

# Cisco

## Exam Questions 300-410

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)



**NEW QUESTION 1**

- (Exam Topic 3)

```
enable secret 5 <password>
username cisco privilege 15 secret 5 <password>
username operator password 7 <password>
line vty 0 4
session-timeout 240
password 7 <password>
transport input telnet
```

Refer to the exhibit. The authentication is not working as desired and the user drops into user-exec mode. Which configuration resolves the issue?

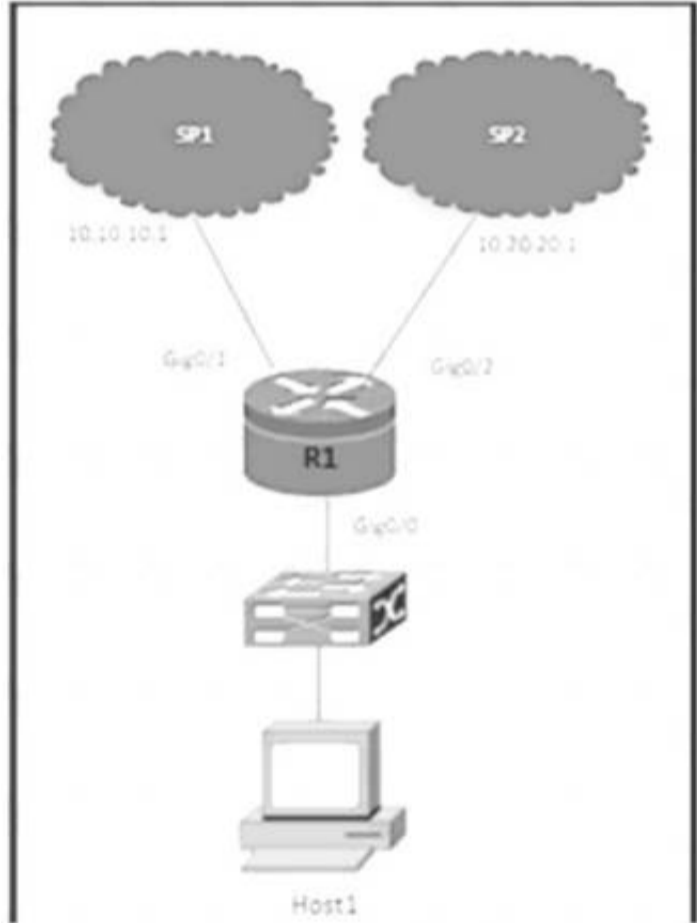
- ☒ `aaa new-model`  
`aaa authentication login default local`  
`aaa authorization exec default local`  
`!`  
`line vty 0 4`  
`login authentication default`  
`authorization exec default`
- ☐ `aaa new-model`  
`aaa authentication login default local`  
`aaa authorization priv default 15`  
`!`  
`line vty 0 4`  
`login authentication default`  
`authorization exec priv15`
- ☐ `aaa new-model`  
`aaa authentication login local`  
`aaa authorization exec local`  
`!`  
`line vty 0 4`  
`login authentication local`  
`authorization exec default`
- ☐ `aaa new-model`  
`aaa authentication common-id default local`  
`aaa authorization exec default local`  
`!`  
`line vty 0 4`  
`login authentication default`  
`authorization exec default`

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

**Answer: C**

**NEW QUESTION 2**

- (Exam Topic 3)



Refer to the exhibit. R1 uses SP1 as the primary path. A network engineer must force all SSH traffic generated from R1 toward SP2. Which configuration accomplishes the task?

A)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
!
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
!
interface Gig0/0
 ip policy route-map PBR_SSH
```

B)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
!
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.10.10.1
!
ip local policy route-map PBR_SSH
```

C)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
!
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
!
ip local policy route-map PBR_SSH
```

D)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
!
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
!
interface Gig0/1
 ip policy route-map PBR_SSH
```

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

**Answer: C**

### NEW QUESTION 3

- (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?

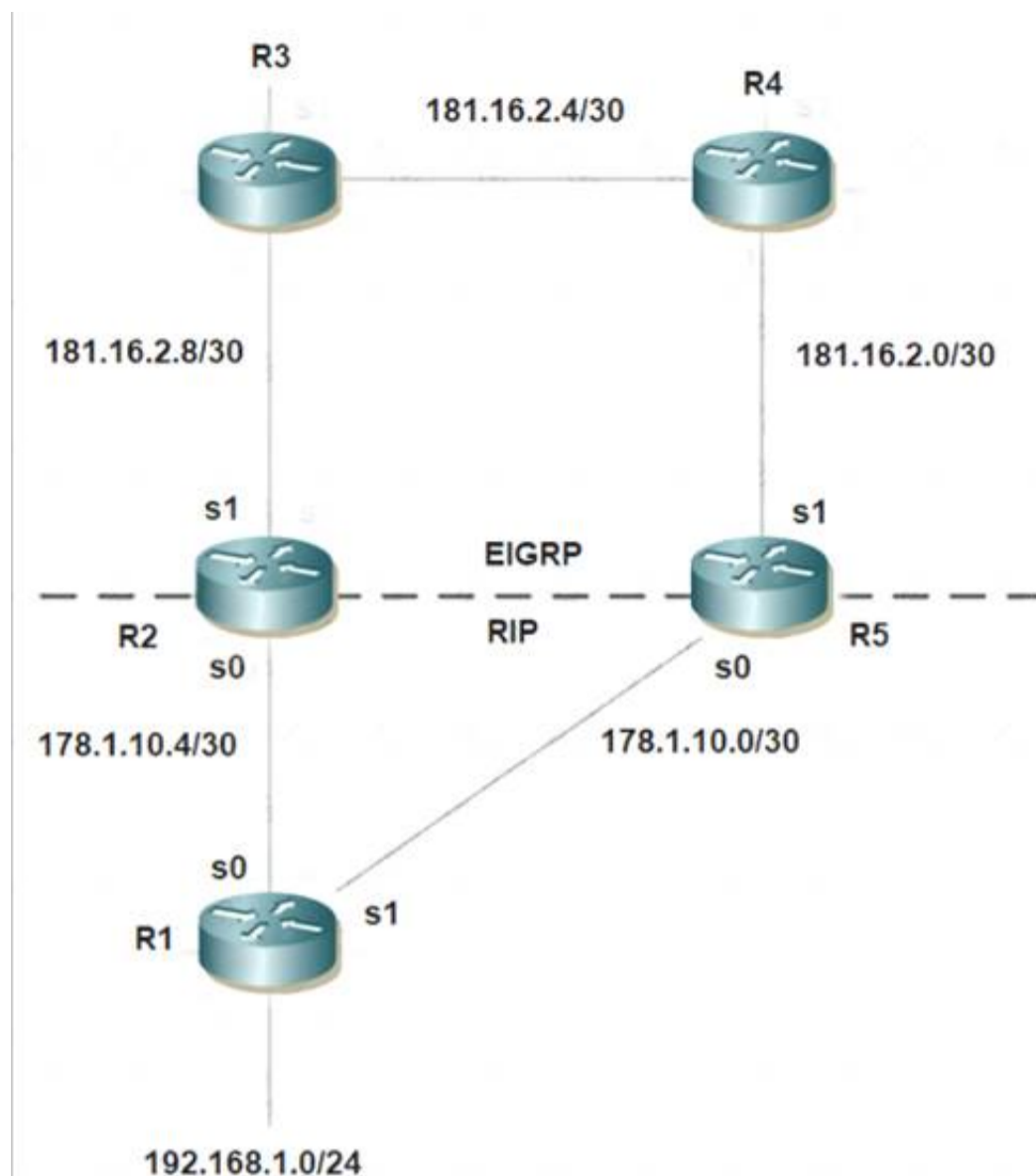
- A. access-list 1 permit 10.10.10.0 0.0.0.255 access-list 2 permit any route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5! route-map CCNP permit 20 match ip address 2 set ip next-hop 10.1.1.2 set ip precedence 0 route-map CCNP permit 30
- B. access-list 100 permit 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 4

- (Exam Topic 3)

Refer to the exhibit.



Mutual redistribution is enabled between RIP and EIGRP on R2 and R5. Which configuration resolves the routing loop for the 192.168.1.0/24 network?

- A. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- B. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- C. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- D. R2:router eigrp 7network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 7 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 7network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 7 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any

**Answer: D**

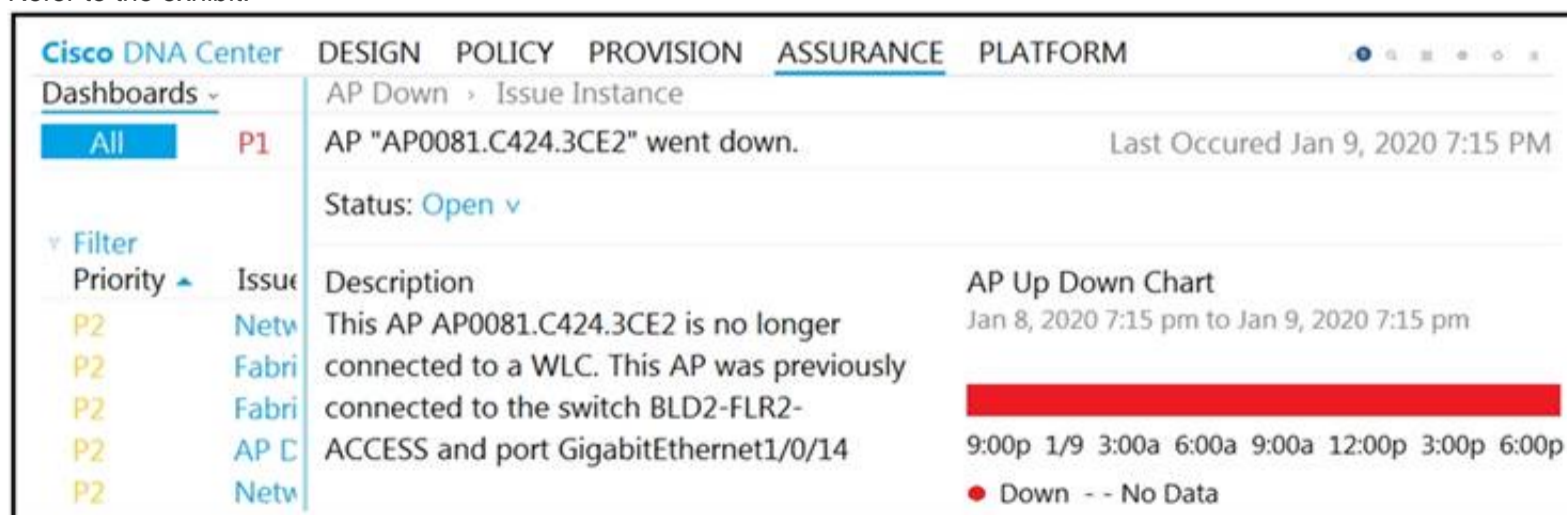
**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8606-redist.html>

**NEW QUESTION 5**

- (Exam Topic 3)

Refer to the exhibit.



The AP status from Cisco DNA Center Assurance Dashboard shows some physical connectivity issues from access switch interface G1/0/14. Which command generates the diagnostic data to resolve the physical connectivity issues?

- A. test cable diagnostics tdr interface GigabitEthernet1/0/14  
B. Check cable-diagnostics tdr interface GigabitEthernet1/0/14  
C. show cable-diagnostics tdr interface GigabitEthernet1/0/14  
D. Verify cable-diagnostics tdr interface GigabitEthernet1/0/14

**Answer: A**

**Explanation:**

The Time Domain Reflectometer (TDR) feature allows you to determine if a cable is OPEN or SHORT when it is at fault.

To start the TDR test, perform this task:

Step 1 (Starts the TDR test): test cable-diagnostics tdr {interface {interface-number}}

Step 2 (Displays the TDR test counter information): show cable-diagnostics tdr {interface interface-number}

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9600/software/release/16-11/configuration\\_guide/int\\_hw/b\\_1611\\_int\\_and\\_hw\\_9600\\_cg/checking\\_port\\_status\\_and\\_connectivity.pdf](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9600/software/release/16-11/configuration_guide/int_hw/b_1611_int_and_hw_9600_cg/checking_port_status_and_connectivity.pdf)

Text, table Description automatically generated

TDR test started on interface Gi1/0/14  
 A TDR test can take a few seconds to run on an interface  
 Use 'show cable-diagnostics tdr' to read the TDR results.

Wait 10 seconds and then issue the command to show the cable diagnostics result:

```
TDR test last run on: December 05 18:50:53

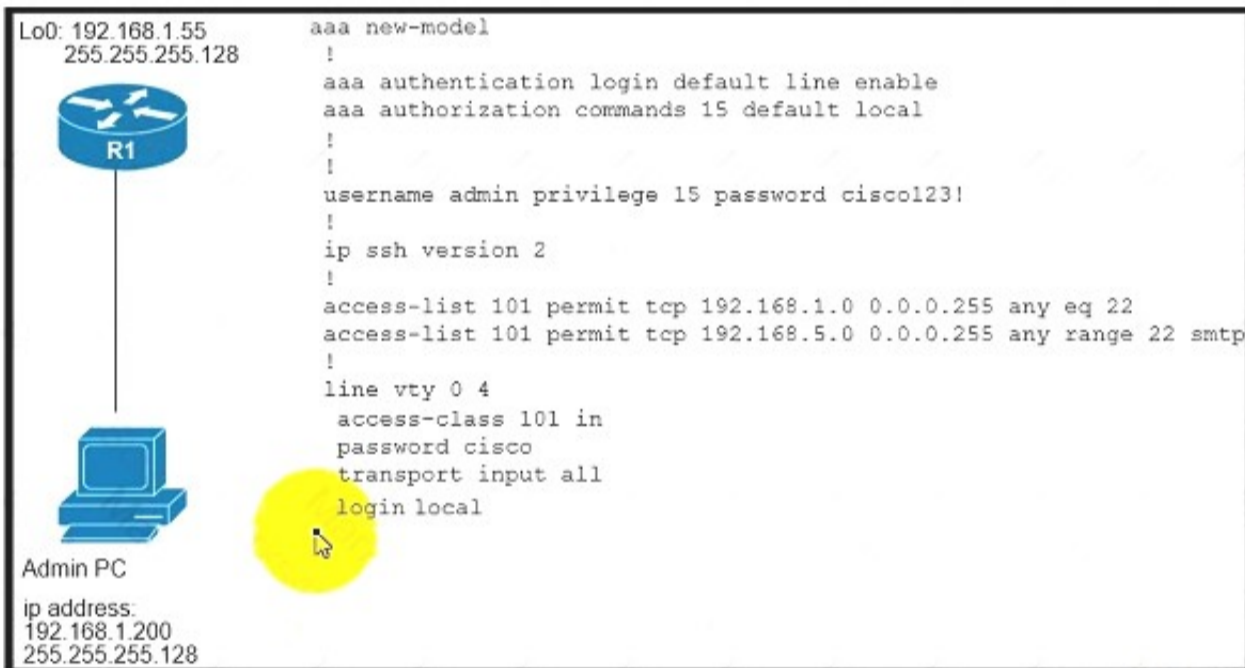
Interface Speed Local pair Pair length Remote pair Pair status
Gi1/0/14 1000M Pair A 19 +/- 10 meters Pair B Normal
          Pair B 19 +/- 10 meters Pair A Normal
          Pair C 19 +/- 10 meters Pair D Normal
          Pair D 19 +/- 10 meters Pair C Normal
```

Notice that the results are "Normal" in the above example. Other results can be:

- + Open: Open circuit. This means that one (or more) pair has "no pin contact".
- + Short: Short circuit.
- + Impedance Mismatched: Bad cable.

**NEW QUESTION 6**

- (Exam Topic 3)



Refer to the exhibit. An engineer configured user login based on authentication database on the router, but no one can log into the router. Which configuration resolves the issue?

- A. aaa authentication login default enable
- B. aaa authorization network default local
- C. aaa authentication login default local
- D. aaa authorization exec default local

**Answer: C**

**NEW QUESTION 7**

- (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 8**

- (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 9

- (Exam Topic 3)

Refer to the exhibit.

```
R1#sh ip route
      10.0.0.0/8 is variably subnetted, 3 subnets, 1 masks
D       10.1.2.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
D       10.1.1.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
C       10.1.100.0/24 is directly connected, FastEthernet0/0
```

An engineer configures the router 10.1.100.10 for EIGRP autosummarization so that R1 should receive the summary route of 10.0.0.0/8. However, R1 receives more specific /24 routes.  
 Which action resolves this issue?

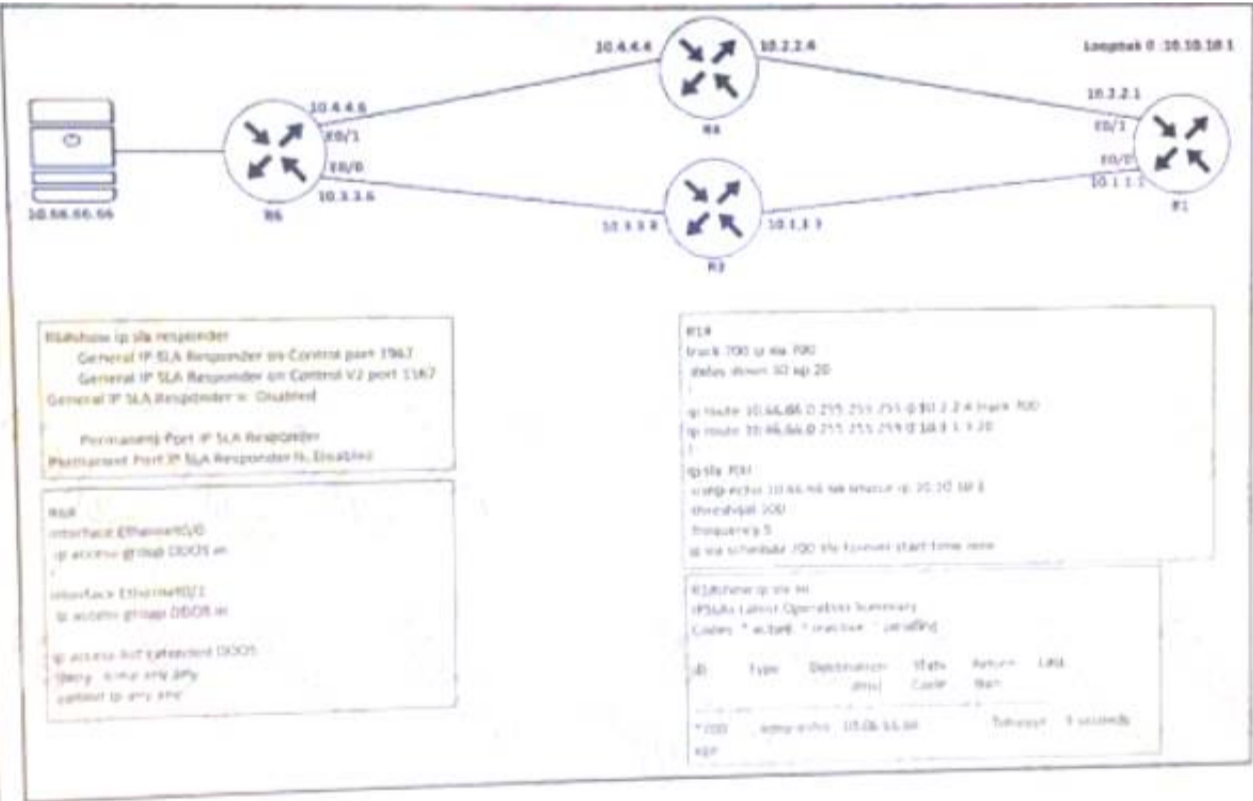
- A. Router R1 should configure ip summary address eigrp (AS number) 10.0.0.0 255.0.0.0 for the R1 Fast Ethernet 0/0 connected interface.
- B. Router R1 should configure ip route 10.0.0.0 255.0.0.0 null 0 for the routes that are received on R1.
- C. Router 10.1.100.10 should configure ip route 10.0.0.0 255.0.0.0 null 0 for the routes that are summarized toward R1.
- D. Router 10.1.100.10 should configure ip summary address eigrp (AS number) 10.0.0.0 255.0.0.0 for the R1 Fast Ethernet 0/0 connected interface.

**Answer: D**

#### NEW QUESTION 10

- (Exam Topic 3)

Refer to the exhibit.



A network administrator is trying to switch to the privileged EXEC level on R1 but failed. Which configuration resolves the issue?

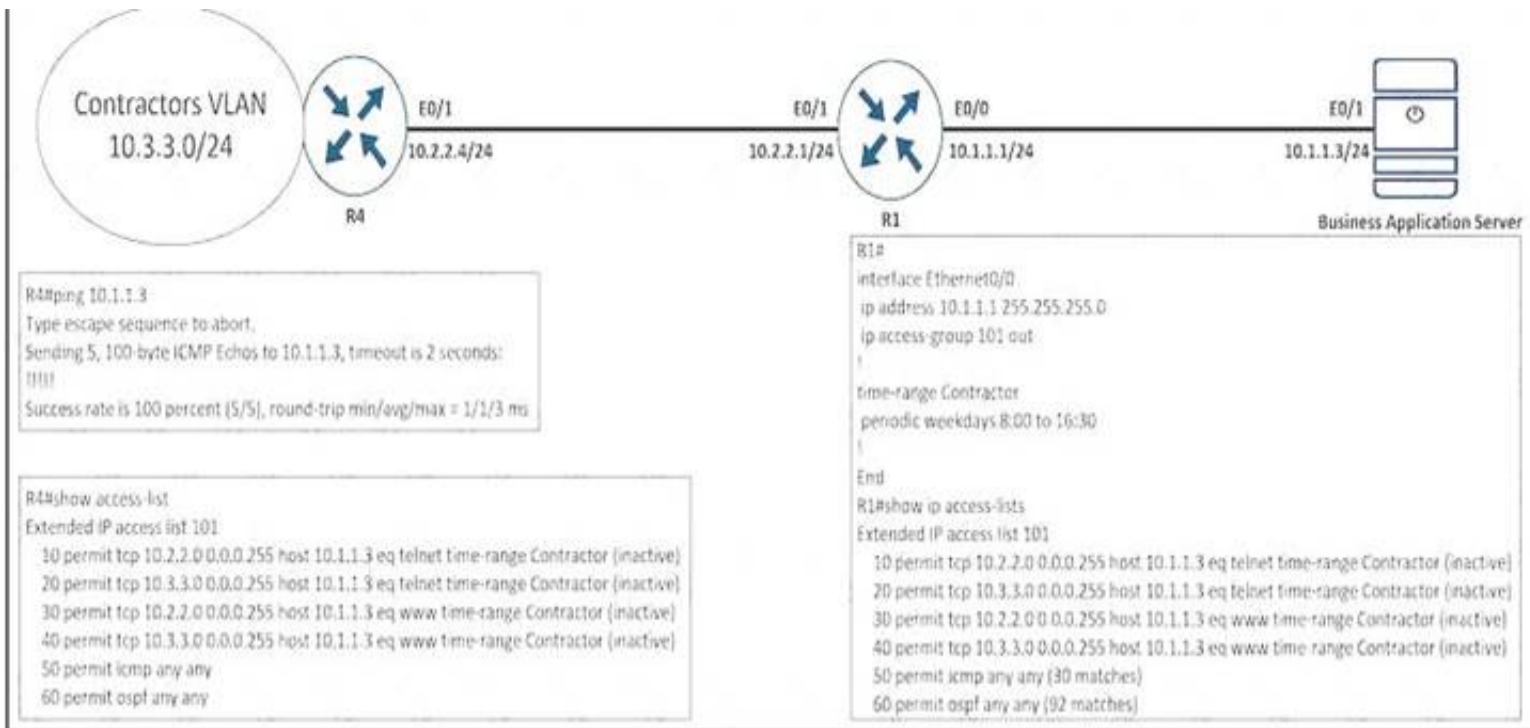
- A. Enable password Cisco@123
- B. tacass server enable-password Cisco@123
- C. tacacs-server enable-password Cisco@123
- D. enable-password Cisco@123

**Answer: D**

#### NEW QUESTION 10

- (Exam Topic 3)

Refer to the exhibit.



An engineer is troubleshooting failed access by contractors to the business application server via Telnet or HTTP during the weekend. Which configuration resolves the issue?

- A)  
**R1**  
**time-range Contractor**  
**no periodic weekdays 8:00 to 16:30**  
**periodic daily 8:00 to 16:30**
- B)  
**R4**  
**time-range Contractor**  
**no periodic weekdays 17:00 to 23:59**  
**periodic daily 8:00 to 16:30**
- C)  
**R4**  
**no access-list 101 permit tcp 10.3.3.0 0.0.0.255 host 10.1.1.3 eq telnet time-range Contractor**
- D)  
**R1**  
**no access-list 101 permit tcp 10.3.3.0 0.0.0.255 host 10.1.1.3 eq telnet time-range Contractor**

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

**Answer: A**

#### NEW QUESTION 12

- (Exam Topic 3)

Refer to the exhibit.

```

R1(config)#ip access-list standard EIGRP-FILTER
R1(config-std-nacl)#permit 10.10.10.0 0.0.0.255
R1(config)#router eigrp 10
R1(config-router)#distribute-list route-map EIGRP in
!
R1(config)#route-map EIGRP permit 10
R1(config-route-map)#match ip address EIGRP-FILTER
!
R1#show ip route eigrp
D    10.10.10.0/24
  
```

An engineer must filter incoming EIGRP updates to allow only a set of specific prefixes. The distribute list is tested, and it filters out all routes except network 10.10.10.0/24. How should the engineer temporarily allow all prefixes to be learned by the routers again without adjusting the existing access list?

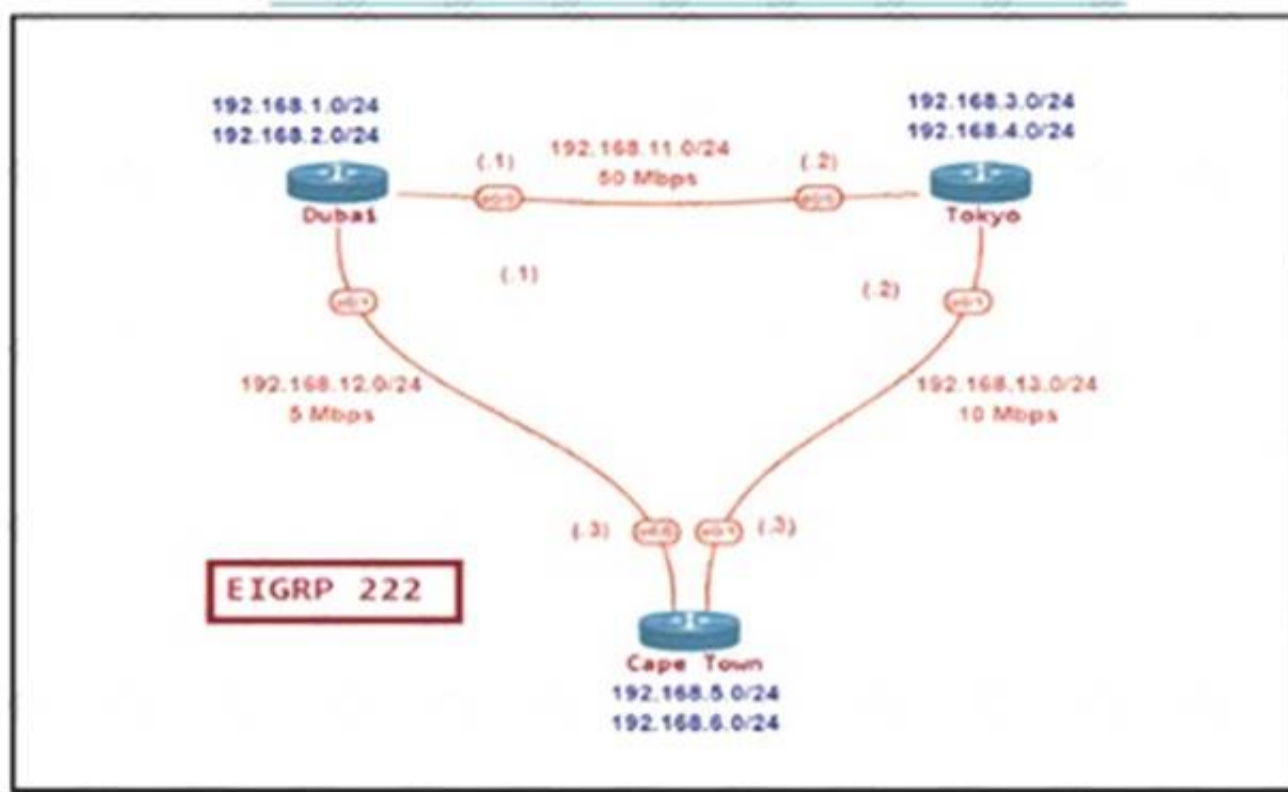
- A. A permit 20 statement should be added before completing the ACL with the required prefixes, and then the permit 20 statement can be removed.  
 B. A permit any statement should be added before completing the ACL with the required prefixes and then the permit any statement can be removed.  
 C. A continue statement should be added within the permit 10 statement before completing the ACL with the required prefixes, and then the continue statement can be removed.  
 D. An extended access list must be used instead of a standard access list to accomplish the task

**Answer: C**

#### NEW QUESTION 15

- (Exam Topic 3)

Refer to the exhibit.



```
D 192.168.2.0/24 [90/409600] via 192.168.12.1, 00:09:11, Ethernet0/0
D 192.168.3.0/24 [90/409600] via 192.168.13.2, 00:17:23, Ethernet0/1
D 192.168.4.0/24 [90/409600] via 192.168.13.2, 00:17:23, 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
D 192.168.11.0/24 [90/307200] via 192.168.13.2, 00:17:40, Ethernet0/1
[90/307200] via 192.168.12.1, 00:17:40, Ethernet0/0
192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.12.0/24 is directly connected, Ethernet0/0
L 192.168.12.3/32 is directly connected, Ethernet0/0
192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.13.0/24 is directly connected, Ethernet0/1
L 192.168.13.3/32 is directly connected, Ethernet0/1
```

The network administrator must configure Cape Town to reach Dubai via Tokyo based on the speeds provided by the service provider. It was noticed that Cape Town is reaching Dubai directly and failed to meet the requirement. Which configuration fixes the issue?

