1 remote-as 100
neighbor 10.1.2.2 remote-as 100
neighbor 10.1.3.3 remote-as 100
```

The network administrator configured the network to establish connectivity between all devices and notices that the ASBRs do not have routes for each other. Which set of configurations resolves this issue?

- router bgp 100
  - neighbor 10.1.1.1 next-hop-self
  - neighbor 10.1.2.2 next-hop-self
  - neighbor 10.1.3.3 next-hop-self
- router bgp 100
  - neighbor IBGP update-source Loopback0
- router bgp 100
  - neighbor IBGP next-hop-self
- router bgp 100
  - neighbor 10.1.1.1 peer-group IBGP
  - neighbor 10.1.2.2 peer-group IBGP
  - neighbor 10.1.3.3 peer-group IBGP

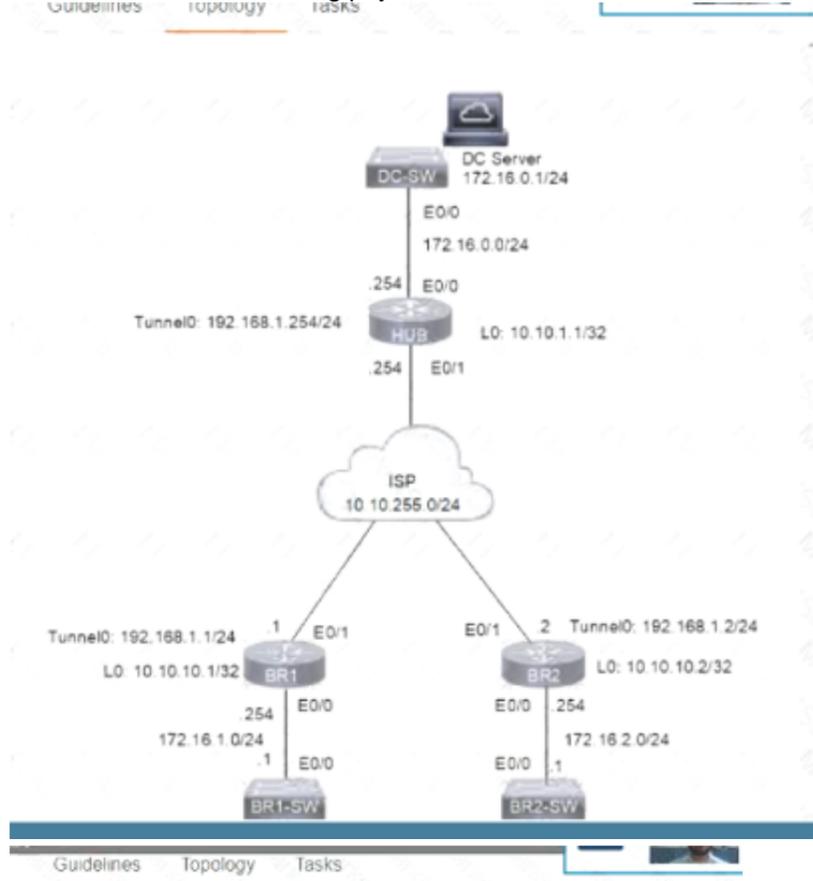
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** D

**NEW QUESTION 157**

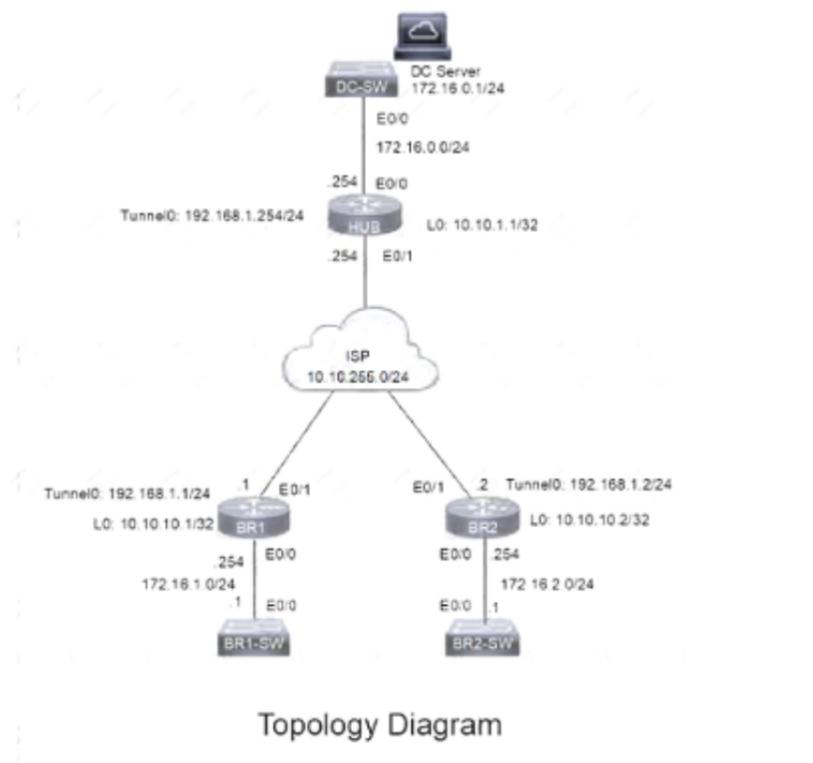
- (Exam Topic 3)

A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is ccnp123, and the network ID and tunnel key is EIGRP ASN Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:



A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is **ccnp123**, and the network ID and tunnel key is **EIGRP ASN**. Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:

1. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR1.
2. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR2.
3. Ensure that packet fragmentation is done before encryption to account for GRE and IPsec header and allow a maximum TCP segment size of 1360 on an IP MTU of 1400 on the tunnel interfaces of both branch routers.
4. Apply an IPsec profile to the tunnel. Verify that direct spoke-to-spoke tunnel is functional between branch routers BR1



A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is **ccnp123**, and the network ID and tunnel key is **EIGRP ASN**. Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:

1. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR1.
2. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR2.
3. Ensure that packet fragmentation is done before encryption to account for GRE and IPsec header and allow a maximum TCP segment size of 1360 on an IP MTU of 1400 on the tunnel interfaces of both branch routers.
4. Apply an IPsec profile to the tunnel. Verify that direct spoke-to-spoke tunnel is functional between branch routers BR1 and BR2 by using traceroute to Ethernet 0/0 IP address to get a full score.

[Submit feedback about this item](#)

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

ON BR1

```
Current configuration : 405 bytes
!
interface Tunnel0
ip address 192.168.1.1 255.255.255.0
no ip redirects
ip mtu 1400
ip nhrp authentication ccnp123
ip nhrp map 192.168.1.254 10.10.255.254
ip nhrp map multicast 10.10.255.254
ip nhrp network-id 100
ip nhrp holdtime 5
ip nhrp nhs 192.168.1.254
ip nhrp shortcut
ip tcp adjust-mss 1360
delay 1000
tunnel source 10.10.255.1
tunnel destination 10.10.255.254
tunnel key 100
end

BR1(config)#
BR1(config)#
```

ON BR2

```

DC-SW  HUB  BR1  BR1-SW  BR2  BR2-SW
UpDn Time --> Up or Down Time for a Tunnel
=====
Interface: Tunnel0, IPv4 NHRP Details
Type:Spoke, NHRP Peers:1,

# Ent Peer NBMA Addr Peer Tunnel Add State UpDn Tm Attrb
-----
  1 10.10.255.254 192.168.1.254 NHRP 00:17:20 S

BR2(config)#do show run int tu 0
Building configuration...

Current configuration : 404 bytes
!
interface Tunnel0
 ip address 192.168.1.2 255.255.255.0
 no ip redirects
 ip mtu 1400
 ip nhrp authentication csnpl23
 ip nhrp map 192.168.1.254 10.10.255.254
 ip nhrp map multicast 10.10.255.254
 ip nhrp network-id 100
 ip nhrp holdtime 5
 ip nhrp nhs 192.168.1.254
 ip nhrp shortcut
 ip tcp adjust-mss 1360
 delay 1000
 tunnel source 10.10.10.2
 tunnel destination 10.10.255.254
 tunnel key 100
end

```

**NEW QUESTION 162**

- (Exam Topic 3)

Refer to the exhibit.

A network engineer receives a fault ticket about traffic drops from BANK SITE to BANK Users can reach BANK SITE Y from router RA as a source. Routers RB and RD are acting as route reflectors. Which configuration resolves the issue?

- A. RC(config)#router bgp 65201RC(config-router)#neighbor 10.10.10.4 route-reflector-client
- B. RF(config)#router bgp 65201RF(config-router)#neighbor 10.10.10.6 route-reflector-client
- C. RC(config)#router bgp 65201RC(config-router)#neighbor 10.10.10.2 route-reflector-client
- D. RB(config)router bgp 65201RB(config-router)#neighbor 10.10.10.3 route-reflector-client

Answer: A

**NEW QUESTION 163**

- (Exam Topic 3)

Refer to the exhibit.

```

R2# show ip ospf neighbor
R2#
R2# debug ip ospf hello

*Feb 22 23:46:58.699: OSPF-1 HELLO Et1/1: Rcv hello from
10.255.255.1 area 0 10.0.23.1
*Feb 22 23:46:58.703: OSPF-1 HELLO Et1/1: Mismatched hello
parameters from 10.0.23.1
*Feb 22 23:46:58.703: OSPF-1 HELLO Et1/1: Dead R 30 C 20, Hello
R 10 C 10 Mask R 255.255.255.0 C 255.255.255.0

```

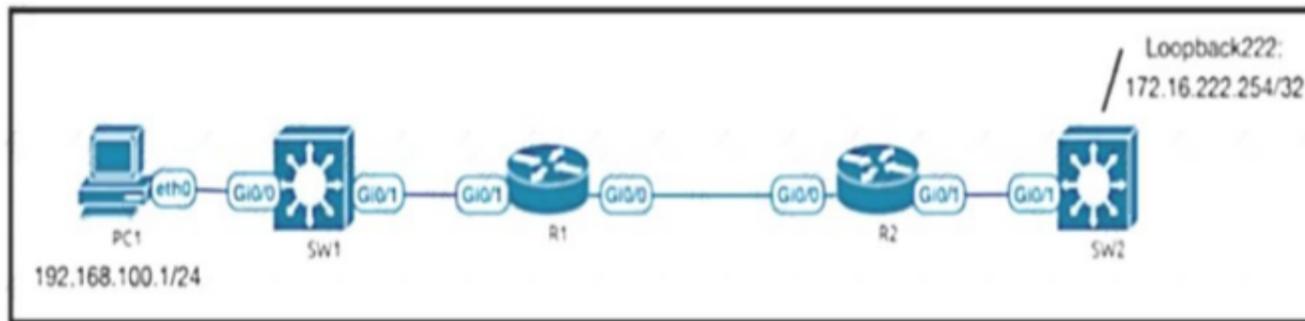
The connected routers do not show up as OSPF neighbors. Which action resolves the issue?

- A. Change the R1 dead timer to 20.
- B. Change the R2 dead timer to 20.
- C. Change the R2 hello timer to 20.
- D. Change the R1 hello timer to 20.

Answer: A

**NEW QUESTION 168**

- (Exam Topic 3)



Refer to the exhibit R2 can reach Loopback222, but R1 SW1 and PC1 cannot communicate with 172.16.222.254 R1 and R2 configurations are shown here

```
R1#show run | sec router eigrp
router eigrp VR1
!
address-family ipv4 unicast autonomous-system 1
!
topology base
exit-af-topology
network 172.16.1.1 0.0.0.0
network 192.168.100.0
network 192.168.200.0
network 192.168.255.91 0.0.0.0
exit-address-family
```

