

# Cisco

## Exam Questions 300-410

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)



### NEW QUESTION 1

- (Exam Topic 3)

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

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

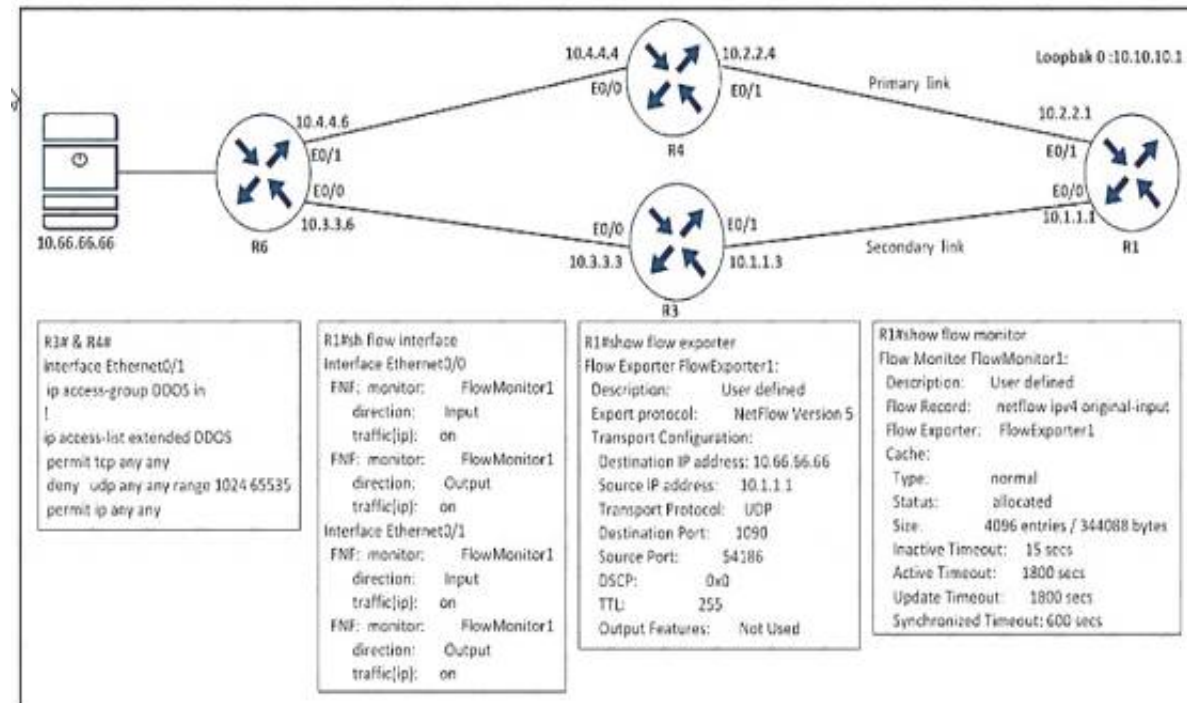
**Answer: A**

#### Explanation:

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

### NEW QUESTION 2

- (Exam Topic 3)



Refer to the exhibit An engineer configured NetFlow but cannot receive the flows from R1 Which two configurations resolve the issue? (Choose two )

A)

**R1(config)#flow exporter FlowExporter1**  
**R1(config-flow-exporter)#destination 10.66.60.66**

B)

**R4(config)#ip access-list extended DDOS**  
**R4(config-ext-nacl)#5 permit udp any host 10.66.66.66 eq 1090**

C)

**R3(config)#flow exporter FlowExporter1**  
**R3(config-flow-exporter)#destination 10.66.66.66**

D)

**R3(config)#ip access-list extended DDOS**  
**R3(config-ext-nacl)#5 permit udp any host 10.66.66.66 eq 1090**

E)

**R4(config)#flow exporter FlowExporter1**  
**R4(config-flow-exporter)#destination 10.66.66.66**

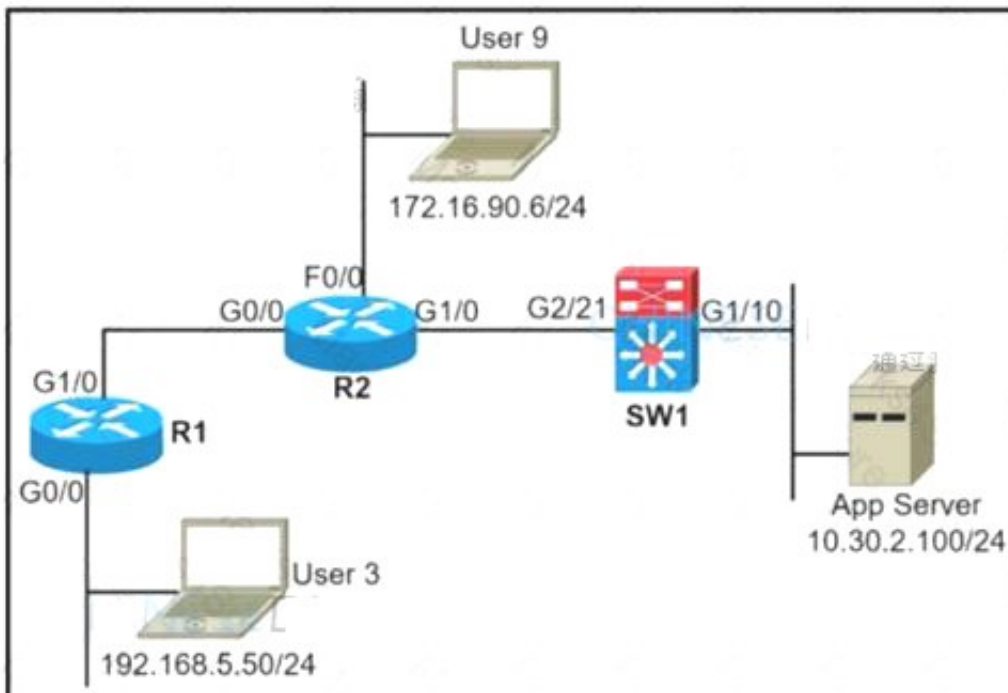
- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

**Answer: BE**

### NEW QUESTION 3

- (Exam Topic 3)

Refer to the exhibit.



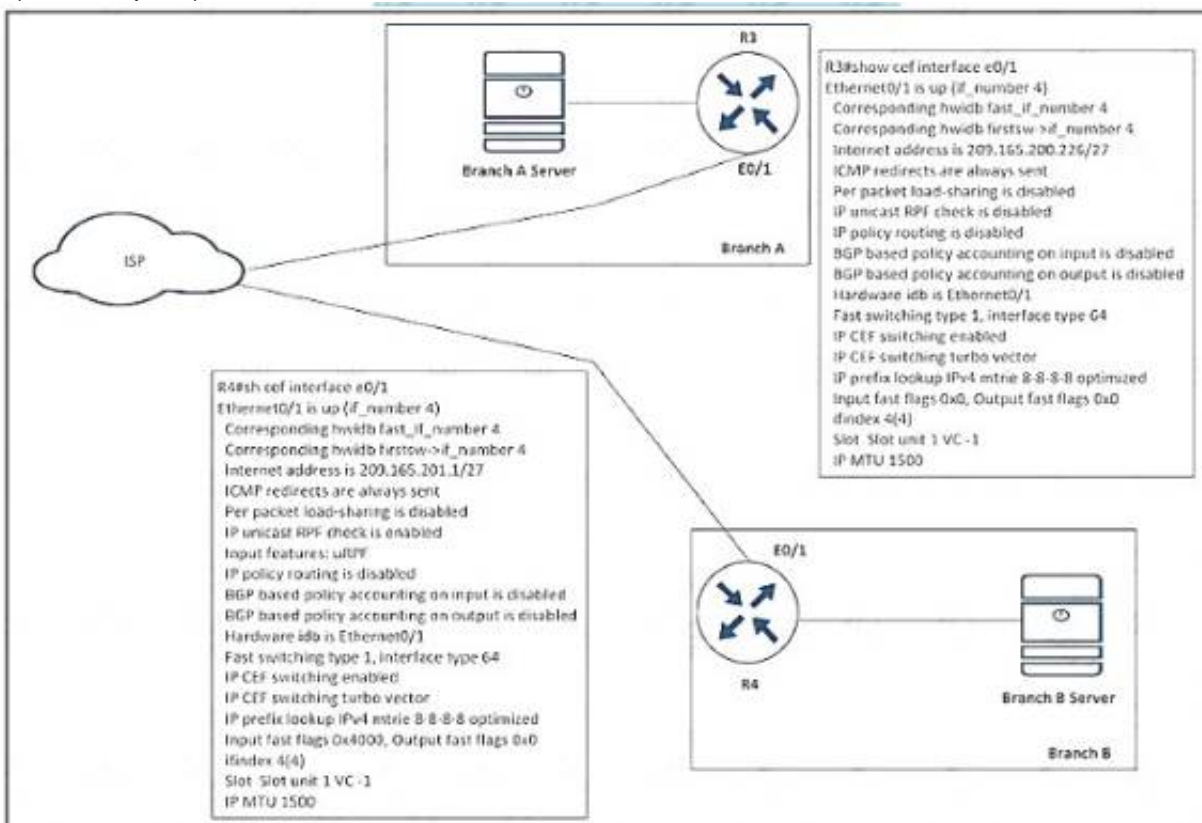
A network administrator must block ping from user 3 to the App Server only. An inbound standard access list is applied to R1 interface G0/0 to block ping. The network administrator was notified that user 3 cannot even ping user 9 anymore. Where must the access list be applied in the outgoing direction to resolve the issue?

- A. R2 interface G1/0
- B. R2 interface G0/0
- C. SW1 interface G1/10
- D. SW1 interface G2/21

**Answer: D**

#### NEW QUESTION 4

- (Exam Topic 3)



Refer to the exhibit.

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

A)

```

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

B)

```

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

C)

```

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

D)

```

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

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

**Answer: C**

#### NEW QUESTION 5

- (Exam Topic 3)

A network administrator cannot connect to a device via SSH. The line vty configuration is as follows:

```
line vty 0 4
location S421T50E27F86
session-timeout 10
transport preferred ssh
transport input all
transport output telnet ssh
stopbits 1
```

Which action resolves this issue?