A)

Dubai

```
router eigrp 100
 variance 2
```

B)

CapeTown

```
router eigrp 100
 variance 2
```

C)

CapeTown

```
interface E 0/0
 bandwidth 5000
interface E 0/1
 bandwidth 10000
```

D)

## Cape Town

```
interface E 0/0
bandwidth 5000
interface E 0/1
bandwidth 10000
```

## Dubai

```
interface E 0/0
bandwidth 50000
interface E 0/1
bandwidth 5000
```

## Tokyo

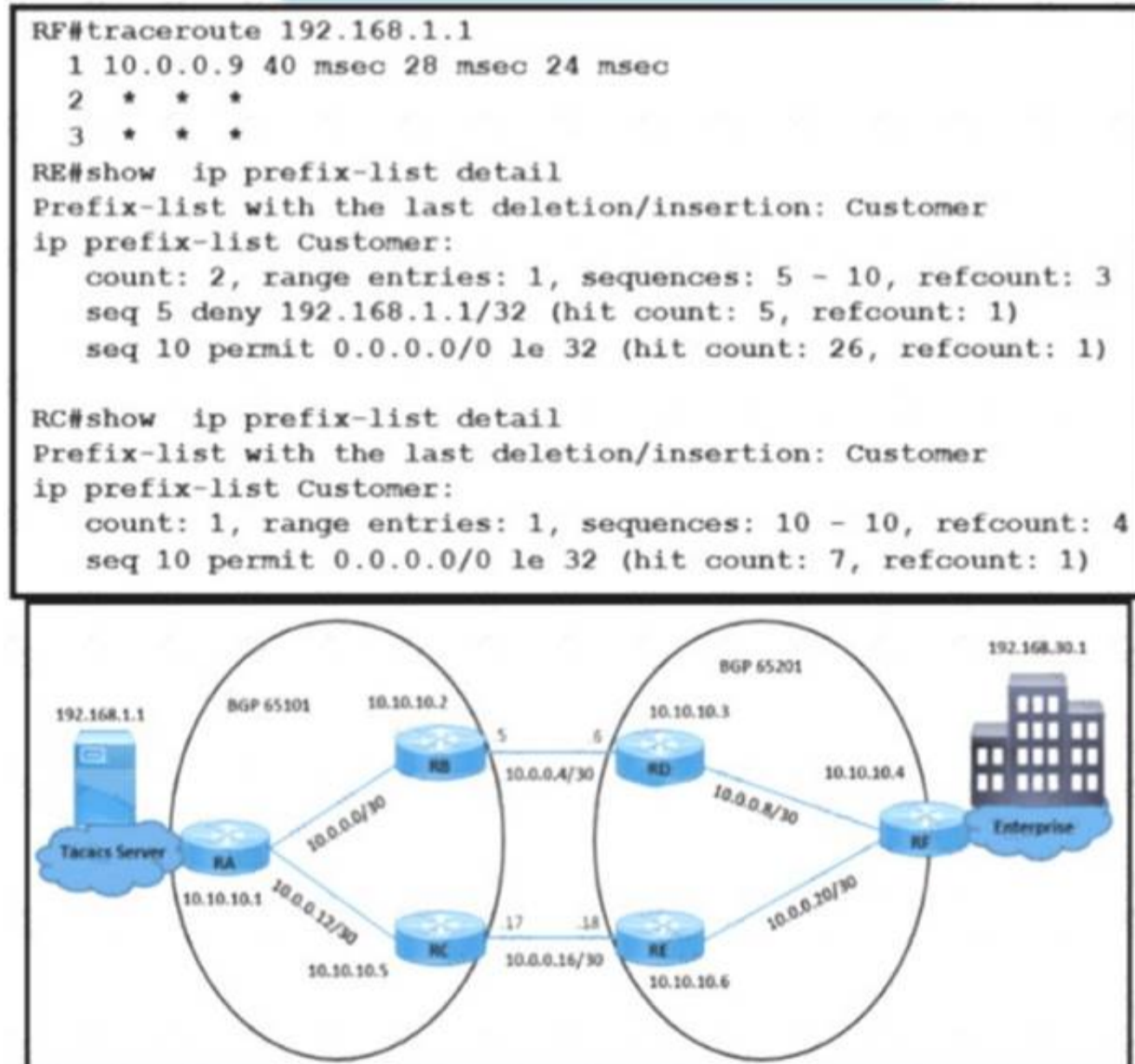
```
interface E 0/0
bandwidth 50000
interface E 0/1
bandwidth 10000
```

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

Answer: D

## NEW QUESTION 17

- (Exam Topic 3)



Refer to the exhibit The enterprise users fail to authenticate with the TACACS server when a direct fiber link fails between RB and RD The NOC team observes

- > Users connected on AS6201 fail to authenticate with TACACS server 192 168 1 1
- > Users connected on AS65101 successfully authenticate with TACACS server 192 168 1 1
- > All AS65101 and AS65201 users are configured to authenticate with the TACACS server

Which configuration resolves the issue?

A)  
 RC(config)# ip prefix-list Customer seq 5 permit 192.168.30.1/32

B)  
 RC(config)#router bgp 65101  
 RC(config-router)# neighbor 10.0.0.18 prefix-list Customer in

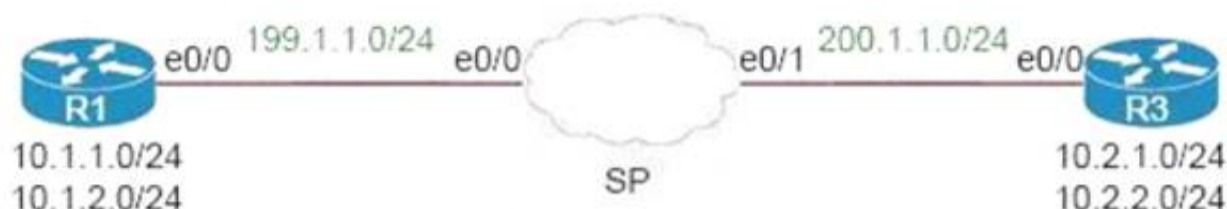
- C)  
`RF(config)#no ip prefix-list Customer seq 5 deny 192.168.1.1/32`
- D)  
`RF(config)#router bgp 65201`  
`RF(config-router)# neighbor 10.0.0.17 prefix-list Customer out`

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

**Answer: C**

#### NEW QUESTION 19

- (Exam Topic 3)  
 Refer to the exhibit.



An engineer must configure a LAN-to-LAN IPsec VPN between R1 and the remote router. Which IPsec Phase 1 configuration must the engineer use for the local router?

- A. `crypto isakmp policy 5 authentication pre-share encryption 3des hash sha group 2!crypto isakmp key cisco123 address 200.1.1.3`  
 B. `crypto isakmp policy 5 authentication pre-share encryption 3des hash md5 group 2!crypto isakmp key cisco123 address 200.1.1.3`  
 C. `crypto isakmp policy 5 authentication pre-share encryption 3des hash md5 group 2!crypto isakmp key cisco123 address 199.1.1.1`  
 D. `crypto isakmp policy 5 authentication pre-share encryption 3des hash md5 group 2!crypto isakmp key cisco123! address 199.1.1.1`

**Answer: A**

#### Explanation:

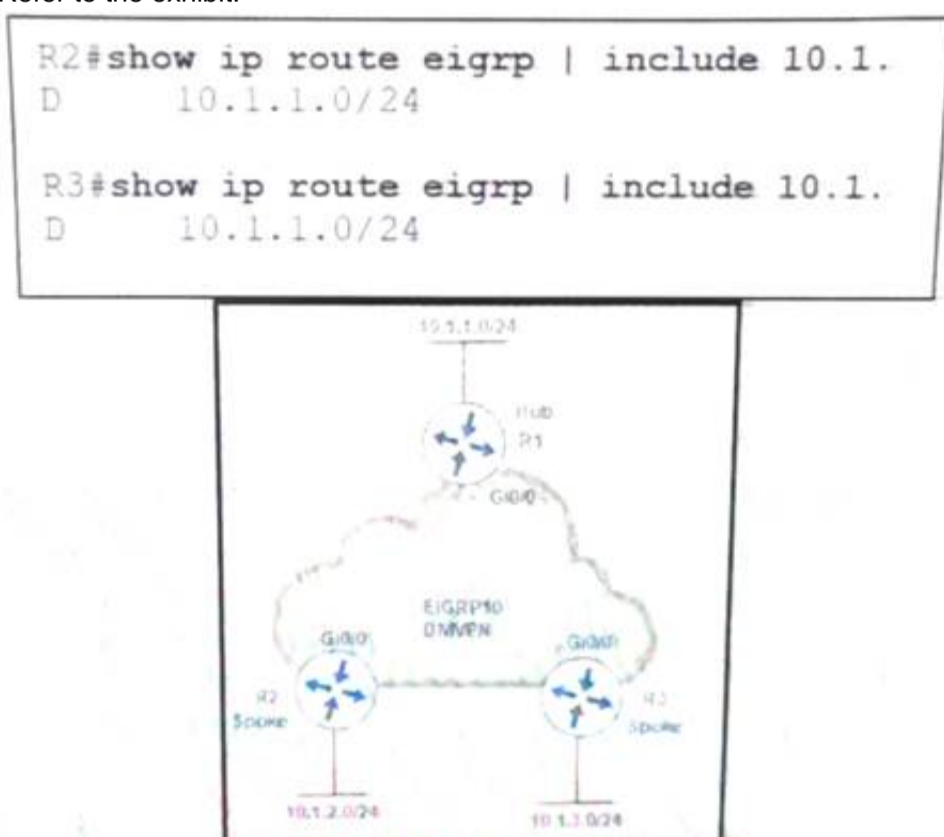
In the “crypto isakmp key ... address” command, the address must be of the IP address of the other end (which is 200.1.1.3 in this case) so Option A and Option B are correct. The difference between these two options are in the hash SHA or MD5 method but both of them can be used although SHA is better than MD5 so we choose Option A the best answer.

Note: Cisco no longer recommends using 3DES, MD5 and DH groups 1, 2 and 5.

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\\_conn\\_imgmt/configuration/xr-16-5/sec-ipsec-management-xr-16-5-book/sec-ipsec-usability-enhance.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_imgmt/configuration/xr-16-5/sec-ipsec-management-xr-16-5-book/sec-ipsec-usability-enhance.html)

#### NEW QUESTION 20

- (Exam Topic 3)  
 Refer to the exhibit.



An engineer configures DMVPN and receives the hub location prefix of 10.1.1.0/24 on R2 and R3. The R3 prefix of 10.1.3.0/24 is not received on R2, and the R2 prefix 10.1.2.0/24 is not received on R3. Which action resolves the issue?

- A. Split horizon prevents the routes from being advertised between spoke routers; it should be disabled with the command `no ip split-horizon eigrp 10` on the tunnel interface of R1.  
 B. There is no spoke-to-spoke connection; DMVPN configuration should be modified to enable a tunnel connection between R2 and R3 and neighbor relationship confirmed by use of the `show ip eigrp neighbor` command.  
 C. Split horizon prevents the routes from being advertised between spoke routers; it should be disabled with the `no ip split-horizon eigrp 10` command on the Gi0/0

interface of R1.

D. There is no spoke-to-spoke connection DMVPN configuration should be modified with a manual neighbor relationship configured between R2 and R3 and confirmed by use of the show ip eigrp neighbor command.

**Answer: A**

**Explanation:**

In this topology, the Hub router will receive advertisements from R2 Spoke router on its tunnel interface. The problem here is that it also has a connection with R3 Spoke on that same tunnel interface. If we don't disable split-horizon, then the Hub will not relay routes from R2 to R3 and the other way around. That is because it received those routes on the same interface tunnel and therefore it cannot advertise back out that same interface (split-horizon rule). Therefore we must disable splithorizon on the Hub router to make sure the Spokes know about each other.

**NEW QUESTION 25**

- (Exam Topic 3)

What is a function of BFD?

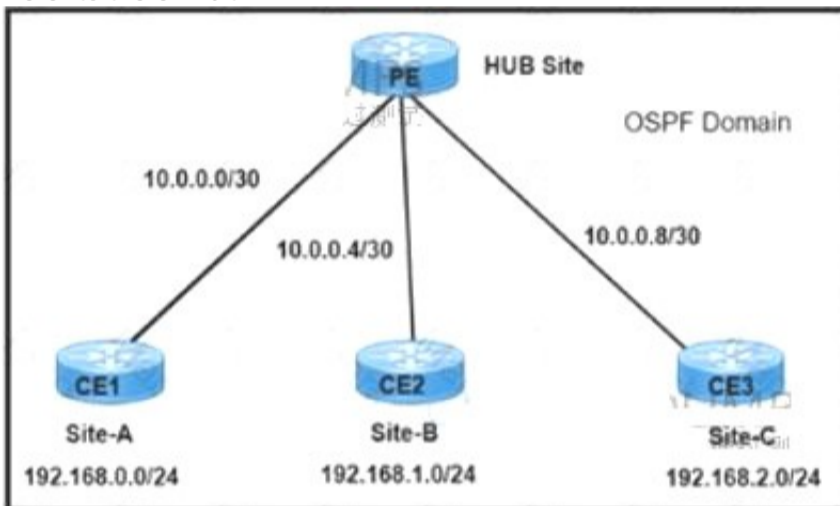
- A. peer recovery after a Layer 3 protocol adjacency failure
- B. peer recovery after a Layer 2 adjacency failure
- C. failure detection independent of routing protocols and media types
- D. failure detection dependent on routing protocols and media types

**Answer: D**

**NEW QUESTION 26**

- (Exam Topic 3)

Refer to the exhibit.



A network engineer must establish communication between three different customer sites with these requirements:

- > Site-A: must be restricted to access to any users at Site-B or Site-C.
- > Site-B and Site-C must be able to communicate between sites and share routes using OSPF.

PE interface configuration:  
 interface FastEthernet0/0  
 ip vrf forwarding Site-A  
 !  
 interface FastEthernet0/1  
 ip vrf forwarding SharedSites  
 !  
 interface FastEthernet0/2  
 ip vrf forwarding SharedSites

Which configuration meets the requirements?

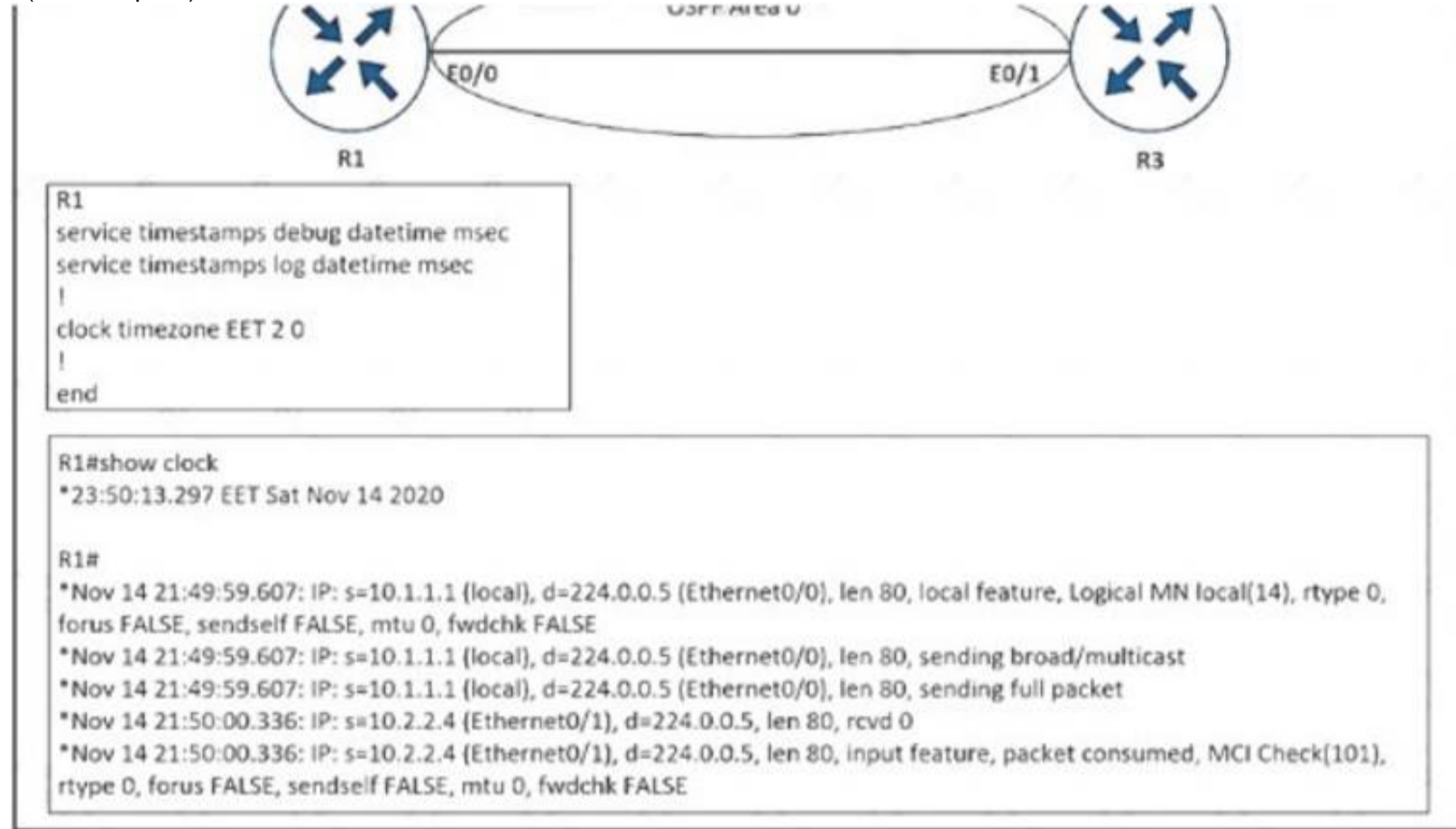
- ☒ PE(config)#router ospf 10 vrf Site-A  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
 PE(config)#router ospf 10 vrf SharedSites  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 1
- ☐ PE(config)#router ospf 10 vrf Site-A  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
 PE(config)#router ospf 10 vrf SharedSites  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0
- ☐ PE(config)#router ospf 10 vrf Site-A  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
 PE(config)#router ospf 20 vrf SharedSites  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0
- ☐ PE(config)#router ospf 10 vrf Site-A  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
 PE(config)#router ospf 20 vrf SharedSites  
 PE(config-router)#network 0.0.0.0 255.255.255.255 area 1

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

Answer: C

**NEW QUESTION 30**

- (Exam Topic 3)



Refer to the exhibit. An engineer cannot determine the time of the problem on R1 due to a mismatch between the router local clock and logs. Which command synchronizes the time between new log entries and the local clock on R1?

- A. service timestamps debug datetime msec show.timezone
- B. service timestamps log datetime localtime msec
- C. service timestamps debug datetime localtime msec
- D. service timestamps log datetime msec show-timezone

Answer: B

**NEW QUESTION 32**

- (Exam Topic 3)

What is considered the primary advantage of running BFD?

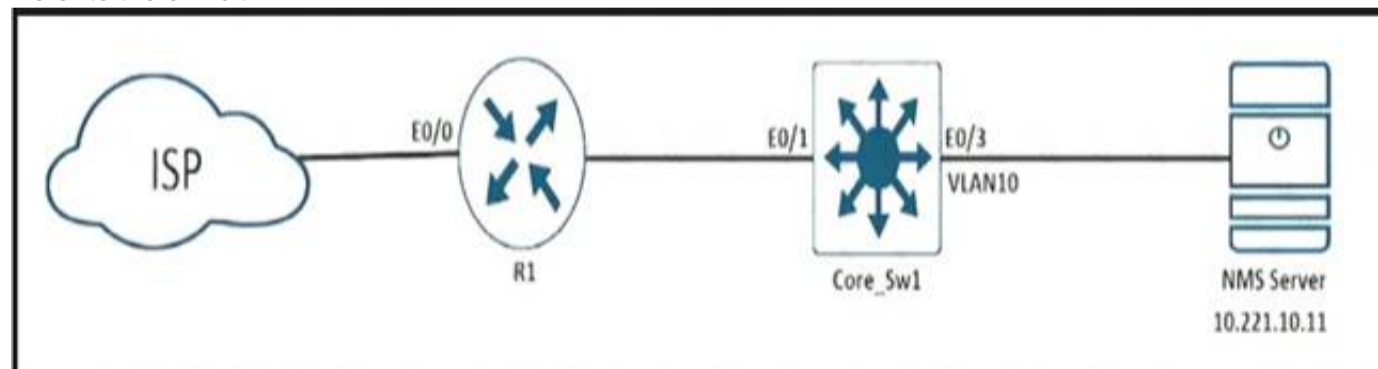
- A. reduction in time needed to detect Layer 2 switched neighbor failures
- B. reduction in time needed to detect Layer 3 routing neighbor failures
- C. reduction in CPU needed to detect Layer 2 switch neighbor failures
- D. reduction in CPU needed to detect Layer 3 routing neighbor failures

Answer: B

**NEW QUESTION 35**

- (Exam Topic 3)

Refer to the exhibit.



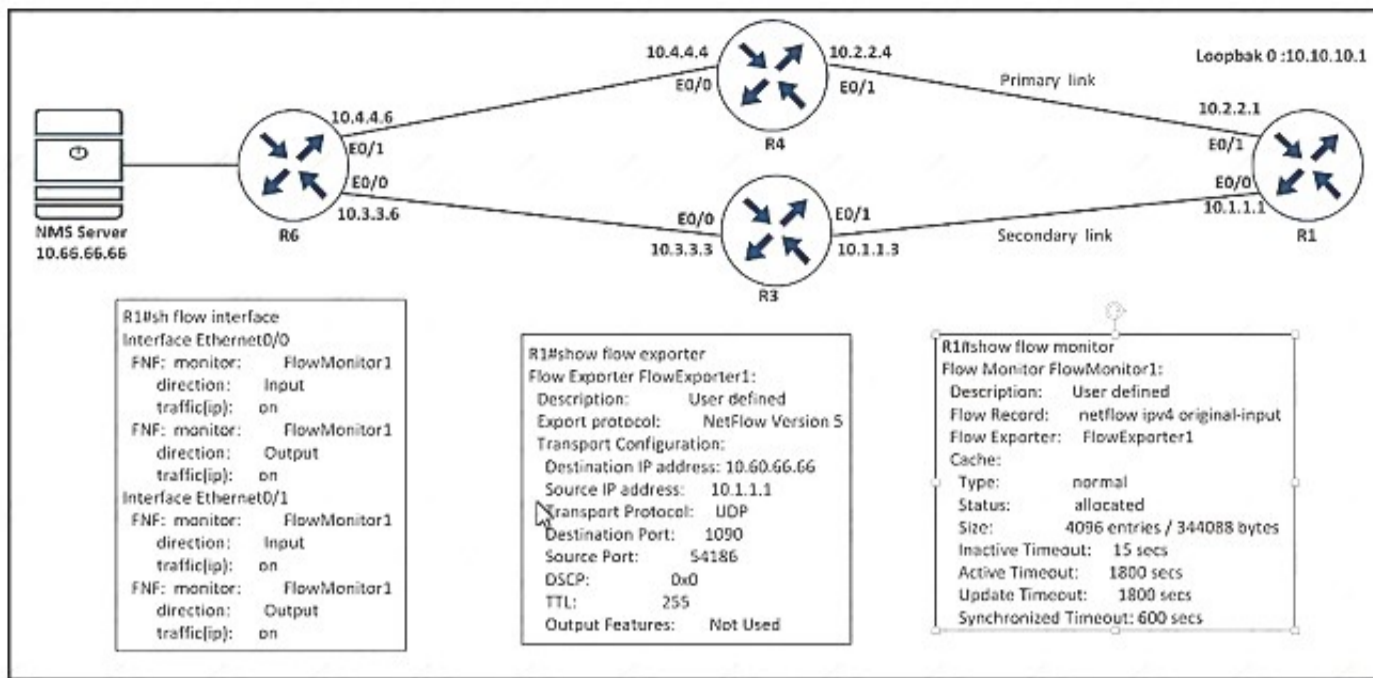
During ISP router maintenance, the network produced many alerts because of the flapping interface. Which configuration on R1 resolves the issue?

- A. no snmp trap link-status
- B. snmp trap link-status down
- C. snmp trap ip verify drop-rate
- D. ip verify drop-rate notify hold-down 60

Answer: D

**NEW QUESTION 37**

- (Exam Topic 3)



Refer to the exhibit. An engineer configured NetFlow on R1, but the flows do not reach the NMS server from R1. Which configuration resolves this Issue?

- ☐ R1(config)#flow monitor FlowMonitor1  
 R1(config-flow-monitor)#destination 10.66.66.66
- ☐ R1(config)#flow exporter FlowExporter1  
 R1(config-flow-exporter)#destination 10.66.66.66
- ☒ R1(config)#interface Ethernet0/0  
 R1(config-if)#ip flow monitor Flowmonitor1 input  
 R1(config-if)#ip flow monitor Flowmonitor1 output
- ☐ R1(config)#interface Ethernet0/1  
 R1(config-if)#ip flow monitor Flowmonitor1 input  
 R1(config-if)#ip flow monitor Flowmonitor1 output

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

**Answer: B**

#### NEW QUESTION 38

- (Exam Topic 3)

Refer to the exhibit.

```
R1#sh ip route
10.0.0.0/8 is variably subnetted, 3 subnets, 1 masks
D 10.1.2.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
D 10.1.1.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
C 10.1.100.0/24 is directly connected, FastEthernet0/0
```

Although summarization is configured for R1 to receive 10.0.0.0/8. more specific routes are received by R1. How should the 10.0.0.0/8 summary route be received from the neighbor, attached to R1 via Fast Ethernet0/0 interface?

- A. R1 should configure the ip summary-address eigrp <AS number> 10.0.0.0.255.0.0.0 command under the Fast Ethernet 0/0 interface.
- B. The summarization condition is not met Router 10 1 100.10 requires a route for 10 0.0.0/8 that points to null 0
- C. The summarization condition is not met
- D. The network 10.1.100.0/24 should be changed to 172.16.0.0/24.
- E. R1 should configure the ip summary-address eigrp <AS number> 10.0.0.0 0.0.0.255 command under the Fast Ethernet 0/0 interface.

**Answer: D**

#### NEW QUESTION 41

- (Exam Topic 3)

A customer requested a GRE tunnel through the provider network between two customer sites using loopback to hide internal networks. Which configuration on R2 establishes the tunnel with R1?

- A. R2(config)# interface Tunnel 1R2(config-if)# ip address 172.20.1.2 255.255.255.0R2(config-if)# ip mtu 1400 R2(config-if)# ip tcp adjust-mss 1360R2(config-if)# tunnel source 192.168.20.1 R2(config-if)# tunnel destination 192.168.10.1
- B. R2(config)# interface Tunnel 1R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1400R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 10.10.2.2 R2(config-if)# tunnel destination 10.10.1.1
- C. R2(config)# interface Tunnel 1R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1500R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 192.168.20.1 R2(config-if)# tunnel destination 10.10.1.1
- D. R2(config)# interface Tunnel 1R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1500R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 10.10.2.2 R2(config-if)# tunnel destination 10.10.1.1

**Answer: D**

### NEW QUESTION 43

- (Exam Topic 3)

What are two characteristics of IPv6 Source Guard? (Choose two.)

- A. requires IPv6 snooping on Layer 2 access or trunk ports
- B. used in service provider deployments to protect DDoS attacks
- C. requires the user to configure a static binding
- D. requires that validate prefix be enabled
- E. recovers missing binding table entries

**Answer: DE**

#### Explanation:

IPv6 Source Guard uses the IPv6 First-Hop Security Binding Table to drop traffic from unknown sources or bogus IPv6 addresses not in the binding table. The switch also tries to recover from lost address information, querying DHCPv6 server or using IPv6 neighbor discovery to verify the source IPv6 address after dropping the offending packet(s).