```
R2(config)#do show run | sec router eigrp
router eigrp 1
network 172.16.1.2 0.0.0.0
network 172.16.222.0 0.0.0.255
network 192.168.222.254 0.0.0.0
```

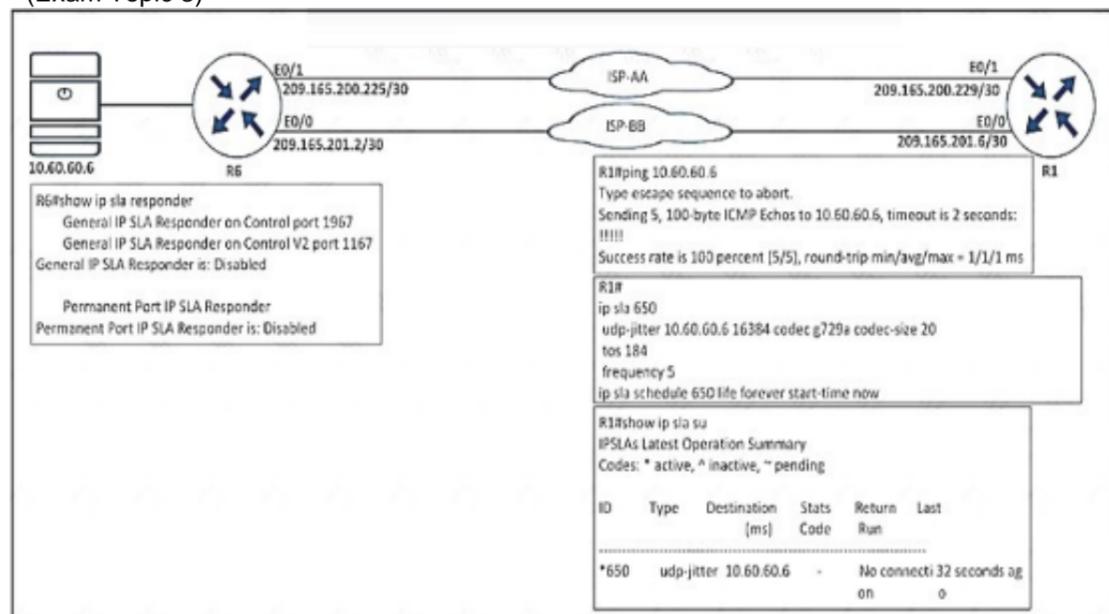
Which EIGRP configuration command resolves the issue?

- A. R2(config-router) # redistribute static
- B. R1(config-router)# network 172.16.222.254 0.0.0.0
- C. R1 (config-router)# network 172.16.222.264 255.255.255.255
- D. R1(config-router)# redistribute static

Answer: A

**NEW QUESTION 171**

- (Exam Topic 3)



Refer to the exhibit. Which configuration resolves the IP SLA issue from R1 to the server?

- A. R6(config)#ip sla responder
- B. R6(config)#ip sla responder udp-echo ipaddress 10.60.60.6 po 5000
- C. R6(config)#ip sla 650 R6(config-ip-sla)ff udp-jitter 10.60.60.6
- D. R6(config)#ip sla schedule 10 life forever start-time now

Answer: A

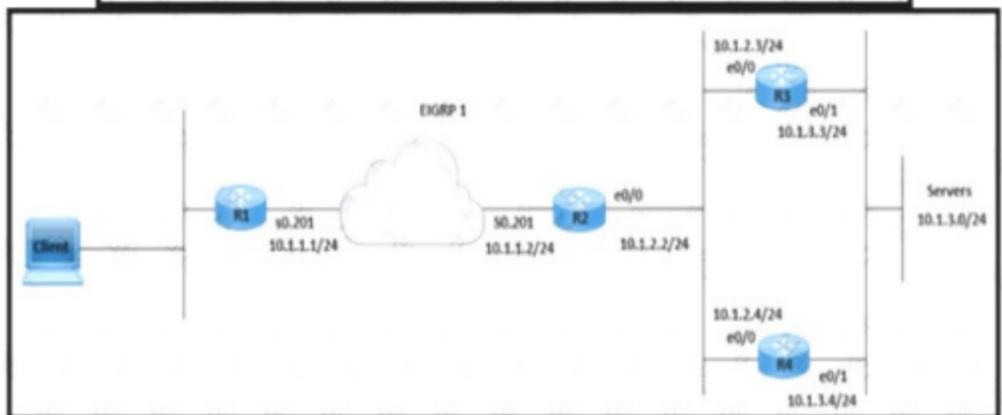
**NEW QUESTION 173**

- (Exam Topic 3)

Exhibit.

```
R2# show ip eigrp topology 10.1.3.0 255.255.255.0

IP-EIGRP (AS 1): topology entry for 10.1.3.0/24
State is Passive, Query origin flag is 1, 1 Successor(s), FD is 307200
Routing Descriptor Blocks:
 10.1.2.3 (Ethernet0), from 10.1.2.3, Send flag is 0x0
   Composite metric is (307200/281600), Route is Internal
   Vector metric:
     Minimum bandwidth is 10000 Kbit
     Total delay is 2000 microseconds
     Reliability is 255/255
     Load is 1/255
     Minimum MTU is 1500
     Hop count is 1
 10.1.2.4 (Ethernet0), from 10.1.2.4, Send flag is 0x0
   Composite metric is (312320/286720), Route is Internal
   Vector metric:
     Minimum bandwidth is 10000 Kbit
     Total delay is 2200 microseconds
     Reliability is 255/255
     Load is 1/255
     Minimum MTU is 1500
     Hop count is 1
```



Refer to the exhibit. A network is configured for EIGRP equal-cost load balancing, but the traffic destined to the servers is not load balanced. Link metrics from router R2 to R3 and R4 are the same. Which delay value must be configured to resolve the issue?

- A. 208 on R3 E0/0
- B. 120 on R4 E0/1
- C. 120 on R3 E0/1
- D. 2200 on R4 E0/1

Answer: C

**NEW QUESTION 178**

- (Exam Topic 3)

How does LDP operate in an MPLS network?

- A. When topology changes occur such as a router failure, LDP generates peer discovery messages that terminate the LDP session to propagate an LSP change.
- B. When an adjacent LSR receives LDP discovery message
- C. TCP two-way handshake ensures that the LDP session has unidirectional connectivity.
- D. Peer routers establish the LDP session, and the LDP neighbors maintain and terminate the session by exchanging messages
- E. LDP notification messages allow LERs to exchange label information to determine the next hops within a particular LSP.

Answer: D

**NEW QUESTION 182**

- (Exam Topic 3)

```
CPE# show ip route static
<output omitted>
S* 0.0.0.0/0 is directly connected, Dialer0
S 198.51.100.0/24 [1/0] via 192.168.1.1
S 203.0.113.0/24 [1/0] via 192.168.2.1

CPE# show run | section router ospf
router ospf 1
 redistribute static subnets

CPE# show ip ospf database | begin Type-5
Type-5 AS External Link States

Link ID      ADV Router  Age      Seq#      Checksum Tag
198.51.100.0 192.168.0.1 14       0x80000001 0x0007D0 0
203.0.113.0  192.168.0.1 14       0x80000001 0x0009C5C 0
```

Refer to the exhibit. The default route is not advertised to the neighboring router. Which action resolves the issue?

- A. Configure the redistribute static metric 200 subnets command under OSPF.
- B. Configure OSPF on the Dialer0 interface.
- C. Configure the network 0.0.0.0 255.255.255.255 area 0 command under OSPF.
- D. Configure the default-information originate command under OSPF.

**Answer: D**

#### NEW QUESTION 186

- (Exam Topic 3)

A network engineer must configure a DMVPN network so that a spoke establishes a direct path to another spoke if the two must send traffic to each other. A spoke must send traffic directly to the hub if required Which configuration meets this requirement?

At the hub router:  
 interface tunnel10  
 ip nhrp nhs multicast dynamic  
 ip nhrp nhs shortcut  
 tunnel mode gre multipoint

On the spokes router:  
 interface tunnel10  
 ip nhrp nhs multicast dynamic  
 ip nhrp nhs redirect  
 tunnel mode gre multipoint

At the hub router:  
 interface tunnel10  
 ip nhrp map multicast dynamic  
 ip nhrp redirect  
 tunnel mode gre multipoint

On the spokes router:  
 interface tunnel10  
 ip nhrp map multicast dynamic  
 ip nhrp shortcut  
 tunnel mode gre multipoint

At the hub router:  
 interface tunnel10  
 ip nhrp nhs dynamic multipoint  
 ip nhrp nhs shortcut  
 tunnel mode gre multicast

On the spokes router:  
 interface tunnel10  
 ip nhrp nhs multicast dynamic  
 ip nhrp nhs redirect  
 tunnel mode gre multicast

ip vrf 1  
 ip vrf 2  
 !  
 int GigabitEthernet0/0  
 no shut  
 !  
 int GigabitEthernet0/0.1  
 encapsulation dot1Q 1  
 ip vrf forwarding 1  
 ip address 10.1.1.1 255.255.255.0  
 !  
 int GigabitEthernet0/0.2  
 encapsulation dot1Q 2  
 ip vrf forwarding 2  
 ip address 10.2.2.1 255.255.255.0

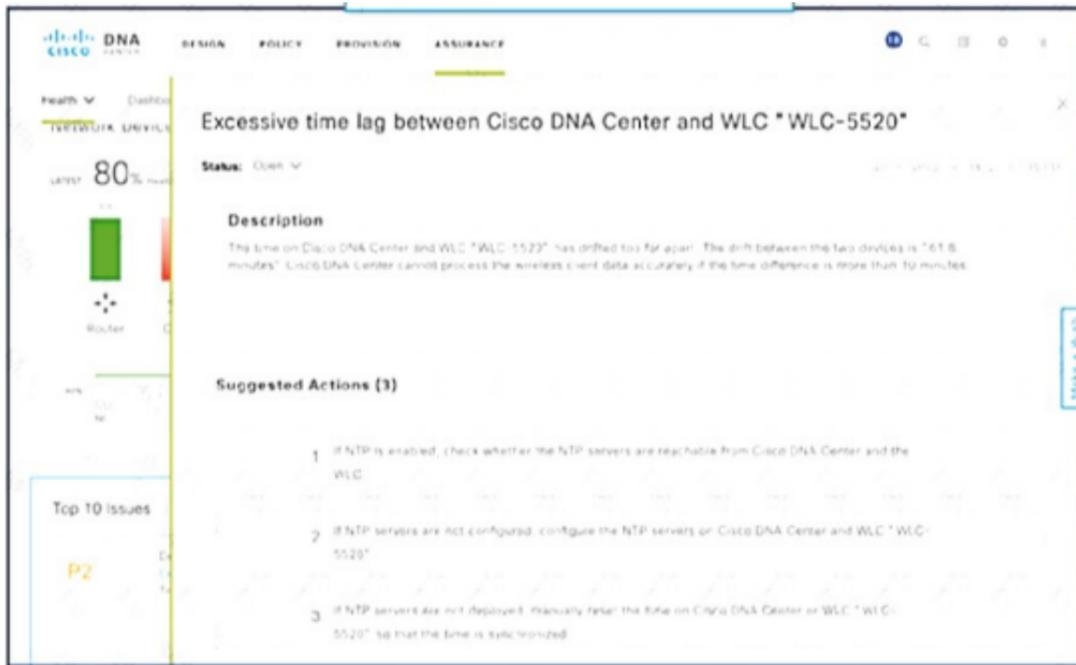
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

#### NEW QUESTION 190

- (Exam Topic 2)

Exhibit:



NTP is configured across the network infrastructure and Cisco DNA Center. An NTP issue was reported on the Cisco DNA Center at 17:15. Which action resolves the issue?

- A. Check and resolve reachability between the WLC and the NTP server
- B. Reset the NTP server to resolve any synchronization issues for all devices
- C. Check and resolve reachability between Cisco DNA Center and the NTP server
- D. Check and configure NTP on the WLC and synchronize with Cisco DNA Center

**Answer: D**

**Explanation:**

Excessive time lag between Cisco DNA Center and device: The time difference between Cisco DNA Center and the device IP Address has drifted too far apart. CiscoDNA Center cannot process the device data accurately if the time difference is more than 3 minutes.

Reference:

<https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dna-c>

**NEW QUESTION 194**

- (Exam Topic 2)

Refer to the exhibit.