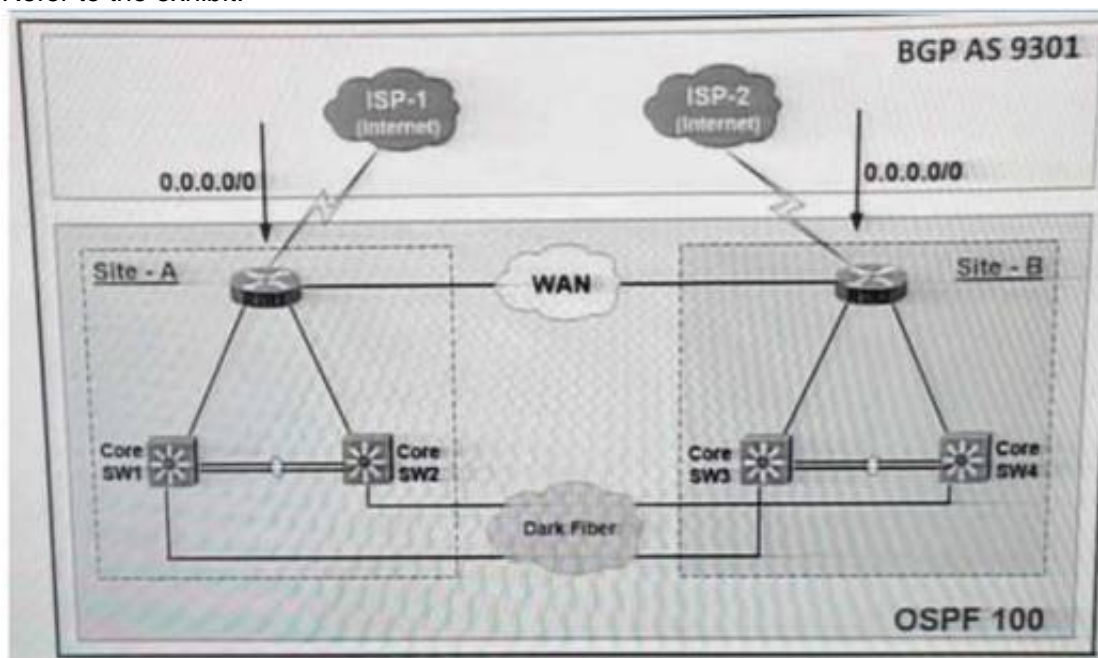
- A. Increase the session timeout
- B. Change the stopbits to 10.
- C. Configure the transport input SSH
- D. initialize the SSH key

**Answer: D**

#### NEW QUESTION 6

- (Exam Topic 3)

Refer to the exhibit.



The Internet traffic should always prefer Site-A ISP-1 if the link and BGP connection are up; otherwise, all Internet traffic should go to ISP-2. Redistribution is configured between BGP and OSPF routing protocols and it is not working as expected. What action resolves the issue?

- A. Set metric-type 2 at Site-A RTR1, and set metric-type 1 at Site-B RTR2
- B. Set OSPF cost 100 at Site-A RTR1, and set OSPF Cost 200 at Site-B RTR2
- C. Set OSPF cost 200 at Site: A RTR1 and set OSPF Cost 100 at Site-B RTR2
- D. Set metric-type 1 at Site-A RTR1, and set metric-type 2 at Site-B RTR2

**Answer: D**

#### Explanation:

OSPF type 1 route is always preferred over a type 2 route for the same destination so we can set metric-type 1 at Site-A RTR1 so that it is preferred over Site-B RTR2.

Note:

Routes are redistributed in OSPF as either type 1 (E1) routes or type 2 (E2) routes, with type 2 being the default.

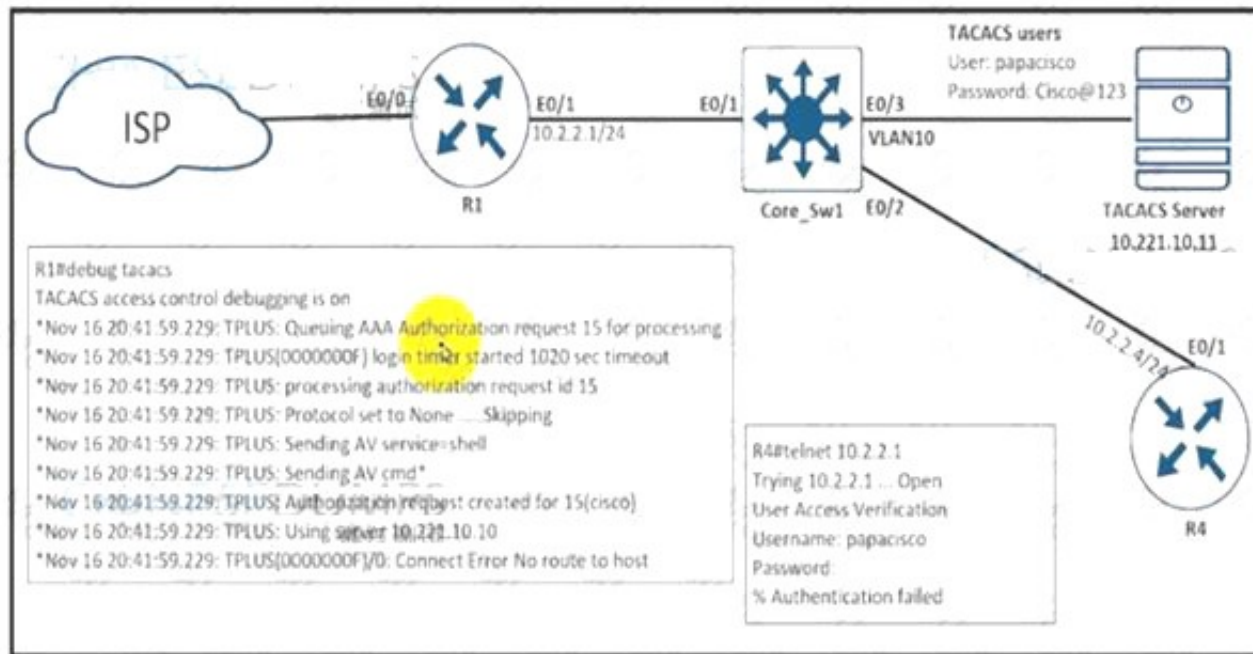
- A type 1 route has a metric that is the sum of the internal OSPF cost and the external redistributed cost.
- A type 2 route has a metric equal only to the redistributed cost.
- If routes are redistributed into OSPF as type 2 then every router in the OSPF domain will see the same cost to reach the external networks.
- If routes are redistributed into OSPF as type 1, then the cost to reach the external networks could vary from router to router.

#### NEW QUESTION 7

- (Exam Topic 3)

Refer to the exhibit.





An engineer is trying to connect to R1 via Telnet with no success. Which configuration resolves the issue?

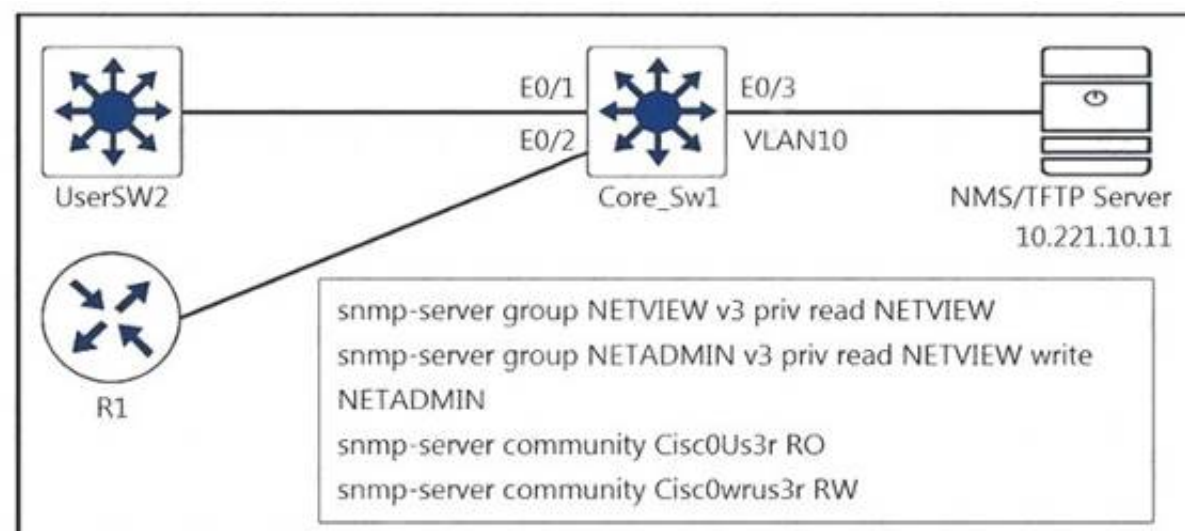
- ☐ tacacs server prod  
address ipv4 10.221.10.10  
exit
- ☒ ip route 10.221.10.10 255.255.255.255 ethernet 0/1
- ☐ tacacs server prod  
address ipv4 10.221.10.11  
exit
- ☐ ip route 10.221.0.11 255.255.255.255 ethernet 0/1

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

**Answer: B**

#### NEW QUESTION 8

- (Exam Topic 3)  
Refer to the exhibit.



A junior engineer configured SNMP to network devices. Malicious users have uploaded different configurations to the network devices using SNMP and TFTP servers.