Reference: <https://blog.ipspace.net/2013/07/first-hop-ipv6-security-features-in.html>

### NEW QUESTION 48

- (Exam Topic 3)

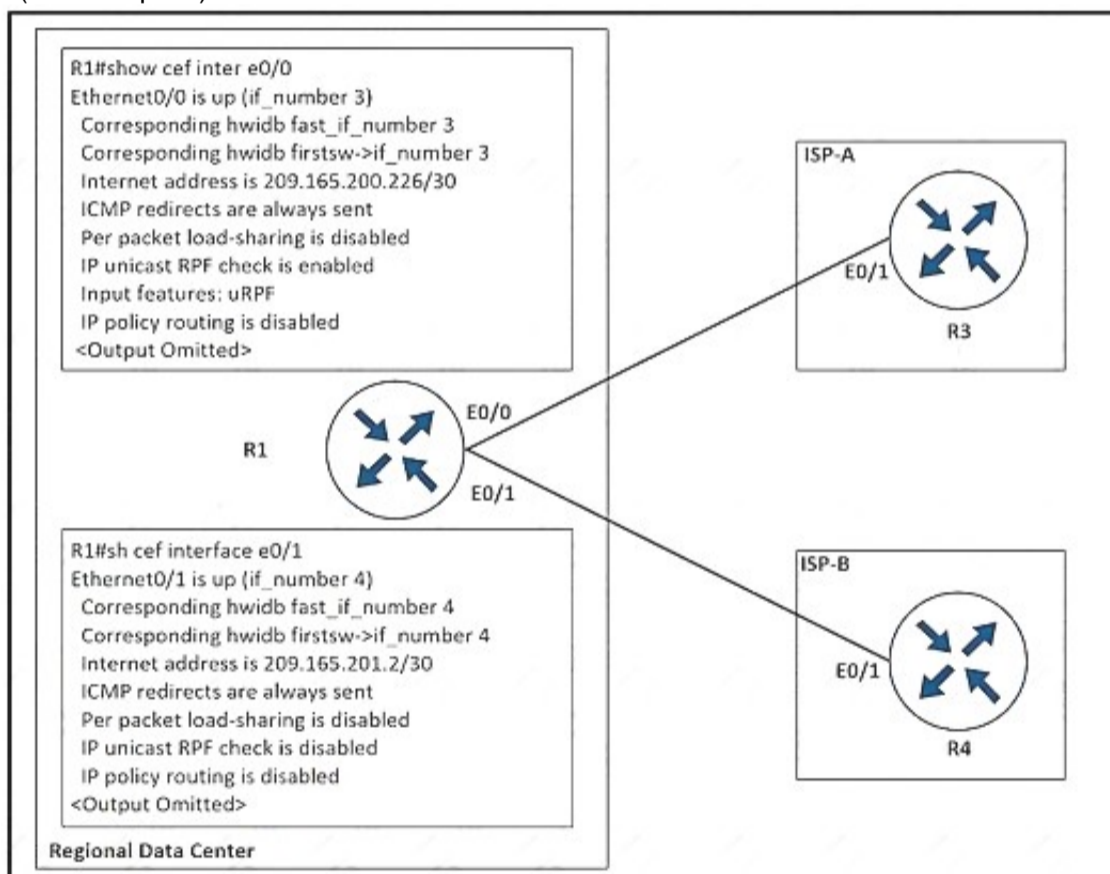
An engineer received a ticket about a router that has reloaded. The monitoring system graphs show different traffic patterns between logical and physical interfaces when the router is rebooted. Which action resolves the issue?

- A. Configure the snmp ifindex persist command globally.
- B. Clear the logical interfaces with snmp ifindex clear command
- C. Configure the snmp ifindex persist command on the physical interfaces.
- D. Trigger a new snmpwalk from the monitoring system to synchronize interface OIDs

**Answer: A**

### NEW QUESTION 50

- (Exam Topic 3)



Refer to the exhibit. The company implemented uRPF to address an antispoofing attack. A network engineer received a call from the IT security department that the regional data center is under an IP attack. Which configuration must be implemented on R1 to resolve this issue?

- ☐ interface ethernet0/0  
ip verify unicast reverse-path
- ☐ interface ethernet0/1  
ip verify unicast reverse-path
- ☒ interface ethernet0/1  
ip unicast RPF check reachable-via any allow-default allow-self-ping
- ☐ interface ethernet0/0  
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: B**

### NEW QUESTION 51

- (Exam Topic 3)

Which feature minimizes DoS attacks on an IPv6 network?

- A. IPv6 Binding Security Table
- B. IPv6 Router Advertisement Guard
- C. IPv6 Prefix Guard
- D. IPv6 Destination Guard

**Answer: D**

**Explanation:**

The Destination Guard feature helps in minimizing denial-of-service (DoS) attacks. It performs address resolutions only for those addresses that are active on the link, and requires the FHS binding table to be populated with the help of the IPv6 snooping feature. The feature enables the filtering of IPv6 traffic based on the destination address, and blocks the NDP resolution for destination addresses that are not found in the binding table. By default, the policy drops traffic coming for an unknown destination.

Reference: [https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600\\_15\\_0s\\_book/IPv6\\_Security.pdf](https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600_15_0s_book/IPv6_Security.pdf)

**NEW QUESTION 55**

- (Exam Topic 3)



Refer to the exhibit. Not all connected and static routes of router B are received by router A even though EIGRP neighborship is established between the routers. Which configuration resolves the issue?

A)

```

router eigrp 100
network 209.165.200.224 0.0.0.7
redistribute static metric 1000 1 255 1 1500
eigrp stub connected
  
```

B)

```

router eigrp 100
network 209.165.200.224 0.0.0.7
  
```

C)

```

router eigrp 100
network 209.165.200.224 0.0.0.31
redistribute static metric 1000 1 255 1 1500
  
```

D)

```
router eigrp 100
network 209.165.200.224 0.0.0.7
redistribute static metric 1000 1 255 1 1500
eigrp stub static
```

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

**Answer:** D

#### NEW QUESTION 57

- (Exam Topic 3)

Which two solutions are used to overcome a flapping link that causes a frequent label binding exchange between MPLS routers? (Choose two)

- A. Create link dampening on links to protect the session.
- B. Increase input queue on links to protect the session.
- C. Create targeted hellos to protect the session.
- D. Increase a hold-timer to protect the session.
- E. Increase a session delay to protect the session.

**Answer:** AC

#### Explanation:

To avoid having to rebuild the LDP session altogether, you can protect it. When the LDP session between two directly connected LSRs is protected, a targeted LDP session is built between the two LSRs. When the directly connected link does go down between the two LSRs, the targeted LDP session is kept up as long as an alternative path exists between the two LSRs.

For the protection to work, you need to enable it on both the LSRs. If this is not possible, you can enable it on one LSR, and the other LSR can accept the targeted LDP Hellos by configuring the command `mpls ldp discovery targeted-hello accept`.

Reference: <https://www.ccexpert.us/mpls-network/mpls-ldp-session-protection.html> Or from the reference

at <https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2019/pdf/5eU6DfQV/TECMPL-3201.pdf>

Troubleshooting LDP Issues

Problem:

I. When a link flaps (for a short time),

... Solution:

+ When LDP session supported by link hello is setup, create a targeted hello to protect the session.

#### NEW QUESTION 60

- (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 61

- (Exam Topic 3)

Drag and drop the IPv6 first hop security device roles from the left onto the corresponding descriptions on the right.

host	Receives router advertisements from valid routers, and no router solicitation are received.
router	Receives router solicitation and sends router advertisements.
monitor	Receives valid and rogue router advertisements and all router solicitation.
switch	Received router advertisements are trusted and are flooded to synchronize states.

- A. Mastered  
 B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface, text, application, email Description automatically generated

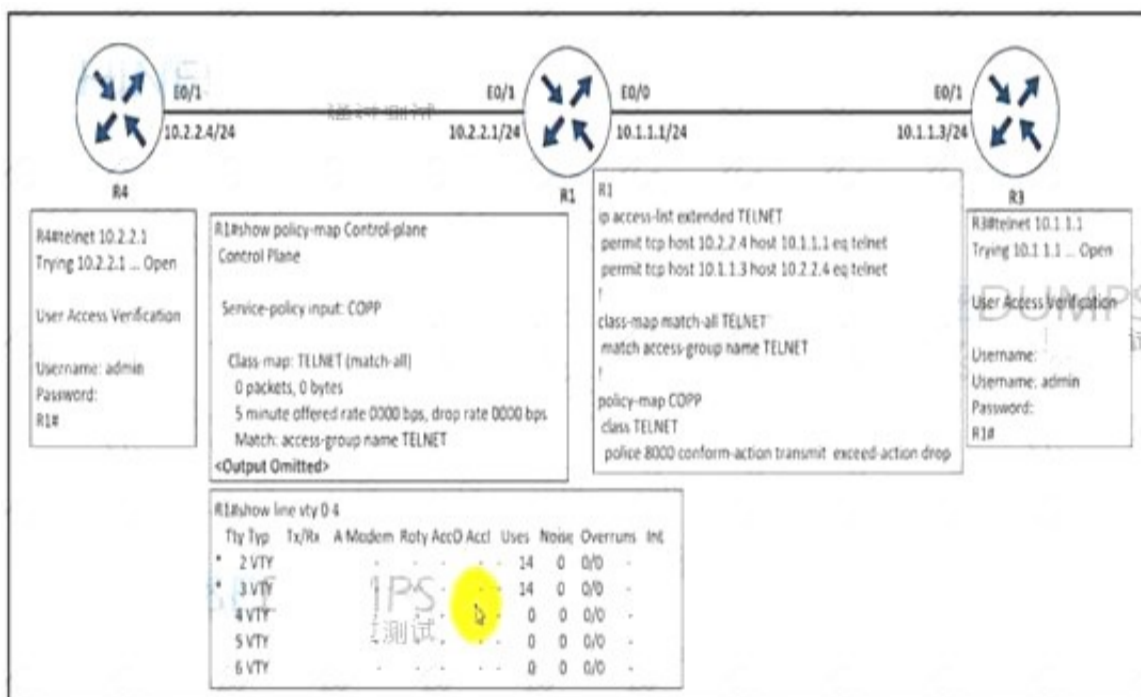
Reference:

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/security/configuration/guide/b\\_Ci](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/security/configuration/guide/b_Ci)

**NEW QUESTION 64**

- (Exam Topic 3)

Refer to the exhibit.



An engineer implemented CoPP to limit Telnet traffic to protect the router CPU. It was noticed that the Telnet traffic did not pass through CoPP Which configuration resolves the issue?

- ☐ policy-map COPP
  - class TELNET
    - police 8000 conform-action transmit exceed-action transmit
- ☒ policy-map COPP
  - class TELNET
    - police 8000 conform-action transmit exceed-action transmit violate-action drop
- ☐ ip access-list extended TELNET
  - permit tcp host 10.2.2.1 host 10.2.2.4 eq telnet
  - permit tcp host 10.1.1.1 host 10.1.1.3 eq telnet
- ☐ ip access-list extended TELNET
  - permit tcp host 10.2.2.4 host 10.2.2.1 eq telnet
  - permit tcp host 10.1.1.3 host 10.1.1.1 eq telnet

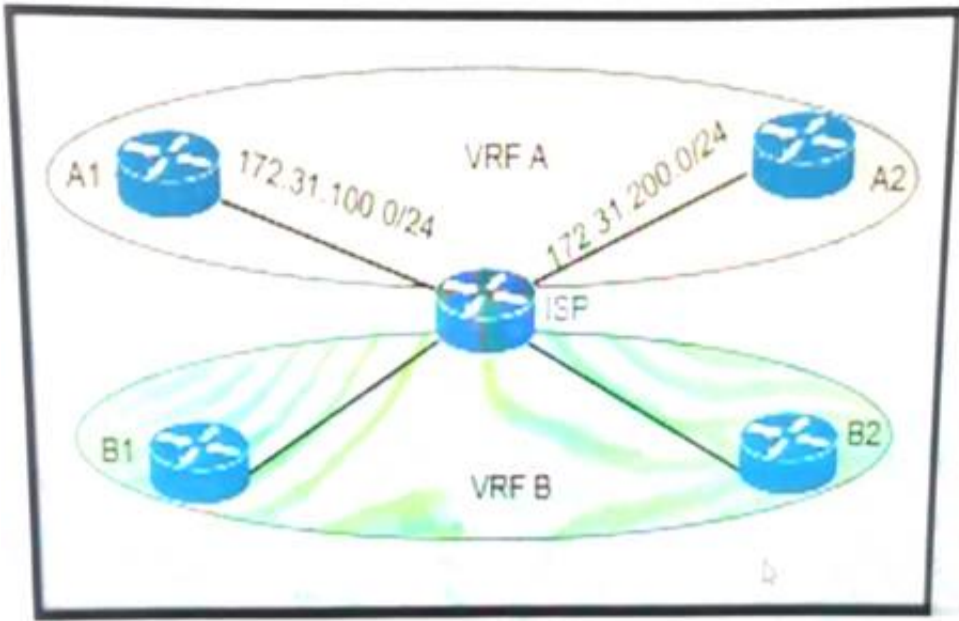
- A. Option A  
 B. Option B  
 C. Option C  
 D. Option D

**Answer: D**

**NEW QUESTION 69**

- (Exam Topic 3)

Refer to the exhibit. The ISP router is fully configured for customer A and customer B using the VRF-Lite feature. What is the minimum configuration required for customer A to communicate between routers A1 and A2?



- A. A1interface fa0/0 description To->ISPIP add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISPIP add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0
- B. A1interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0
- C. A1interface fa0/0 description To->ISPIP add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISPIP add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0
- D. A1interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100 vrf Anet 172.31.200.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100 vrf Anet 172.31.200.1 0.0.0.255 area 0

**Answer: C**

**Explanation:**

A1 and A2 routers do not know they belong to VRF A. The two interfaces of ISP (which are connected to A1 & A2) should be configured like this (we only show the configure of one interface):

ISP router:

```
interface g0/0
description ISP->To_CustomerA ip vrf forwarding A
ip address 172.31.100.2 255.255.255.0
router ospf 100 vrf A
network 172.31.200.2 0.0.0.255 area 0
```

**NEW QUESTION 70**

- (Exam Topic 3)

Which IPv6 feature enables a device to reject traffic when it is originated from an address that is not stored in the device binding table?

- A. IPv6 Snooping
- B. IPv6 Source Guard
- C. IPv6 DAD Proxy
- D. IPv6 RA Guard

**Answer: B**

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xs-3s/ip6f-xe-3s-book/ip6-src-guar](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xs-3s/ip6f-xe-3s-book/ip6-src-guar)

**NEW QUESTION 75**

- (Exam Topic 3)

Refer to the exhibit.

**FTP Server**

10.0.0.2/24

Username: cisco  
 Password: cisco  
 File to download: IOS.bin

C:\Users\FTPServer>ping 10.0.0.1  
  
 Pinging 10.0.0.1 with 32 bytes of data:  
 Reply from 10.0.0.1: bytes=32 time=1ms TTL=64  
 Reply from 10.0.0.1: bytes=32 time=1ms TTL=64  
 Reply from 10.0.0.1: bytes=32 time=1ms TTL=64  
 Reply from 10.0.0.1: bytes=32 time=1ms TTL=64  
  
 Ping statistics for 10.0.0.1:  
 Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
 Approximate round trip times in milli-seconds:  
 Minimum = 1ms, Maximum = 1ms, Average = 1ms

**Switch**

E0/1  
VLAN2

Switch#  
 !  
 Interface VLAN2  
 ip address 10.0.0.1 255.255.255.0  
 !  
 ip ftp source-interface vlan 2

Switch#copy ftp://cisco:cisco@10.0.0.2/IOS.bin flash:/  
 Destination filename [IOS.bin]?  
 Accessing ftp://cisco:cisco@10.0.0.2/IOS.bin..  
 %Error opening ftp://cisco:cisco@10.0.0.2/IOS.bin (No such file or directory)

An engineer cannot copy the IOS.bin file from the FTP server to the switch.  
Which action resolves the issue?

- A. Allow file permissions to download the file from the FTP server.
- B. Add the IOS.bin file, which does not exist on FTP server.
- C. Make memory space on the switch flash or USB drive to download the file.
- D. Use the copy flash:/ ftp://cisco@10.0.0.2/IOS.bin command.

**Answer:** B

#### NEW QUESTION 78

- (Exam Topic 3)

The network administrator configured R1 for Control Plane Policing so that the inbound Telnet traffic is policed to 100 kbps. This policy must not apply to traffic coming in from 10.1.1.1/32 and 172.16.1.1/32. The administrator has configured this:

```
access-list 101 permit tcp host 10.1.1.1 any eq 23
access-list 101 permit tcp host 172.16.1.1 any eq 23
!
class-map CoPP-TELNET
match access-group 101
!
policy-map PM-CoPP
class CoPP-TELNET
police 100000 conform transmit exceed drop
!
control-plane
service-policy input PM-CoPP
```

The network administrator is not getting the desired results. Which set of configurations resolves this issue?

- A. control-planeno service-policy input PM-CoPP!interface Ethernet 0/0service-policy input PM-CoPP
- B. control-planeno service-policy input PM-CoPPservice-policy input PM-CoPP
- C. no access-list 101access-list 101 deny tcp host 10,1,1.1 any eq 23access-list 101 deny tcp host 172,16.1.1 any eq 23 access-list 101 permit ip any any
- D. no access-list 101access-list 101 deny tcp host 10,1.1.1 any eq 23access-list 101 deny tcp host 172.16.1.1 any eq 23 access-list 101 permit ip any any!interface E0/0service-policy input PM-CoPP

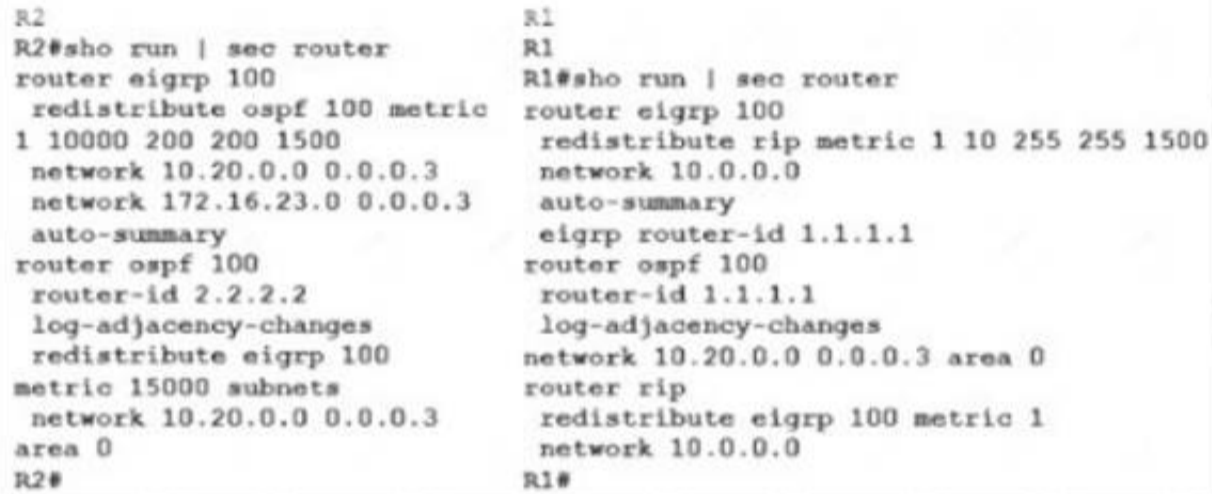
**Answer:** C

#### Explanation:

Packets that match a deny rule are excluded from that class and cascade to the next class (if one exists) for classification. Therefore if we don't want to CoPP traffic from 10.1.1.1/32 and 172.16.1.1/32, we must "deny" them in the ACL.

#### NEW QUESTION 83

- (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?

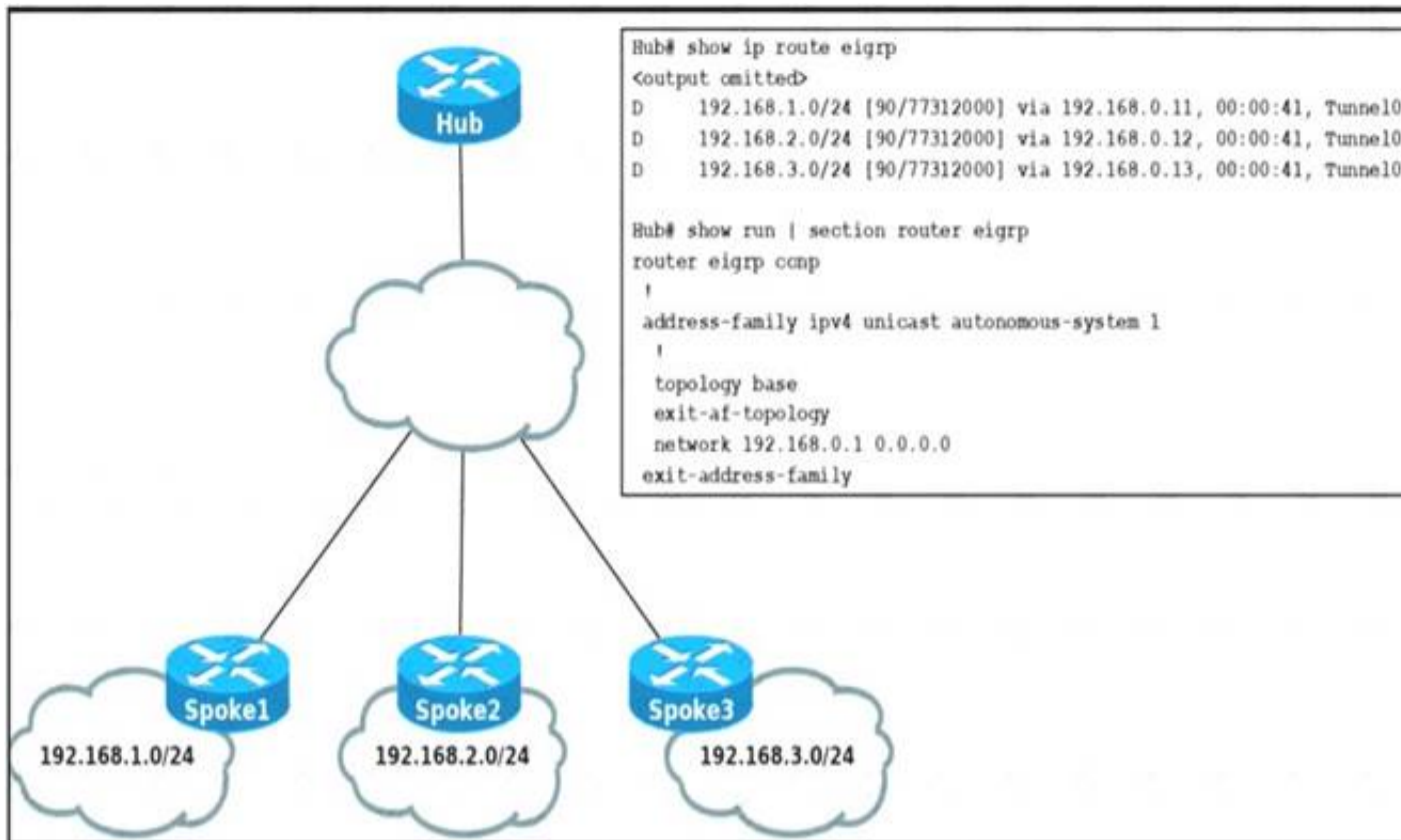
- ④ R2(config)#**router ospf 100**  
R2(config-router)#**no redistribute eigrp 100**  
R2(config-router)#**redistribute eigrp 100 metric 1 subnets**
- R1(config)#**no router rip**  
R1(config)#**ip route 192.168.200.0 255.255.255.0 10.40.0.2**
- R2(config)#**router eigrp 100**  
R2(config-router)#**no redistribute ospf 100**  
R2(config-router)#**redistribute rip**
- ④ 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 84

- (Exam Topic 3)  
Refer to the exhibit.



Spoke routers do not learn about each other's routes in the DMVPN Phase2 network. Which action resolves the issue?

- A. Remove default route from spoke routers to establish a spoke-to-spoke tunnel.
- B. Configure a static route in each spoke to establish a spoke-to-spoke tunnel.
- C. Rectify incorrect wildcard mask configured on the hub router network command.
- D. Disable EIGRP split horizon on the Tunnel0 interface of the hub router.

**Answer: D**

#### NEW QUESTION 88

- (Exam Topic 3)

```

R1(config)#ip access-list standard EIGRP-FILTER
R1(config-std-nacl)#deny 10.10.10.0 0.0.0.0
R1(config-std-nacl)#permit 0.0.0.0 0.0.0.0
R1(config)#router eigrp 10
R1(config-router)#distribute-list route-map EIGRP in
!
R1(config)#route-map EIGRP permit 10
R1(config-route-map)#match ip address EIGRP-FILTER
!
R1#show ip route eigrp | include 10.10.10.
D   10.10.10.128/25
  
```

Refer to the exhibit. An engineer must filter EIGRP updates that are received to block all 10.10.10.0/24 prefixes. The engineer tests the distribute list and finds one associated prefix. Which action resolves the issue?

- A. There is a permit in the route map that allows this prefix. A deny 20 statement is required with a match condition to match a new ACL that denies all prefixes.
- B. There is a permit in the ACL that allows this prefix into EIGRP.
- C. The ACL should be modified to deny 10.10.10.0 0.0.0.255.
- D. There is a permit in the route map that allows this prefix. A deny 20 statement is required with no match condition to block the prefix.
- E. There is a permit in the ACL that allows this prefix into EIGRP.
- F. The ACL should be modified to deny 10.10.10.0 255.255.255.0.

**Answer: B**

#### NEW QUESTION 90

- (Exam Topic 3)

Refer to the exhibit.

```
Dallas_Router:

interface GigabitEthernet0/0/0.364
description Guest_Wifi_10.66.46.0/23
encapsulation dot1Q 364
ip address 10.66.46.1 255.255.254.0
ip helper-address 10.192.104.212
ip helper-address 10.191.103.140
ip access-group GUEST-ACCESS in
ip access-group GUEST-ACCESS-OUT out
no ip redirects
no ip unreachable
no ip proxy-arp

ip access-list extended GUEST-ACCESS
remark Internet Access Only
permit udp any any eq bootpc
permit udp any any eq bootps
deny ip any 10.0.0.0 0.255.255.255
deny ip any 172.16.0.0 0.15.255.255
deny ip any 192.168.0.0 0.0.255.255
deny ip any 224.0.0.0 31.255.255.255
deny ip any 169.254.0.0 0.0.255.255
deny ip any 127.0.0.0 0.255.255.255
deny ip any 192.0.2.0 0.0.0.255
deny ip any host 0.0.0.0
permit ip 10.66.42.0 0.0.0.255 any
permit ip 10.66.46.0 0.0.0.255 any
!

ip access-list extended GUEST-ACCESS-OUT
remark Used to block inbound traffic to Guest Networks
permit udp any any eq bootps
permit udp any any eq bootpc
permit udp any any eq domain
permit udp any any
permit icmp any any
permit tcp host 10.192.103.124 eq 15871 any
permit tcp any any established
deny ip any 10.0.0.0 0.255.255.255
deny ip any 172.16.0.0 0.15.255.255
deny ip any 192.168.0.0 0.0.255.255
deny ip any 224.0.0.0 31.255.255.255
deny ip any 169.254.0.0 0.0.255.255
deny ip any 127.0.0.0 0.255.255.255
deny ip any 192.0.2.0 0.0.0.255
deny ip any host 0.0.0.0
```

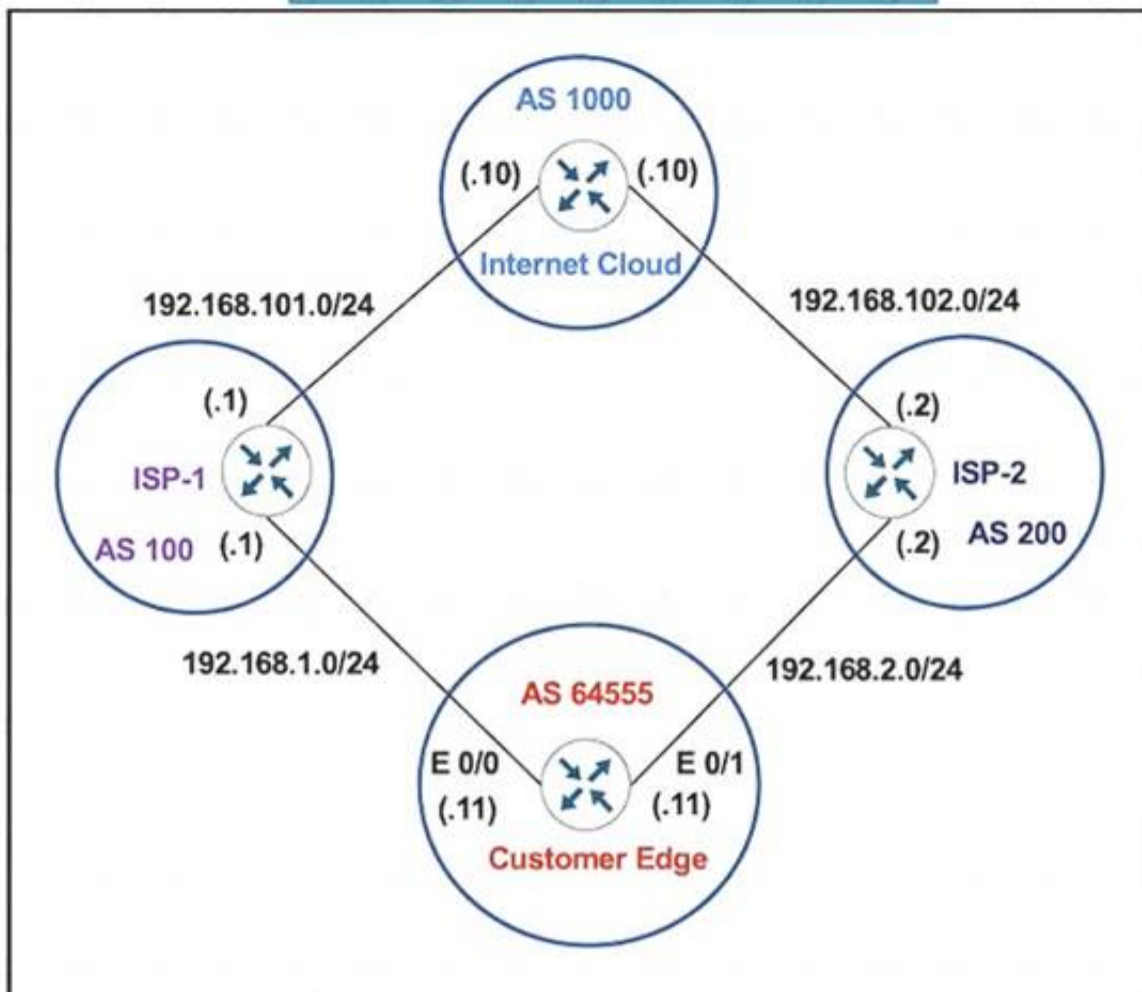
After a new regional office is set up, not all guests can access the internet via guest WiFi. Clients are getting the correct IP address from guest Wi-Fi VLAN 364. Which action resolves the issue?