```

ipv6 access-list inbound
permit tcp any any
deny ipv6 any any log
!
interface gi0/0
ipv6 traffic-filter inbound out
    
```

A network administrator configured an IPv6 access list to allow TCP return frame only, but it is not working as expected. Which changes resolve this issue?

- ipv6 access-list inbound**  
**permit tcp any any established**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound out**
- ipv6 access-list inbound**  
**permit tcp any any syn**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound out**
- ipv6 access-list inbound**  
**permit tcp any any established**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound in**
- ipv6 access-list inbound**  
**permit tcp any any syn**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound in**

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

**Answer: C**

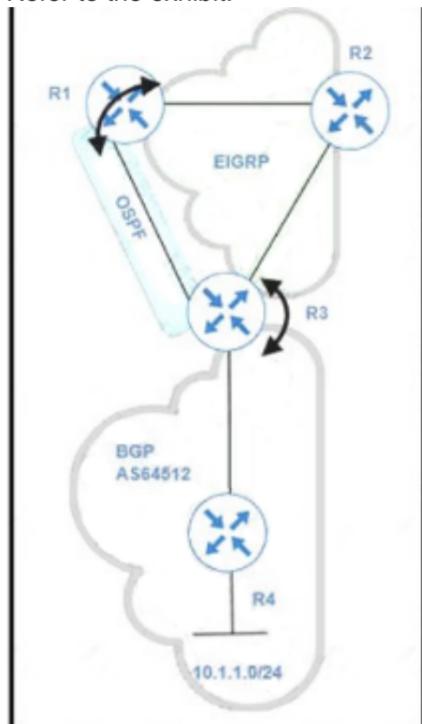
**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/122\\_55\\_se/configuration/guid](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/122_55_se/configuration/guid)

**NEW QUESTION 199**

- (Exam Topic 2)

Refer to the exhibit.



BGP and EIGRP are mutually redistributed on R3, and EIGRP and OSPF are mutually redistributed on R1. Users report packet loss and interruption of service to applications hosted on the 10.1.1.0/24 prefix. An engineer tested the link from R3 to R4 with no packet loss present but has noticed frequent routing changes on R3 when running the debug ip route command. Which action stabilizes the service?

- A. Tag the 10.1.1.0/24 prefix and deny the prefix from being redistributed into OSPF on R1.
- B. Repeat the test from R4 using ICMP ping on the local 10.1.1.0/24 prefix, and fix any Layer 2 errors on the host or switch side of the subne
- C. ^
- D. Place an OSPF distribute-list outbound on R3 to block the 10.1.10/24 prefix from being advertised back to R3.
- E. Reduce frequent OSPF SPF calculations on R3 that cause a high CPU and packet loss on traffic traversing R3.

**Answer: A**

**Explanation:**

After redistribution, R3 learns about network 10.1.1.0/24 via two paths:

+ Internal BGP (IBGP): advertised from R4 with AD of 200 (and metric of 0)

+ OSPF: advertised from R1 with AD of 110 (O E2) (and metric of 20) Therefore R3 will choose the path with the lower AD via OSPF

But this is a looped path which is received from R3 -> R2 -> R1 -> R3. So when the advertised route from R4 is expired, the looped path is also expired soon and R3 will reinstall the main path from R4. This is the cause of intermittent connectivity.

We can solve this problem by denying the 10.1.1.0/24 prefix from being redistributed into OSPF on R1. So R3 will not learn this prefix from R1.

Or another solution is to place an OSPF distribute-list inbound on R3 to block the 10.1.1.0/24 prefix from being advertised back to R3.

**NEW QUESTION 203**

- (Exam Topic 2)

Refer to the exhibit.

```
*Jun 24 08:54:51.530: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:52.525: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to down
*Jun 24 08:54:52.528: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:53.215: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:54.998: %LINK-3-UPDOWN: Interface GigabitEthernet0/0, changed state to up
*Jun 24 08:54:55.006: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to UP
*Jun 24 08:54:55.998: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
```

R1 is connected with R2 via GigabitEthernet0/0, and R2 cannot ping R1. What action will fix the issue?

- A. Fix route dampening configured on the router.
- B. Replace the SFP module because it is not supported.
- C. Fix IP Event Dampening configured on the interface.
- D. Correct the IP SLA probe that failed.

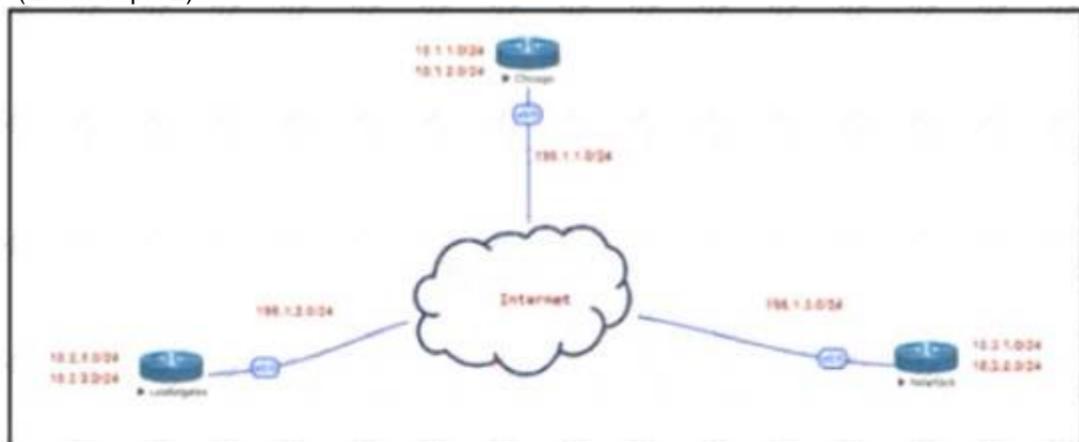
**Answer: C**

**Explanation:**

The IP Event Dampening feature introduces a configurable exponential decay mechanism to suppress the effects of excessive interface flapping events on routing protocols and routing tables in the network. This feature allows the network operator to configure a router to automatically identify and selectively dampen a local interface that is flapping.

**NEW QUESTION 205**

- (Exam Topic 2)



```
Chicago
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source E0/0
tunnel mode gre multipoint
ip nhrp network-id 1
ip nhrp map multicast dynamic
no ip next-hop-self eigrp 111
tunnel protection ipsec profile IPsec-PROFILE
!
router eigrp 111
network 192.168.1.0
network 10.0.0.0
```

Refer to the exhibit. The Los Angeles and New York routers are receiving routes from Chicago but not from each other Which configuration fixes the issue?

- A. Interface Tunnel1no ip split-horizon eigrp 111
- B. Interface Tunnel1ip next-hop-self eigrp 111
- C. Interface Tunnel1 tunnel mode ipsec ipv4
- D. Interface Tunnel1tunnel protection ipsec profile IPsec-PROFILE

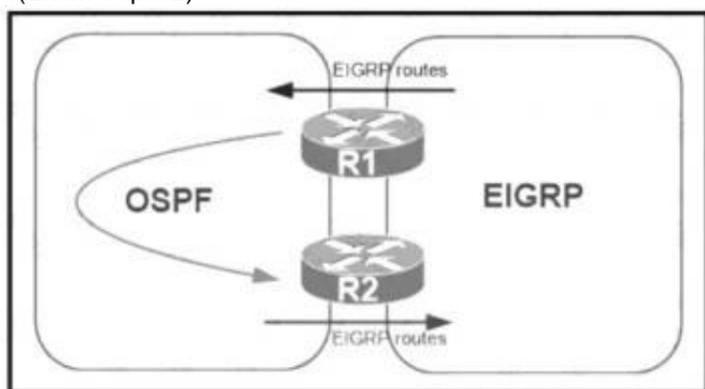
**Answer:** A

**Explanation:**

In this topology, Chicago router (Hub) will receive advertisements from Los Angeles (Spoke1) router on its tunnel interface. The problem here is that it also has a connection with New York (Spoke2) on that same tunnel interface. If we don't disable EIGRP split-horizon, then the Hub will not relay routes from Spoke1 to Spoke2 and the other way around. That is because it received those routes on interface Tunnel1 and therefore it cannot advertise back out that same interface (splithorizon rule). Therefore we must disable split-horizon on the Hub router to make sure the Spokes know about each other.

**NEW QUESTION 206**

- (Exam Topic 2)



Refer to the exhibit. A network administrator configured mutual redistribution on R1 and R2 routers, which caused instability in the network. Which action resolves the issue?

- A. Set a tag in the route map when redistributing EIGRP into OSPF on R1. and match the same tag on R2 to deny when redistributing OSPF into EIGRP.
- B. Set a tag in the route map when redistributing EIGRP into OSPF on R1. and match the same tag on R2 to allow when redistributing OSPF into EIGRP.
- C. Advertise summary routes of EIGRP to OSPF and deny specific EIGRP routes when redistributing into OSPF.
- D. Apply a prefix list of EIGRP network routes in OSPF domain on R1 to propagate back into the EIGRP routing domain.

**Answer:** A

**Explanation:**

When doing mutual redistribution at multiple points (between OSPF and EIGRP on R1 & R2), we may create routing loops so we should use route-map to prevent redistributed routes from redistributing again into the original domain. In the below example, the route-map "SET-TAG" is used to prevent any routes that have been redistributed into EIGRP from redistributed again into OSPF domain by tagging these routes with tag 1:

```
R3
route-map SET-TAG permit 10
set tag 1
```

These routes are prevented from redistributed again by route-map FILTER\_TAG by denying any routes with tag 1 set:

```
R4
route-map FILTER-TAG deny 10
match tag 1
```

**NEW QUESTION 208**

- (Exam Topic 2)

When configuring Control Plane Policing on a router to protect it from malicious traffic, an engineer observes that the configured routing protocols start flapping on that device. Which action in the Control Plane Policy prevents this problem in a production environment while achieving the security objective?

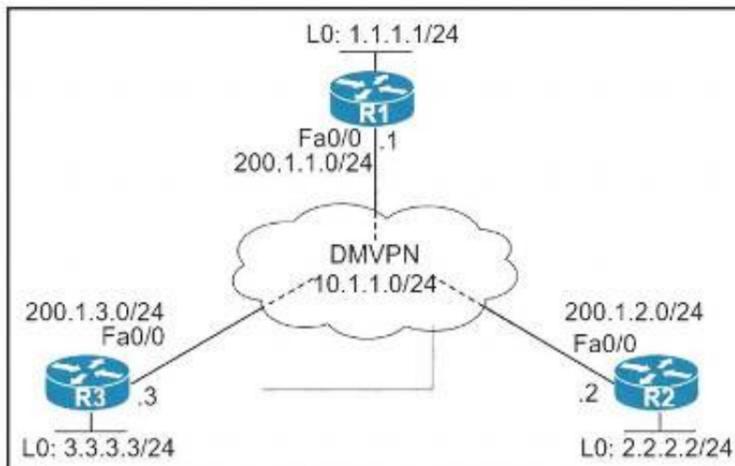
- A. Set the conform-action and exceed-action to transmit initially to test the ACLs and transmit rates and apply the Control Plane Policy in the output direction
- B. Set the conform-action and exceed-action to transmit initially to test the ACLs and transmit rates and apply the Control Plane Policy in the input direction
- C. Set the conform-action to transmit and exceed-action to drop to test the ACLs and transmit rates and apply the Control Plane Policy in the input direction
- D. Set the conform-action to transmit and exceed-action to drop to test the ACLs and transmit rates and apply the Control Plane Policy in the output direction

**Answer: B**

**NEW QUESTION 211**

- (Exam Topic 2)

Refer to the exhibits.