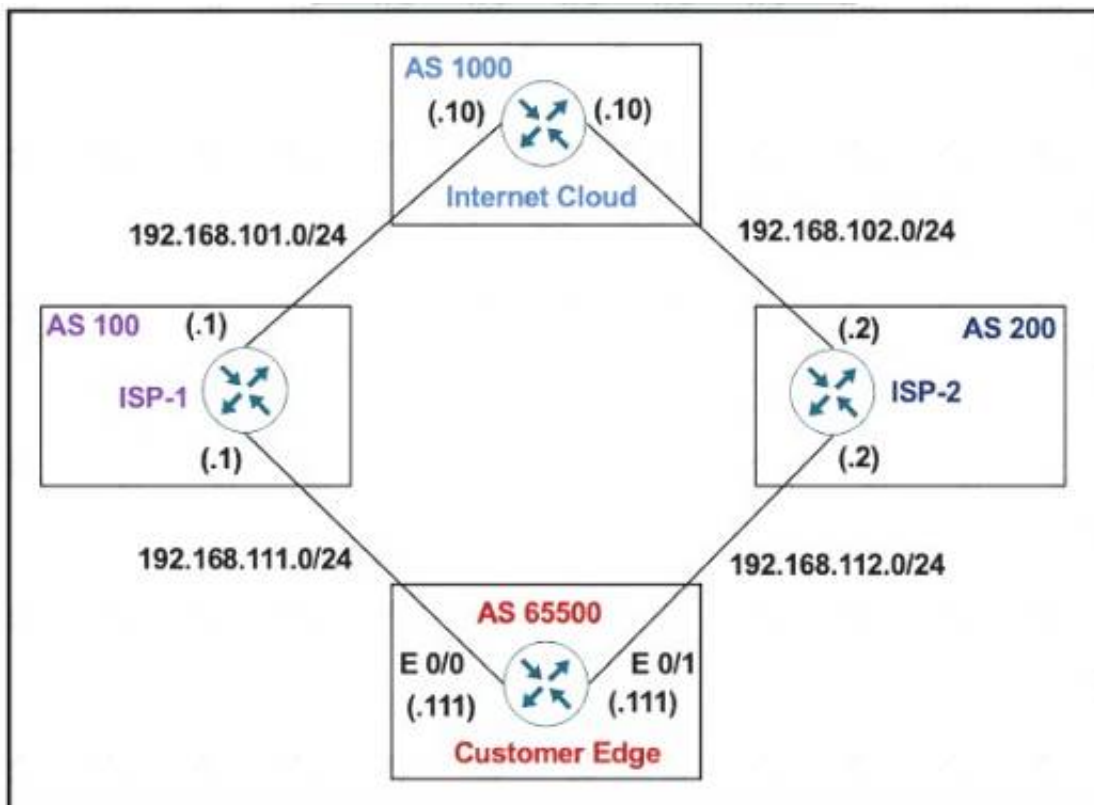
Which configuration prevents changes from unauthorized NMS and TFTP servers?

- A. access-list 20 permit 10.221.10.11 access-list 20 deny any log!snmp-server group NETVIEW v3 priv read NETVIEW access 20snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 20 snmp-server community Cisc0Us3r RO 20snmp-server community Cisc0wrus3r RW 20 snmp-server tftp-server-list 20
- B. access-list 20 permit 10.221.10.11 access-list 20 deny any log!snmp-server group NETVIEW v3 priv read NETVIEW access 20snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 20 snmp-server community Cisc0wrus3r RO 20snmp-server community Cisc0Us3r RW 20 snmp-server tftp-server-list 20
- C. access-list 20 permit 10.221.10.11 access-list 20 deny any log
- D. access-list 20 permit 10.221.10.11

**Answer: A**

#### NEW QUESTION 9

- (Exam Topic 3)  
Refer to the exhibit.



The Customer Edge router (AS 65500) wants to use AS 100 as the preferred ISP for all external routes.

```
Customer Edge
route-map SETLP
set local-preference 111
!
router bgp 65500
neighbor 192.168.111.1 remote-as 100
neighbor 192.168.111.1 route-map SETLP out
neighbor 192.168.112.2 remote-as 200
```

This configuration failed to send routes to AS 100 as the preferred path. Which set of configuration resolves the issue?

- ☐ route-map SETLP
  - set local-preference 111
  - !
  - router bgp 65500
  - neighbor 192.168.111.1 remote-as 100
  - neighbor 192.168.111.1 route-map SETLP out
- ☐ route-map SETLP
  - set local-preference 111
  - !
  - router bgp 65500
  - neighbor 192.168.111.1 remote-as 100
  - neighbor 192.168.111.1 route-map SETLP in
- ☐ route-map SETPP
  - set as-path prepend 111 111
  - !
  - router bgp 65500
  - neighbor 192.168.111.1 remote-as 100
  - neighbor 192.168.111.1 route-map SETPP out
- ☐ route-map SETPP
  - set as-path prepend 100 100
  - !
  - router bgp 65500
  - neighbor 192.168.111.1 remote-as 100
  - neighbor 192.168.111.1 route-map SETPP in

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

**Answer: B**

#### NEW QUESTION 10

- (Exam Topic 3)

Refer to the exhibit.

```
R1#
router ospf 1
 redistribute rip subnets
 network 131.108.1.0 0.0.0.255 area 2
 network 131.108.2.0 0.0.0.255 area 2
 distribute-list 1 out
 !
 access-list 1 permit 132.108.4.0 0.0.0.255
```

The R1 OSPF neighbor is not receiving type 5 external LSAs for 132.108.2.0/24 and 132.108.3.0/24 networks. Which configuration command resolves the issue?

- A. access-list 1 permit 132.108.0.0 0.0.1.255
- B. access-list 1 permit 132.108.0.0 0.0.3.255
- C. access-list 1 permit 132.108.2.0 0.0.0.255
- D. access-list 1 permit 132.108.4.0 0.0.3.255

**Answer: B**

#### NEW QUESTION 10

- (Exam Topic 3)

Refer to the exhibit.

```
R1#show ip interface GigabitEthernet0/0 | include drops
0 verification drops
0 suppressedverification drops

R1#show ip interface GigabitEthernet0/1 | include drops
5 verification drops
0 suppressedverification drops
```

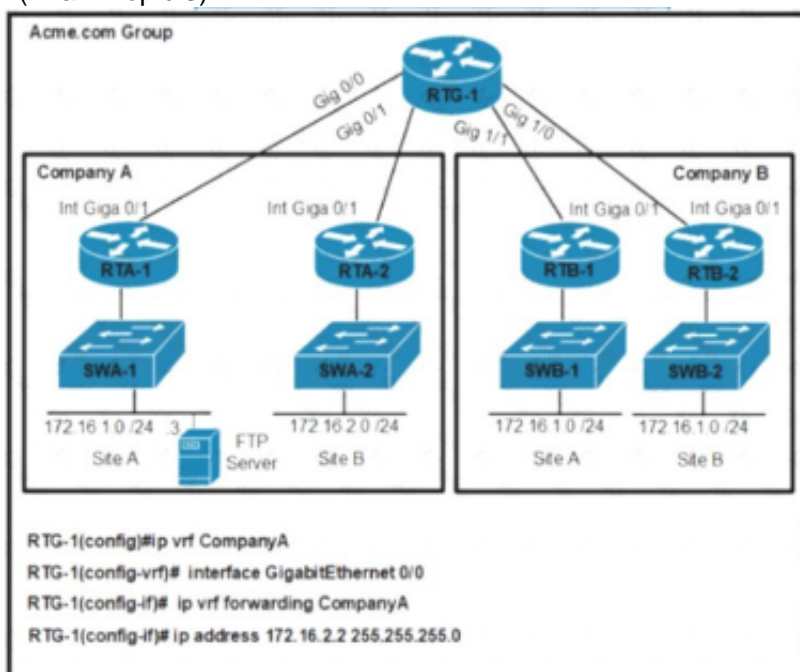
R1 is configured with uRPF, and ping to R1 is failing from a source present in the R1 routing table via the GigabitEthernet 0/0 interface. Which action resolves the issue?

- A. Remove the access list from the interface GigabitEthernet 0/0
- B. Modify the uRPF mode from strict to loose
- C. Enable Cisco Express Forwarding to ensure that uRPF is functioning correctly
- D. Add a floating static route to the source on R1 to the GigabitEthernet 0/1 interface

**Answer: B**

#### NEW QUESTION 13

- (Exam Topic 3)



Refer to the exhibit. An engineer must configure a per VRF for TACACS+ for company A. Which configuration on RTG-1 accomplishes the task?

- ☐ **aaa new-model**  
**aaa group server tacacs+ Tacacscluster**  
**server-private 172.16.1.1 port 49 key routing**  
**ip tacacs source-interface GigabitEthernet 0/0**  
**ip vrf forwarding CompanyA**
- ☐ **aaa new-model**  
**aaa group server tacacs+ Tacacscluster**  
**server-private 172.16.1.3 port 49 key routing**  
**ip tacacs source-interface GigabitEthernet 0/1**  
**ip vrf forwarding CompanyA**
- ☐ **aaa new-model**  
**aaa group server tacacs+ Tacacscluster**  
**server-private 172.16.1.1 port 49 key routing**  
**ip tacacs source-interface GigabitEthernet 0/1**  
**ip vrf CompanyA**
- ☐ **aaa new-model**  
**aaa group server tacacs+ Tacacscluster**  
**server-private 172.16.1.3 port 49 key routing**  
**ip tacacs source-interface GigabitEthernet 0/0**  
**ip vrf CompanyA**

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



**Answer:** D

#### NEW QUESTION 18

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

**Answer:** C

#### NEW QUESTION 22

- (Exam Topic 3)

An engineer must override the normal routing behavior of a router for Telnet traffic that is destined to 10.10.10.10 from 10.10.1.0/24 via a next hop of 10.4.4.4. which is directly connected to the router that is connected to the 10.1.1.0/24 subnet Which configuration reroutes traffic according to this requirement?

```
access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
!
route-map POLICY permit 10
 match ip address 100
 set ip next-hop recursive 10.4.4.4

access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
!
route-map POLICY permit 10
 match ip address 100
 set ip next-hop 10.4.4.4
route-map POLICY permit 20

access-list 100 deny tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
!
route-map POLICY permit 10
 match ip address 100
 set ip next-hop 10.4.4.4
route-map POLICY permit 20

access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
!
route-map POLICY permit 10
 match ip address 100
 set ip next-hop recursive 10.4.4.4
route-map POLICY permit 20
```

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

**Answer:** B

#### NEW QUESTION 25

- (Exam Topic 3)

A newly Installed router starts establishing an LDP session from another MPLS router to which it is not directly connected. Which LDP message type responds by target router to the Initiating router using UDP protocol?

- A. notification message
- B. session message
- C. extended discovery message
- D. advertisement message

**Answer:** C

#### NEW QUESTION 28

- (Exam Topic 3)

Refer to the exhibit.

A network administrator is troubleshooting OSPF adjacency issue by going through the console logs in the router, but due to an overwhelming log message stream it is impossible to capture the problem Which two commands reduce console log messages to relevant OSPF neighbor problem details so that the issue can be resolved? (Choose two)

- A. debug condition interface
- B. debug condition ip
- C. debug condition ospf neighbor
- D. debug condition session-id ADJCHG
- E. debug condition all

**Answer:** AD

#### NEW QUESTION 32



- (Exam Topic 3)

```
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/2,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/3,
changed state to up
%OSPF-5-ADJCHG: Process 1, Nbr 10.1.1.2 on Ethernet0/0 from
LOADING to FULL, Loading Done
%BGP-3-NOTIFICATION: received from neighbor 192.168.200.1
active 6/7 (Connection Collision Resolution) 0 bytes
%BGP-5-NBR_RESET: Neighbor 192.168.200.1 active reset (BGP
Notification received)
%BGP-5-ADJCHANGE: neighbor 192.168.200.1 active Down BGP
Notification received
%BGP_SESSION-5-ADJCHANGE: neighbor 192.168.200.1 IPv4 Unicast
topology base removed from session BGP Notification received
```

Refer to the exhibit. 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?