- A. Allow 10.66.46.0/23 in the outbound ACL
- B. Allow DNS traffic through the outbound ACL
- C. Allow DNS traffic through the inbound ACL
- D. Allow 10.66.46.0/23 in the inbound ACL

Answer: C

#### NEW QUESTION 91

- (Exam Topic 3)



Refer to the exhibit. The Customer Edge router wants to use AS 100 as the preferred ISP for all external routes and ISP-2 as a backup.

#### Customer-Edge

```
route-map SETAS
  set as-path prepend 111
!
router bgp 64555
  neighbor 192.168.1.1 remote-as 100
  neighbor 192.168.2.2 remote-as 200
  neighbor 192.168.2.2 route-map SETAS in
```

After this configuration, all the backup routes have disappeared from the BGP table on the Customer Edge router. Which set of configurations resolves the issue on the Customer Edge router?

A)

```
route-map SETAS
  set as-path prepend 111
!
router bgp 64555
  neighbor 192.168.2.2 remote-as 100
  neighbor 192.168.1.1 remote-as 200
  neighbor 192.168.1.1 route-map SETAS in
```

B)

```
route-map SETAS
  set as-path prepend 200
!
router bgp 64555
  neighbor 192.168.1.1 remote-as 100
  neighbor 192.168.2.2 remote-as 200
  neighbor 192.168.2.2 route-map SETAS in
```

C)

```
route-map SETAS
  set as-path prepend 200
!
router bgp 64555
  neighbor 192.168.1.1 remote-as 100
  neighbor 192.168.2.2 remote-as 200
  neighbor 192.168.2.2 route-map SETAS out
```

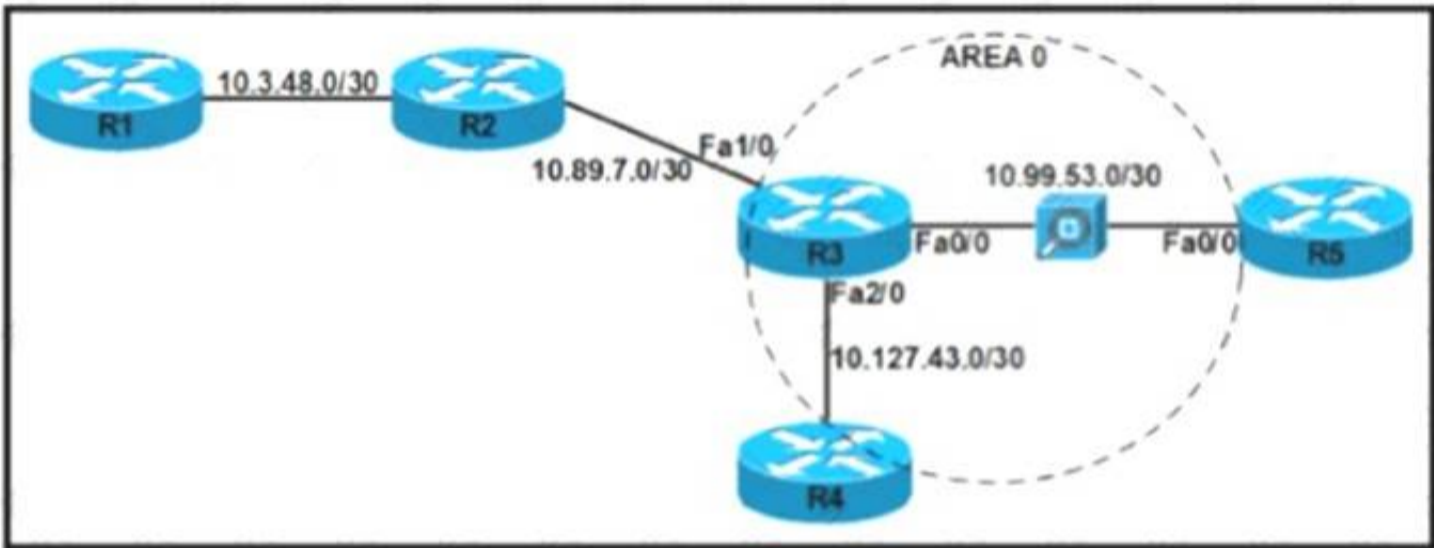
D)

```
route-map SETAS
set as-path prepend 111
!
router bgp 64555
neighbor 192.168.1.1 remote-as 100
neighbor 192.168.2.2 remote-as 200
neighbor 192.168.2.2 route-map SETAS out
```

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

Answer: C

NEW QUESTION 94  
- (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 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 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 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 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

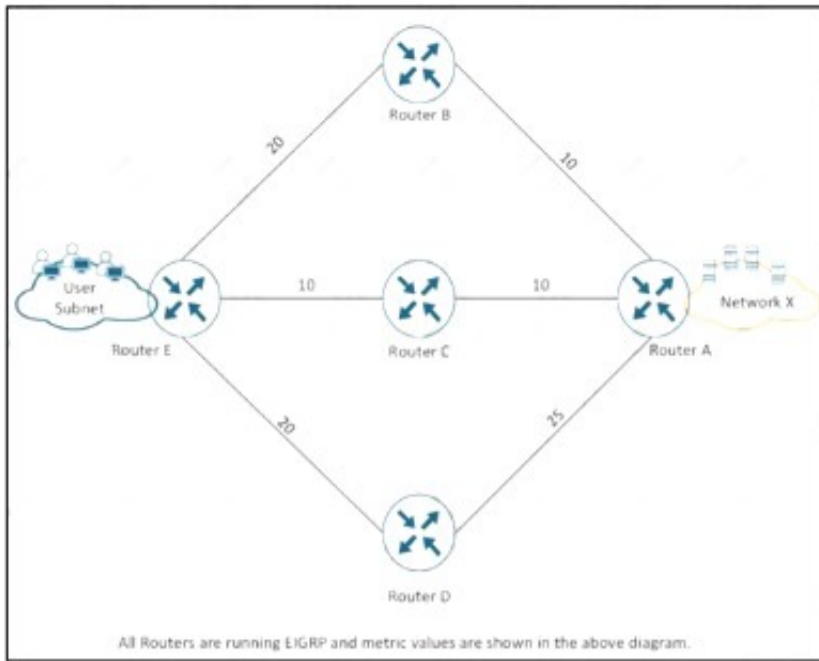
access-list 122 permit 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 any any

```

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

**Answer: C**

**NEW QUESTION 95**  
 - (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 96

- (Exam Topic 3)

Refer to the exhibit.

```
P 172.29.0.0/16, 1 successors, FD is 307200, serno 2
  via 192.168.254.2 (307200/281600), FastEthernet0/1
  via 192.168.253.2 (410200/352300), FastEthernet0/0
```

When the FastEthernet0/1 goes down, the route to 172.29.0.0/16 via 192.168.253.2 is not installed in the RIB. Which action resolves the issue?

- A. Configure reported distance greater than the feasible distance
- B. Configure feasible distance greater than the successor's feasible distance.
- C. Configure reported distance greater than the successor's feasible distance.
- D. Configure feasible distance greater than the reported distance

**Answer: D**

#### Explanation:

From the exhibit, we notice network 172.29.0.0/16 was learned via two routes:

+ From 192.168.254.2 with FD = 307200 and AD = 281600

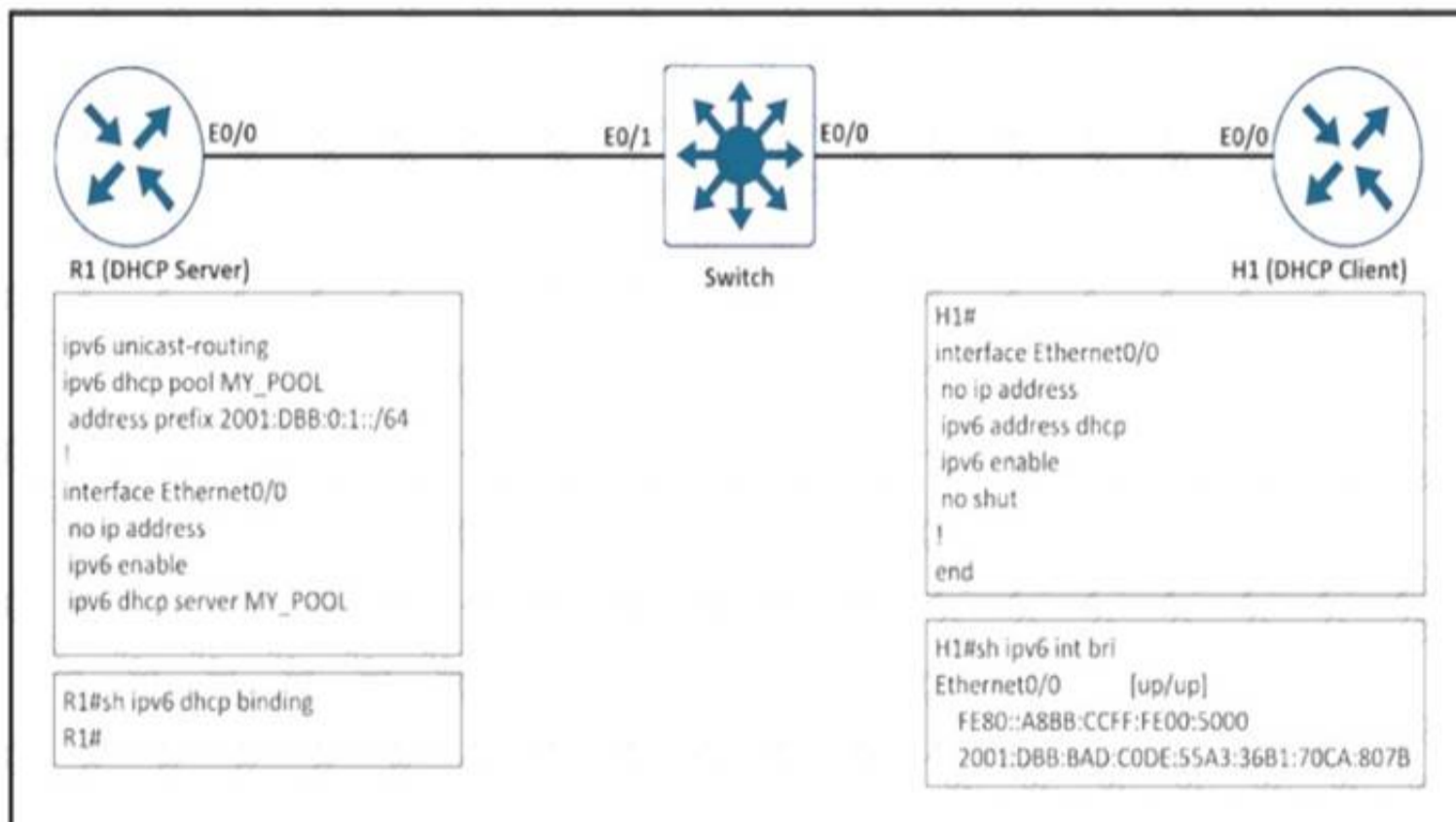
+ From 192.168.253.2 with FD = 410200 and AD = 352300

The first route is installed into the RIB as the successor route because of lower FD.

When the first route fails, router will not use the second route as it does not satisfy the feasibility condition. The feasibility condition states that, the Advertised Distance (AD, also called the reported distance) of a route must be lower than the feasible distance of the current successor route.

#### NEW QUESTION 100

- (Exam Topic 3)



Refer to the exhibit. The client server but the show command does not show the IPv6 DHCP bindings on the server. Which action resolves the issue?

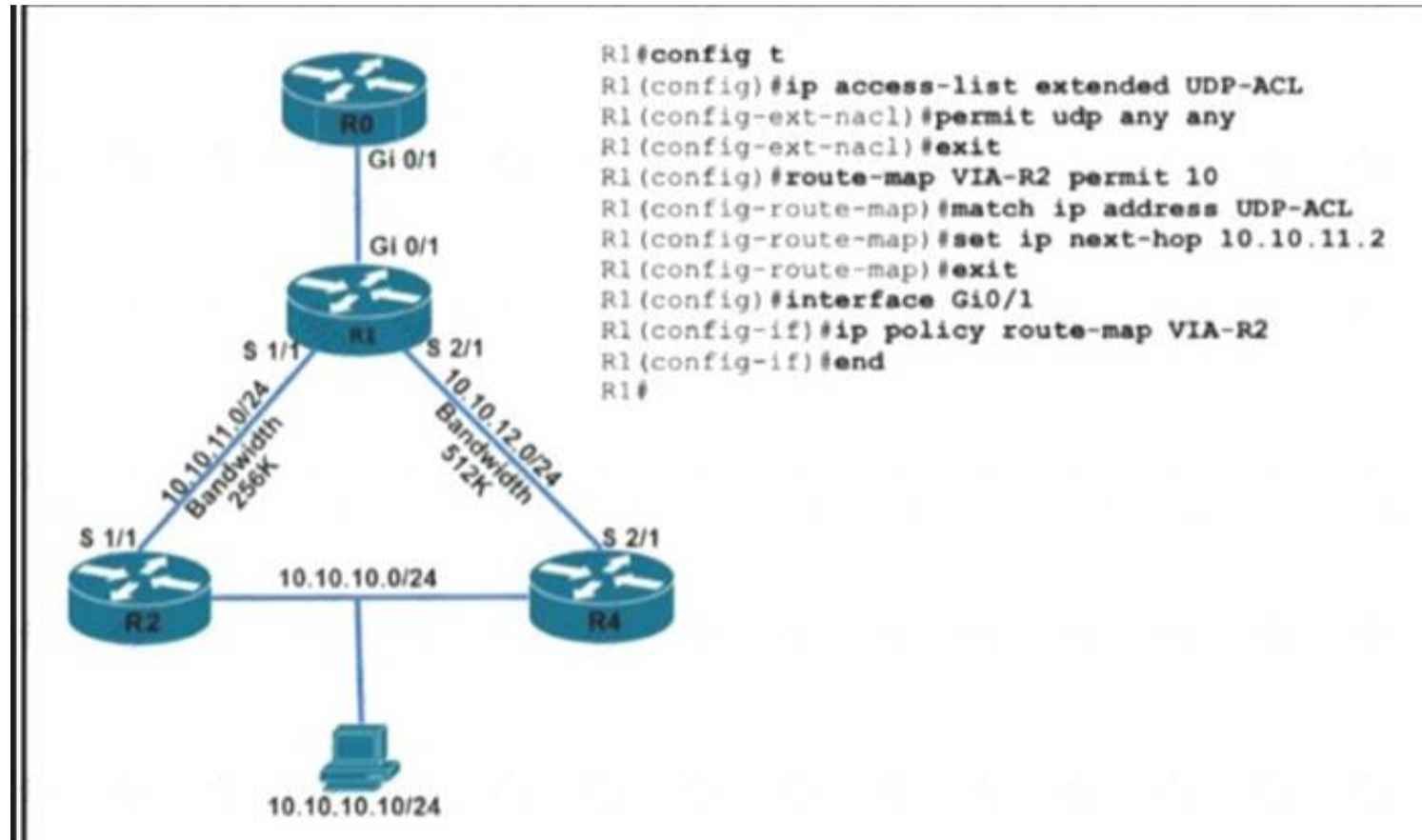
- A. Extend the DHCP lease time because R1 removed the IPv6 address earlier after the lease expired.
- B. Configure H1 as the DHCP client that manually assigns the IPv6 address on interlace e0/0..
- C. Use the 2001:DBB:BAD:C0DE::/64 prefix for the DHCP pool on R1.
- D. Configure authorized DHCP servers to avoid IPv6 addresses from a rogue DHCP server.

**Answer: C**

#### NEW QUESTION 103

- (Exam Topic 3)

Refer to the exhibit.



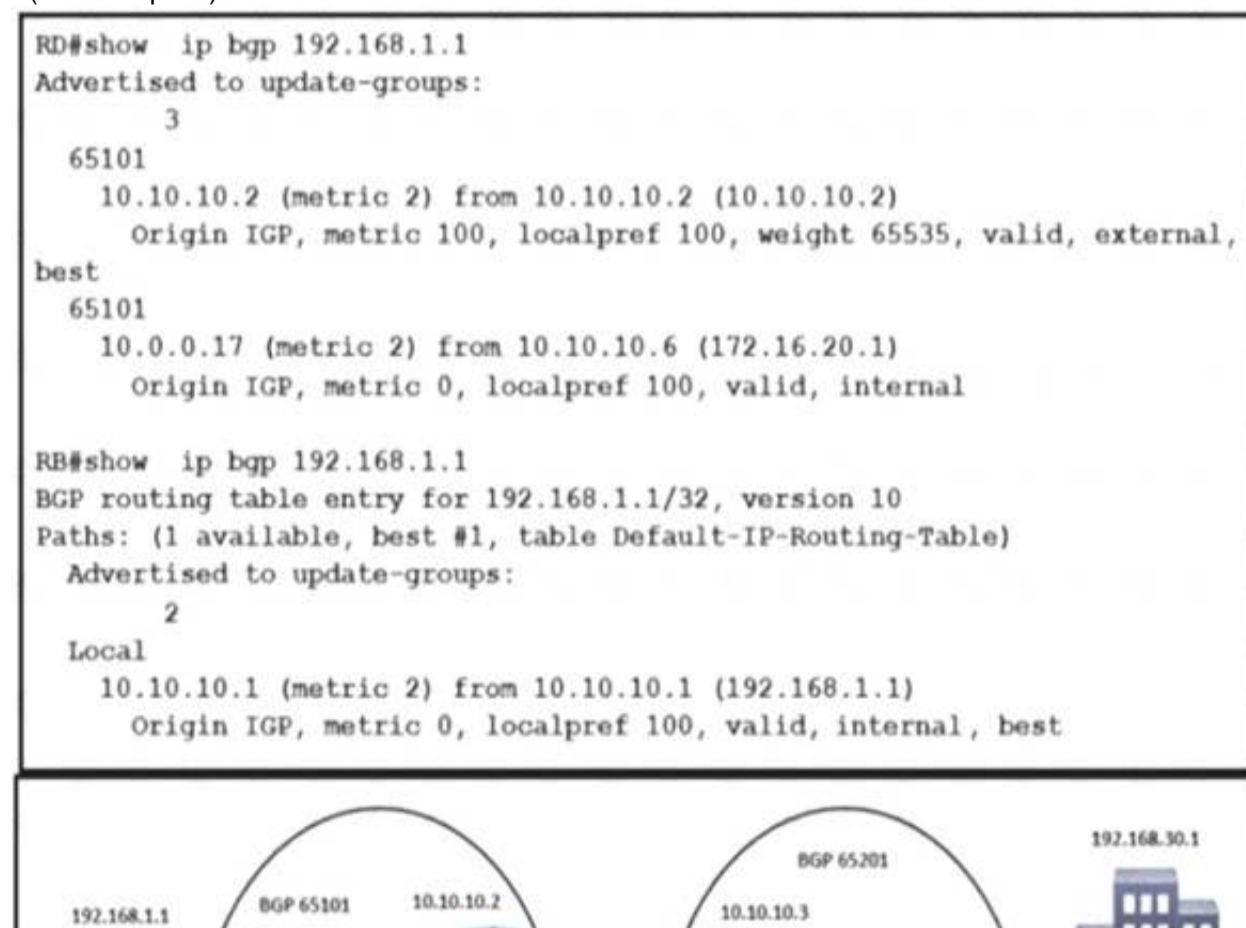
TCP traffic should be reaching host 10.10.10.10/24 via R2. Which action resolves the issue?

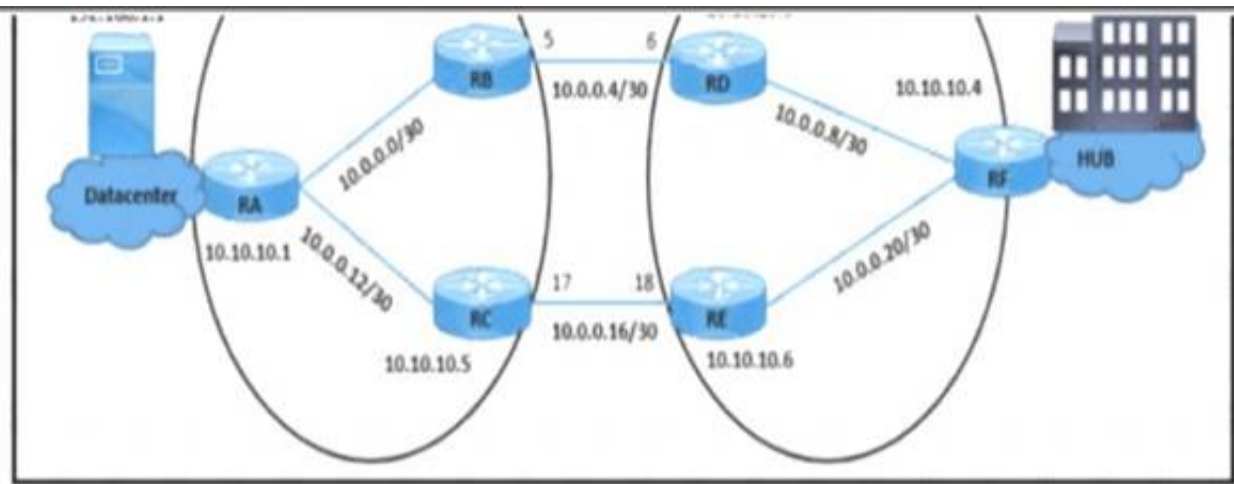
- A. TCP traffic will reach the destination via R2 without any changes
- B. Add a permit 20 statement in the route map to allow TCP traffic
- C. Allow TCP in the access list with no changes to the route map
- D. Set IP next-hop to 10.10.12.2 under the route-map permit 10 to allow TCP traffic.

**Answer: C**

#### NEW QUESTION 107

- (Exam Topic 3)





Refer to the exhibit. A customer finds that traffic from the application server (192.168.1.1) to the HUB site passes through a congested path that causes random packet drops. The NOC team influences the BGP path with MED on RB, but RD still sees that traffic coming from RA is not taking an alternate route. Which configuration resolves the issue?

A)

```
RD(config)#router bgp 65201
RD(config-router)#no neighbor 10.10.10.2 weight 65535
```

B)

```
RB(config)#router bgp 65101
RB(config-router)#no neighbor 10.10.10.3 route-map HIGH-LP out
```

C)