```
R2:
=====
R2(config)# crypto isakmp policy 10
R2(config-isakmp)# hash md5
R2(config-isakmp)# authentication pre-share
R2(config-isakmp)# group 2
R2(config-isakmp)# encryption 3des
R2(config)# crypto ipsec transform-set TSET esp-des esp-md5-hmac
R2(cfg-crypto-trans)# mode transport
R2(config)# crypto ipsec profile TST
R2(ipsec-profile)# set transform-set TSET
R2(config)# interface tunnel 123
R2(config-if)# tunnel protection ipsec profile TST
```

When DMVPN is configured, which configuration allows spoke-to-spoke communication using loopback as a tunnel source?

- A. Configure crypto isakmp key cisco address 0.0.0.0 on the hub.
- B. Configure crypto isakmp key Cisco address 200.1.0.0 255.255.0.0 on the hub.
- C. Configure crypto isakmp key cisco address 200.1.0.0 255.255.0.0 on the spokes.
- D. Configure crypto isakmp key cisco address 0.0.0.0 on the spokes.

**Answer: D**

**Explanation:**

[https://www.cisco.com/en/US/technologies/tk583/tk372/technologies\\_white\\_paper0900aecd802b8f3c.html](https://www.cisco.com/en/US/technologies/tk583/tk372/technologies_white_paper0900aecd802b8f3c.html)

**NEW QUESTION 212**

- (Exam Topic 2)

```

Ipv6 unicast-routing
!
Router ospfv3 4
  Router-id 192.168.1.1
!
Interface E 0/0
  Ipv6 enable
  Ip address 10.1.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  No shut
!
Interface Loopback0
  Ipv6 enable
  Ipv4 172.16.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  
```

Refer to the exhibit. The network administrator configured the branch router for IPv6 on the E 0/0 interface. The neighboring router is fully configured to meet requirements, but the neighbor relationship is not coming up. Which action fixes the problem on the branch router to bring the IPv6 neighbors up?

- A. Enable the IPv4 address family under the E 0/0 interface by using the address-family ipv4 unicast command
- B. Disable IPv6 on the E 0/0 interface using the no ipv6 enable command
- C. Enable the IPv4 address family under the router ospfv3 4 process by using the address-family ipv4 unicast command
- D. Disable OSPF for IPv4 using the no ospfv3 4 area 0 ipv4 command under the E 0/0 interface.

**Answer:** C

**Explanation:**

Once again, Cisco changed the IOS configuration commands required for OSPFv3 configuration. The new OSPFv3 configuration uses the “ospfv3” keyword instead of the earlier “ipv6 router ospf” routing process command and “ipv6 ospf” interface commands. The Open Shortest Path First version 3 (OSPFv3) address families feature enables both IPv4 and IPv6 unicast traffic to be supported. With this feature, users may have two processes per interface, but only one process per address family (AF).

**NEW QUESTION 213**

- (Exam Topic 2)

Drag and drop the MPLS VPN device types from the left onto the definitions on the right.

Customer (C) device	device in the core of the provider network that switches MPLS packets
CE device	device that attaches and detaches the VPN labels to the packets in the provider network
PE device	device in the enterprise network that connects to other customer devices
Provider (P) device	device at the edge of the enterprise network that connects to the SP network

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, application Description automatically generated

**NEW QUESTION 215**

- (Exam Topic 2)

```

config t
flow record v4_r1
match ipv4 tos
match ipv4 protocol
match ipv4 source address
match ipv4 destination address
match transport source-port
match transport destination-port
collect counter bytes long
collect counter packets long
!
flow exporter EXPORTER-1
destination 172.16.10.2
transport udp 2055
exit
!
flow monitor FLOW-MONITOR-1
exporter EXPORTER-1
record v4_r1
exit
!
flow monitor v4_r1
!
ip cef
!
interface Ethernet0/0.1
ip address 172.16.6.2 255.255.255.0
ip flow monitor v4_r1 input
!
    
```

Refer to the exhibit. The remote server is failing to receive the NetFlow data Which action resolves the issue?

- A. Modify the flow transport command transport udp 2055 to move under flow monitor profile.
- B. Modify the interlace command to Ip flow monitor FLOW-MONITOR-1 Input.
- C. Modify the udp port under flow exporter profile to Ip transport udp 4739.
- D. Modify the flow record command record v4\_r1 to move under flow exporter profile.

**Answer: B**

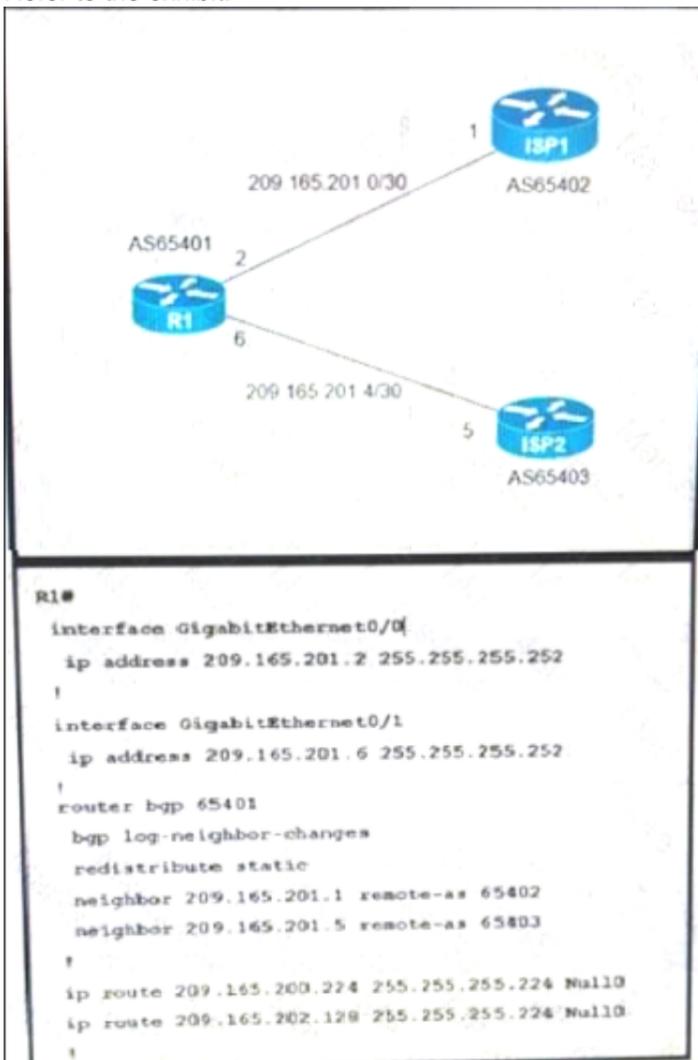
**Explanation:**

From the exhibit we see there are two flow monitors: the first one "FLOW-MONITOR-1" has been configured correctly but the second one "v4\_r1" was left empty and interface E0/0.1 is using it. So the remote server does not receive any NetFlow data.

**NEW QUESTION 220**

- (Exam Topic 2)

Refer to the exhibit.



A company with autonomous system number AS65401 has obtained IP address block 209.165.200.224/27 fro, ARIN. The company needed more IP addresses and was assigned block 209.165.202.128/27 from ISP2. An engineer is ISP1 reports they are receiving ISP2 routes from AS65401. Which configuration onR1 resolves the issue?

A)

```
access-list 10 deny 209.165.202.128 0.0.0.31
access-list 10 permit any
!
router bgp 65401
neighbor 209.165.201.1 distribute-list 10 out
```

B)

```
access-list 10 deny 209.165.202.128 0.0.0.31
access-list 10 permit any
!
router bgp 65401
neighbor 209.165.201.1 distribute-list 10 in
```

C)

```
ip route 209.165.200.224 255.255.255.224 209.165.201.1
ip route 209.165.202.128 255.255.255.224 209.165.201.5
```

D)

```
ip route 0.0.0.0 0.0.0.0 209.165.201.1
ip route 0.0.0.0 0.0.0.0 100 209.165.201.5
```

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

**Answer:** A

**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/23675-27.html>

**NEW QUESTION 224**

- (Exam Topic 2)

What does the PE router convert the Ipv4 prefix to within an MPLS VPN?

- A. VPN-IPv4 prefix combined with the 64-bit route distinguisher
- B. 48-bit route combining the IP and PE router-id
- C. prefix that combines the ASN, PE router-id, and IP prefix
- D. eBGP path association between the PE and CE sessions

**Answer:** A

**Explanation:**

The IP prefix is a member of the IPv4 address family. After the PE device learns the IP prefix, the PE converts it into a VPN-IPv4 prefix by combining it with an 8-byte route distinguisher (RD). The generated prefix is a member of the VPN-IPv4 address family. It uniquely identifies the customer address, even if the customer site is using globally nonunique (unregistered private) IP addresses. The route distinguisher used to generate the VPN-IPv4 prefix is specified by a configuration command associated with the virtual routing and forwarding (VRF) instance on the PE device.

**NEW QUESTION 225**

- (Exam Topic 2)

Refer to Exhibit.

```
Ipv6 unicast-routing
!
Router ospfv3 4
  Router-id 192.168.1.1
!
Interface E 0/0
  Ipv6 enable
  Ip address 10.1.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  No shut
!
Interface Loopback0
  Ipv6 enable
  Ipv4 172.16.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
```

The network administrator configured the branch router for IPv6 on the E0/0 interface. The neighboring router is fully configured to meet requirements, but the neighbor relationship is not coming up. Which action fixes the problem on the branch router to bring the IPv6 neighbors up?

- A. Enable the IPv4 address family under the router ospfv3 4 process by using the address-family ipv4 unicast command
- B. Disable IPv6 on the E0/0 interface using the no ipv6 enable command
- C. Enable the IPv4 address family under the E0/0 interface by using the address-family ipv4 unicast command
- D. Disable OSPF for IPv4 using the no ospfv3 4 area 0 ipv4 command under the E0/0 interface

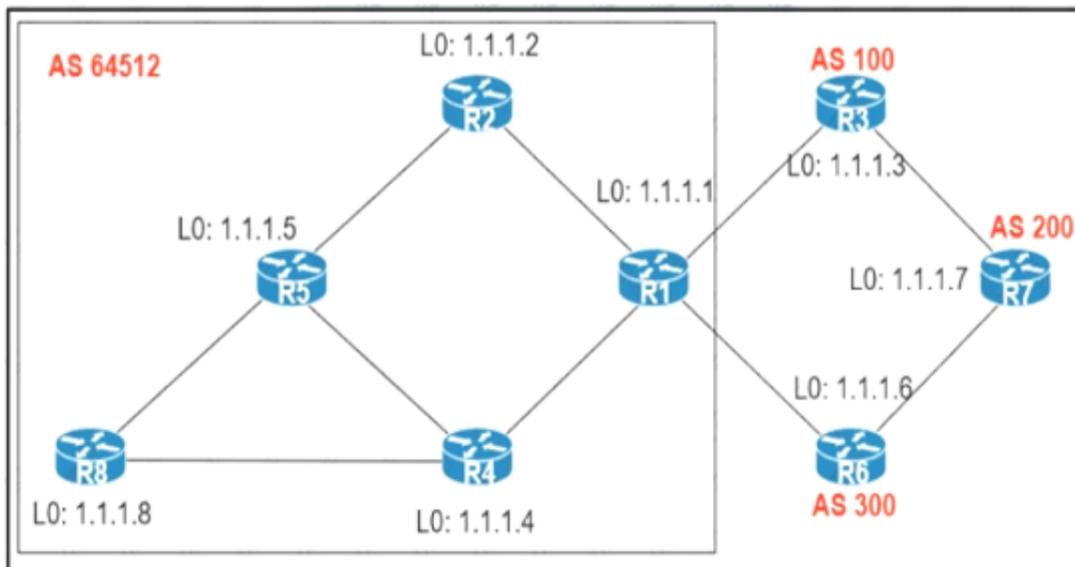
**Answer:** A

**Explanation:**

Once again, Cisco changed the IOS configuration commands required for OSPFv3 configuration. The new OSPFv3 configuration uses the “ospfv3” keyword instead of the earlier “ipv6 router ospf” routing process command and “ipv6 ospf” interface commands. The Open Shortest Path First version 3 (OSPFv3) address families feature enables both IPv4 and IPv6 unicast traffic to be supported. With this feature, users may have two processes per interface, but only one process per address family (AF).

**NEW QUESTION 229**

- (Exam Topic 2)  
 Exhibit:



An engineer configured R2 and R5 as route reflectors and noticed that not all routes are sent to R1 to advertise to the eBGP peers. Which iBGP routers must be configured as route reflectors to advertise all routes to restore reachability across all networks?

- A. R1 and R4
- B. R1 and R5
- C. R4 and R5
- D. R2 and R5

**Answer:** C

**Explanation:**

When R2 & R5 are route reflectors (RRs), routes from R4 & R8 are advertised to R5 and R5 advertises to R2. But R2 would drop them as R2 is also a RR. Therefore some routes are missing on R1 to advertise to eBGP peers. Good reference: <https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2015/pdf/TECRST-2310.pdf> Route reflectors (RR) must be fully iBGP meshed so we cannot configure RR on both R1 and R5. We should choose routers at the center of the topology RRs, in this case R4 & R5.

**NEW QUESTION 232**

- (Exam Topic 2)  
 Refer to Exhibit.