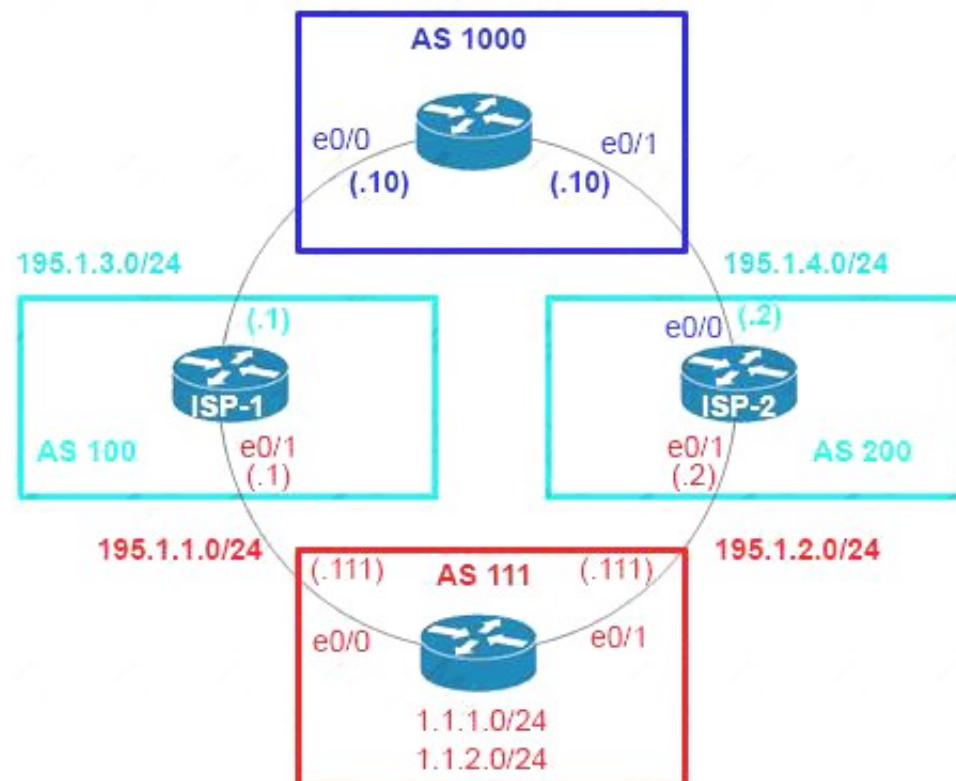
- A. Configure the debug uptime option
- B. Configure the msec option
- C. Configure the timezone option
- D. Configure the tog uptime option

**Answer: D**

### NEW QUESTION 35

- (Exam Topic 3)

Refer to the exhibit.



### AS111

```
Router bgp 111
Neighbor 195.1.1.1 remote-as 100
Neighbor 195.1.1.1 allowas-in
Neighbor 195.1.2.2 remote-as 200
Neighbor 195.1.2.2 allowas-in
```

AS111 is receiving its own routes from AS200 causing a loop in the network. Which configuration provides loop prevention?

- A)
 

```
router bgp 111
neighbor 195.1.1.1 as-override
neighbor 195.1.2.2 as-override
```
- B)
 

```
router bgp 111
neighbor 195.1.1.1 as-override
no neighbor 195.1.2.2 allowas-in
```
- C)
 

```
router bgp 111
no neighbor 195.1.1.1 allowas-in
no neighbor 195.1.2.2 allowas-in
```
- D)

```
router bgp 111
neighbor 195.1.2.2 as-override
no neighbor 195.1.1.1 allowas-in
```

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

**Answer: C**

**Explanation:**

A router discards BGP network prefixes if it sees its ASN in AS-Path as a loop prevention mechanism. The “allowas-in” feature allows routes to be received and processed even if router detects its own ASN in AS-Path.

**NEW QUESTION 36**

- (Exam Topic 3)

```
March 10 19:28:53.254 GMT: %SNMP-3-AUTHFAIL: Authentication
failure for SNMP request from host 10.1.1.1

snmp-server community public RO 15
snmp-server community private RW 16
!
logging snmp-authfail
!
access-list 15 permit 10.1.1.1
!
access-list 16 permit 10.1.1.2
```

Refer to the exhibit Which action resolves the issue?

- A. Configure host IP address in access-list 16
- B. Configure SNMPv3 on the router
- C. Configure SNMP authentication on the router
- D. Configure a valid SNMP community string

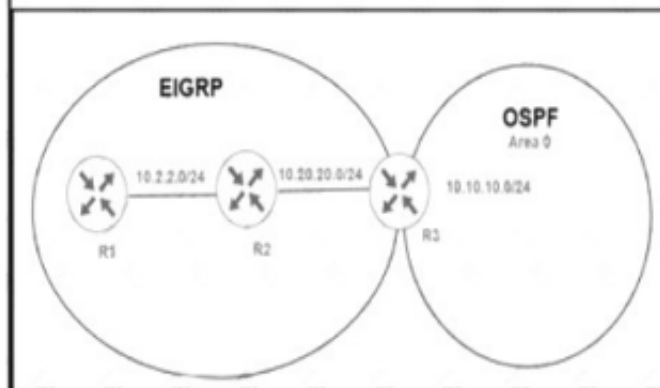
**Answer: D**

**NEW QUESTION 40**

- (Exam Topic 3)

```
R2#show ip eigrp topology 10.10.10.0 255.255.255.0
IP-EIGRP (AS 1): Topology entry for 10.10.10.0/24
  State is Passive, Query origin flag is 1, 1 Successor(s), FD
  is 256005120
  Routing Descriptor Blocks:
    10.20.20.3 (FastEthernet0/1), from 10.20.20.3, Send flag is
    0x0
    Composite metric is (256005120/256002560), Route is
    External
    Vector metric:
      Minimum bandwidth is 10 Kbit
      Total delay is 200 microseconds
      Reliability is 10/255
      Load is 10/255
      Minimum MTU is 10
      Hop count is 1
    External data:
      Originating router is 10.1.1.1
      AS number of route is 1
      External protocol is OSPF, external metric is 0
      Administrator tag is 0 (0x00000000)

R1#sh run | s eigrp
router eigrp 1
router-id 10.1.1.1
network 10.2.2.0 0.0.0.255
no auto-summary
```



Refer to the exhibit. An engineer configured router R3 to redistribute the prefix 10.10.10.0/24 from OSPF into EIGRP R1 has no connectivity to the prefix. Which action enables receipt of prefixes on R1?

- A. R3 is advertising the 10.20.20.0/24 prefix with a TTL of 1, R3 must set the TTL to 2 for this prefix.
- B. R1 does not have a neighbor relationship with R2. The EIGRP process should be cleared on R1.
- C. Duplicate router IDs on R1 and R3, R1 should modify its router ID.
- D. R1 is not receiving the next-hop IP address of R3. R2 must enable the network 10.20.20.0/24 within EIGRP.

**Answer: B**

**NEW QUESTION 42**

- (Exam Topic 3)

What is a function of IPv6 Source Guard?

- A. It works with address glean or ND to find existing addresses.
- B. It inspects ND and DHCP packets to build an address binding table.
- C. It denies traffic from known sources and allocated addresses.
- D. It notifies the ND protocol to inform hosts if the traffic is denied by it.

**Answer:** A

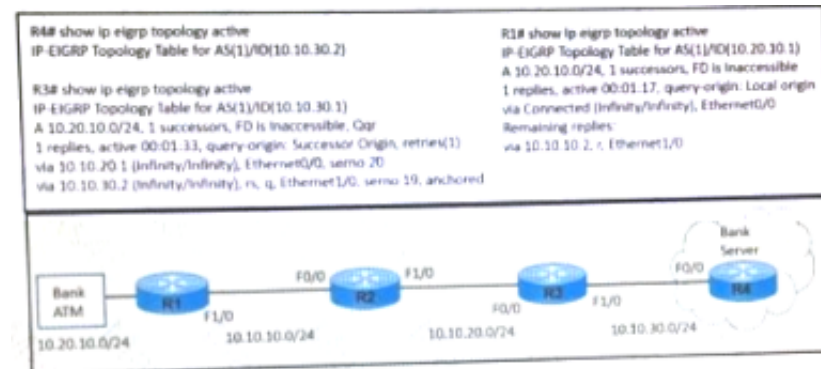
**Explanation:**

IPv6 source guard is an interface feature between the populated binding table and data traffic filtering. This feature enables the device to deny traffic when it is originated from an address that is not stored in the binding table. IPv6 source guard does not inspect ND or DHCP packets; rather, it works in conjunction with IPv6 neighbor discovery (ND) inspection or IPv6 address glean, both of which detect existing addresses on the link and store them into the binding table.

**NEW QUESTION 43**

- (Exam Topic 3)

Refer to the exhibit.



A bank ATM site has difficulty connecting with the bank server. A network engineer troubleshoots the issue and finds that R4 has no active route to the bank ATM site. Which action resolves the issue?

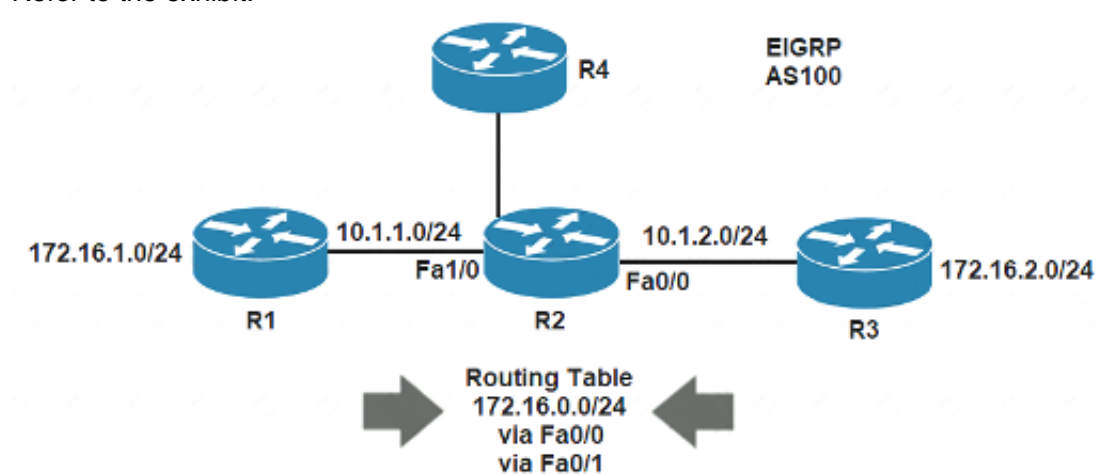
- A. Advertise 10.10.30.0/24 subnet in R1 EIGRP AS.
- B. EIGRP peering between R3 and R4 to be fixed.
- C. EIGRP peering between R1 and R2 to be fixed.
- D. Advertise 10.10.30.0/24 subnet in R3 EIGRP AS.