```
RB(config)#router bgp 65101
RB(config-router)#neighbor 10.10.10.3 weight 50
```

D)

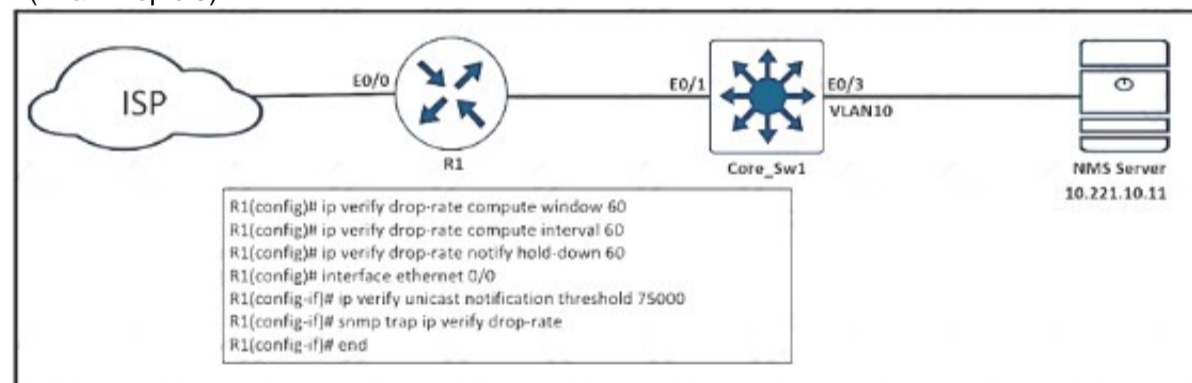
```
RC(config)#router bgp 65101
RC(config-router)#neighbor 10.10.10.6 route-map HIGH-LP out
```

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

**Answer: D**

#### NEW QUESTION 112

- (Exam Topic 3)



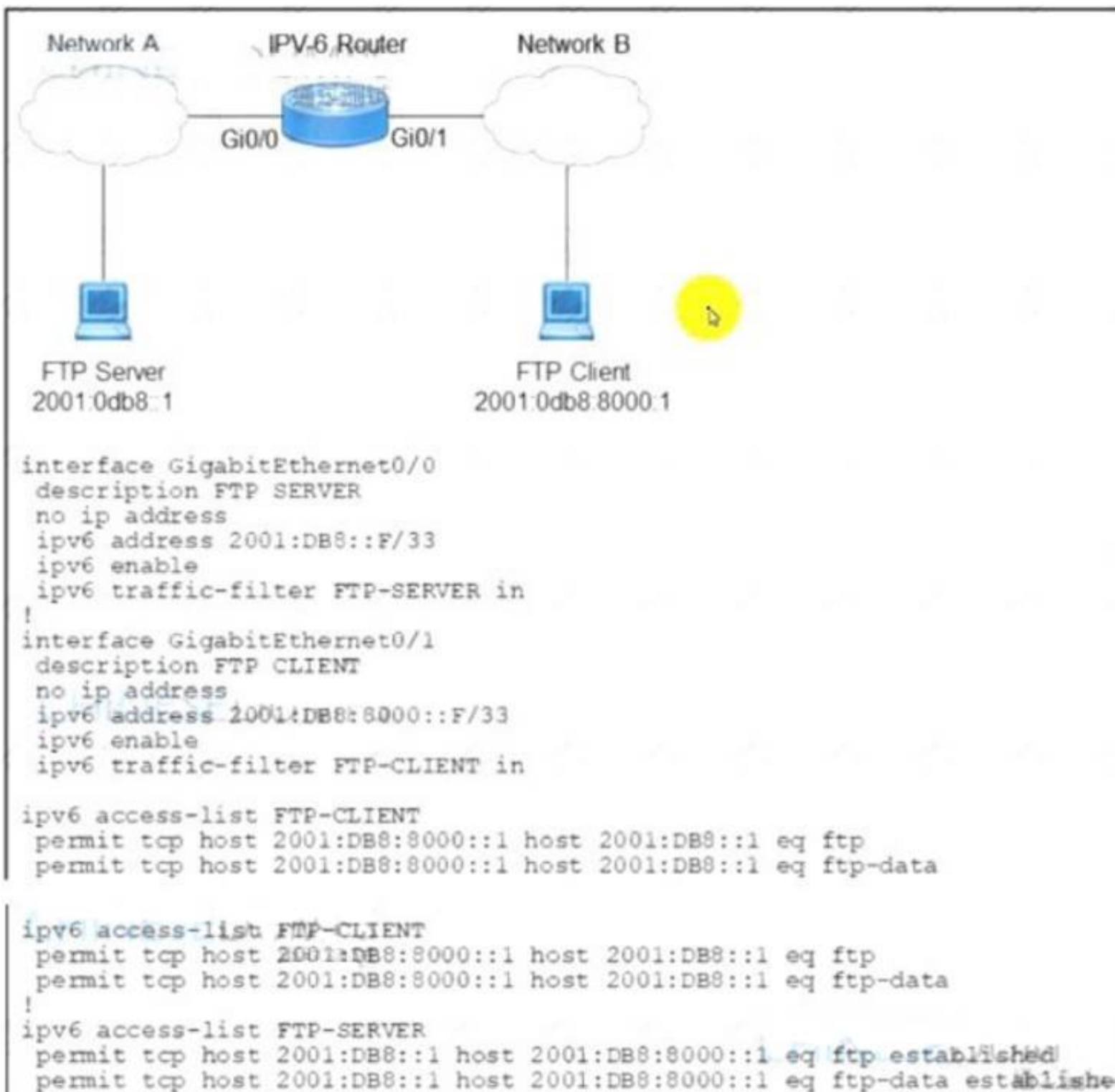
Refer to the exhibit. An engineer configured SNMP traps to record spoofed packets drop of more than 48000 a minute on the ethernet0/0 interlace. During an IP spoofing attack, the engineer noticed that no notifications have been received by the SNMP server. Which configuration resolves the issue on R1?

- A. ip verity unicast notification threshold 48000
- B. ip verify unicast notification threshold 8000
- C. ip verify unicast notification threshold 800
- D. ip verify unicast notification threshold 80

**Answer: C**

#### NEW QUESTION 116

- (Exam Topic 3)



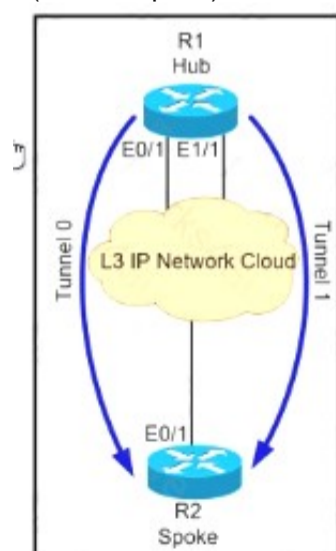
Refer to the exhibit. When an FTP client attempts to use passive FTP to connect to the FTP server, the file transfers fail Which action resolves the issue?

- A. Configure active FTP traffic.
- B. Modify FTP-SERVER access list to remove established at the end.
- C. Modify traffic filter FTP-SERVER in to the outbound direction.
- D. Configure to permit TCP ports higher than 1023.

**Answer: D**

#### NEW QUESTION 121

- (Exam Topic 3)



Refer to the exhibit. The hub and spoke are connected via two DMVPN tunnel interfaces. The NHRP is configured and the tunnels are detected on the hub and the spoke. Which configuration command adds an IPsec profile on both tunnel interfaces to encrypt traffic?

- A. tunnel protection ipsec profile DMVPN multipoint
- B. tunnel protection ipsec profile DMVPN tunnel1
- C. tunnel protection ipsec profile DMVPN shared
- D. tunnel protection ipsec profile DMVPN unique

**Answer: C**

**NEW QUESTION 123**

- (Exam Topic 3)

Refer to the exhibits.

**London – "show ip route" output**

Gateway of last resort is not set

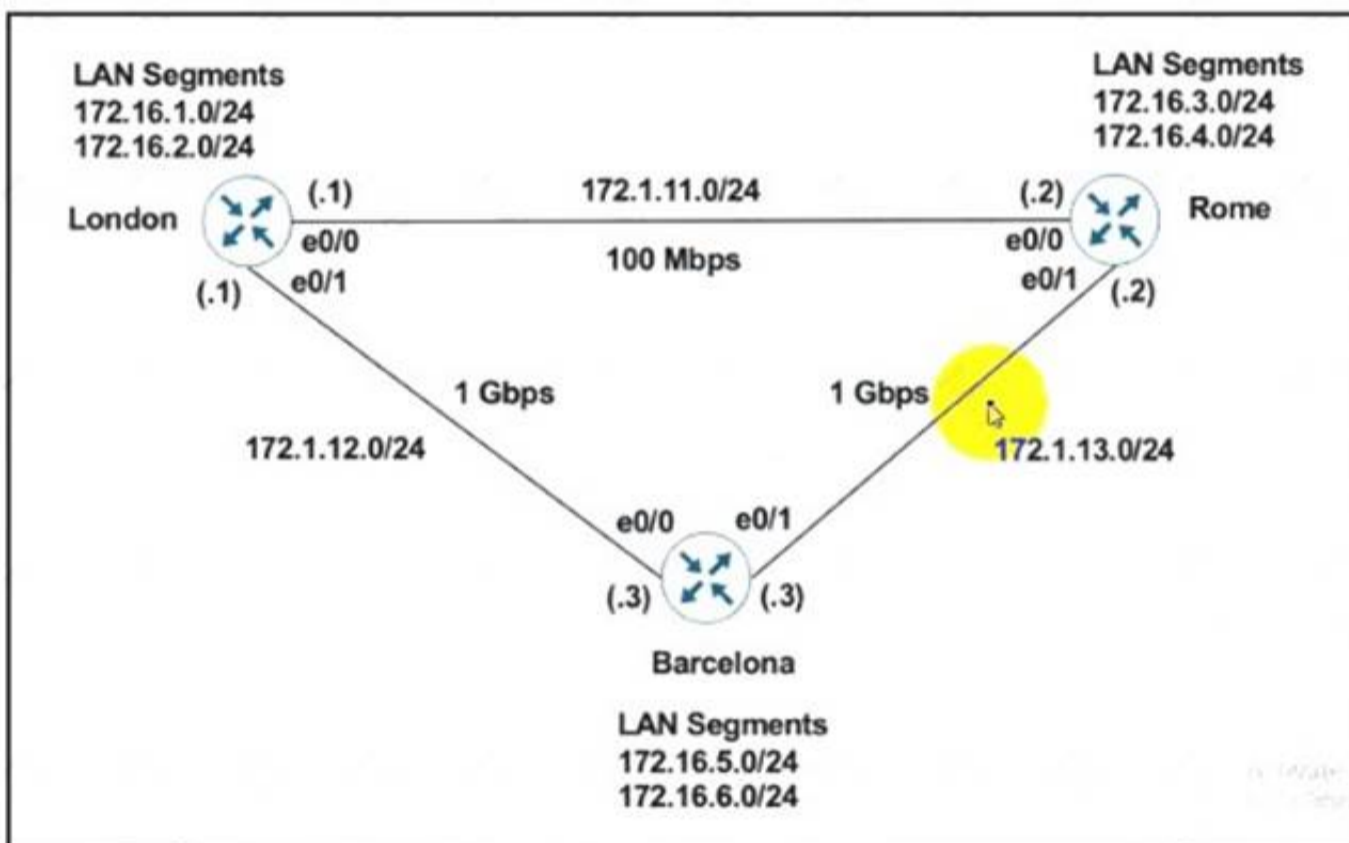
```

172.1.0.0/16 is variably subnetted, 5 subnets, 2 masks
C   172.1.11.0/24 is directly connected, Ethernet0/0
L   172.1.11.1/32 is directly connected, Ethernet0/0
C   172.1.12.0/24 is directly connected, Ethernet0/1
L   172.1.12.1/32 is directly connected, Ethernet0/1
D   172.1.13.0/24 [90/76800] via 172.1.11.2, 00:00:50, Ethernet0/0
172.16.0.0/16 is variably subnetted, 8 subnets, 2 masks
C   172.16.1.0/24 is directly connected, Loopback0
L   172.16.1.1/32 is directly connected, Ethernet0/0
C   172.16.2.0/24 is directly connected, Loopback1
L   172.16.2.1/32 is directly connected, Loopback1
R   172.16.3.0/24 [120/1] via 172.1.11.2, 00:00:08, Ethernet0/0
R   172.16.4.0/24 [120/1] via 172.1.11.2, 00:00:08, Ethernet0/0
D   172.16.5.0/24 [90/156160] via 172.1.12.3, 00:00:50, Ethernet0/1
D   172.16.6.0/24 [90/156160] via 172.1.12.3, 00:00:50, Ethernet0/1
    
```

**Rome - "show run | section router" output**

```

router eigrp 111
 network 172.1.0.0
 network 172.16.0.0
 no auto-summary
    
```



London must reach Rome using a faster path via EIGRP if all the links are up but it failed to take this path Which action resolves the issue?

- A. Increase the bandwidth of the link between London and Barcelona
- B. Use the network statement on London to inject the 172.16.0.0/24 networks into EIGRP.
- C. Change the administrative distance of RIP to 150
- D. Use the network statement on Rome to inject the 172.16.0.0/24 networks into EIGRP

**Answer: D**

**NEW QUESTION 127**

- (Exam Topic 3)

Which OSI model is used to insert an MPLS label?

- A. between Layer 5 and Layer 6
- B. between Layer 1 and Layer 2
- C. between Layer 3 and Layer 4
- D. between Layer 2 and Layer 3

**Answer: D**

**NEW QUESTION 128**

- (Exam Topic 3)

Refer to the exhibit.

```
router ospfv3 1
router-id 10.1.1.1
address-family ipv4 unicast
passive-interface Loopback0
exit-address-family
address-family ipv6 unicast
passive-interface Loopback0
exit-address-family
interface Loopback0
ip address 10.1.1.1 255.255.255.255
ipv6 address 2001:DB8::1/64
ospfv3 10 ipv4 area 10
ospfv3 10 ipv6 area 0
interface GigabitEthernet2
ip address 10.10.10.1 255.255.255.0
ipv6 enable
ospfv3 10 ipv4 area 10
ospfv3 10 ipv6 area 0
```

An engineer noticed that the router log messages do not have any information about when the event occurred. Which action should the engineer take when enabling service time stamps to improve the logging functionality at a granular level?

- A. Replace OSPF process 10 on the interfaces with OSPF process 1 and configure an additional router IO with IPv6 address
- B. Replace OSPF process 10 on the interfaces with OSPF process 1. and remove process 10 from the global configuration
- C. Replace OSPF process 10 on the interfaces with OSPF process 1 for the IPv6 address and remove process 10 from the global configuration
- D. Replace OSPF process 10 on the interfaces with OSPF process 1 for the IPv4 address and remove process 10 from the global configuration

**Answer: D**

#### NEW QUESTION 131

- (Exam Topic 3)

Refer to the exhibit.

```
Route-map PBR, permit, sequence 10
Match clauses:
ip address (access-lists): FILTER_ACL
Set clauses:
ip next-hop verify-availability 209.165.202.129 1 track 100 [down]
ip next-hop verify-availability 209.165.202.131 2 track 200 [up]
Policy routing matches: 0 packets, 0 bytes
route-map PBR, deny, sequence 20
Match clauses:
Set clauses:
ip next-hop 209.165.201.30
Policy routing matches: 275364861 packets, 12200235037 bytes
```

An engineer has configured policy-based routing and applied the configured to the correct interface. How is the configuration applied to the traffic that matches the access list?

- A. It is sent to 209.165.202.131.
- B. It is sent to 209.165.202.129.
- C. It is dropped.
- D. It is forwarded using the routing table lookup.

**Answer: A**

#### Explanation:

The set ip next-hop verify-availability command in route-map configuration mode to configure policy routing to verify the reachability of the next hop of a route map before the router performs policy routing to that next hop. In this question we see track 100 is down so the PBR will not use this next-hop, it will use the second next-hop with track 200 (up).

#### NEW QUESTION 132

- (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  
 B. Option  
 C. Option  
 D. Option

**Answer: A**

#### NEW QUESTION 136

- (Exam Topic 3)

A company is redesigning WAN infrastructure so that all branch sites must communicate via the head office and the head office can directly communicate with each site independently. The network engineer must configure the head office router by considering zero-touch technology when adding new sites in the same WAN infrastructure. Which configuration must be applied to the head office router to meet this requirement?

- ☐ **Interface Tunnel0**  
 tunnel mode ip  
 ip nhrp map multicast dynamic
- ☐ **Interface Tunnel0**  
 tunnel mode dvmp  
 ip nhrp redirect
- ☐ **Interface Tunnel0**  
 tunnel mode ip  
 ip nhrp redirect
- ☐ **Interface Tunnel0**  
 tunnel mode gre multipoint  
 ip nhrp map multicast dynamic

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

**Answer: D**

#### NEW QUESTION 138

- (Exam Topic 3)  
Refer to the exhibit.

```
*Sep 26 19:50:43.504: SNMP: Packet received via UDP from
192.168.1.2 on GigabitEthernet0/1SrParseV3SnmpMessage: No
matching Engine ID.

SrParseV3SnmpMessage: Failed.
SrDoSnmp: 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. showsnmpv3 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: 00000009020000000C025808:

```
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 142**

- (Exam Topic 3)  
What is an advantage of implementing BFD?

- A. BFD provides faster updates for any flapping route.
- B. BFD provides millisecond failure detection
- C. BFD is deployed without the need to run any routing protocol
- D. BFD provides better capabilities to maintain the routing table

**Answer:** B

**NEW QUESTION 147**

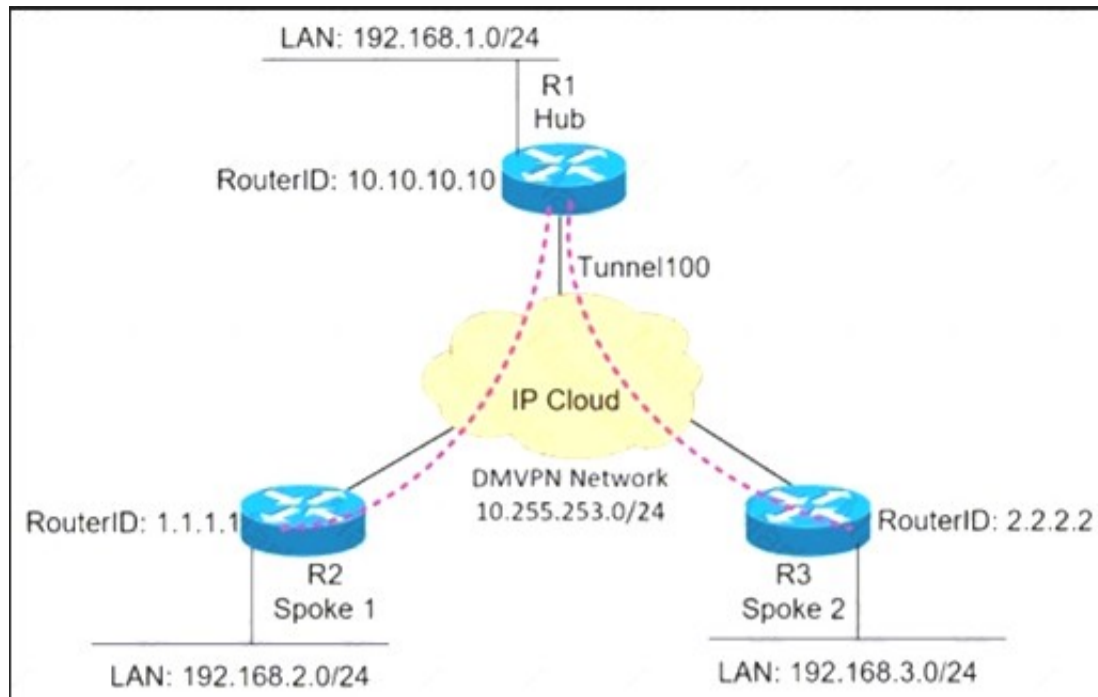
- (Exam Topic 3)  
Which technique removes the outermost label of an MPLS-tagged packet before the packet is forwarded to an adjacent LER?

- A. label swap
- B. explicit-null
- C. label imposition
- D. PHP

**Answer:** D

**NEW QUESTION 150**

- (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-NONEIGHBOR: 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 155

- (Exam Topic 3)

```
Router#show ip bgp vpnv4 rd 1100:1001 10.30.116.0/23
BGP routing table entry for 1100:1001.10.30.116.0/23, version 26765275
Paths: (9 available, best #6, not table)
Advertised to update-groups:
  1      2      3
(65001 64955 65003) 65089, (Received from a RR-client)
172.16.254.226 (metric 20645) from 172.16.224.236 (172.16.224.236)
Origin IGP, metric 0, localpref 100, valid, confed-internal
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
(65008 64955 65003) 65089
172.16.254.226 (metric 20645) from 10.131.123.71 (10.131.123.71)
Origin IGP, metric 0, localpref 100, valid, confed-external
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.253 (172.16.216.253)
Origin IGP, metric 0, localpref 100, valid, confed-external
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.252 (172.16.216.252)
Origin IGP, metric 0, localpref 100, valid, confed-external
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.77.255.57 (10.77.255.57)
Origin IGP, metric 0, localpref 100, valid, confed-external
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.57.255.11 (10.57.255.11)
Origin IGP, metric 0, localpref 100, valid, confed-external, best
Extended Community: RT:1100:1001
mpls labels in/out no-label/362
```

```
(64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.224.253 (172.16.224.253)
Origin IGP, metric 0, localpref 100, valid, confed-internal
Extended Community: RT 1100 1001
mpis labels in/out no-label/362
(65003) 65089
172.16.254.226 (metric 20645) from 172.16.254.234 (172.16.254.234)
Origin IGP, metric 0, localpref 100, valid, confed-external
Extended Community: RT 1100 1001
mpis labels in/out no-label/362
65089, (Received from a RR-client)
172.16.228.226 (metric 20645) from 172.16.228.226 (172.16.228.226)
Origin IGP, metric 0, localpref 100, valid, confed-internal
Extended Community: RT 1100 1001
mpis labels in/out no-label/278
```

Refer to the exhibit. An engineer configured BGP and wants to select the path from 10.77.255.57 as the best path instead of current best path. Which action resolves the issue?

- A. Configure AS\_PATH prepend for the desired best path
- B. Configure higher MED to select as the best path.
- C. Configure lower LOCAL\_PREF to select as the best path.
- D. Configure AS\_PATH prepend for the current best path

**Answer: D**

#### NEW QUESTION 159

- (Exam Topic 3)



```
%DUAL-3-SIA: Route 10.10.1.1/32 stuck-in-active state in IP-EIGRP(0) 1. Cleaning up
%DUAL-3-NBCHANGE: 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 163

- (Exam Topic 3)

The network administrator configured CoPP so that all routing protocol traffic toward the router CPU is limited to 1 mbps. All traffic that exceeds this limit must be dropped. The router is running BGP and OSPF Management traffic for Telnet and SSH must be limited to 500kbps.

```
access-list 100 permit tcp any any eq 179 access-list 100 permit tcp any any range 22 23 access-list 100 permit ospf any any
```

```
!
```

```
class-map CM-ROUTING match access-group 100
```

```
class-map CM-MGMT match access-group 100
```

```
!
```

```
policy-map PM-COPP class CM-ROUTING
```

```
police 1000000 conform-action transmit class CM-MGMT
```

```
police 500000 conform-action transmit
```

```
!
```

```
control-plane
```

```
service-policy output PM-COPP
```

No traffic is filtering through CoPP, which is resulting in high CPU utilization, which configuration resolves the issue?

- A. 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
- B. control-plane no service-policy output PM-COPP service-policy input PM-COPP
- C. 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
- D. 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

**Answer: D**

#### NEW QUESTION 164

- (Exam Topic 3)

Refer to the exhibit.

```
ip sla 1
 icmp-echo 8.8.8.8
 threshold 1000
 timeout 2000
 frequency 5
ip sla schedule 1 life forever start-time now
!
track 1 ip sla 1
!
ip route 0.0.0.0 0.0.0.0 203.0.113.1 name ISP1 track 1
ip route 0.0.0.0 0.0.0.0 198.51.100.1 2 name ISP2
```

The administrator noticed that the connection was flapping between the two ISPs instead of switching to ISP2 when the ISP1 failed. Which action resolves the issue?

- A. Include a valid source-interface keyword in the icmp-echo statement.
- B. Reference the track object 1 on the default route through ISP2 instead of ISP1.
- C. Modify the static routes to refer both to the next hop and the outgoing interface.
- D. Modify the threshold to match the administrative distance of the ISP2 route.

**Answer:** A

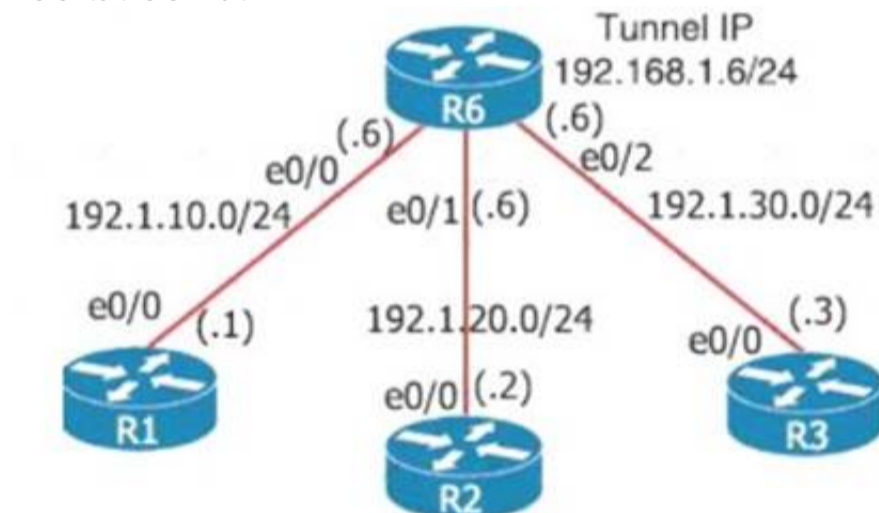
#### Explanation:

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

#### NEW QUESTION 167

- (Exam Topic 3)

Refer to the exhibit.



An engineer must establish multipoint GRE tunnels between hub router R6 and branch routers R1, R2, and R3. Which configuration accomplishes this task on R1?

A)

```
interface Tunnel 1
 ip address 192.168.1.1 255.255.255.0
 tunnel source e0/1
 tunnel mode gre multipoint
 ip nhrp nhs 192.168.1.6
 ip nhrp map 192.168.1.6 192.1.10.6
```

B)

```
interface Tunnel 1
 ip address 192.168.1.1 255.255.255.0
 tunnel source e0/1
 tunnel mode gre multipoint
 ip nhrp network-id 1
 ip nhrp nhs 192.168.1.6
 ip nhrp map 192.168.1.6 192.1.10.1
 ip nhrp map 192.168.1.2 192.1.20.2
 ip nhrp map 192.168.1.3 192.1.30.3
```

C)

```
interface Tunnel 1
 ip address 192.168.1.1 255.255.255.0
 tunnel source e0/0
 tunnel mode gre multipoint
 ip nhrp nhs 192.168.1.6
 ip nhrp map 192.168.1.6 192.1.10.1
 ip nhrp map 192.168.1.2 192.1.20.2
 ip nhrp map 192.168.1.3 192.1.30.3
```

D)

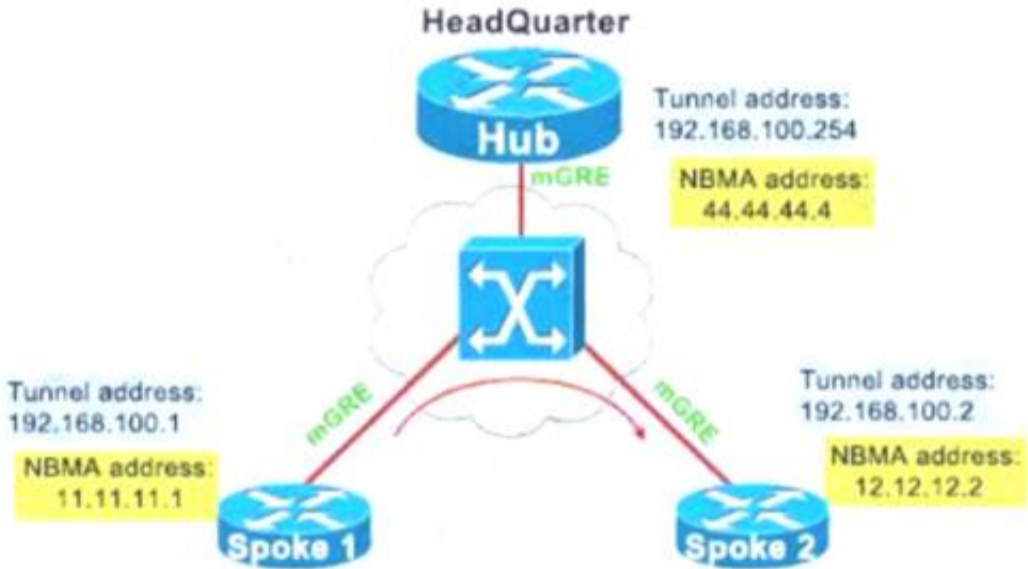
```
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source e0/0
tunnel mode gre multipoint
ip nhrp network-id 1
ip nhrp nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.6
```

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

Answer: D

Explanation:

We have an example of how to configure DMVPN Phase II and we show the configuration here for your reference:  
Diagram Description automatically generated



DMVPN Phase II – Dynamic Mapping  
Text Description automatically generated

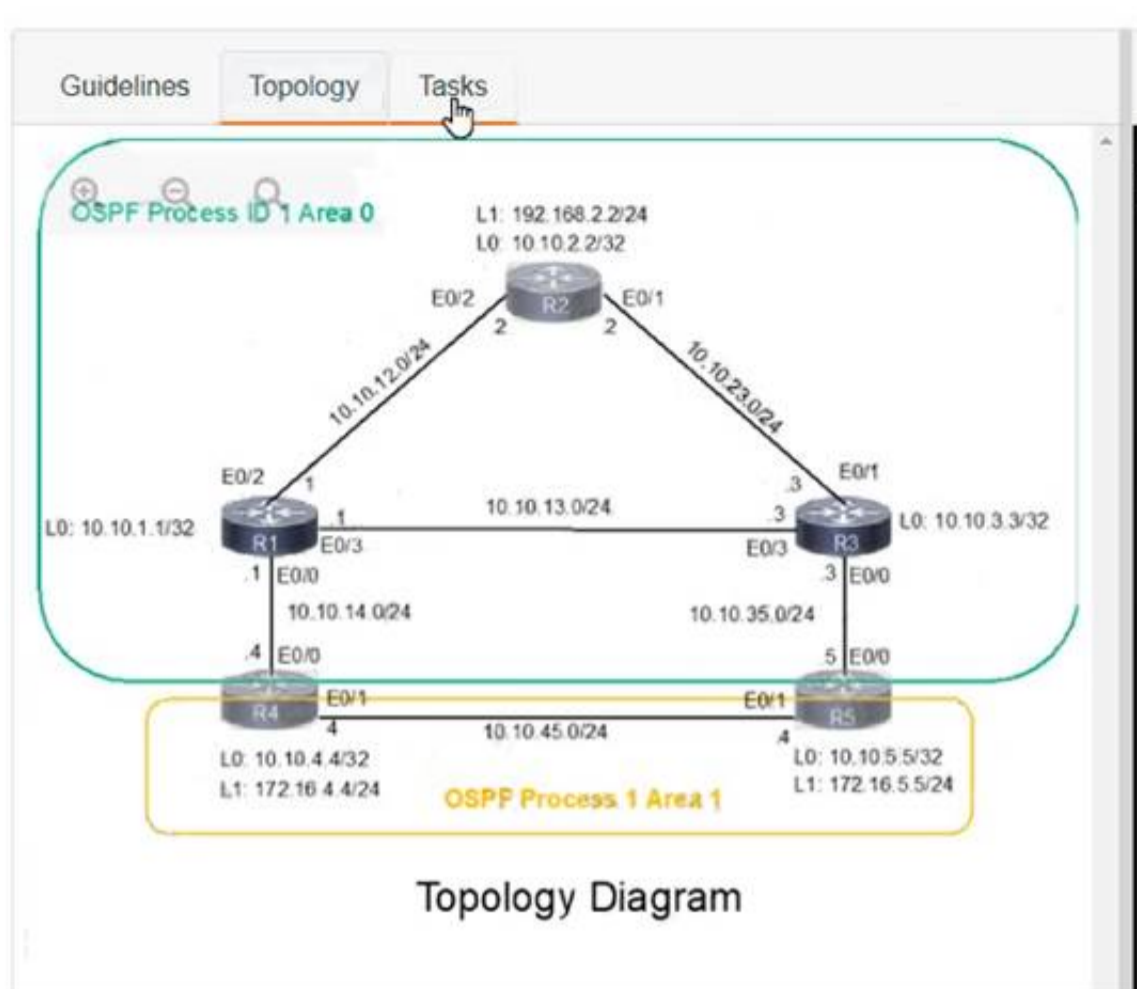
Hub	Spoke 1	Spoke 2
interface tunnel 1 ip address 192.168.100.254 255.255.255.0 tunnel source 44.44.44.4 tunnel mode gre multipoint ip nhrp network 10	interface tunnel 1 ip address 192.168.100.1 255.255.255.0 tunnel source 11.11.11.1 tunnel mode gre multipoint ip nhrp network 10 ip nhrp map 192.168.100.254 44.44.44.4 ip nhrp nhs 192.168.100.254	interface tunnel 1 ip address 192.168.100.2 255.255.255.0 tunnel source 12.12.12.2 tunnel mode gre multipoint ip nhrp network 10 ip nhrp map 192.168.100.254 44.44.44.4 ip nhrp nhs 192.168.100.254

Note: Although Phase II – Dynamic Mapping is “dynamic” but we still need to add a static entry for the hub because without that entry, the NHRP registration cannot be sent.