```

ip dhcp excluded-address 172.16.16.1 172.16.16.2
!
ip dhcp pool 0
network 172.16.16.0 255.255.255.0
domain-name cisco.com
dns-server 172.16.16.2
lease 30

interface Ethernet0/0
ip address 10.1.1.1 255.255.255.252
ip access-group 100 in

access-list 100 deny udp any any
access-list 100 permit ip any any
    
```

Which two configurations allow clients to get dynamic ip addresses assigned?

- A. Configure access-list 100 permit udp any any eq 61 as the first line
- B. Configure access-list 100 permit udp any any eq 86 as the first line
- C. Configure access-list 100 permit udp any any eq 68 as the first line
- D. Configure access-list 100 permit udp any any eq 69 as the first line

E. Configure access-list 100 permit udp any any eq 67 as the first line

**Answer:** CE

**Explanation:**

A DHCP server that receives a DHCPDISCOVER message may respond with a DHCPOFFER message on UDP port 68 (BootP client).

...

In the event that the DHCP server is not on the local subnet, the DHCP server will send the DHCPOFFER, as a unicast packet, on UDP port 67, back to the DHCP/BootP Relay Agent from which the DHCPDISCOVER came.

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/dynamic-address-allocation-resolution/27470-100.html>

**NEW QUESTION 233**

- (Exam Topic 2)

```
ip prefix-list DefaultRouteOnly seq 5 deny 0.0.0.0/0 le 32
ip prefix-list DefaultRouteOnly seq 10 permit 0.0.0.0/0

router eigrp ccnp
address-family ipv4 unicast autonomous-system 1
topology base
distribute-list prefix DefaultRouteOnly out Tunnel0
```

Refer to the exhibit. The administrator configured route advertisement to a remote low resources router to use only the default route to reach any network but failed. Which action resolves this issue?

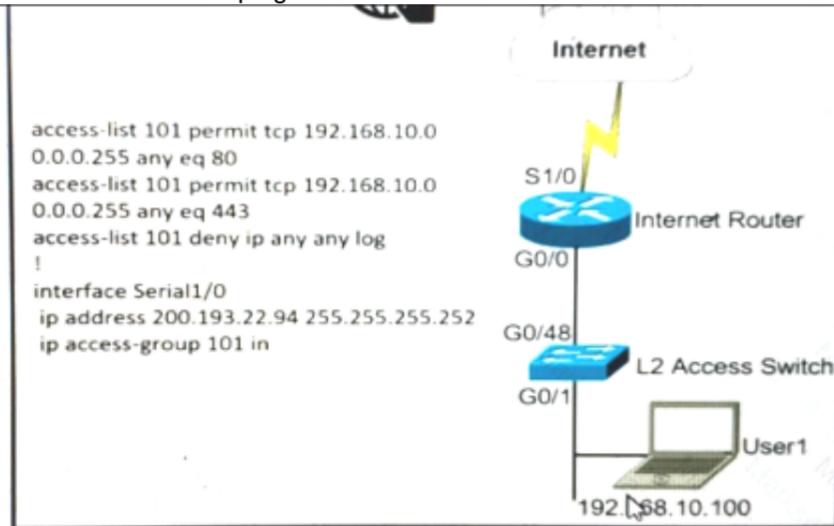
- A. Change the direction of the distribute-list command from out to in.
- B. Remove the line with the sequence number 5 from the prefix list.
- C. Remove the prefix keyword from the distribute-list command.
- D. Remove the line with the sequence number 10 from the prefix list.

**Answer:** B

**NEW QUESTION 236**

- (Exam Topic 2)

A network administrator is tasked to permit http and https traffic only toward the internet from the User1 laptop to adhere to company's security policy. The administrator can still ping to www.cisco.com Which interface should the access list 101 be applied to resolve this issue?



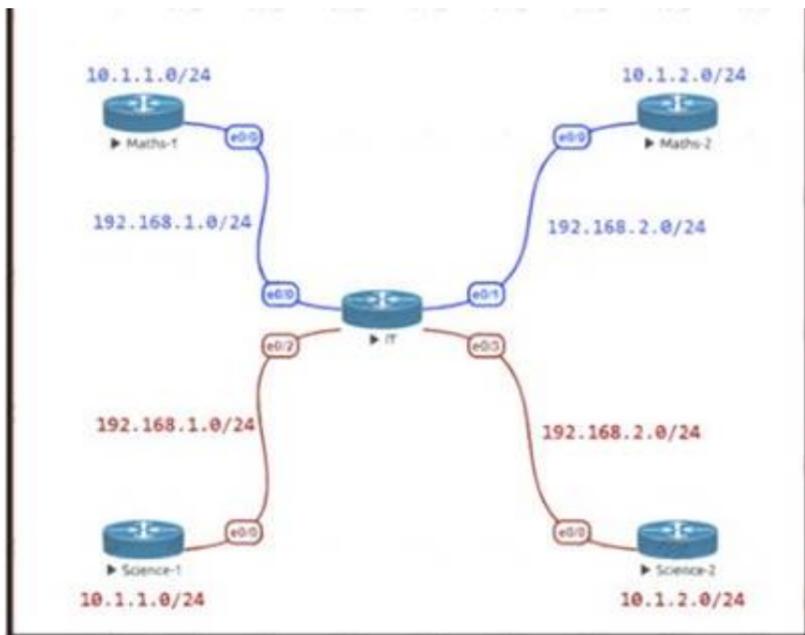
- A. Interface G0/48 in the incoming direction
- B. Interface G0/0 in the outgoing direction.
- C. Interface S1/0 in the outgoing direction.
- D. Interface G0/0 in the incoming direction.

**Answer:** D

**NEW QUESTION 237**

- (Exam Topic 2)

Refer to the exhibit.



The Math and Science departments connect through the corporate IT router but users in the Math department must not be able to reach the Science department and vice versa. Which configuration accomplishes this task?

- A. vrf definition Science interface E 0/2 ip address 192.168.1.1 255.255.255.0 no shut interface E 0/3 ip address 192.168.2.1 255.255.255.0 no shut
- B. vrf definition Science address-family ipv4 ! interface E 0/2 ip address 192.168.1.1 255.255.255.0 vrf forwarding Science no shut ! interface E 0/3 ip address 192.168.2.1 255.255.255.0 vrf forwarding Science no shut
- C. vrf definition Science address-family ipv4 ! interface E 0/2 ip address 192.168.1.1 255.255.255.0 no shut ! interface E 0/3 ip address 192.168.2.1 255.255.255.0 no shut
- D. vrf definition Science address-family ipv4 ! interface E 0/2 vrf forwarding Science ip address 192.168.1.1 255.255.255.0 no shut ! interface E 0/3 vrf forwarding Science ip address 192.168.2.1

**Answer: D**

**NEW QUESTION 239**

- (Exam Topic 2)

Which IGPs are supported by the MPLS LDP autoconfiguration feature?

- A. RIPv2 and OSPF
- B. OSPF and EIGRP
- C. OSPF and ISIS
- D. ISIS and RIPv2

**Answer: C**

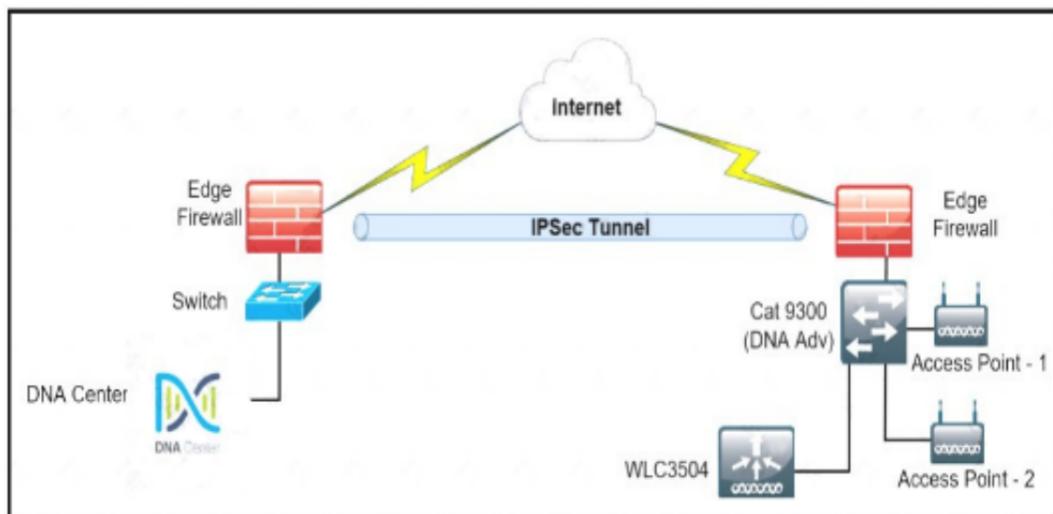
**Explanation:**

The **MPLS LDP Autoconfiguration** feature enables you to globally enable Label Distribution Protocol (LDP) on every interface associated with an Interior Gateway Protocol (IGP) instance. This feature is supported on Open Shortest Path First (**OSPF**) and Intermediate System-to-Intermediate System (**IS-IS**) IGPs. It provides

**NEW QUESTION 243**

- (Exam Topic 2)

Refer to the exhibit.



A network administrator is discovering a Cisco Catalyst 9300 and a Cisco WLC 3504 in Cisco DNA Center. The Catalyst 9300 is added successfully. However, the WLC is showing [ error "uncontactable" ] when the administrator tries to add it in Cisco DNA Center. Which action discovers WLC in Cisco DNA Center successfully?

- A. Copy the .cert file from the Cisco DNA Center on the USB and upload it to the WLC 3504.
- B. Delete the WLC 3504 from Cisco DNA Center and add it to Cisco DNA Center again.
- C. Add the WLC 3504 under the hierarchy of the Catalyst 9300 connected devices.
- D. Copy the .pem file from the Cisco DNA Center on the USB and upload it to the WLC 3504.

**Answer: D**

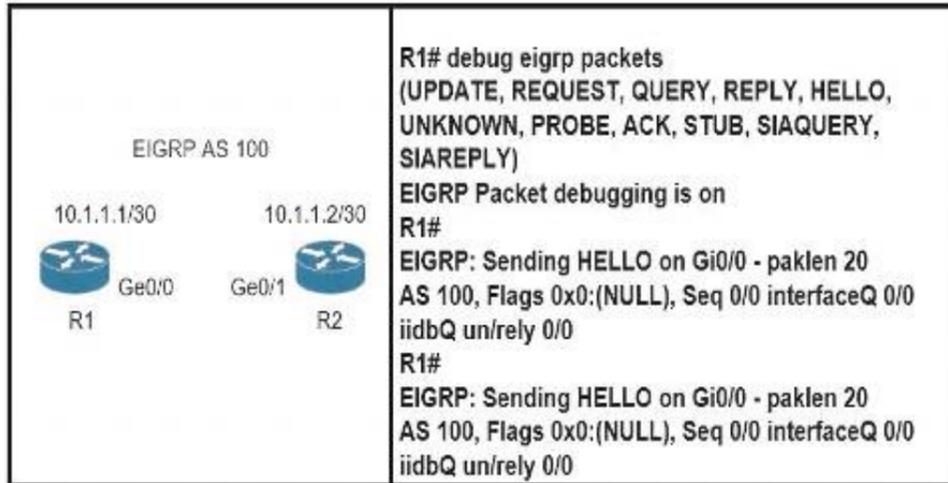
**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/109597-csr-chained-c>

**NEW QUESTION 248**

- (Exam Topic 2)

Refer to the exhibit.



Which action resolves the adjacency issue?

- A. Match the hello interval timers.
- B. Configure the same EIGRP process IDs.
- C. Match the authentication keys.
- D. Configure the same autonomous system numbers.

**Answer: D**

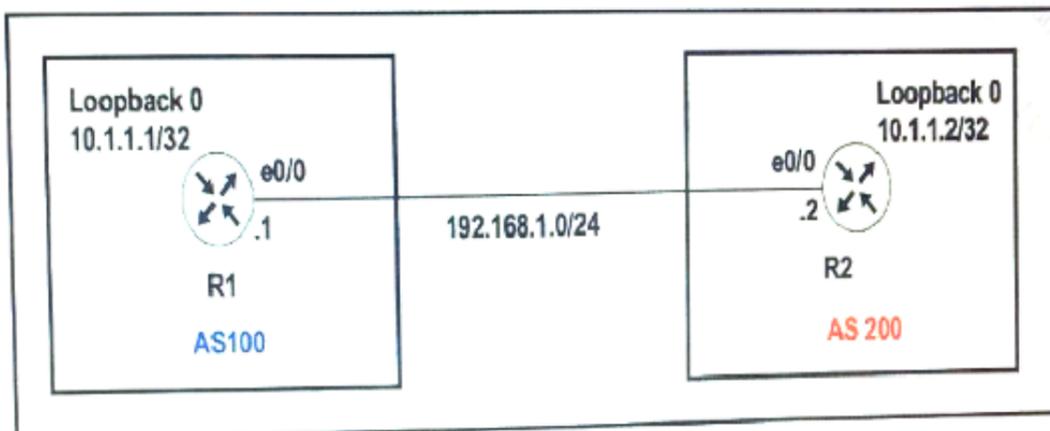
**Explanation:**

EIGRP does not have process ID as it uses Autonomous System (AS) numbers only. This is not an authentication problem or we would see this error from the debug:  
 EIGRP: Ethernet0/0: ignored packet from 10.1.1.3, opcode = 1 (missing authentication or key-chain missing) If the AS numbers between two routers are different then the neighbor relationship cannot be formed.

**NEW QUESTION 250**

- (Exam Topic 2)

Refer to the exhibit.



The R1 and R2 configurations are:

```
R1
router bgp 100
neighbor 10.1.1.2 remote-as 200

R2
router bgp 200
neighbor 10.1.1.1 remote-as 100
```

The neighbor is not coming up. Which two sets of configurations bring the neighbors up? (Choose two.)

- A. R2ip route 10.1.1.1 255.255.255.255 192.168.1.1router bgp 200neighbor 10.1.1.1 ttl-security hops 1neighbor 10.1.1.1 update-source loopback 0
- B. R2ip route 10.1.1.1 255.255.255.255 192.168.1.1router bgp 200neighbor 10.1.1.1 disable-connected-checkneighbor 10.1.1.1 update-source loopback 0
- C. R2ip route 10.1.1.2 255.255.255.255 192.168.1.2router bgp 100neighbor 10.1.1.2 ttl-security hops 1 neighbor 10.1.1.2 update-source loopback 0
- D. R1ip route 10.1.1.2 255.255.255.255 192.168.1.2router bgp 100neighbor 10.1.1.1 ttl-security hops 1neighbor 10.1.1.2 update-source loopback 0
- E. R1ip route 10.1.1.2 255.255.255.255 192.168.1.2router bgp 100neighbor 10.1.1.2 disable-connected-check neighbor 10.1.1.2 update-source Loopback0

**Answer: BE**

**Explanation:**

The neighbor disable-connected-check command is used to disable the connection verification process for eBGP peering sessions that are reachable by a single hop but are configured on a loopback interface or otherwise configured with a non-directly connected IP address.

Disable-connected-check enables a directly connected eBGP neighbor to peer using a loopback address without adjusting the default TTL of 1. In disable connected check the router does not decrease the TTL of an IP packet that is destined to itself so it only counts or considers as one hop between the two loopbacks of the routers.

**NEW QUESTION 255**

- (Exam Topic 2)

An engineer configured policy-based routing for a destination IP address that does not exist in the routing table. How is the packet treated through the policy for configuring the set ip default next-hop command?

- A. Packets are not forwarded to the specific next hop.
- B. Packets are forwarded based on the routing table.
- C. Packets are forwarded based on a static route.
- D. Packets are forwarded to the specific next hop.

**Answer: D**

**Explanation:**

The set ip default next-hop command verifies the existence of the destination IP address in the routing table, and...+ if the destination IP address exists, the command does not policy route the packet, but forwards the packet based on the routing table.+ if the destination IP address does not exist, the command policy routes the packet by sending it to the specified next hop.

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/ip-routed-protocols/47121-pbr-cmds-ce.html>

**NEW QUESTION 257**

- (Exam Topic 2)

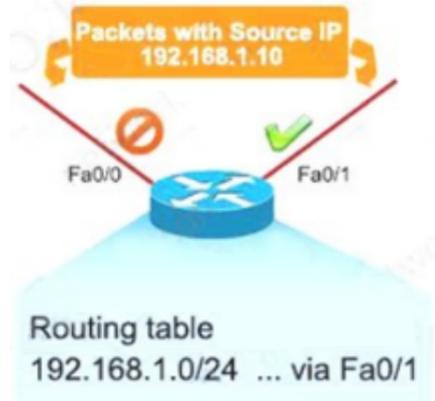
An engineer configured Reverse Path Forwarding on an interface and noticed that the routes are dropped when a route lookup fails on that interface for a prefix that is available in the routing table Which interface configuration resolves the issue?

- A. ip verify unicast source reachable-via rx
- B. ip verify unicast source reachable-via any
- C. ip verify unicast source reachable-via allow-default
- D. ip verify unicast source reachable-via 12-src

**Answer: B**

**Explanation:**

According to this question, uRPF is running in strict mode because packets are dropped even when that route exists in the routing table. Maybe packets are dropped because the receiving interface is different from the interface the local router uses to send packets to that destination. The ip verify unicast source reachable-via rx command enables Unicast RPF in strict mode. To enable loose mode, administrators can use the any option (ip verify unicast source reachable-via any). In loose mode, it doesn't matter if we use this interface to reach the source or not.



The allow-default option allows the use of the default route in the source verification process.

**NEW QUESTION 258**

- (Exam Topic 2)

A customer reports to the support desk that they cannot print from their PC to the local printer id:401987778. Which tool must be used to diagnose the issue using Cisco DNA Center Assurance?

- A. application trace
- B. path trace
- C. ACL trace
- D. device trace

**Answer: B**

**NEW QUESTION 260**

- (Exam Topic 2)

Refer to the exhibit.

```

L 172.1.12.3/32 is directly connected, Ethernet0/0
C 172.1.13.0/24 is directly connected, Ethernet0/1
L 172.1.13.3/32 is directly connected, Ethernet0/1
O 192.168.1.0/24 [110/2] via 172.1.12.1, 00:04:44, Ethernet0/0
O 192.168.2.0/24 [110/2] via 172.1.12.1, 00:04:44, Ethernet0/0
O 192.168.3.0/24 [110/2] via 172.1.13.2, 00:04:44, Ethernet0/1
O 192.168.4.0/24 [110/2] via 172.1.13.2, 00:04:44, Ethernet0/1
 192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.5.0/24 is directly connected, Loopback0
L 192.168.5.1/32 is directly connected, Loopback0
 192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.6.0/24 is directly connected, Loopback1
L 192.168.6.1/32 is directly connected, Loopback1
    
```

SanFrancisco and Boston routers are choosing slower links to reach each other despite the direct links being up Which configuration fixes the issue?

- Boston Router
 

```
router ospf 1
auto-cost reference-bandwidth 1000
```
- SanFrancisco Router
 

```
router ospf 1
auto-cost reference-bandwidth 1000
```
- All Routers
 

```
router ospf 1
auto-cost reference-bandwidth 100
```
- All Routers
 

```
router ospf 1
auto-cost reference-bandwidth 1000
```

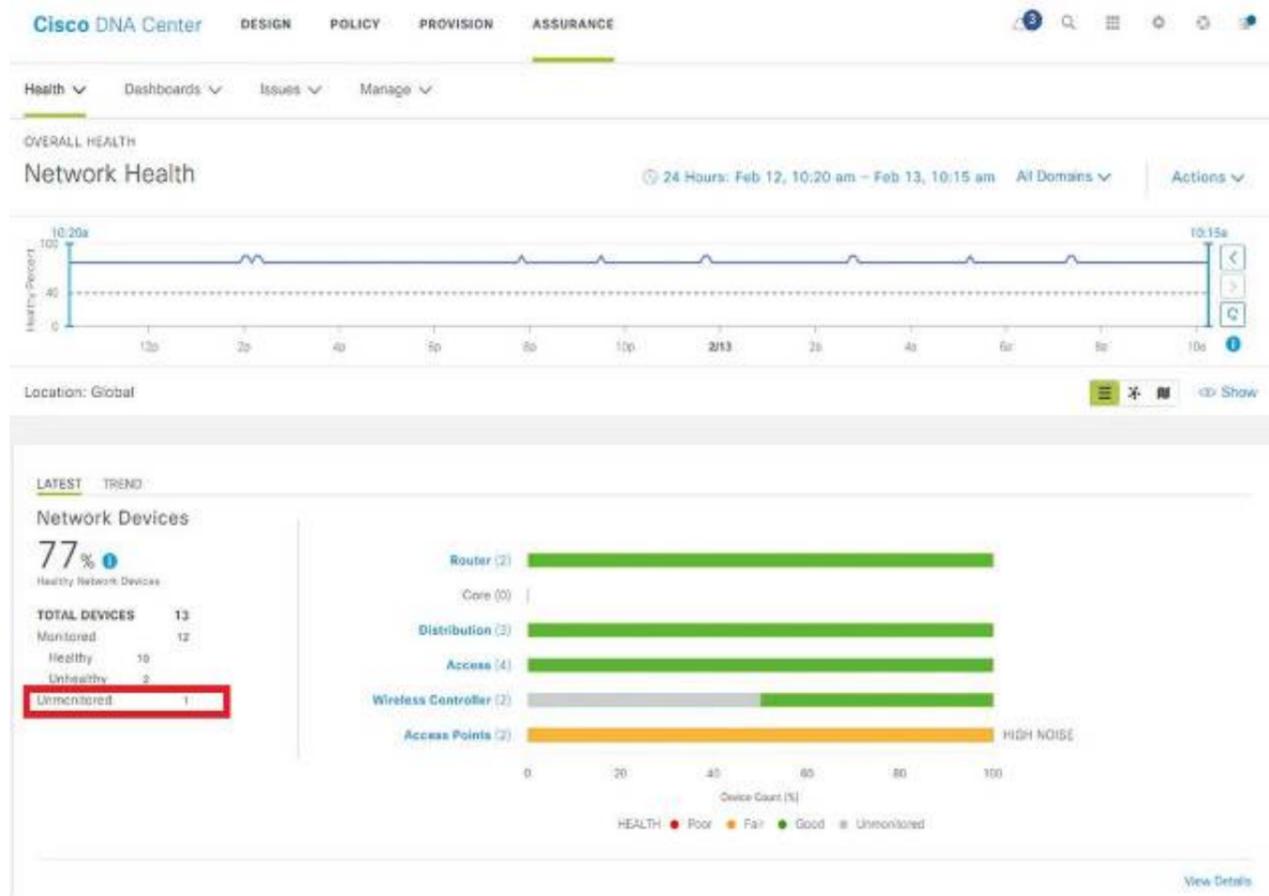
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

**NEW QUESTION 264**

- (Exam Topic 2)

Refer to Exhibit.



A network administrator added one router in the Cisco DNA Center and checked its discovery and health from the Network Health Dashboard. The network administrator observed that the router is still showing up as unmonitored. What must be configured on the router to mount it in the Cisco DNA Center?

- A. Configure router with NetFlow data
- B. Configure router with the telemetry data
- C. Configure router with routing to reach Cisco DNA Center
- D. Configure router with SNMPv2c or SNMPv3 traps

Answer: B

**Explanation:**

Unmonitored: Unmonitored devices are devices for which Assurance did not receive any telemetry data during the specified time range.

**NEW QUESTION 267**

- (Exam Topic 1)

An engineer configured a company’s multiple area OSPF head office router and Site A cisco routers with VRF lite. Each site router is connected to a PE router of an MPLS backbone.

```

Head Office & Site A
ip cef
ip vrf abc
rd 101:101
!
interface FastEthernet0/0
ip vrf forwarding abc
ip address 172.16.16.X 255.255.255.252
!
router ospf 1 vrf abc
log-adjacency-changes
network 172.16.16.0 0.0.0.255 area 1

```

After finishing both site router configurations, none of the LSA 3,4 5, and 7 are installed at Site A router. Which configuration resolves this issue?

- A. configure capability vrf-lite on Site A and its connected PE router under router ospf 1 vrf abc
- B. configure capability vrf-lite on Head Office and its connected PE router under router ospf 1 vrf abc
- C. configure capability vrf-lite on both PE routers connected to Head Office and Site A routers under router ospf 1 vrf abc
- D. configure capability vrf-lite on Head Office and Site A routers under router ospf 1 vrf abc

**Answer: C**

#### NEW QUESTION 269

- (Exam Topic 1)

What is the role of a route distinguisher via a VRF-Lite setup implementation?

- A. It extends the IP address to identify which VFP instance it belongs to.
- B. It manages the import and export of routes between two or more VRF instances
- C. It enables multicast distribution for VRF-Lite setups to enhance EGP routing protocol capabilities
- D. It enables multicast distribution for VRF-Lite setups to enhance IGP routing protocol capabilities

**Answer: A**

#### NEW QUESTION 271

- (Exam Topic 1)

Refer to the exhibit.