**Answer:** D

**NEW QUESTION 47**

- (Exam Topic 3)

Refer to the exhibit.



R4 is experiencing packet drop when trying to reach 172.16.2.7 behind R2. Which action resolves the issue?

- A. Insert a /16 floating static route on R2 toward R3 with metric 254
- B. Insert a /24 floating static route on R2 toward R3 with metric 254
- C. Enable auto summarization on all three routers R1, R2, and R3
- D. Disable auto summarization on R2

**Answer:** D

**NEW QUESTION 51**

- (Exam Topic 3)

What are the two prerequisites to enable BFD on Cisco routers? (Choose two)

- A. A supported IP routing protocol must be configured on the participating routers.
- B. OSPF Demand Circuit must run BFD on all participating routers.
- C. ICMP must be allowed on all participating routers.
- D. UDP port 1985 must be allowed on all participating routers.
- E. Cisco Express Forwarding and IP Routing must be enabled on all participating routers.

**Answer:** CE

**NEW QUESTION 52**

- (Exam Topic 3)

The summary route is not shown in the RouterB routing table after this below configuration on Router\_A.

```

interface ethernet 0
description location ID:S4289T9E09F39
ip address 192.168.3.1 255.255.255.0
ip summary-address eigrp 1 172.16.80.0 255.255.240.0
  
```

Which Router\_A configuration resolves the issue by advertising the summary route to Router B?



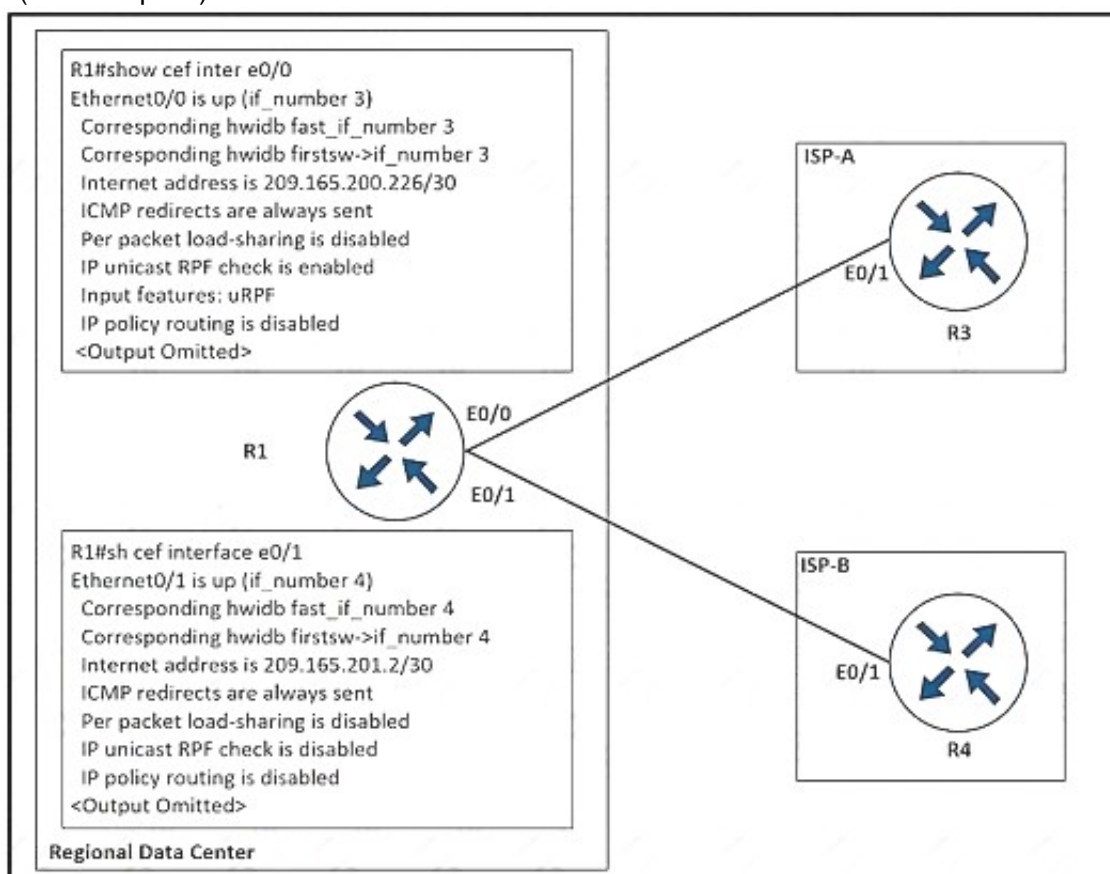
- ☐ interface loopback 0  
ip address 172.16.96.1 255.255.255.0  
interface Ethernet 0  
ip address 192.168.3.1 255.255.255.0  
ip summary-address eigrp 1 172.16.80.0 255.255.240.0
- ☐ interface loopback 0  
ip address 172.16.81.1 255.255.255.0  
interface Ethernet 0  
ip address 192.168.3.1 255.255.255.0  
ip summary-address eigrp 1 172.16.80.0 255.255.240.0
- ☐ interface loopback 0  
ip address 172.16.79.1 255.255.255.0  
interface Ethernet 0  
ip address 192.168.3.1 255.255.255.0  
ip summary-address eigrp 1 172.16.80.0 255.255.240.0
- ☐ interface loopback 0  
ip address 172.18.81.1 255.255.255.0  
interface Ethernet 0  
ip address 192.168.3.1 255.255.255.0  
ip summary-address eigrp 1 172.16.80.0 255.255.240.0

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

**Answer: B**

### NEW QUESTION 53

- (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 55

- (Exam Topic 3)



```
RouterA#show snmp community
Community name: ILMI
Community Index: ILMI
Community SecurityName: ILMI
storage-type: read-only active

Community name: ccnp
Community Index: ccnp Community SecurityName: ccnp
storage-type: nonvolatile active access-list: 4

RouterA#show ip access-lists
Standard IP access list 4
10 permit 172.16.1.1
20 permit 172.16.2.2
30 permit 172.16.3.3
Extended IP access list BRANCHES
10 permit ip 172.16.4.4 any (95 matches)
20 deny ip any any (95 matches)
```

Refer to the exhibit The SNMP server with IP address 172.16.4.4 cannot access host router A Which configuration command on router A resolves the issue?

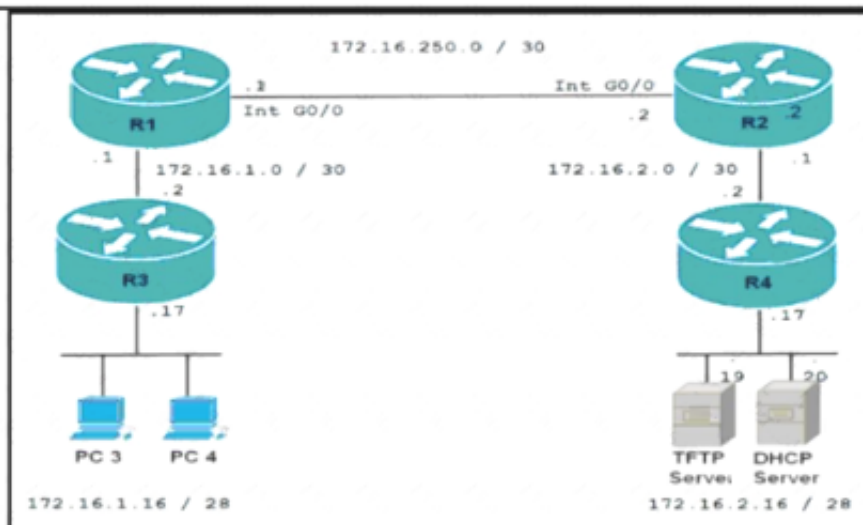
- A. snmp-server community ccnp
- B. access-list 4 permit 172.16.4.0 0.0.0.3
- C. access-list 4 permit host 172.16.4.4
- D. snmp-server host 172.16.4.4 ccnp

**Answer: D**

#### NEW QUESTION 59

- (Exam Topic 3)

```
R3#copy tftp flash:
Address or name of remote host [172.16.2.19]?
Source filename [c2600-i-mz.121.T.bin]? c2600-i-mz.121-1.T.bin
Destination filename [c2600-i-mz.121-1.T.bin]?
Loading c2600-i-mz.121-1.T.bin from 172.16.2.19(via GigabitEthernet0/0): !
%Error copying tftp://172.16.2.19/c2600-i-mz.121-1.T.bin (Not enough space
on device)
R3#
```



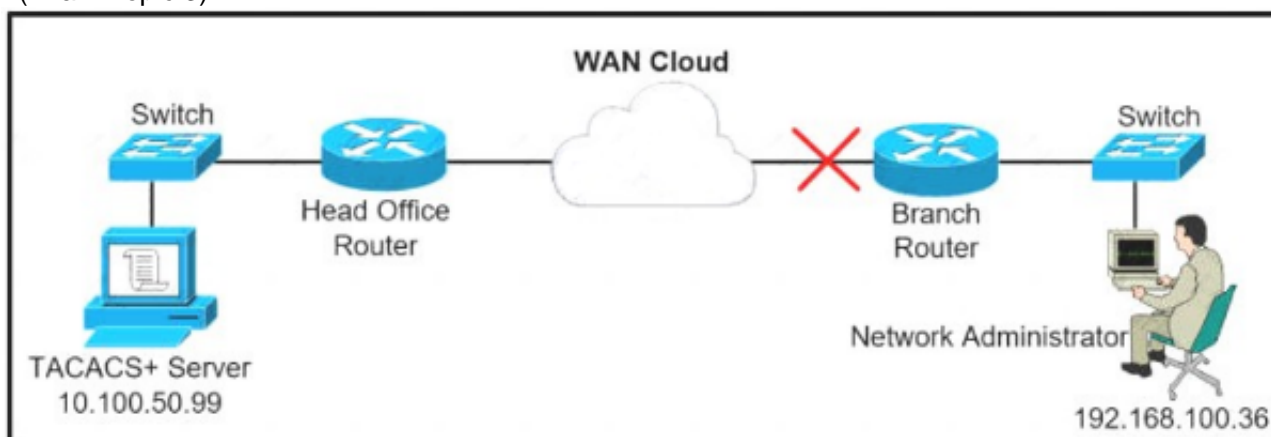
Refer to the exhibit. The engineer is getting an error when trying to transfer a new IOS file to the router. Which action resolves the issue?