NEW QUESTION 172

- (Exam Topic 3)

A network is configured with IP connectivity, and the routing protocol between devices started having problems right after the maintenance window to implement network changes. Troubleshoot and resolve to a fully functional network to ensure that:



Guidelines Topology Tasks

A network is configured with IP connectivity, and the routing protocol between devices started having problems right after the maintenance window to implement network changes. Troubleshoot and resolve to a fully functional network to ensure that:

1. Inter-area links have link authentication (not area authentication) using MD5 with the key 1 string CCNP.
2. R3 is a DR regardless of R2 status while R1 and R2 establish a DR/BDR relationship.
3. OSPF uses the default cost on all interfaces. Network reachability must follow OSPF default behavior for traffic within an area over intra-area VS inter-area links.
4. The OSPF external route generated on R4 adds link cost when traversing through the network to reach R2. A network command to advertise routes is not allowed.

```

R2  R4  R5
R2>en
R2#
R2#
R2#
R2#
R2#
R2#
R2#sh run
Building configuration...

Current configuration : 1279 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure

```

```

R2  R4  R5
interface Loopback0
 ip address 10.10.2.2 255.255.255.255
 ip ospf 1 area 0
!
interface Loopback1
 ip address 192.168.2.2 255.255.255.0
 ip ospf 1 area 0
!
interface Ethernet0/0
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/1
 ip address 10.10.23.2 255.255.255.0
 ip ospf 1 area 0
 duplex auto
!
interface Ethernet0/2
 ip address 10.10.12.2 255.255.255.0
 ip ospf 1 area 0
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
router ospf 1
 passive-interface default
 no passive-interface Ethernet0/1
 no passive-interface Ethernet0/2

```

R4

Activate  
Go to Settings

Activate W  
Go to Settings

visit - <https://www.surepassexam.com>

```
R2      R4      R5
!
!
!
!
!
!
!
I
!
!
!
!
no ip domain lookup
ip cef
no ipv6 cef
!
multilink bundle-name authenticated
!
!
!
key chain CCNP
  key 1
    key-string CCNP
    cryptographic-algorithm md5
!
!
!
```

Ad  
Go

Activate Windows  
Go to Settings to activate Windows.

- visit - <https://www.surepassexam.com>

Redistribute connected subnets route-map to-ospf metric-type 1 Copy run start  
R5  
Int range et0/0 – 1  
Ip ospf authentication message-digest  
Ip ospf message-digest-key 1 md5 CCNP Interface eth 0/1  
Ip ospf cost 10 Copy run start VERIFICATION:Graphical user interface, text, application Description automatically generated

```
R2#show ip ospf nei
R2#show ip ospf neighbor

Neighbor ID      Pri   State           Dead Time   Address      Interface
10.10.1.1        1     FULL/BDR        00:00:38    10.10.12.1   Ethernet0/2
10.10.3.3        1     FULL/BDR        00:00:30    10.10.23.3   Ethernet0/1
```

NEW QUESTION 176

- (Exam Topic 3)  
Drag and drop the ICMPv6 neighbor discovery messages from the left onto the correct packet types on the right.

Neighbor Solicitation	ICMPv6 Type 134
Neighbor Advertisement	ICMPv6 Type 137
Router Advertisement	ICMPv6 Type 135
Redirect Message	ICMPv6 Type 133
Router Solicitation	ICMPv6 Type 136

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:  
Table Description automatically generated with medium confidence

NEW QUESTION 179

- (Exam Topic 3)

```
Configuration
flow exporter Flow-to-collector
destination 192.168.100.17 vrf Mgmt-intf
transport udp 2601
export-protocol netflow-v5
!
flow monitor My-netflow
exporter Flow-to-collector
record netflow ipv4 original-input
!
! and the management-interface is configured as follows:
interface GigabitEthernet0
description Management-Interface
vrf forwarding Mgmt-intf
ip address 192.168.100.50 255.255.255.0
negotiation auto

router#sh flow exporter statis
Flow Exporter Flow-to-collector:
Packet send statistics (last cleared 1w4d ago):
  Successfully sent:      0              (0 bytes)
  Reason not given:      8696868        (11473678976 bytes)
Client send statistics:
  Client: Flow Monitor G0K8-netflow
    Records added:        256783312
    - failed to send:     256783312
    Bytes added:          2783766384
    - failed to send:     2783766384
router#
```

Refer to the exhibit. A network administrator configured NetFlow data, but the data is not visible at the NetFlow collector. Which configuration allows the router to send the records?

- A. Configure the management interface in the global routing table to send the records.
- B. Configure a different interface to send the records.
- C. Configure the NetFlow collector to listen at export-protocol netflow-v5.
- D. Rectify NetFlow collector reachability from the management interface.

**Answer: B**

#### NEW QUESTION 182

- (Exam Topic 3)

Refer to the exhibit.



An engineer implemented CoPP but did not see OSPF traffic going through it. Which configuration resolves the issue?

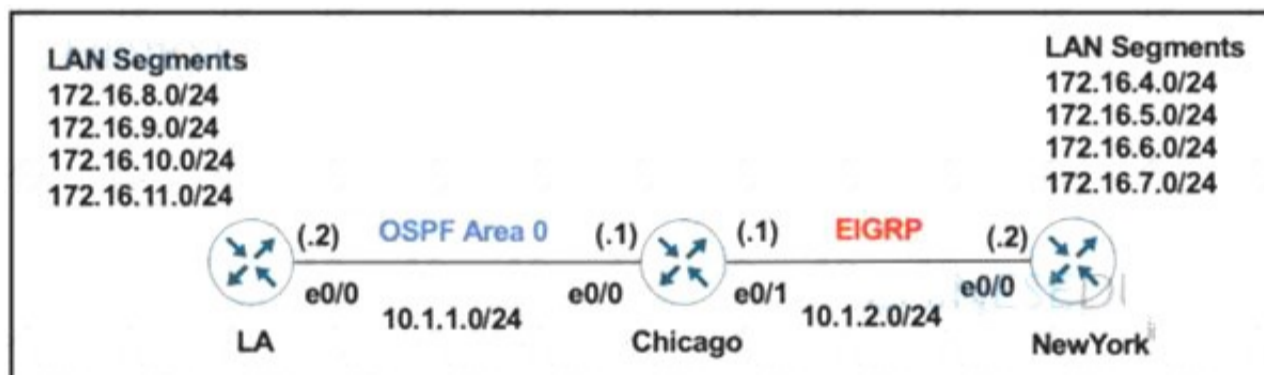
- A. ip access-list extended OSPF permit ospf any any
- B. policy-map COPP class OSPF police 8000 conform-action transmit exceed-action transmit violate-action drop
- C. control-plane service-policy input COPP
- D. class-map match-all OSPF match access-group name OSPF

**Answer: B**

#### NEW QUESTION 184

- (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?

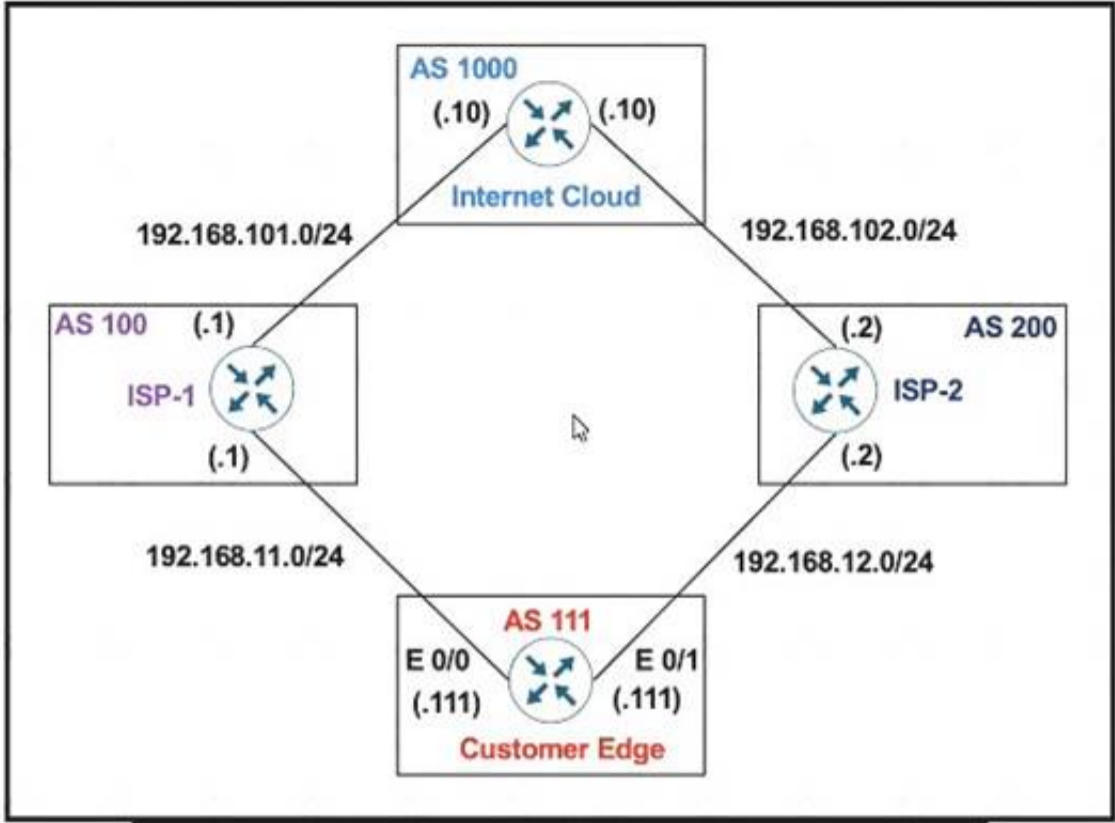
- ☒ interface E 0/1  
ip summary-address eigrp 100 172.16.0.0 255.255.0.0
- ☐ interface E 0/1  
ip summary-address eigrp 100 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.0.0 255.255.0.0

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

**Answer: B**

#### NEW QUESTION 185

- (Exam Topic 3)



```
ISP-1
ip as-path access-list 1 permit ^111
!
router bop 100
 neighbor 192.168.101.10 remote-as 1000
 neighbor 192.168.11.111 remote-as 111
 neighbor 192.168.11.111 filter-list 1 in
```

Refer to the exhibit. AS 111 must not be used as a transit AS, but ISP-1 is getting ISP-2 routes from AS 111. Which configuration stops Customer AS from being used as a transit path on ISP-1?

- A. ip as-path access-list 1 permit ^\$
- B. ip as-path access-list 1 permit\_111\_
- C. ip as-path access-list 1 permit."
- D. ip as-path access-list 1 permit ^111\$

Answer: A

**NEW QUESTION 190**

- (Exam Topic 2)

Filtered

00:00:46: %LINK-3-UPDOWN: Interface Port-channel1, changed state to up  
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up  
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up

Desired

00:00:46: %LINK-3-UPDOWN: Interface Port-channel1, changed state to up  
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up  
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up  
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down  
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down 2 \*Mar 1 18:46:11: %SYS-5-CONFIG\_I: Configured from console by vty2

Refer to the exhibits. An engineer filtered messages based on severity to minimize log messages. After applying the filter, the engineer noticed that it filtered required messages as well. Which action must the engineer take to resolve the issue?

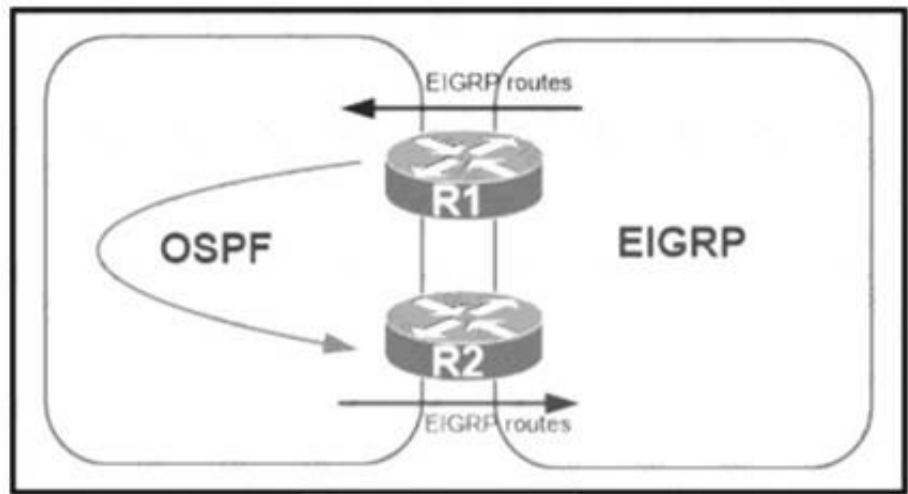
- A. Configure syslog level 2.
- B. Configure syslog level 3.
- C. Configure syslog level 4.
- D. Configure syslog level 5.

Answer: D

**NEW QUESTION 193**

- (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 allow when redistributing OSPF into EIGRP.
- B. Apply a prefix list of EIGRP network routes in OSPF domain on R1 to propagate back into the EIGRP routing domain.
- C. 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.
- D. Advertise summary routes of EIGRP to OSPF and deny specific EIGRP routes when redistributing into OSPF.

Answer: C

Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8606-redist.ht>

NEW QUESTION 197

- (Exam Topic 2)

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

label edge router	allows an LSR to remove the label before forwarding the packet
label switch router	accepts unlabeled packets and imposes labels
forwarding equivalence class	group of packets that are forwarded in the same manner
penultimate hop popping	receives labeled packets and swaps labels

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A label edge router (LER, also known as edge LSR) is a router that operates at the edge of an MPLS network 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. A forwarding equivalence class (FEC) is a term

NEW QUESTION 202

- (Exam Topic 2)

An engineer configured a DHCP server for Cisco IP phones to download its configuration from a TFTP server, but the IP phones failed to load the configuration. What must be configured to resolve the issue?

- A. BOOTP port 67
- B. DHCP option 66
- C. BOOTP port 68
- D. DHCP option 69

Answer: B

Explanation:

Command	Purpose
<code>dhcpd option 66 ascii server_name</code>	Provides the IP address or name of a TFTP server for option 66.
<b>Example:</b> <code>hostname(config)# dhcpd option 66 ascii exampleserver</code>	

DHCP options 3, 66, and 150 are used to configure Cisco IP Phones. Cisco IP Phones download their configuration from a TFTP server. When a Cisco IP Phone

starts, if it does not have both the IP address and TFTP server IP address preconfigured, it sends a request with option 150 or 66 to the DHCP server to obtain this information.+ DHCP option 150 provides the IP addresses of a list of TFTP servers.+ DHCP option 66 gives the IP address or the hostname of a single TFTP server.

Reference:

[http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa\\_84\\_cli\\_config/basic\\_dhcp.pdf](http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/basic_dhcp.pdf)

### NEW QUESTION 203

- (Exam Topic 2)

Refer to the exhibit.

```

MASS-RTR#show running-config
!
hostname MASS-RTR
!
aaa new-model
!
aaa authentication login default local
aaa authorization exec default local
aaa authorization commands 15 default local
!
username admin privilege 15 password 7 0236244818115F3348
username cisco privilege 15 password 7 0607072C494A5B
archive
 log config
  logging enable
  logging size 1000
!
interface GigabitEthernet0/0
 ip address dhcp
 duplex auto
 speed auto
!
line vty 0 4
!

MASS-RTR#show archive log config all
  idx      sess      user@line      Logged command
   1         1      console@console | interface GigabitEthernet0/0
   2         1      console@console | no shutdown
   3         1      console@console | ip address dhcp
   4         2      admin@vty0     | username cisco privilege 15 password cisco
   5         2      admin@vty0     | !config: USER TABLE MODIFIED

```

A client is concerned that passwords are visible when running this show archive log config all. Which router configuration is needed to resolve this issue?

- A. MASS-RTR(config-archive-log-cfg)#password encryption aes
- B. MASS-RTR(config)#aaa authentication arap
- C. MASS-RTR(config)#service password-encryption
- D. MASS-RTR(config-archive-log-cfg)#hidekeys

**Answer: D**

**Explanation:**

Step 7 hidekeys

Example:

Device(config-archive-log-config)# hidekeys

(Optional) Suppresses the display of password information in configuration log files.

Note

Enabling the **hidekeys** command increases security by preventing password information from being displayed in configuration log files.

### NEW QUESTION 208

- (Exam Topic 2)

A DMVPN single hub topology is using IPsec + mGRE with OSPF. What should be configured on the hub to ensure it will be the designated router?

- A. tunnel interface of the hub with ip nhrp ospf dr
- B. OSPF priority to 0
- C. route map to set the metrics of learned routes to 110
- D. OSPF priority greater than 1

**Answer: D**

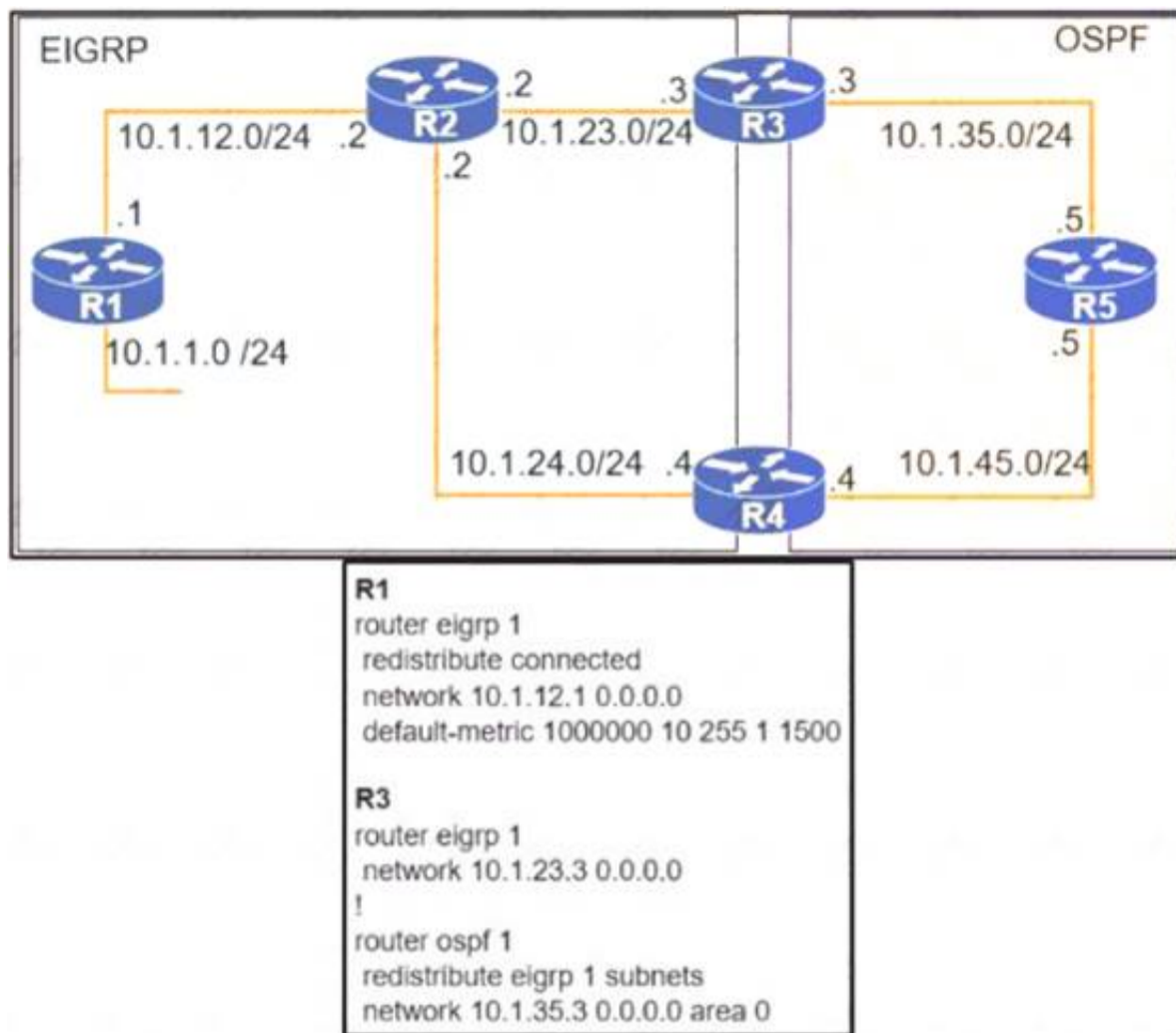
**Explanation:**

By default, the priority is 1 on all routers so we can set the OSPF priority of the hub to a value which is greater than 1 to make sure it would become the DR.

### NEW QUESTION 209

- (Exam Topic 2)

Refer to the exhibit.



To provide reachability to network 10.1.1.0 /24 from R5, the network administrator redistributes EIGRP into OSPF on R3 but notices that R4 is now taking a ..... path through R5 to reach 10.1.1.0/24 network. Which action fixes the issue while keeping the reachability from R5 to 10.1.1.0/24 network?

- A. Change the administrative distance of the external EIGRP to 90.
- B. Apply the outbound distribution list on R5 toward R4 in OSPF.
- C. Change the administrative distance of OSPF to 200 on R5.
- D. Redistribute OSPF into EIGRP on R4

**Answer: A**

#### NEW QUESTION 210

- (Exam Topic 2)  
 Refer to Exhibit.

```

HQ_R2 group
BRANCH(config)# ip route 0.0.0.0 0.0.0.0 172.16.35.2 track 1
BRANCH(config)# ip route 0.0.0.0 0.0.0.0 172.16.35.6 5
!
BRANCH(config)# ip sla 1
BRANCH(config-ip-sla)# icmp-echo 172.16.35.6
BRANCH(config-ip-sla)# timeout 200
BRANCH(config-ip-sla)# frequency 5
!
BRANCH(config)# ip sla schedule 1 life forever start-time now
!
BRANCH(config)# track 1 ip sla 1 reachability
  
```

Traffic from the branch network should route through HQ R1 unless the path is unavailable. An engineer tests this functionality by shutting down interface on the BRANCH router toward HQ\_R1 router but 192.168.20.0/24 is no longer reachable from the branch router. Which set of configurations resolves the issue?

- A. HQ\_R1(config)# ip sla responderHQ\_R1(config)# ip sla responder icmp-echo 172.16.35.2
- B. BRANCH(config)# ip sla 1BRANCH(config-ip-sla)# icmp-echo 172.16.35.1
- C. HQ\_R2(config)# ip sla responderHQ\_R2(config)# ip sla responder icmp-echo 172.16.35.5
- D. BRANCH(config)# ip sla 1BRANCH(config-ip-sla)# icmp-echo 172.16.35.2

**Answer: D**

#### Explanation:

In the configuration above, the engineer has made a mistake as he was tracking 172.16.35.6 (the backup path) instead of tracking the main path (172.16.35.2). Therefore,when he shut down the main path, the track 1 was still up so traffic still went through the main path -> it failed. To fix this issue, we just need to correct the tracking interface of the main path.

#### NEW QUESTION 214

- (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 217

- (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 218

- (Exam Topic 2)

Refer to the exhibit.

```
R1
ip prefix-list ccnp1 seq 5 permit 10.1.48.0/24 le 24
ip prefix-list ccnp2 seq 5 permit 10.1.80.0/24 le 32
ip prefix-list ccnp3 seq 5 permit 10.1.64.0/24 le 24

route-map ospf-to-eigrp permit 10
  match ip address prefix-list ccnp1
  set tag 30
route-map ospf-to-eigrp permit 20
  match ip address prefix-list ccnp2
  set tag 20
route-map ospf-to-eigrp permit 30
  match ip address prefix-list ccnp3
  set tag 10
```

An engineer wanted to set a tag of 30 to route 10.1.80.65/32 but it failed. How is the issue fixed?

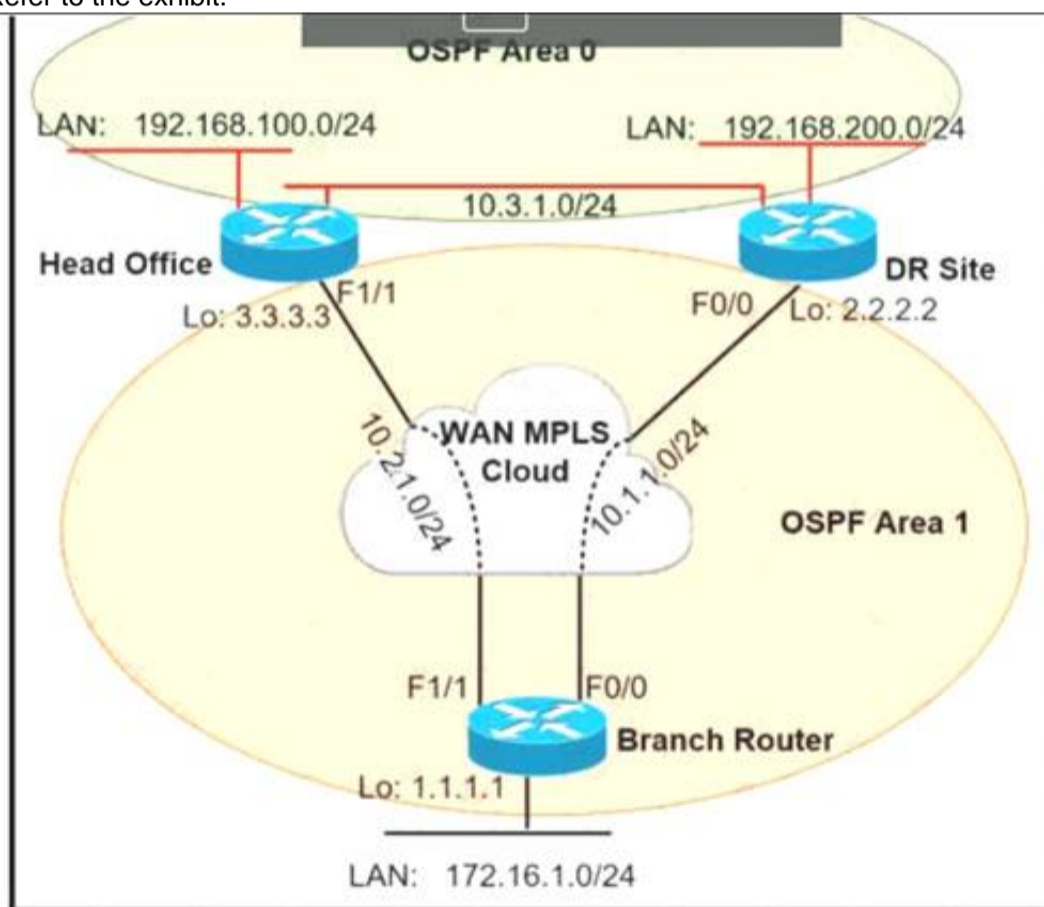
- A. Modify route-map ospf-to-eigrp permit 30 and match prefix-list ccnp2.
- B. Modify route-map ospf-to-eigrp permit 10 and match prefix-list ccnp2.
- C. Modify prefix-list ccnp3 to add 10.1.64.0/20 le 24
- D. Modify prefix-list ccnp3 to add 10.1.64.0/20 ge 32

**Answer: B**

#### NEW QUESTION 220

- (Exam Topic 2)

Refer to the exhibit.



A network administrator reviews the branch router console log to troubleshoot the OSPF adjacency issue with the DR router. Which action resolves this issue?