```

access-list 100 deny tcp any any eq 465
access-list 100 deny tcp any eq 465 any
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any eq 80 any
access-list 100 permit udp any any eq 443
access-list 100 permit udp any eq 443 any

```

During troubleshooting it was discovered that the device is not reachable using a secure web browser. What is needed to fix the problem?

- A. permit tcp port 443
- B. permit udp port 465
- C. permit tcp port 465
- D. permit tcp port 22

**Answer: A**

#### NEW QUESTION 275

- (Exam Topic 1)

What is a prerequisite for configuring BFD?

- A. Jumbo frame support must be configured on the router that is using BFD.
- B. All routers in the path between two BFD endpoints must have BFD enabled.
- C. Cisco Express Forwarding must be enabled on all participating BFD endpoints.
- D. To use BFD with BGP, the timers 3 9 command must first be configured in the BGP routing process.

**Answer: C**

#### Explanation:

Reference: [https://www.cisco.com/c/en/us/td/docs/ios/12\\_0s/feature/guide/fs\\_bfd.html#wp1043332](https://www.cisco.com/c/en/us/td/docs/ios/12_0s/feature/guide/fs_bfd.html#wp1043332)

#### NEW QUESTION 276

- (Exam Topic 1)

Which statement about route distinguishers in an MPLS network is true?

- A. Route distinguishers allow multiple instances of a routing table to coexist within the edge router.
- B. Route distinguishers are used for label bindings.
- C. Route distinguishers make a unique VPNv4 address across the MPLS network.
- D. Route distinguishers define which prefixes are imported and exported on the edge router.

**Answer: C**

**NEW QUESTION 278**

- (Exam Topic 1)

After some changes in the routing policy, it is noticed that the router in AS 45123 is being used as a transit AS router for several service providers. Which configuration ensures that the branch router in AS 45123 advertises only the local networks to all SP neighbors?

- A)
 

```
ip as-path access-list 1 permit ^45123
|
router bgp 45123
 neighbor SP-Neighbors filter-list 1 out
```
- B)
 

```
ip as-path access-list 1 permit .*
|
router bgp 45123
 neighbor SP-Neighbors filter-list 1 out
```
- C)
 

```
ip as-path access-list 1 permit ^45123$
|
router bgp 45123
 neighbor SP-Neighbors filter-list 1 out
```
- D)
 

```
ip as-path access-list 1 permit ^$
|
router bgp 45123
 neighbor SP-Neighbors filter-list 1 out
```

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

**Answer: D**

**Explanation:**

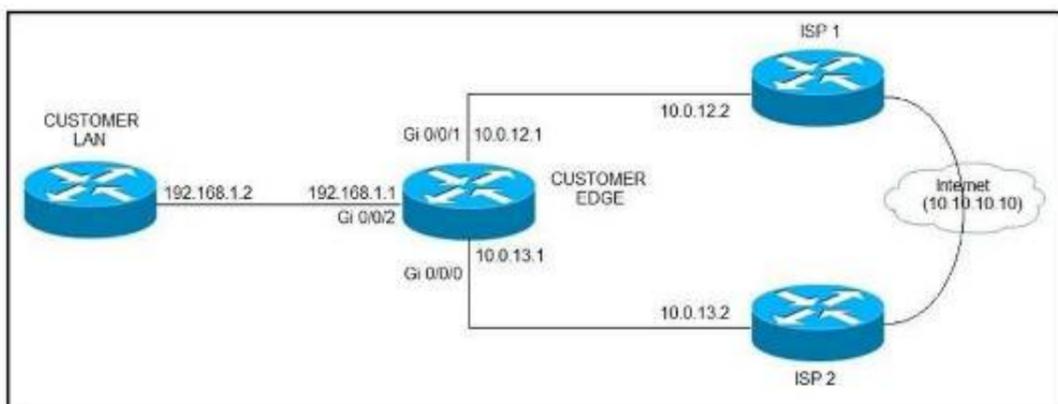
By default BGP advertises all prefixes to external BGP neighbors. This means that if you are multi-homed (connected to two or more ISPs) then you might become a transit AS. For example, ISP 2 in AS 200 can send traffic to your router in AS 100 to reach ISP 3 in AS 300 because you advertised prefixes in ISP 3 to ISP 2. This is what will be seen in the BGP routing table of ISP1:

```
ISP1#show ip bgp
--output omitted--
Network      Next Hop      Metric LocPrf Weight Path
....
*> 3.3.3.0/24 192.168.12.1      0 100 300 i
```

**NEW QUESTION 282**

- (Exam Topic 1)

Refer to the exhibit.



ISP 1 and ISP 2 directly connect to the Internet. A customer is tracking both ISP links to achieve redundancy and cannot see the Cisco IOS IP SLA tracking output on the router console. Which command is missing from the IP SLA configuration?

- A. Start-time 00:00
- B. Start-time 0
- C. Start-time immediately
- D. Start-time now

**Answer: D**

**Explanation:**

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla\\_icmp\\_echo.htm](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla_icmp_echo.htm)

**NEW QUESTION 286**

- (Exam Topic 1)

Refer to the exhibit.

```
R1(config)#route-map ADD permit 20
R1(config-route-map)#set tag 1

R1(config)#router ospf1
R1(config-router)#redistribute rip subnets route-map ADD
```

Which statement about R1 is true?

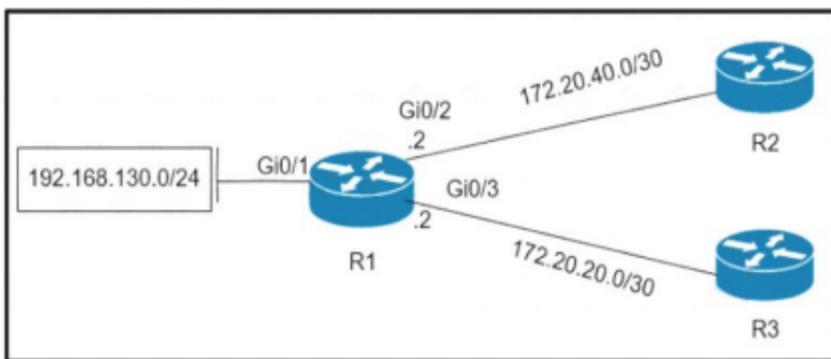
- A. OSPF redistributes RIP routes only if they have a tag of one.
- B. RIP learned routes are distributed to OSPF with a tag value of one.
- C. R1 adds one to the metric for RIP learned routes before redistributing to OSPF.
- D. RIP routes are redistributed to OSPF without any changes.

**Answer: B**

**NEW QUESTION 290**

- (Exam Topic 1)

Refer to the exhibit.



Which configuration configures a policy on R1 to forward any traffic that is sourced from the 192.168.130.0/24 network to R2?

- A. 

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.2
```
- B. 

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.2
```
- C. 

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.1
```
- D. 

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.1
```

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

**Answer: D**

**NEW QUESTION 294**

- (Exam Topic 1)

Drag and drop the DHCP messages from the left onto the correct uses on the right.

DHCPACK	server-to-client communication, refusing the request for configuration parameters
DHCPINFORM	client-to-server communication, indicating that the network address is already in use
DHCPNAK	server-to-client communication with configuration parameters, including committed network address
DHCPDECLINE	client-to-server communication, asking for only local configuration parameters that the client has already externally configured as an address

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

DHCPACK

The server-to-client communication with configuration parameters, including committed network address. DHCPINFORM

The client-to-server communication, asking for only local configuration parameters that the client already has externally configured as an address.

DHCPNAK

The server-to-client communication, refusing the request for configuration parameter. DHCPDECLINE

The client-to-server communication, indicating that the network address is already in use

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/dynamic-address-allocation-resolution/27470-100.html>

DHCPINFORM: If a client has obtained a network address through some other means or has a manually configured IP address, a client workstation may use a DHCPINFORM request message to obtain other local configuration parameters, such as the domain name and Domain Name Servers (DNSs). DHCP servers receiving a DHCPINFORM message construct a DHCPACK message with any local configuration parameters appropriate for the client without allocating a new IP address. This DHCPACK will be sent unicast to the client.

DHCPNAK: If the selected server is unable to satisfy the DHCPREQUEST message, the DHCP server will respond with a DHCPNAK message. When the client receives a DHCPNAK message, or does not receive a response to a DHCPREQUEST message, the client restarts the configuration process by going into the Requesting state. The client will retransmit the DHCPREQUEST at least four times within 60 seconds before restarting the Initializing state.

DHCPACK: After the DHCP server receives the DHCPREQUEST, it acknowledges the request with a DHCPACK message, thus completing the initialization process.

DHCPDECLINE: The client receives the DHCPACK and will optionally perform a final check on the parameters. The client performs this procedure by sending Address Resolution Protocol (ARP) requests for the IP address provided in the DHCPACK. If the client detects that the address is already in use by receiving a reply to the ARP request, the client will send a DHCPDECLINE message to the server and restart the configuration process by going into the Requesting state.

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/dynamic-address-allocation-resolution/27470-100.html>

**NEW QUESTION 295**

- (Exam Topic 1)

Refer to the exhibit.

```
BRANCH-RTR#
router eigrp 100
network 10.4.31.0 0.0.0.7
network 10.100.100.1 0.0.0.0
distribute-list route-map FILTER-IN in FastEthernet0/0
eigrp router-id 10.100.100.1
!
ip prefix-list 102 seq 10 permit 10.1.1.100/32
!
route-map FILTER-IN deny 10
match ip address prefix-list 102
!
```

A junior engineer updated a branch router configuration. Immediately after the change, the engineer receives calls from the help desk that branch personnel cannot reach any network destinations. Which configuration restores service and continues to block 10.1.1.100/32?

- A. route-map FILTER-IN deny 5
- B. ip prefix-list 102 seq 15 permit 0.0.0.0/32 le 32
- C. ip prefix-list 102 seq 5 permit 0.0.0.0/32 le 32
- D. route-map FILTER-IN permit 20

**Answer:** D

**Explanation:**

By using "deny" keyword in a route-map, we can filter out the prefix specified in the prefix-list. But there is an implicit "deny all" statement in the prefix-list so we must permit other prefixes with "permit" keyword in the route-map.

**NEW QUESTION 300**

- (Exam Topic 1)

Refer to the exhibit.

```

Router Configuration:

ip vrf customer_a
 rd 1:1
 route-target export 1:1
 route-target import 1:1
 !
 !
interface FastEthernet0.1
 encapsulation dot1Q 2
 ip vrf forwarding customer_a
 ip address 192.168.4.1 255.255.255.0
 !
router ospf 1
 log-adjacency-changes
 !
router ospf 2 vrf customer_a
 log-adjacency-changes
 network 192.168.4.0 0.0.0.255 area 0
 !
end

```

The network administrator configured VRF lite for customer A. The technician at the remote site misconfigured VRF on the router. Which configuration will resolve connectivity for both sites of customer\_a?

- ip vrf customer\_a  
rd 1:1  
route-target export 1:2  
route-target import 1:2
- ip vrf customer\_a  
rd 1:1  
route-target import 1:1  
route-target export 1:2
- ip vrf customer\_a  
rd 1:2  
route-target both 1:2
- ip vrf customer\_a  
rd 1:2  
route-target both 1:1

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

**Answer: D**

**Explanation:**

From the exhibit, we learned:

+ VRF customer\_a was exported with Route target (RT) of 1:1 so at the remote site it must be imported with the same RT 1:1.

+ VRF customer\_a was imported with Route target (RT) of 1:1 so at the remote site it must be exported with the same RT 1:1.

Therefore at the remote site we must configure the command "route-target both 1:1" (which is equivalent to two commands "route-target import 1:1" & "route-target export 1:1").

**NEW QUESTION 303**

- (Exam Topic 1)

A network engineer needs to verify IP SLA operations on an interface that shows on indication of excessive traffic.

Which command should the engineer use to complete this action?

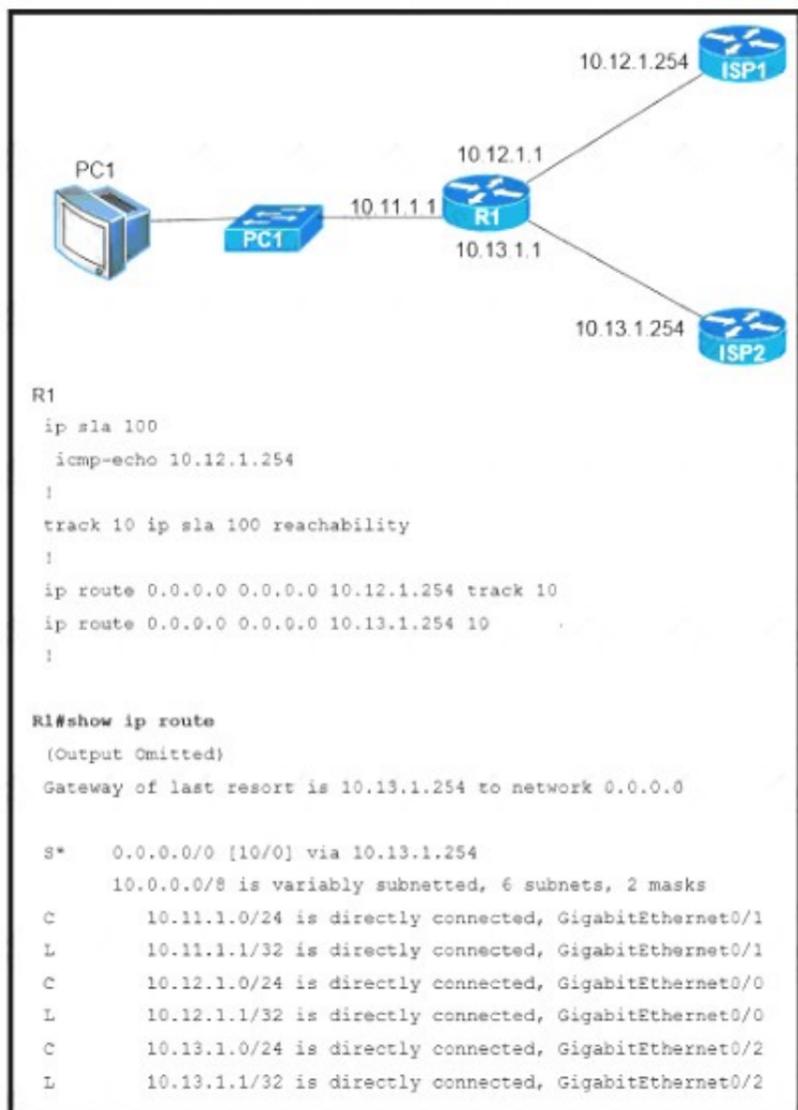
- A. show frequency
- B. show track
- C. show reachability
- D. show threshold

**Answer: B**

**NEW QUESTION 305**

- (Exam Topic 1)

Refer to the exhibit.



An engineer is monitoring reachability of the configured default routes to ISP1 and ISP2. The default route from ISP1 is preferred if available. How is this issue resolved?

- A. Use the icmp-echo command to track both default routes
- B. Use the same AD for both default routes
- C. Start IP SLA by matching numbers for track and ip sla commands
- D. Start IP SLA by defining frequency and scheduling it

Answer: D

**Explanation:**

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/ip-routing/200785-ISP-Failover-with-default-routes-using-l.html>

In the above configuration we have not had activated our IP SLA operation. We can start it with this command:

R1(config)#ip sla schedule 100 life forever start-time now Also we should specific the rate of ICMP echo:

R1(config-ip-sla-echo)#frequency 5 // Send ICMP echo every 5 seconds

**NEW QUESTION 310**

- (Exam Topic 1)

Which command displays the IP routing table information that is associated with VRF-Lite?

- A. show ip vrf
- B. show ip route vrf
- C. show run vrf
- D. show ip protocols vrf

Answer: B

**Explanation:**

Reference:

<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/50sg/configuration/guide/Wrapper-46SG>

**NEW QUESTION 314**

- (Exam Topic 1)

Which statement about IPv6 ND inspection is true?

- A. It learns and secures bindings for stateless autoconfiguration addresses in Layer 3 neighbor tables.
- B. It learns and secures bindings for stateless autoconfiguration addresses in Layer 2 neighbor tables.
- C. It learns and secures bindings for stateful autoconfiguration addresses in Layer 3 neighbor tables.
- D. It learns and secures bindings for stateful autoconfiguration addresses in Layer 2 neighbor tables.

Answer: B

**Explanation:**

IPv6 ND inspection learns and secures bindings for stateless autoconfiguration addresses in Layer 2 neighbor tables. IPv6 ND inspection analyzes neighbor discovery messages in order to build a trusted binding table database, and IPv6 neighbor discovery messages that do not have valid bindings are dropped. A

neighbor discovery message is considered trustworthy if its IPv6-to-MAC mapping is verifiable.

This feature mitigates some of the inherent vulnerabilities for the neighbor discovery mechanism, such as attacks on duplicate address detection (DAD), address resolution, device discovery, and the neighbor cache.

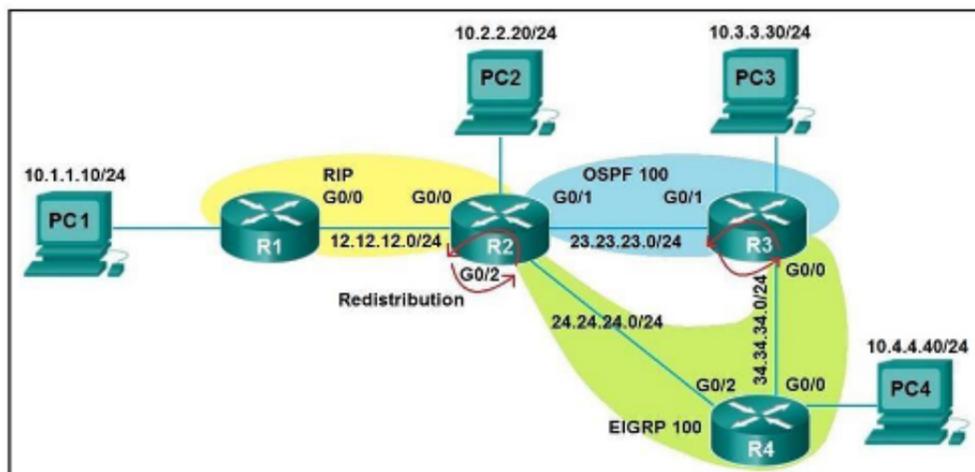
Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/15-s/ipv6f-15-s-book/ip6-snooping.p](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/15-s/ipv6f-15-s-book/ip6-snooping.p)

**NEW QUESTION 315**

- (Exam Topic 1)

Refer to the exhibit.



After redistribution is enabled between the routing protocols; PC2, PC3, and PC4 cannot reach PC1. Which action can the engineer take to solve the issue so that all the PCs are reachable?

- A. Set the administrative distance 100 under the RIP process on R2.
- B. Filter the prefix 10.1.1.0/24 when redistributed from OSPF to EIGRP.
- C. Filter the prefix 10.1.1.0/24 when redistributed from RIP to EIGRP.
- D. Redistribute the directly connected interfaces on R2.

**Answer: A**

**NEW QUESTION 317**

- (Exam Topic 1)

Refer to the exhibit.

```
Router# show tag-switching tdp bindings
(...)
tib entry: 10.10.10.1/32, rev 31
  local binding: tag: 18
  remote binding: tsr: 10.10.10.1:0, tag: imp-null
  remote binding: tsr: 10.10.10.2:0, tag: 18
  remote binding: tsr: 10.10.10.6:0, tag: 21
tib entry: 10.10.10.2/32, rev 22
  local binding: tag: 17
  remote binding: tsr: 10.10.10.2:0, tag: imp-null
  remote binding: tsr: 10.10.10.1:0, tag: 19
  remote binding: tsr: 10.10.10.6:0, tag: 22
```

What does the imp-null tag represent in the MPLS VPN cloud?

- A. Pop the label
- B. Impose the label
- C. Include the EXP bit
- D. Exclude the EXP bit

**Answer: A**

**Explanation:**

The imp-null (implicit null) tag instructs the upstream router to pop the tag entry off the tag stack before forwarding the packet.

Note: pop means remove the top MPLS label

**NEW QUESTION 322**

- (Exam Topic 1)

Which label operations are performed by a label edge router?

- A. SWAP and POP
- B. SWAP and PUSH
- C. PUSH and PHP
- D. PUSH and POP

**Answer: D**

**Explanation:**

A label edge router (LER, also known as edge LSR) is a router that operates at the edge of an MP and acts as the entry and exit points for the network. LERs push an MPLS label onto an incoming packet and pop it off an outgoing packet.

Reference:

### NEW QUESTION 326

- (Exam Topic 1)

Refer to the exhibit.

```

config t
flow record v4_r1
match ipv4 tos
match ipv4 protocol
match ipv4 source address
match ipv4 destination address
match transport source-port
match transport destination-port
collect counter bytes long
collect counter packets long
!
flow exporter EXPORTER-1
destination 172.16.10.2
transport udp 90
exit
!
flow monitor FLOW-MONITOR-1
record v4_r1
exit
!
ip cef
!
interface Ethernet0/0.1
ip address 172.16.6.2 255.255.255.0
ip flow monitor FLOW-MONITOR-1 input
!

```

Why is the remote NetFlow server failing to receive the NetFlow data?

- A. The flow exporter is configured but is not used.
- B. The flow monitor is applied in the wrong direction.
- C. The flow monitor is applied to the wrong interface.
- D. The destination of the flow exporter is not reachable.

**Answer:** A

### NEW QUESTION 331

- (Exam Topic 1)

Which protocol is used to determine the NBMA address on the other end of a tunnel when mGRE is used?

- A. NHRP
- B. IPsec
- C. MP-BGP
- D. OSPF

**Answer:** A

### NEW QUESTION 336

- (Exam Topic 1)

An engineer configured a leak-map command to summarize EIGRP routes and advertise specifically loopback 0 with an IP of 10.1.1.1.255.255.255.252 along with the summary route. After finishing configuration, the customer complained not receiving summary route with specific loopback address. Which two configurations will fix it? (Choose two.)

```

router eigrp 1
!
route-map Leak-Route deny 10
!
interface Serial 0/0
ip summary-address eigrp 1 10.0.0.0 255.0.0.0 leak-map Leak-Route

```

- A. Configure access-list 1 permit 10.1.1.0.0.0.3.
- B. Configure access-list 1 permit 10.1.1.1.0.0.0.252.
- C. Configure access-list 1 and match under route-map Leak-Route.
- D. Configure route-map Leak-Route permit 10 and match access-list 1.
- E. Configure route-map Leak-Route permit 20.

**Answer:** AD

**Explanation:**

When you configure an EIGRP summary route, all networks that fall within the range of your summary are suppressed and no longer advertised on the interface. Only the summary route is advertised. But if we want to advertise a network that has been suppressed along with the summary route then we can use leak-map feature. The below commands will fix the configuration in this question:

```
R1(config)#access-list 1 permit 10.1.1.0 0.0.0.3
```

```
R1(config)#route-map Leak-Route permit 10 // this command will also remove the "route_map Leak-Route deny 10" command.
```

```
R1(config-route-map)#match ip address 1
```

### NEW QUESTION 338

- (Exam Topic 1)

Refer to the exhibit.

```
R1#show policy-map control-plane
Control Plane
Class-map: NMS (match-all)
 500461 packets, 24038351 bytes
 5 minute offered rate 1390000 bps, drop rate 0 bps
police:
  cir 50000 bps, bc 5000 bytes
conformed 50444 packets, 24031001 bytes; actions:
transmit
exceeded 990012 packets, 94030134 bytes; actions
drop conformed 4000 bps, exceed 0 bps
R1#
```

A company is evaluating multiple network management system tools. Trending graphs generated by SNMP data are returned by the NMS and appear to have multiple gaps. While troubleshooting the issue, an engineer noticed the relevant output. What solves the gaps in the graphs?

- A. Remove the exceed-rate command in the class map.
- B. Remove the class map NMS from being part of control plane policing.
- C. Configure the CIR rate to a lower value that accommodates all the NMS tools
- D. Separate the NMS class map in multiple class maps based on the specific protocols with appropriate CoPP actions

**Answer: D**

#### Explanation:

Reference: [https://tools.cisco.com/security/center/resources/copp\\_best\\_practices](https://tools.cisco.com/security/center/resources/copp_best_practices)

The class-map NMS in the exhibit did not classify traffic into specific protocols so many packets were dropped. We should create some class-map to classify the receiving traffic. It is also a recommendation of CoPP/CP policy:

"Developing a CPP policy starts with the classification of the control plane traffic. To that end, the control plane traffic needs to be first identified and separated into different class maps."

### NEW QUESTION 340

.....

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