- A. Delete some files on the router flash memory.
- B. Delete some files on the router NVRAM.
- C. Remove any access-list filtering the TFTP file transfer.
- D. Split the file into parts to transfer them one by one.

**Answer: A**

#### NEW QUESTION 62

- (Exam Topic 3)



A network administrator is trying to access a branch router using TACACS+ username and password credentials, but the administrator cannot log in to the router because the WAN connectivity is down. The branch router has following AAA configuration:

```
aaa new-model
aaa authorization commands 15 default group tacacs+
aaa accounting commands 1 default stop-only group tacacs+
aaa accounting commands 15 default stop-only group tacacs+
tacacs-server host 10.100.50.99
tacacs-server key Ci$co123
```

Which command will resolve this problem when WAN connectivity is down?

- A. aaa authentication login default group tacacs+ local
- B. aaa authentication login default group tacacs+ enable
- C. aaa authentication login default group tacacs+ console
- D. aaa authentication login console group tacacs+ enable

**Answer:** A

**Explanation:**

With the “aaa authentication login default group tacacs+ local ” command configured, when logging in, the password supplied will be attempted to be verified by the TACACS+ server before access is granted. If the server is unavailable/unreachable, then the switch will fall back to using the local authentication database.

**NEW QUESTION 63**

- (Exam Topic 3)

```
R1# configure terminal
R1(config)# hostname CPE1
CPE1(config)# ip domain-name example.com
CPE1(config)# crypto key generate rsa
The name for the keys will be: CPE1.example.com
Choose the size of the key modulus in the range of 360 to 4096
for your
  General Purpose Keys. Choosing a key modulus greater than 512
may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...
[OK] (elapsed time was 2 seconds)

CPE1(config)# service password-encryption
CPE1(config)# username csadmin secret Secur3p4s$w0rd
CPE1(config)# line vty 0 4
CPE1(config-line)# transport input telnet ssh
CPE1(config-line)# login local
CPE1(config-line)# end
CPE1# copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
CPE1# ssh 10.0.0.1
% No user specified nor available for SSH client
```

```
CPE1# copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
CPE1# ssh 10.0.0.1
% No user specified nor available for SSH client
```

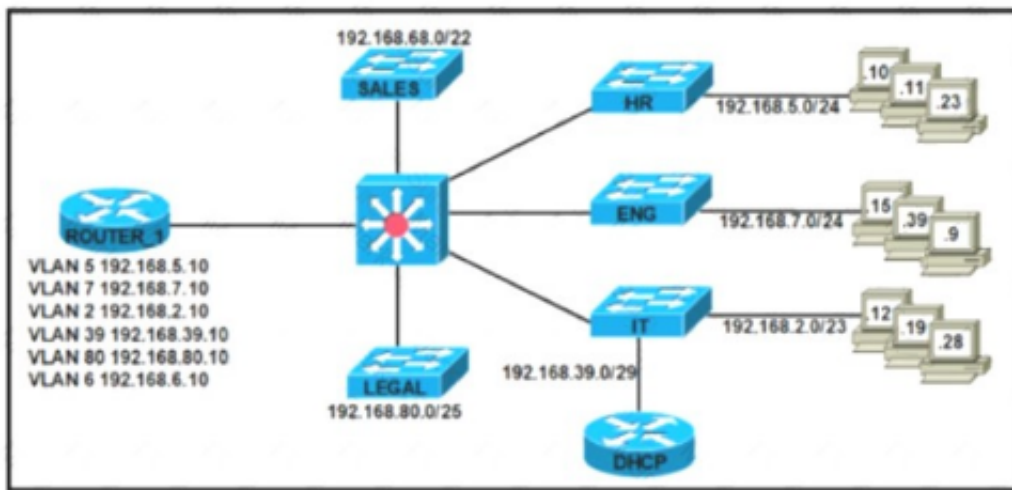
Refer to the exhibit. An administrator must harden a router, but the administrator failed to test the SSH access successfully to the router. Which action resolves the issue?

- A. Configure SSH on the remote device to log in using SSH
- B. SSH syntax must be ssh -l user ip to log in to the remote device
- C. Configure enable secret to log in to the device
- D. SSH must be allowed with the transport output ssh command

**Answer:** B

**NEW QUESTION 68**

- (Exam Topic 3)



Refer to the exhibit After an engineer configured a new Cisco router as a DHCP server, users reported two primary issues:

- > Devices in the HR subnet have intermittent connectivity problems.
- > Workstations in the LEGAL subnet cannot obtain IP addresses.

Which configurations must the engineer apply to ROUTER\_1 to restore connectivity for the affected devices?

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



```

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

```

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

**Answer: A**

#### NEW QUESTION 69

- (Exam Topic 3)

<pre> R1: interface Loopback1 no ip address ipv6 address 100A:0:100C::1/64 ipv6 enable ipv6 ospf 10 area 0 ! interface Loopback4 no ip address ipv6 address 400A:0:400C::1/64 ipv6 enable ipv6 ospf 10 area 0 ! interface Serial1/0 no ip address ipv6 address AB01:2011:7:100::/64 eui-64 ipv6 enable ipv6 ospf network point-to-point ipv6 ospf 10 area 0 ipv6 traffic-filter DENY_TELNET_Lo4 in serial restart-delay 0 clock rate 64000 ! ipv6 router ospf 10 router-id 1.1.1.1 log-adjacency-changes ! ipv6 access-list DENY_TELNET_Lo4 sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any end </pre>	<pre> R2: interface Loopback0 no ip address ipv6 address 1001:ABC:2011:7::1/64 ipv6 enable ipv6 ospf 10 area 0 ! interface Serial1/0 no ip address ipv6 address AB01:2011:7:100::/64 eui-64 ipv6 enable ipv6 ospf network point-to-point ipv6 ospf 10 area 0 serial restart-delay 0 ! ipv6 router ospf 10 router-id 2.2.2.2 log-adjacency-changes ! end </pre>
---	--



```

R1:
interface Loopback1
no ip address
ipv6 address 100A:0:400C::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Loopback4
no ip address
!
interface Serial1/0
no ip address
ipv6 address AB01:2011:7:100:5/64
ipv6 enable
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
ipv6 traffic-filter DENY_TELNET_Lo4 in
serial restart-delay 0
clock rate 64000
!
ipv6 router ospf 10
router-id 1.1.1.1
log-adjacency-changes
!
ipv6 access-list DENY_TELNET_Lo4
sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any
end

R2:
interface Loopback0
no ip address
ipv6 address 1001:ABC:2011:7::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Serial1/0
no ip address
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
serial restart-delay 0
!
ipv6 router ospf 10
router-id 2.2.2.2
log-adjacency-changes
!
end

ipv6 access-list DENY_TELNET_Lo4
sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any
end

```

Refer to the exhibit. An engineer implemented an access list on R1 to allow anyone to Telnet except R2 Loopback0 to R1 Loopback4. How must sequence 20 be replaced on the R1 access list to resolve the issue?

- A. sequence 20 permit tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
- B. sequence 20 deny tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet
- C. sequence 20 deny tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
- D. sequence 20 permit tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet

**Answer: C**

#### NEW QUESTION 71

- (Exam Topic 3)

The network administrator configured CoPP so that all HTTP and HTTPS traffic from the administrator device located at 172.16.1.99 toward the router CPU is limited to 500 kbps. Any traffic that exceeds this limit must be dropped.

```
access-list 100 permit ip host 172.16.1.99 any
```

```
!
```

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

```
!
```

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

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

```
!
```

```
interface E0/0
```

```
service-policy input PM-COPP
```

CoPP failed to capture the desired traffic and the CPU load is getting higher. Which two configurations resolve the issue? (Choose two.)

- A. interface E0/0no service-policy input PM-COPP!control-planeservice-policy input PM-COPP
- B. policy-map PM-COPP class CM-ADMINno police 500000 conform-action transmit police 500 conform-action transmit!control-planeservice-policy input PM-COPP
- C. no access-list 100access-list 100 permit tcp host 172.16.1.99 any eq 80
- D. no access-list 100access-list 100 permit tcp host 172.16.1.99 any eq 80access-list 100 permit tcp host 172.16.1.99 any eq 443
- E. policy-map PM-COPP class CM-ADMINno police 500000 conform-action transmit police 500 conform-action transmit

**Answer: A**

#### NEW QUESTION 76

- (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

```

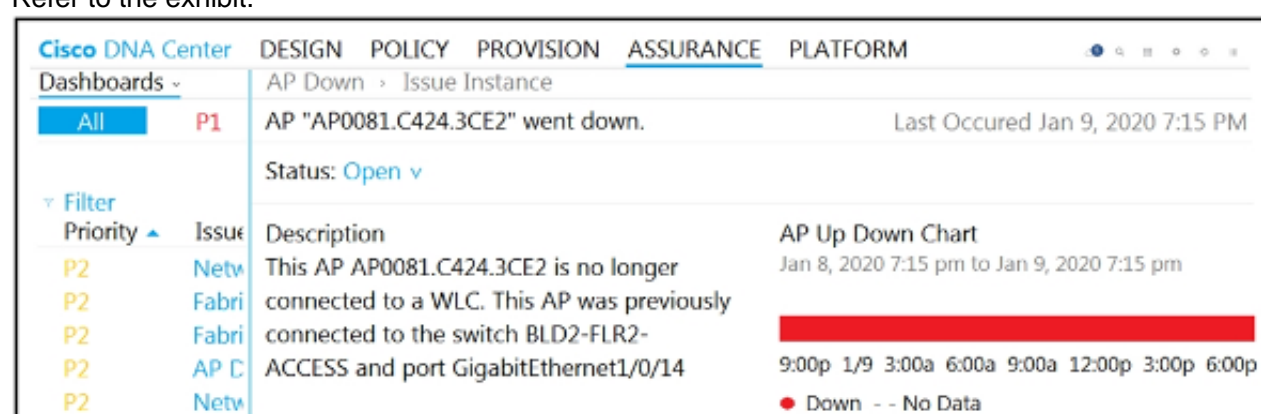
- A. Option A  
 B. Option B  
 C. Option C  
 D. Option D

**Answer: D**

## NEW QUESTION 80

- (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
```