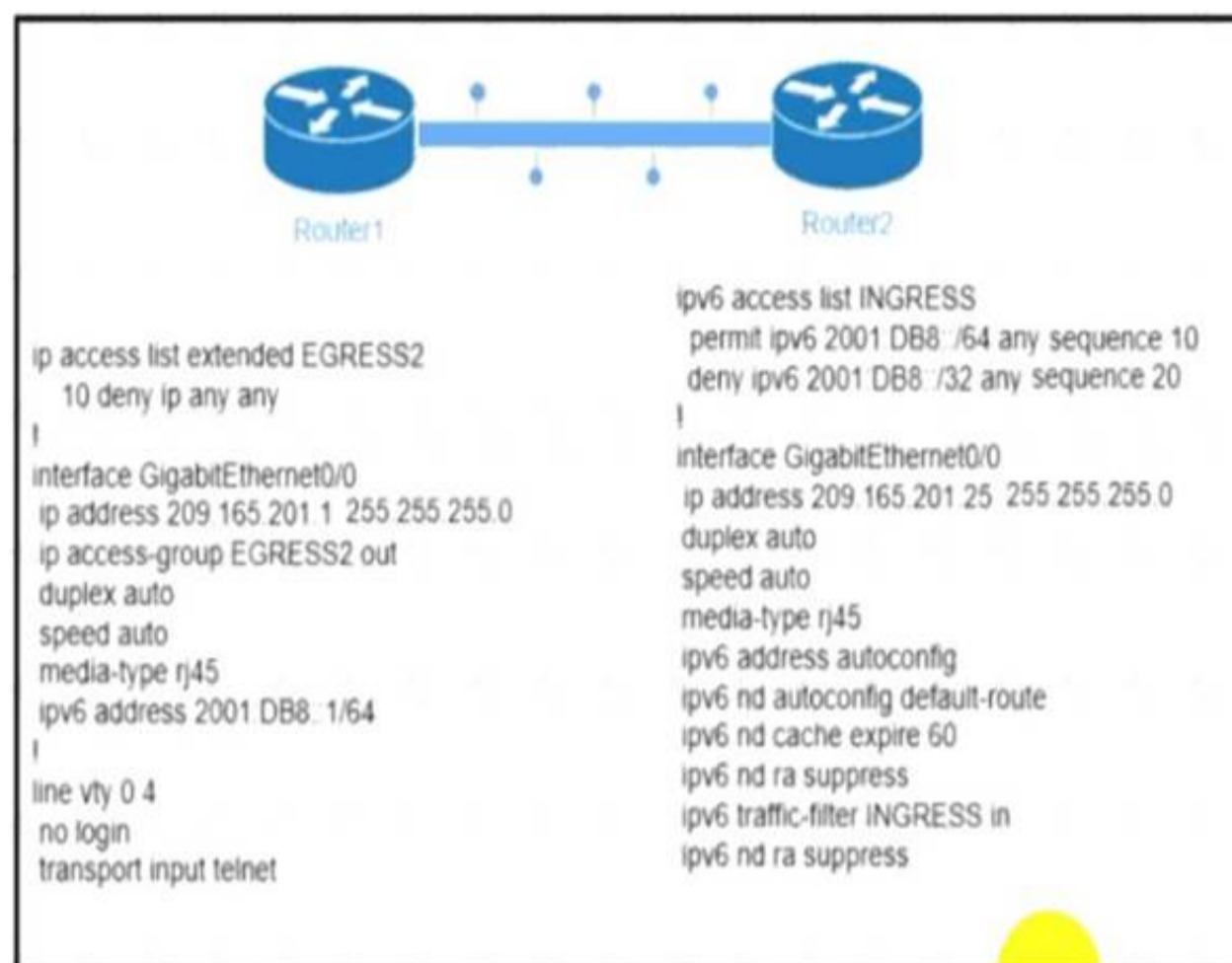
- A. Advertise the branch WAN interface matching subnet for the DR site.
- B. Configure matching hello and dead intervals between sites.
- C. Configure the WAN interface for DR site in the related OSPF area.
- D. Stabilize the DR site flapping link to establish OSPF adjacency.

**Answer: A**

#### NEW QUESTION 223

- (Exam Topic 2)

Refer to the exhibit.



The engineer configured and connected Router2 to Router1. The link came up but could not establish a Telnet connection to Router1 IPv6 address of 2001:DB8::1. Which configuration allows Router2 to establish a Telnet connection to Router1?

- A. ipv6 unicast-routing
- B. permit ICMPv6 on access list INGRESS for Router2 to obtain IPv6 address
- C. permit ip any any on access list EGRESS2 on Router1
- D. IPv6 address on GigabitEthernet0/0

**Answer: D**

**Explanation:**

```

-----R1-----
interface Ethernet0/0
 ip address 209.165.201.1 255.255.255.0
 ip access-group EGRESS2 out ipv6 address 2001:DB8::1/64 end
-----R2-----
interface Ethernet0/0
 ip address 209.165.201.25 255.255.255.0
 ipv6 address 2001:DB8::2/64 ipv6 address autoconfig
 ipv6 nd autoconfig default-route ipv6 nd cache expire 60
 ipv6 nd ra suppress
 ipv6 traffic-filter INGRESS in end
IOU_Router2#telnet 2001:DB8::1 Trying 2001:DB8::1 ... Open IOU_Router1>
  
```

## NEW QUESTION 226

- (Exam Topic 2)

Refer to the exhibit.

Entity	Item Type	Device Role	Category	Item Count	Site Count (Area)	Device Count
AS	Layer 2 loop symptoms	DISTRIBUTION	Connectivity	48	1	3

Layer 2 loop symptoms						
2	Open Issues	1	Area	2	DISTRIBUTION	
			1 Buildings, 0 Floors			

Item	Site	Device	Device Type	Item Count
Host Pack Observed in 1 VLANs	AS/AS	SF-D9300-1	Core Catalyst 9300 Series	24
Host Pack Observed in 1 VLANs	AS/AS	SF-D9300-2	Core Catalyst 9300 Series	24

Potential Loop Details					
Device	Role	Port in Loop	Dropes	ISLs in Loop	
SF-D9300-1	DISTRIBUTION	GigabitEthernet1/0/13	Full	30-33	
SF-D9300-2	DISTRIBUTION	GigabitEthernet1/0/23	Full	30-33	
SF-D9300-1	DISTRIBUTION	GigabitEthernet1/0/23	Full	30-33	
SF-D9300-2	ACCESS	GigabitEthernet1/0/23	Full	30-33	

```
interface GigabitEthernet1/0/13
  switchport trunk allowed vlan 30-33
  switchport mode trunk
!
interface GigabitEthernet1/0/23
  switchport trunk allowed vlan 30-33
  switchport mode trunk
```

An engineer identifier a Layer 2 loop using DNAC. Which command fixes the problem in the SF-D9300-1 switch?

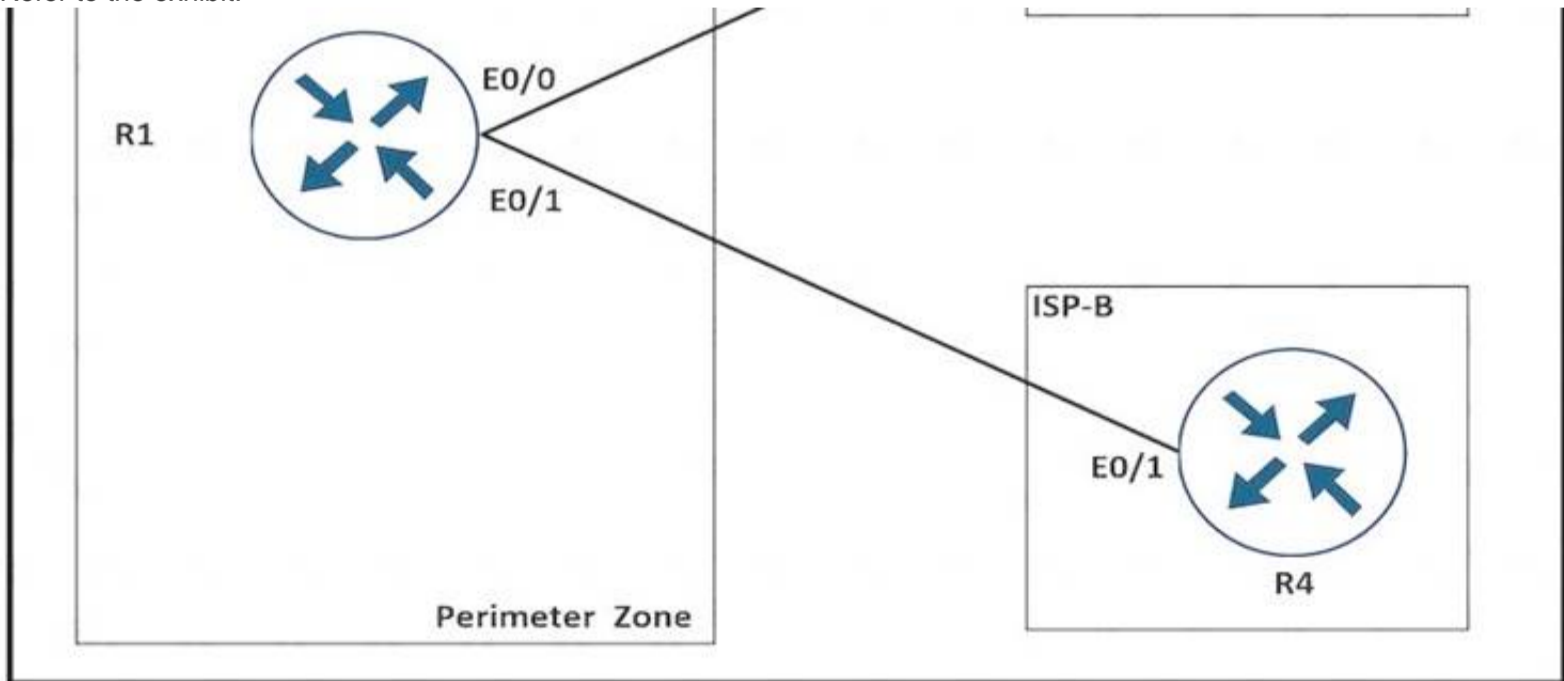
- A. no spanning-tree uplinkfast
- B. spanning-tree loopguard default
- C. spanning-tree backbonesfast
- D. spanning-tree portfast bpduguard

**Answer: D**

**Explanation:**  
[https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dnacenter/tech\\_notes/b\\_dnac\\_sda\\_lan\\_automation\\_deployment.html](https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dnacenter/tech_notes/b_dnac_sda_lan_automation_deployment.html)

**NEW QUESTION 230**

- (Exam Topic 2)  
 Refer to the exhibit.



A network is under a cyberattack. A network engineer connected to R1 by SSH and enabled the terminal monitor via SSH session to find the source and destination of the attack. The session was flooded with messages, which made it impossible for the engineer to troubleshoot the issue. Which command resolves this issue on R1?

- A. no terminal monitor
- B. (config)#terminal no monitor
- C. #terminal no monitor
- D. (config)#no terminal monitor

**Answer: C**

**Explanation:**

To turn off terminal monitor, use “terminal no monitor” in the enable mode

**NEW QUESTION 235**

- (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

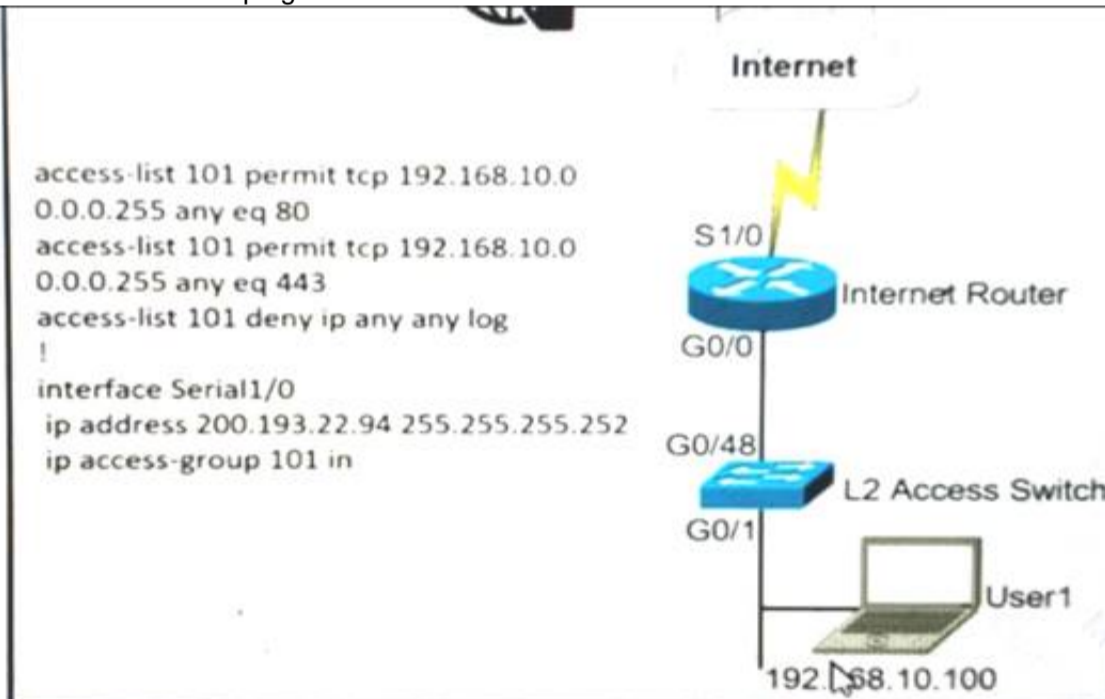
**Explanation:**

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 237**

- (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?



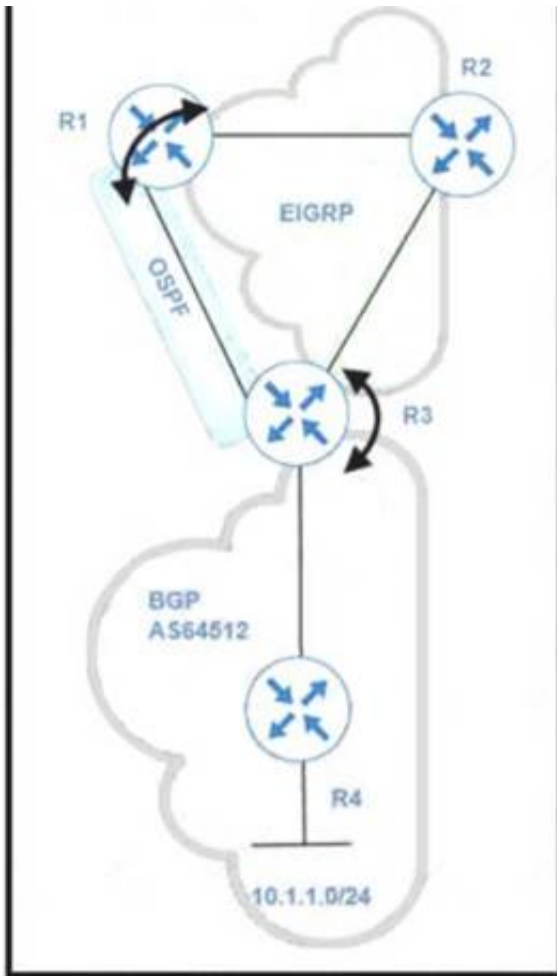
- A. Interface G0/48 in the incoming direction
- B. Interface G0/0 in the outgoing direction.
- C. Interface S1/0 in the outgoing direction.
- D. Interface G0/0 in the incoming direction.

**Answer:** D

**NEW QUESTION 238**

- (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 241**

- (Exam Topic 2)

Refer to the exhibit.

```
Router#show ip eigrp interfaces
EIGRP-IPv4 Interfaces for AS(1)
```

Interface	Xmit	Queue	PeerQ	Mean	Pacing	Time	Multicast	F
	Peers	Un/Reliable	Un/Reliable	SRRT	Un/Reliable	Flow T		
Lo0	0	0/0	0/0	0	0/0	0	0	
Fa0/0	1	0/0	0/0	7	0/2	50	0	

```
Router#show running-config | section eigrp
router eigrp 1
 network 172.16.0.0 0.0.0.255
 network 192.168.2.2 0.0.0.0
 network 192.168.12.2 0.0.0.0

Router#show running-config interface Fa0/3
Building configuration

Current configuration 93 bytes
!
interface FastEthernet0/3
 ip vrf forwarding CLIENT1
 ip address 172.16.0.1 255.255.255.0
```

While troubleshooting an EIGRP neighbor adjacency problem, the network engineer notices that the interface connected to the neighboring router is not participating in the EIGRP process. Which action resolves the issues?

- A. Configure the network command to network 172.16.0.1 0.0.0.0
- B. Configure the network command under EIGRP address family vrf CLIENT1
- C. Configure EIGRP metrics on interface FastEthernet0/3
- D. Configure the network command under EIGRP address family ipv4

**Answer:** B

**Explanation:**

```
router eigrp 1
!
address-family ipv4 vrf CLIENT1 network 172.16.0.0 0.0.0.255
no auto-summary autonomous-system 1
exit-address-family
```

**NEW QUESTION 244**

- (Exam Topic 2)

An engineer must configure a Cisco router to initiate secure connections from the router to other devices in the network but kept failing. Which two actions resolve the issue? (Choose two.)

- A. Configure a source port for the SSH connection to initiate
- B. Configure a TACACS+ server and enable it
- C. Configure transport input ssh command on the console
- D. Configure a domain name
- E. Configure a crypto key to be generated

**Answer:** DE

**Explanation:**

Follow these guidelines when configuring the switch as an SSH server or SSH client:

+ An RSA key pair generated by a SSHv1 server can be used by an SSHv2 server, and the reverse.+ If the SSH server is running on a stack master and the stack master fails, the new stack master uses the RSA key pair generated by the previous stack master

+ If you get CLI error messages after entering the crypto key generate rsa global configuration command, an RSA key pair has not been generated. Reconfigure thehostname and domain, and then enter the crypto key generate rsa command.+ When generating the RSA key pair, the message No host name specified might appear. If it does, you must configure a hostname by using the hostname globalconfiguration command.+ When generating the RSA key pair, the message No domain specified might appear. If it does, you must configure an IP domain name by using the ip domain-nameglobal configuration command.+ When configuring the local authentication and authorization authentication method, make sure that AAA is disabled on the console.

Reference:[https://www.cisco.com/en/US/docs/switches/lan/catalyst3850/software/release/3.2\\_0\\_se/multibook/co](https://www.cisco.com/en/US/docs/switches/lan/catalyst3850/software/release/3.2_0_se/multibook/co)

**NEW QUESTION 249**

- (Exam Topic 2)

An engineer configured a Cisco router to send reliable and encrypted notifications for any events to the management server. It was noticed that the notification messages are reliable but not encrypted. Which action resolves the issue?

- A. Configure all devices for SNMPv3 informs with priv.
- B. Configure all devices for SNMPv3 informs with auth.
- C. Configure all devices for SNMPv3 traps with auth.
- D. Configure all devices for SNMPv3 traps with priv.

**Answer:** A

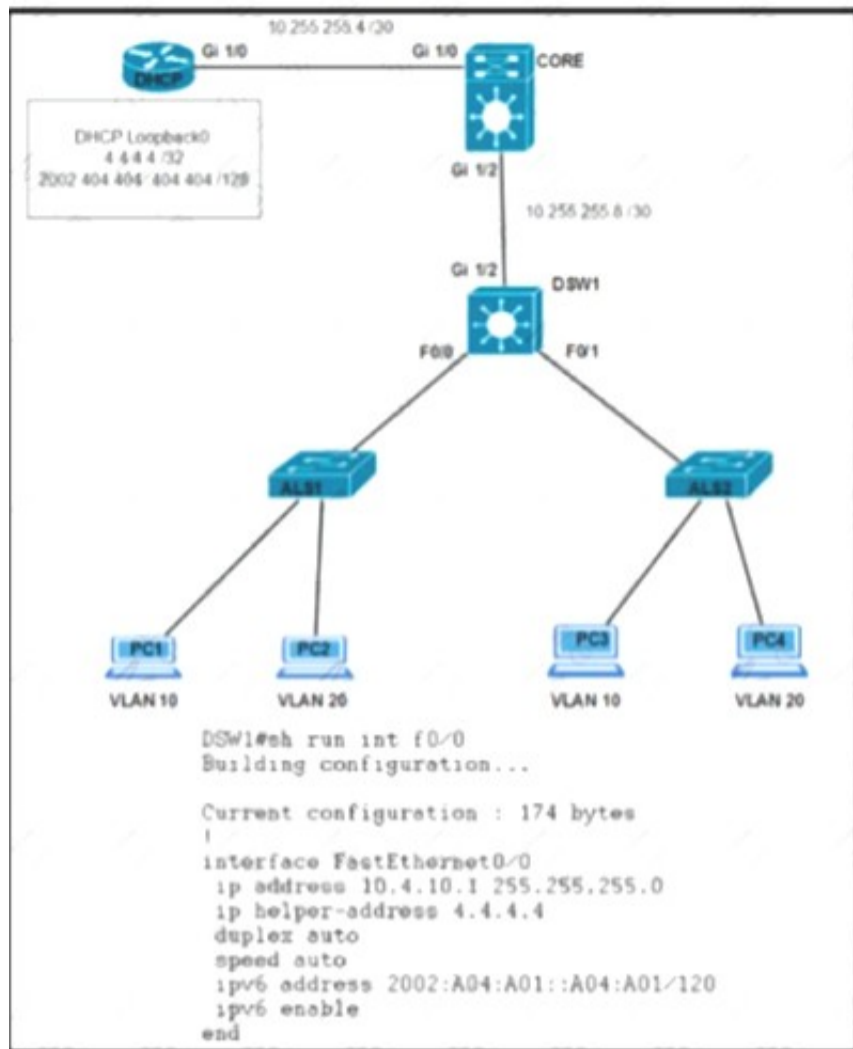
**Explanation:**

SNMP notifications can be sent as traps or inform requests. Traps are unreliable because the receiver does not send acknowledgments when this device receives traps."Send reliable and encrypted notifications for any events" so it is SNMP notifications. For encryption we need to configure "priv".

**NEW QUESTION 252**

- (Exam Topic 2)

Clients on ALS2 receive IPv4 and IPv6 addresses but clients on ALS1 receive only IPv4 addresses and not IPv6 addresses. Which action on DSW1 allows clients on ALS1 to receive IPv6 addresses?



- A. Configure DSW1(config-if)#ipv6 helper address 2002:404:404::404:404
- B. Configure DSW1(dhcp-config)#default-router 2002:A04:A01::A04:A01
- C. Configure DSW1(config)#ipv6 route 2002:404:404:404:404/128 FastEthernet1/0
- D. Configure DSW1(config-if)#ipv6 dhcp relay destination 2002:404:404::404:404 GigabitEthernet1/2
- E. Option A
- F. Option B
- G. Option C
- H. Option B

**Answer: B**

**Explanation:**

<https://community.cisco.com/t5/networking-documents/stateful-dhcpv6-relay-configuration-example/ta-p/31493>

**NEW QUESTION 253**

- (Exam Topic 2)

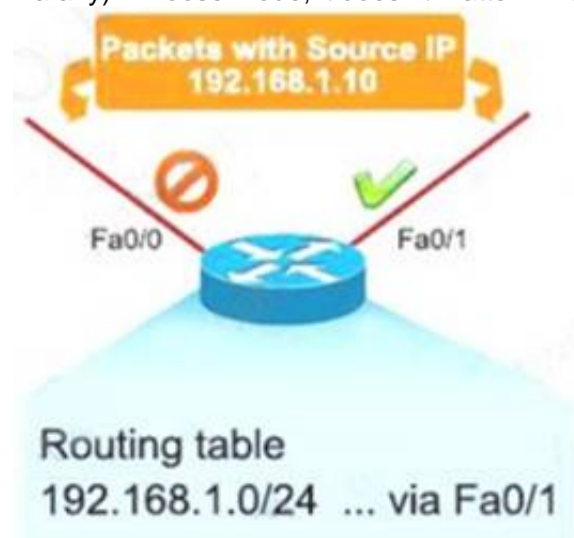
An engineer configured Reverse Path Forwarding on an interface and noticed that the routes are dropped when a route lookup fails on that interface for a prefix that is available in the routing table Which interface configuration resolves the issue?

- 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 255

- (Exam Topic 2)

An engineer configured two routers connected to two different service providers using BGP with default attributes. One of the links is presenting high delay, which causes slowness in the network. Which BGP attribute must the engineer configure to avoid using the high-delay ISP link if the second ISP link is up?

- A. LOCAL\_PREF
- B. MED
- C. WEIGHT
- D. AS-PATH

**Answer:** A

#### NEW QUESTION 258

- (Exam Topic 2)

Refer to the exhibit.

```
admin@linux:~$ scp script.py admin@198.51.100.64:script.py
Password:
Administratively disabled.
admin@linux:~$ Connection to 198.51.100.64 closed by remote
host.
```

A network administrator has developed a Python script on the local Linux machine and is trying to transfer it to the router. However, the transfer fails. Which action resolves this issue?

- A. The SSH service must be enabled with the crypto key generate rsa command.
- B. The SCP service must be enabled with the ip scp server enable command.
- C. The Python interpreter must first be enabled with the guestshell enable command.
- D. The SSH access must be allowed on the VTY lines using the transport input ssh command.

**Answer:** B

#### Explanation:

The error “Administratively disabled” means we need to enable SCP on the router with the command: Router(config)#ip scp server enable

#### NEW QUESTION 261

- (Exam Topic 2)

Which Ipv6 first-hop security feature helps to minimize denial of service attacks?

- A. IPv6 Router Advertisement Guard
- B. IPv6 Destination Guard
- C. DHCPv6 Guard
- D. IPv6 MAC address filtering

**Answer:** B

#### Explanation:

The Destination Guard feature helps in minimizing denial-of-service (DoS) attacks. It performs address resolutions only for those addresses that are active on the link, and requires the FHS binding table to be populated with the help of the IPv6 snooping feature. The feature enables the filtering of IPv6 traffic based on the destination address, and blocks the NDP resolution for destination addresses that are not found in the binding table. By default, the policy drops traffic coming for an unknown destination.

Reference: [https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600\\_15\\_0s\\_book/IPv6\\_Secur](https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600_15_0s_book/IPv6_Secur)

#### NEW QUESTION 264

- (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.

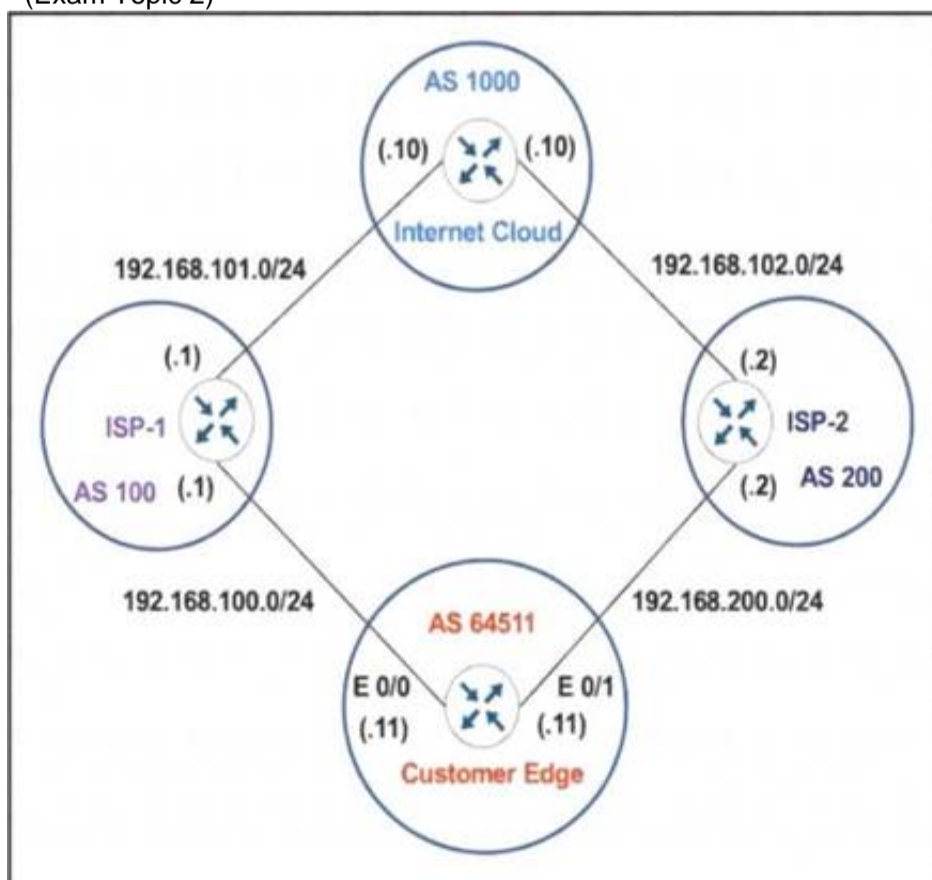
**Answer: B**

**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 268**

- (Exam Topic 2)



Refer to the exhibit. The network administrator has configured the Customer Edge router (AS 64511) to send only summarized routes toward ISP-1 (AS 100) and ISP-2 (AS 200).

```

router bgp 64511
network 172.16.20.0 mask 255.255.255.0
network 172.16.21.0 mask 255.255.255.0
network 172.16.22.0 mask 255.255.255.0

```

network 172.16.23.0 mask 255.255.255.0

aggregate-address 172.16.20.0 255.255.252.0

After this configuration, ISP-1 and ISP-2 continue to receive the specific routes and the summary route. Which configuration resolves the issue?

A. router bgp 64511 aggregate-address 172.16.20.0 255.255.252.0 summary-only

B. router bgp 64511 neighbor 192.168.100.1 summary-only neighbor 192.168.200.2 summary-only

C. interface E 0/0 ip bgp suppress-map BLOCK\_SPECIFIC! interface E 0/1 ip bgp suppress-map BLOCK\_SPECIFIC! ip prefix-list PL\_BLOCK\_SPECIFIC permit 172.16.20.0/22 ge 24! route-map BLOCK\_SPECIFIC permit 10 match ip address prefix-list PL\_BLOCK\_SPECIFIC

D. ip prefix-list PL\_BLOCK\_SPECIFIC deny 172.16.20.0/22 ge 22 ip prefix-list PL\_BLOCK\_SPECIFIC permit 172.16.20.0/22! route-map BLOCK\_SPECIFIC permit 10 match ip address prefix-list PL\_BLOCK\_SPECIFIC! router bgp 64511 aggregate-address 172.16.20.0 255.255.252.0 suppress-map BLOCK\_SPECIFIC

**Answer:** A

**Explanation:**

When the aggregate-address command is used within BGP routing, the aggregated address is advertised, along with the more specific routes. The exception to this

rule is through the use of the summary-only command. The “summary-only” keyword suppresses the more specific routes and announces only the summarized route.