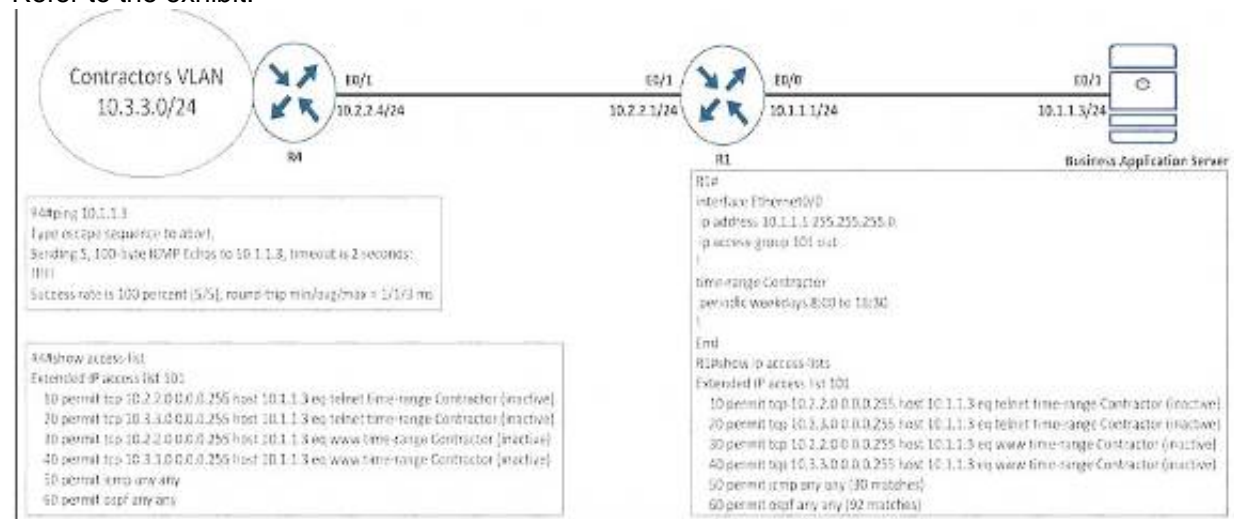
Notice that the results are "Normal" in the above example. Other results can be:

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

**NEW QUESTION 82**

- (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

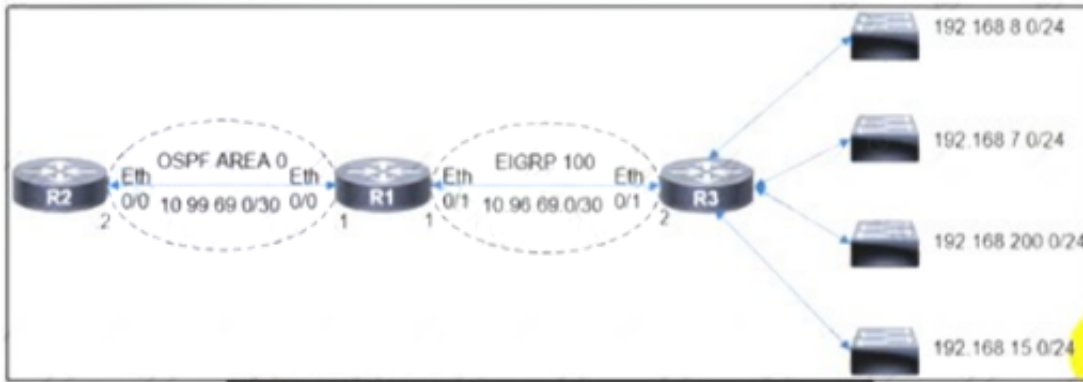


D. Option

**Answer:** A

### NEW QUESTION 83

- (Exam Topic 3)



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

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

- ☒

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

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

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

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

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

**Answer:** D

### NEW QUESTION 84

- (Exam Topic 3)

Which protocol must be secured with MD-5 authentication across the MPLS cloud to prevent hackers from introducing bogus routers?



- A. MP-BGP
- B. LSP
- C. RSVP
- D. LDP

**Answer:** A

#### NEW QUESTION 89

- (Exam Topic 3)

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

```
access-list 100 permit ospf any any
```

```
!
```

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

```
!
```

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

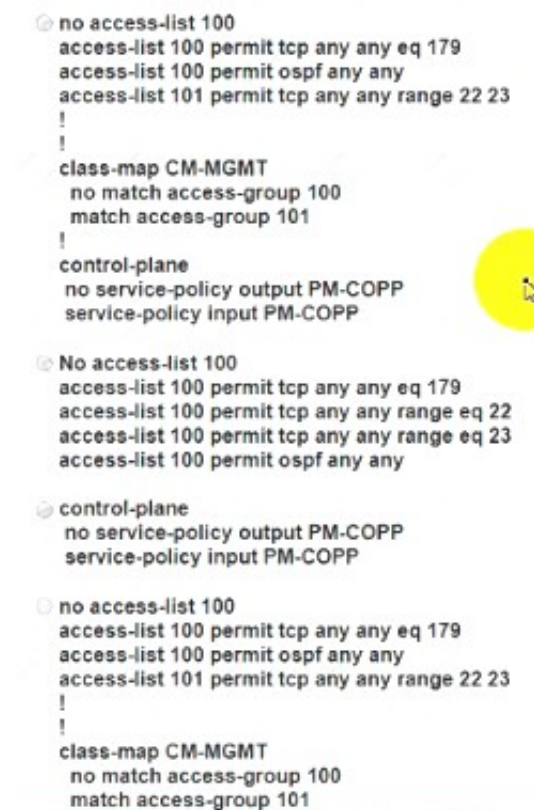
```
police 1000000 conform-action transmit
```

```
!
```

```
control-plane
```

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

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



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

☐ No access-list 100  
access-list 100 permit tcp any any eq 179  
access-list 100 permit tcp any any range eq 22  
access-list 100 permit tcp any any range eq 23  
access-list 100 permit ospf any any

☐ control-plane  
no service-policy output PM-COPP  
service-policy input PM-COPP

☐ no access-list 100  
access-list 100 permit tcp any any eq 179  
access-list 100 permit ospf any any  
access-list 101 permit tcp any any range 22 23  
!  
!  
class-map CM-MGMT  
no match access-group 100  
match access-group 101

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

**Answer:** A

#### NEW QUESTION 92

- (Exam Topic 3)

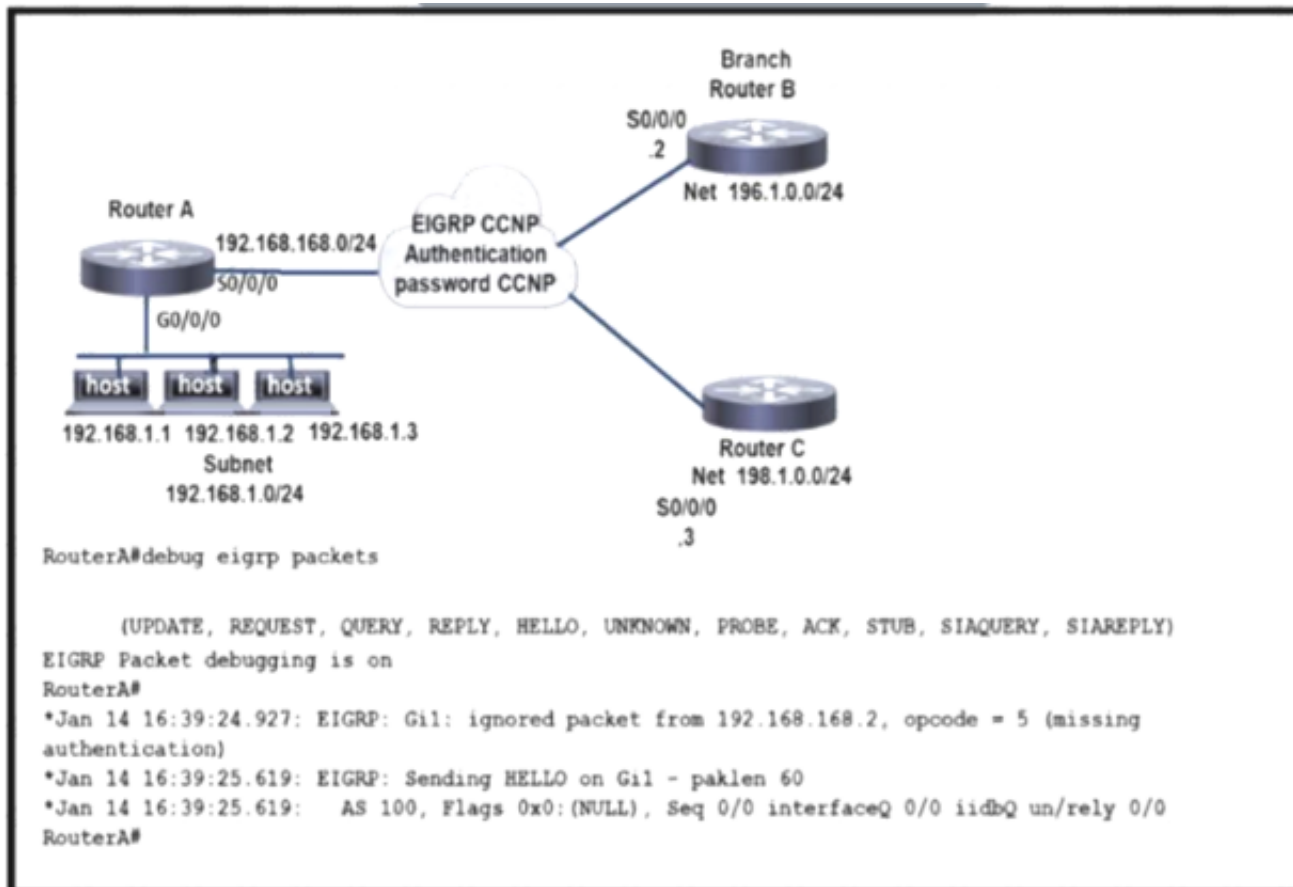
How do devices operate in MPLS L3VPN topology?