**NEW QUESTION 270**

- (Exam Topic 1)

Refer to the exhibit.

```
router eigrp 1

redistribute ospf 5 match external route-map OSPF-TO-EIGRP
metric 10000 2000 255 1 1500
route-map OSPF-TO-EIGRP
match ip address TO-OSPF
```

Which routes from OSPF process 5 are redistributed into EIGRP?

A. E1 and E2 subnets matching access list TO-OSPF

B. E1 and E2 subnets matching prefix list TO-OSPF

C. only E2 subnets matching access list TO-OSPF

D. only E1 subnets matching prefix list TO-OS1

**Answer:** A

**NEW QUESTION 272**

- (Exam Topic 1)

Which security feature can protect DMVPN tunnels?

A. IPsec

B. TACACS+

C. RTBH

D. RADIUS

**Answer:** A

**NEW QUESTION 275**

- (Exam Topic 2)

An engineer needs dynamic routing between two routers and is unable to establish OSPF adjacency. The output of the show ip ospf neighbor command shows that the neighbor state is EXSTART/EXCHANGE. Which action should be taken to resolve this issue?

A. match the passwords

B. match the hello timers

C. match the MTUs

D. match the network types

**Answer:** C

**Explanation:**

**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. When

**NEW QUESTION 280**

- (Exam Topic 2)

Refer to Exhibit.

```
Jan 9 15:29:29.713: DHCP_SNOOPING: process new DHCP packet, message type: DHCPINFORM, input interface: Po2, MAC da: ffff.ffff.ffff, DHCP yiaddr: 0.0.0.0, DHCP siaddr: 0.0.0.0, DHCP giaddr: 0.0.0.0
Jan 9 15:29:29.713: DHCP_SNOOPING_SW: bridge packet get invalid mat entry: FFFF.FFFF.FFFF, packet is flooded to ingress VLAN: (1)
Jan 9 15:29:29.722: DHCP_SNOOPING_SW: bridge packet send packet to cpu port: Vlan1.
Jan 9 15:29:31.509: DHCP Snooping(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11
Jan 9 15:29:31.509: DHCP Snooping(hlrm_set_if_input): Setting if_input to V11 for pak. Was Po2
Jan 9 15:29:31.509: DHCP Snooping(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11Jan 9 15:29:31.517: DHCP_SNOOPING: received new DHCP packet from input interface (Port-channel2)
```

A network administrator enables DHCP snooping on the Cisco Catalyst 3750-X switch and configures the uplink port (Port-channel2) as a trusted port. Clients are not receiving an IP address, but when DHCP snooping is disabled, clients start receiving IP addresses. Which global command resolves the issue?

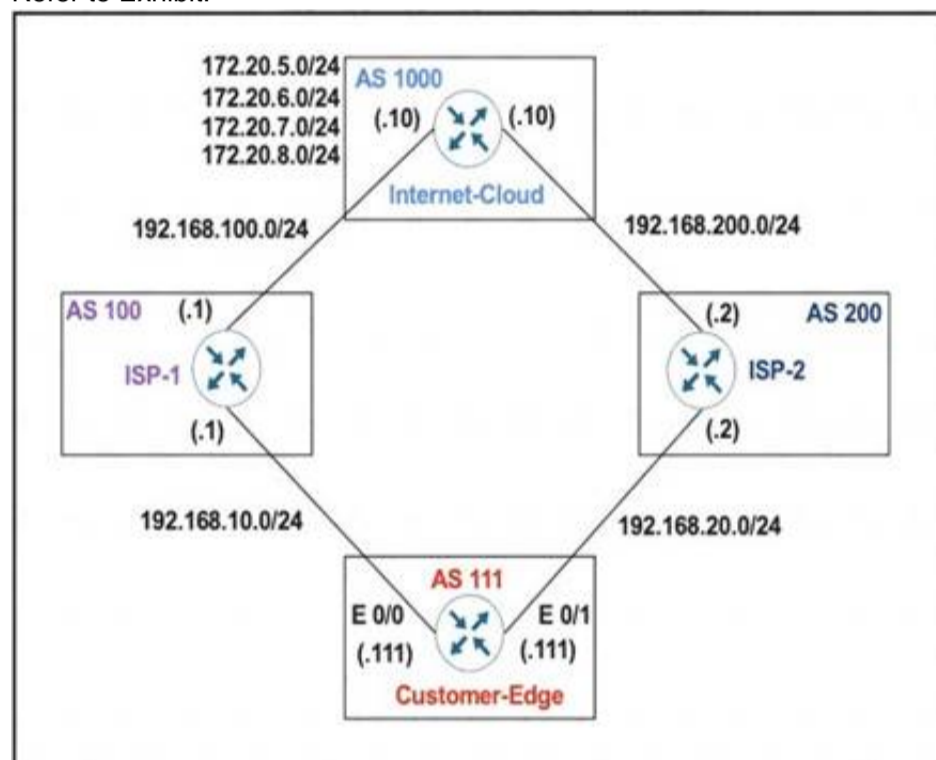
- A. No ip dhcp snooping information option
- B. ip dhcp snooping
- C. ip dhcp relay information trust portchannel2
- D. ip dhcp snooping trust

**Answer: A**

#### NEW QUESTION 283

- (Exam Topic 2)

Refer to Exhibit:



#### Customer-Edge

```
ip prefix-list PLIST1 permit 172.20.5.0/24
!
route-map SETLP permit 10
 match ip address prefix-list PLIST1
 set local-preference 90
!
router bgp 111
 neighbor 192.168.10.1 remote-as 100
 neighbor 192.168.10.1 route-map SETLP in
 neighbor 192.168.20.2 remote-as 200
```

AS 111 wanted to use AS 200 as the preferred path for 172.20.5.0/24 and AS 100 as the backup. After the configuration, AS 100 is not used for any other routes. Which configuration resolves the issue?

- A. route-mmap SETLP permit 10 match ip address prefix-list PLIST1 set local-preference 99route-map SETLP permit 20
- B. route-map SETLP permit 10match ip address prefix-list PLIST1 set local-preference 110route-map SETLP permit 20
- C. router bgp 111no neighbor 192.168.10.1 route-map SETLP in neighbor 192.168.10.1 route-map SETLP out
- D. router bap 111no neighbor 192.168.10.1 route-map SETLP in neighbor 192.168.20.2 route-map SE TLP in

**Answer: A**

#### **Explanation:**

There is an implicit deny all at the end of any route-map so all other traffic that does not match 172.20.5.0/24 would be dropped. Therefore we have to add a permitsequence at the end of the route-map to allow other traffic.

The default value of Local Preference is 100 and higher value is preferred so we have to set the local preference of AS100 lower than that of AS200.

#### NEW QUESTION 286

- (Exam Topic 1)

Drag and Drop the IPv6 First-Hop Security features from the left onto the definitions on the right.

IPv6 DHCPv6 Guard	Block a malicious host and permit the router from a legitimate route
IPv6 Binding Table	Block reply and advertisement messages from unauthorized DHCP servers and relay agents.
IPv6 Source Guard	Create a binding table that is based on NS and NA messages.
IPv6 RA Guard	Filter inbound traffic on Layer 2 switch ports that are not in the IPv6 binding table.
IPv6 ND Inspection	Create IPv6 neighbors connected to the device from information sources such as NDP snooping.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:  
Graphical user interface, chart Description automatically generated

NEW QUESTION 289

- (Exam Topic 1)  
Users were moved from the local DHCP server to the remote corporate DHCP server. After the move, none of the users were able to use the network. Which two issues will prevent this setup from working properly? (Choose two)

- A. Auto-QoS is blocking DHCP traffic.
- B. The DHCP server IP address configuration is missing locally
- C. 802.1X is blocking DHCP traffic
- D. The broadcast domain is too large for proper DHCP propagation
- E. The route to the new DHCP server is missing

Answer: BE

NEW QUESTION 293

- (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 294

- (Exam Topic 1)  
Drag and drop the OSPF adjacency states from the left onto the correct descriptions on the right.

Init	Each router compares the DBD packets that were received from the other router.
2-way	Routers exchange information with other routers in the multiaccess network.
Down	The neighboring router requests the other routers to send missing entries.
Exchange	The network has already elected a DR and a backup BDR.
ExStart	The OSPF router ID of the receiving router was not contained in the hello message.
Loading	No hellos have been received from a neighbor router.

- A. Mastered  
 B. Not Mastered

**Answer: A**

**Explanation:**

Table Description automatically generated

(Reference: [http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080093f0e.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080093f0e.shtml)) Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html> Down

This is the first OSPF neighbor state. It means that no information (hellos) has been received from this neighbor, but hello packets can still be sent to the neighbor in this state.

During the fully adjacent neighbor state, if a router doesn't receive hello packet from a neighbor within the Router Dead Interval time (RouterDeadInterval = 4\*HelloInterval by default) or if the manually configured neighbor is being removed from the configuration, then the neighbor state changes from Full to Down.

Attempt

This state is only valid for manually configured neighbors in an NBMA

environment. In Attempt state, the

router sends unicast hello packets every poll interval to the neighbor, from which hellos have not been received within the dead interval.

Init

This state specifies that the router has received a hello packet from its neighbor, but the receiving router's ID was not included in the hello packet. When a router receives a hello packet from a neighbor, it should list the sender's router ID in its hello packet as an acknowledgment that it received a valid hello packet.

2-Way

This state designates that bi-directional communication has been established between two routers.

Bi-directional means that each router has seen the other's hello packet. This state is attained when the router receiving the hello packet sees its own Router ID within the received hello packet's neighbor field. At this state, a router decides whether to become adjacent with this neighbor. On broadcast media and non-broadcast

multiaccess networks, a router becomes full only with the designated router (DR) and the backup designated router (BDR); it stays in the 2-way state with all other neighbors. On Point-to-point and Point-to-multipoint networks, a router becomes full with all connected routers.

At the end of this stage, the DR and BDR for broadcast and non-broadcast multiaccess networks are elected. For more information on the DR election process, refer to DR Election.

Note: Receiving a Database Descriptor (DBD) packet from a neighbor in the init state will also cause a transition to 2-way state.

Exstart

Once the DR and BDR are elected, the actual process of exchanging link state information can start between the routers and their DR and BDR. (ie. Shared or NBMA networks).

In this state, the routers and their DR and BDR establish a master-slave relationship and choose the initial sequence number for adjacency formation. The router with the higher router ID becomes the master and starts the exchange, and as such, is the only router that can increment the sequence number. Note that one would logically conclude that the DR/BDR with the highest router ID will become the master during this process of master-slave relation. Remember that the DR/BDR election might be purely by virtue of a higher priority configured on the router instead of highest router ID. Thus, it is possible that a DR plays the role of slave. And also note that master/slave election is on a per-neighbor basis.

Exchange

In the exchange state, OSPF routers exchange database descriptor (DBD) packets. Database descriptors contain link-state advertisement (LSA) headers only and describe the contents of the entire link-state database. Each DBD packet has a sequence number which can be incremented only by master which is explicitly acknowledged by slave. Routers also send link-state request packets and link-state update packets (which contain the entire LSA) in this state. The contents of the DBD received are compared to the information contained in the routers link-state database to check if new or more current link-state information is available with the neighbor.

Loading

In this state, the actual exchange of link state information occurs. Based on the information provided by the DBDs, routers send link-state request packets. The neighbor then provides the requested link-state information in link-state update packets. During the adjacency, if a router receives an outdated or missing LSA, it requests that LSA by sending a link-state request packet. All link-state update packets are acknowledged.

Full

In this state, routers are fully adjacent with each other. All the router and network LSAs are exchanged and the routers' databases are fully synchronized.

Full is the normal state for an OSPF router. If a router is stuck in another state, it is an indication that there are problems in forming adjacencies. The only exception to this is the 2-way state, which is normal in a broadcast network. Routers achieve the FULL state with their DR and BDR in NBMA/broadcast media and FULL state with every neighbor in the remaining media such as point-to-point and point-to-multipoint.

Note: The DR and BDR that achieve FULL state with every router on the segment will display

FULL/DROTHER when you enter the show ip ospf neighbor

command on either a DR or BDR. This simply

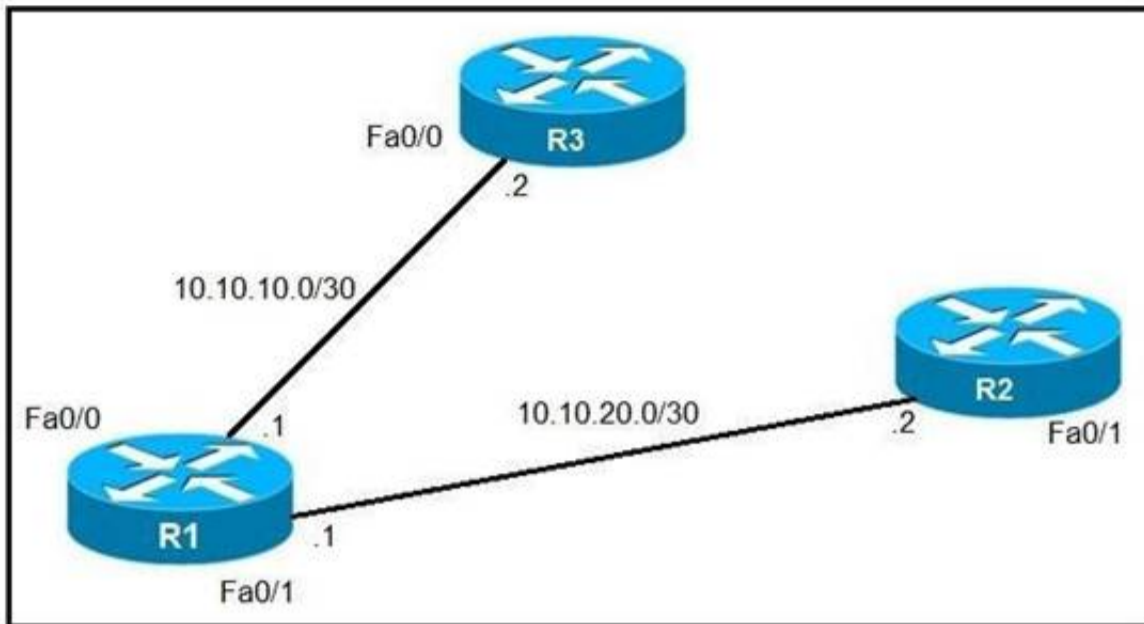
means that the neighbor is not a DR or BDR, but since the router on which the command was entered is either a DR or BDR, this shows the neighbor as FULL/DROTHER.

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html> Reference:  
[http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080093f0e.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080093f0e.shtml)) Reference: <https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html>

#### NEW QUESTION 295

- (Exam Topic 1)

Refer to the exhibit.



An IP SLA was configured on router R1 that allows the default route to be modified in the event that Fa0/0 loses reachability with the router R3 Fa0/0 interface. The route has changed to flow through router R2. Which debug command is used to troubleshoot this issue?

- A. debug ip flow
- B. debug ip sla error
- C. debug ip routing
- D. debug ip packet

**Answer: C**

#### Explanation:

debug ip routing This command enables debugging messages related to the routing table.

#### NEW QUESTION 298

- (Exam Topic 1)

Which SNMP verification command shows the encryption and authentication protocols that are used in SNMPV3?

- A. show snmp group
- B. show snmp user
- C. show snmp
- D. show snmp view

**Answer: B**

#### NEW QUESTION 303

- (Exam Topic 1)

Refer to the exhibit.

```

R1(config)# ip route 0.0.0.0 0.0.0.0 1.1.1.1
R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2 10
R1(config)# ip sla 1
R1(config)# icmp-echo 1.1.1.1 source-interface FastEthernet0/0
R1(config)# ip sla schedule 1 life forever start-time now

R1(config)# track 1 ip sla 1 reachability
  
```

An IP SLA is configured to use the backup default route when the primary is down, but it is not working as desired. Which command fixes the issue?

- A. R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2 10 track 1
- B. R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2
- C. R1(config)# ip sla track 1
- D. R1(config)# ip route 0.0.0.0 0.0.0.0 1.1.1.1 track 1

**Answer: D**

#### Explanation:

Reference:

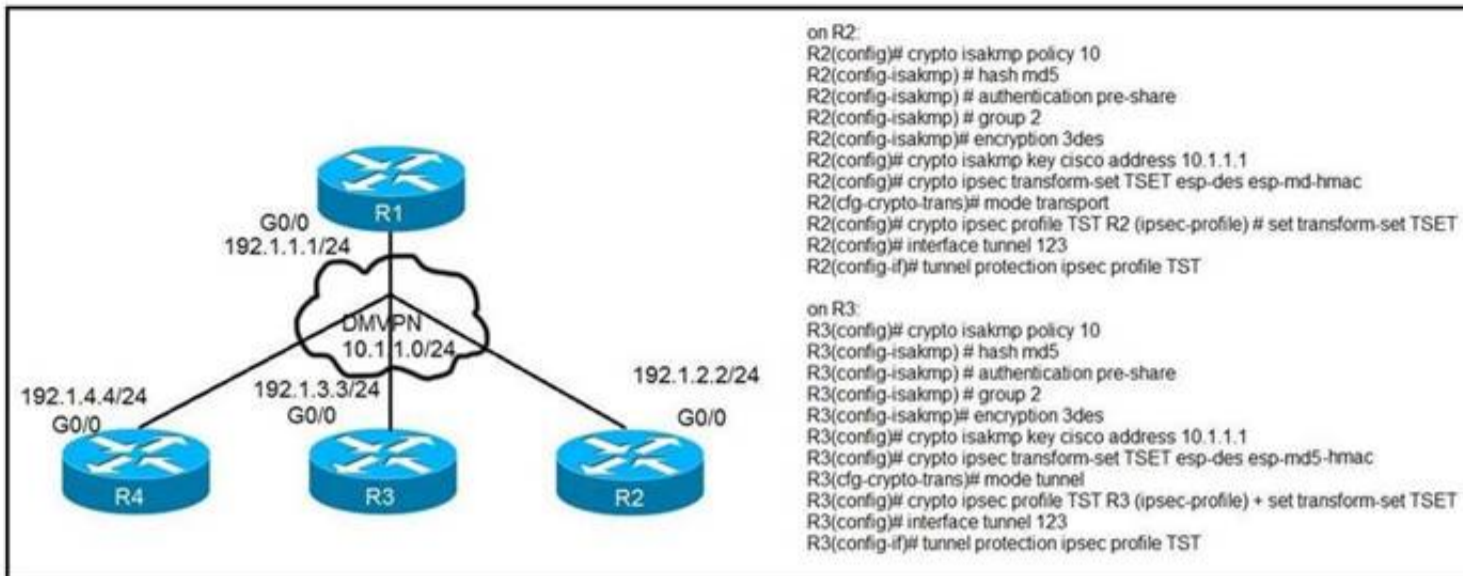
Note: By default Static Router AD value-1 hence ip route 0.0.0.0 0.0.0.0 1.1.1.1 track 1 means AD-1 which must be less than of back up route AD. Define the backup route to use when the tracked object is unavailable. !--- The administrative distance of the backup route must be greater than !--- the administrative distance of the tracked route.!--- If the primary gateway is unreachable, that route is removed!--- and the backup route is installed in the routing table!--- instead of the tracked route.

<https://www.cisco.com/c/en/us/support/docs/ip/ip-routing/200785-ISP-Failover-with-default-routes-using-l.html>  
<https://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/118962-config>

### NEW QUESTION 307

- (Exam Topic 1)

Refer to the exhibit.



After applying IPsec, the engineer observed that the DMVPN tunnel went down, and both spoke-to-spoke and hub were not establishing. Which two actions resolve the issue? (Choose two.)

- A. Configure the crypto isakmp key cisco address 192.1.1.1 on R2 and R3
- B. Configure the crypto isakmp key cisco address 0.0.0.0 on R2 and R3.
- C. Change the mode from mode tunnel to mode transport on R3
- D. Change the mode from mode transport to mode tunnel on R2.
- E. Remove the crypto isakmp key cisco address 10.1.1.1 on R2 and R3

**Answer:** AD

#### Explanation:

\*When using DMVPN with IPSec, it is unnecessary to use tunnel mode. Because DMVPN uses GRE which means that a new IP header is already added by GRE. The GRE encapsulation happens on the tunnel interface before the encryption process takes place.

### NEW QUESTION 310

- (Exam Topic 1)

Which statement about MPLS LDP router ID is true?

- A. If not configured, the operational physical interface is chosen as the router ID even if a loopback is configured.
- B. The loopback with the highest IP address is selected as the router ID.
- C. The MPLS LDP router ID must match the IGP router ID.
- D. The force keyword changes the router ID to the specified address without causing any impact.

**Answer:** B

#### Explanation:

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_ldp/configuration/12-4m/mp-ldp-12-4mbook.pdf](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mp-ldp-12-4mbook.pdf)

### NEW QUESTION 312

- (Exam Topic 1)

Refer to Exhibit.

```
router ospf 10
  router-id 192.168.1.1
  log-adjacency-changes
  redistribute bgp 1 subnets route-map BGP-TO-OSPF
!
route-map BGP-TO-OSPF deny 10
  match ip address 50
route-map BGP-TO-OSPF permit 20
!
access-list 50 permit 172.16.1.0 0.0.0.255
```

Which statement about redistribution from BGP into OSPF process 10 is true?

- A. Network 172.16.1.0/24 is not redistributed into OSPF.
- B. Network 10.10.10.0/24 is not redistributed into OSPF
- C. Network 172.16.1.0/24 is redistributed with administrative distance of 1.
- D. Network 10.10.10.0/24 is redistributed with administrative distance of 20.

**Answer:** A

**NEW QUESTION 317**

- (Exam Topic 1)

Which two statements about redistributing EIGRP into OSPF are true? (Choose two)

- A. The redistributed EIGRP routes appear as type 3 LSAs in the OSPF database
- B. The redistributed EIGRP routes appear as type 5 LSAs in the OSPF database
- C. The administrative distance of the redistributed routes is 170
- D. The redistributed EIGRP routes appear as OSPF external type 1
- E. The redistributed EIGRP routes as placed into an OSPF area whose area ID matches the EIGRP autonomous system number
- F. The redistributed EIGRP routes appear as OSPF external type 2 routes in the routing table

**Answer:** BF

**NEW QUESTION 321**

- (Exam Topic 1)

Refer to the exhibit.

```
R1#show running-config | section dhcp
ip dhcp excluded-address 192.168.1.1 192.168.1.49
ip dhcp pool DHCP
  network 192.168.1.0 255.255.255.0
  default-router 192.168.1.1
  dns-server 8.8.8.8
  lease 0 12
```

Users report that IP addresses cannot be acquired from the DHCP server. The DHCP server is configured as shown. About 300 total nonconcurrent users are using this DHCP server, but none of them are active for more than two hours per day. Which action fixes the issue within the current resources?

- A. Modify the subnet mask to the network 192.168.1.0 255.255.254.0 command in the DHCP pool
- B. Configure the DHCP lease time to a smaller value
- C. Configure the DHCP lease time to a bigger value
- D. Add the network 192.168.2.0 255.255.255.0 command to the DHCP pool

**Answer:** B

**NEW QUESTION 324**

- (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 325**

- (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 330

- (Exam Topic 1)

Which component of MPLS VPNs is used to extend the IP address so that an engineer is able to identify to which VPN it belongs?

- A. VPNv4 address family
- B. RD
- C. RT
- D. LDP

**Answer: B**

**Explanation:**

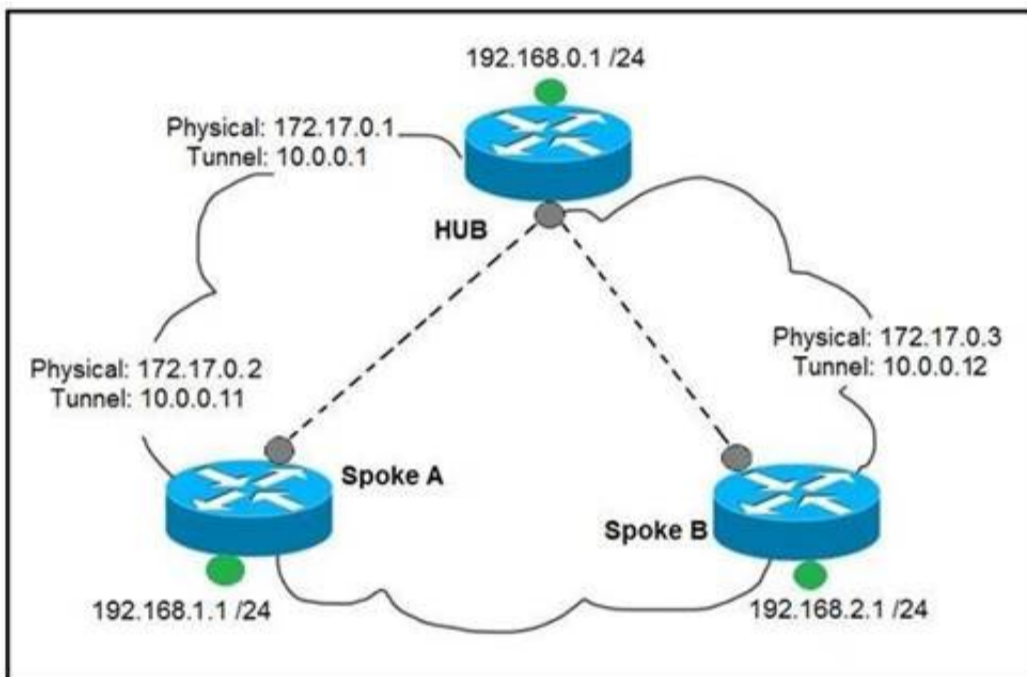
- Specify the correct **route distinguisher** used for that VPN. This is used to extend the IP address so that you can identify which VPN it belongs to.

```
rd <VPN route distinguisher>
```

### NEW QUESTION 331

- (Exam Topic 1)

Refer to the exhibit.



Which interface configuration must be configured on the spoke A router to enable a dynamic DMVPN tunnel with the spoke B router?

- A. 

```
interface Tunnel0
description mGRE – DMVPN Tunnel
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast dynamic
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel destination FastEthernet 0/0
tunnel mode gre multipoint
```
- B. 

```
interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source FastEthernet 0/0
tunnel mode gre multipoint
ip nhrp nhs 10.0.0.1
ip nhrp map 10.0.0.1 172.17.0.1
```
- C. 

```
interface Tunnel0
ip address 10.1.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source 1.1.1.10
ip nhrp map 10.0.0.11 172.17.0.2
tunnel mode gre
```
- D. 

```
interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast static
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel mode gre multipoint
```

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

**Answer: B**

**NEW QUESTION 334**

- (Exam Topic 1)

During the maintenance window an administrator accidentally deleted the Telnet-related configuration that permits a Telnet connection from the inside network (Eth0/0) to the outside of the networking between Friday – Sunday night hours only. Which configuration resolves the issue?

A)

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255
eq telnet time-range changewindow
!
time-range changewindow
periodic Friday Saturday Sunday 22:00 to 05:00
```

B)

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit tcp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255
eq telnet time-range changewindow
!
time-range changewindow
periodic 22:00 to 05:00
```

C)

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit tcp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255
eq telnet time-range changewindow
!
time-range changewindow
periodic Friday Saturday Sunday 22:00 to 05:00
```

D)

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255
eq telnet time-range changewindow
!
time-range changewindow
```

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

**Answer: C**

**NEW QUESTION 338**

- (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 342

- (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:

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/nx-os/mpls/configuration/guide/mps\\_cg/mp\\_mp](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/nx-os/mpls/configuration/guide/mps_cg/mp_mp)

#### NEW QUESTION 345

- (Exam Topic 1)

Which is statement about IPv6 inspection is true?

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

**Answer:** D

#### NEW QUESTION 347

- (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 provides. 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 348**

- (Exam Topic 1)

R2 has a locally originated prefix 192.168.130.0/24 and has these configurations:

```
ip prefix-list test seq 5 permit 192.168.130.0/24
!
route-map OUT permit10
match ip address prefix-list test
set as-path prepend 65000
```

What is the result when the route-map OUT command is applied toward an eBGP neighbor R1 (1.1.1.1) by using the neighbor 1.1.1.1 route-map OUT out command?

- A. R1 sees 192.168.130.0/24 as two AS hops away instead of one AS hop away.
- B. R1 does not accept any routes other than 192.168.130.0/24
- C. R1 does not forward traffic that is destined for 192.168.30.0/24
- D. Network 192.168.130.0/24 is not allowed in the R1 table

**Answer: A**

**NEW QUESTION 350**

- (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 351

- (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 353

- (Exam Topic 1)

Drag and drop the SNMP attributes in Cisco IOS devices from the left onto the correct SNMPv2c or SNMPV3 categories on the right.

community string

username and password

authentication

no encryption

privileged

read-only

SNMPv2c

SNMPv3

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 355

- (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 356

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