- A. P and associated PE routers with IGP populate the VRF table in different VPNs.
- B. CE routers connect to the provider network and perform LSP functionality
- C. P routers provide connectivity between PE devices with MPLS switching.
- D. P routers support PE to PE VPN tunnel without LSP functionality

**Answer:** C

#### NEW QUESTION 93

- (Exam Topic 3)



Refer to the exhibit. The services at branch B are down. An engineer notices mal router A and router B are not exchanging any routes Which configuration resolves the issue on router B?

A)

```

router eigrp 100
 network 192.168.168.0

key chain CCNP
 key 1
  key-string EIGRP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
  
```

B)

```

router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
  key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 negotiation auto
  
```

C)

```

router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
  key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
  
```

D)

```
router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
 key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
```

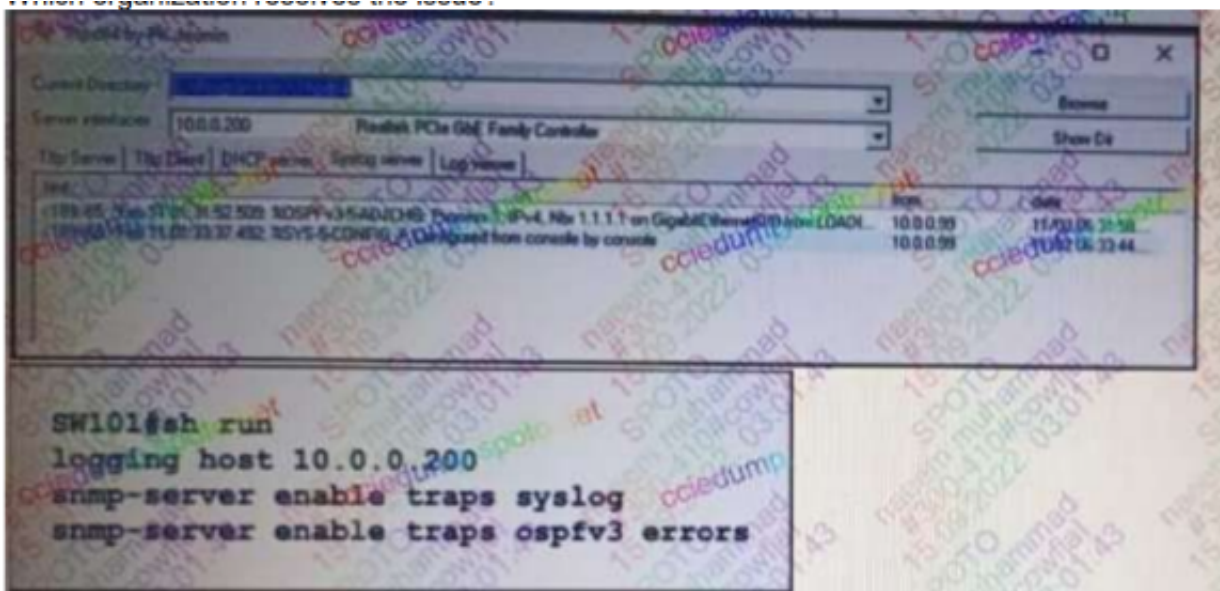
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

#### NEW QUESTION 97

- (Exam Topic 3)

Refer to the exhibit.



An engineer configures SW101 to send OSPFv3 interfaces state change messages to the server. However, only some OSPFv3 errors are being recorded. which organization resolves the ..?

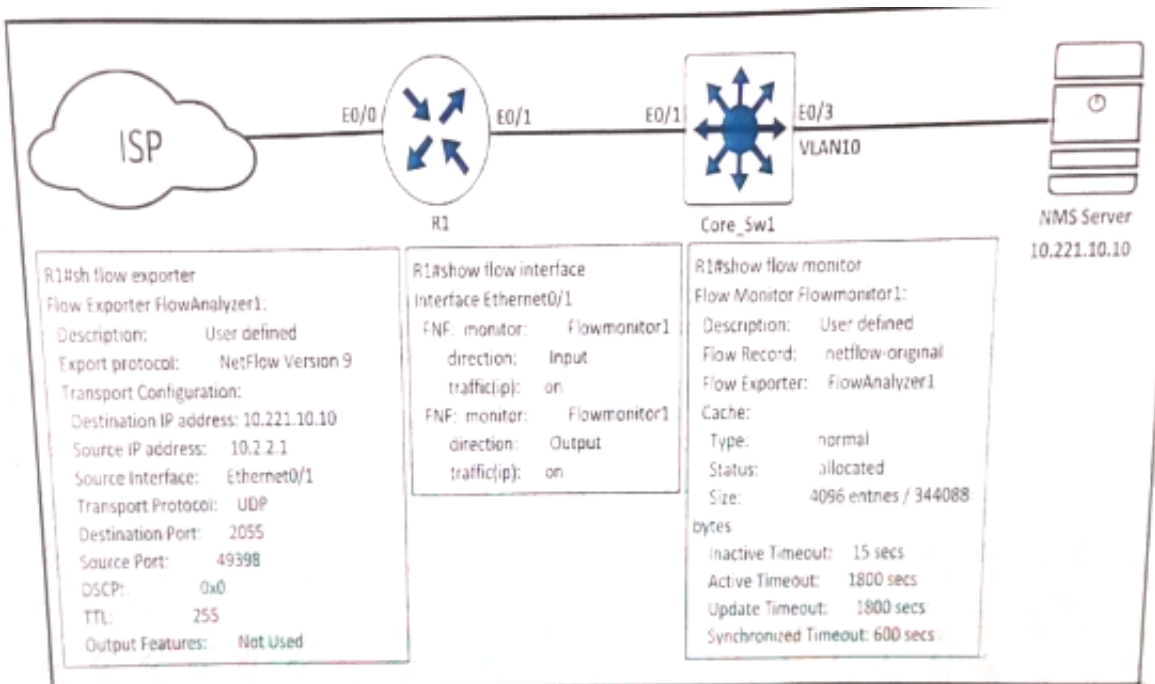
- A. snmp-server enable traps ospfv3 state-change if-state-change
- B. snmp-server enable traps ospfv3 state-change restart-status-change
- C. snmp-server enable traps ospfv3 state-change neighbor-state-change.
- D. snmp-server enable traps ospfv3 state-change if-state-change neighbor-state-change

**Answer: D**

#### NEW QUESTION 101

- (Exam Topic 3)

Refer to the exhibit.



An engineer configured NetFlow on R1, but the NMS server cannot see the flow from ethernet 0/0 of R1. Which configuration resolves the issue?

- A. flow monitor Flowmonitor1 source Ethernet0/0
- B. interface Ethernet0/1ip flow monitor Flowmonitor1 input ip flow monitor Flowmonitor1 output
- C. interface Ethernet0/0ip flow monitor Flowmonitor1 input ip flow monitor Flowmonitor1 output



D. flow exporter FlowAnalyzer1 source Ethernet0/0

**Answer: C**

#### NEW QUESTION 104

- (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"

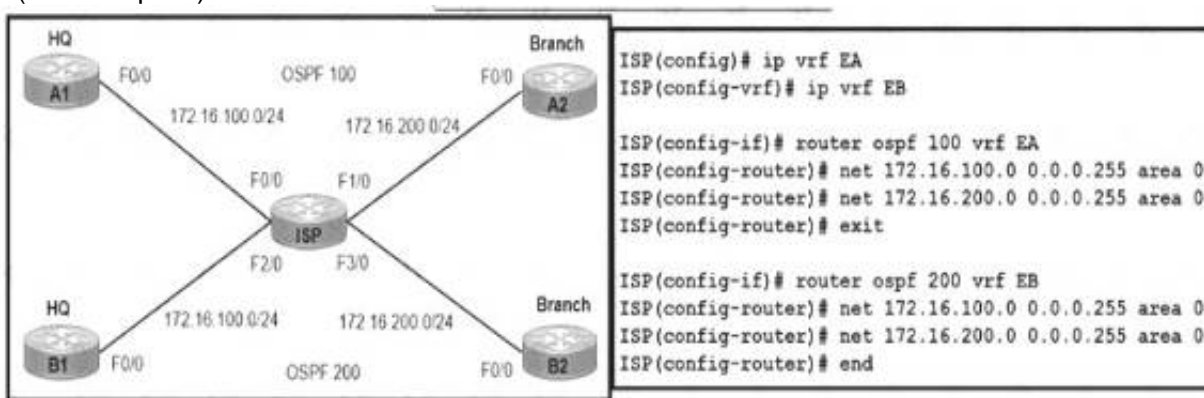
Which action stops messages on the console while still denying Telnet?

- 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 106

- (Exam Topic 3)



Refer to the exhibit. A network engineer is provisioning end-to-end traffic service for two different enterprise networks with these requirements

- > The OSPF process must differ between customers on HQ and Branch office routers, and adjacencies should come up instantly.
- > The enterprise networks are connected with overlapping networks between HO and a branch office Which configuration meets the requirements for a customer site?

A)

```
ISP(config)#int f3/0
ISP(config-if)#ip vrf forwarding EA
ISP(config-if)#description TO->EA2_Branch
ISP(config-if)#ip address 172.16.200.2 255.255.255.0
ISP(config-if)#no shut
```

B)

```
ISP(config)#int f2/0
ISP(config-if)#ip vrf forwarding EA
ISP(config-if)#description TO->EA1_HQ
ISP(config-if)#ip address 172.16.100.2 255.255.255.0
ISP(config-if)#no shut
```

C)

```
ISP(config-vrf)#int f0/0
ISP(config-if)#ip vrf forwarding EB
ISP(config-if)#description TO->EB1_HQ
ISP(config-if)#ip add 172.16.100.2 255.255.255.0
ISP(config-if)#no shut
```

D)

```
ISP(config-if)#int f1/0
ISP(config-if)#ip vrf forwarding EA
ISP(config-if)#description TO->EA2_Branch
ISP(config-if)#ip add 172.16.200.2 255.255.255.0
ISP(config-if)#no shut
```

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

**Answer: A**

#### NEW QUESTION 111

- (Exam Topic 3)

How is the LDP router ID used in an MPLS network?

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

**Answer: D**

#### NEW QUESTION 114

- (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
```

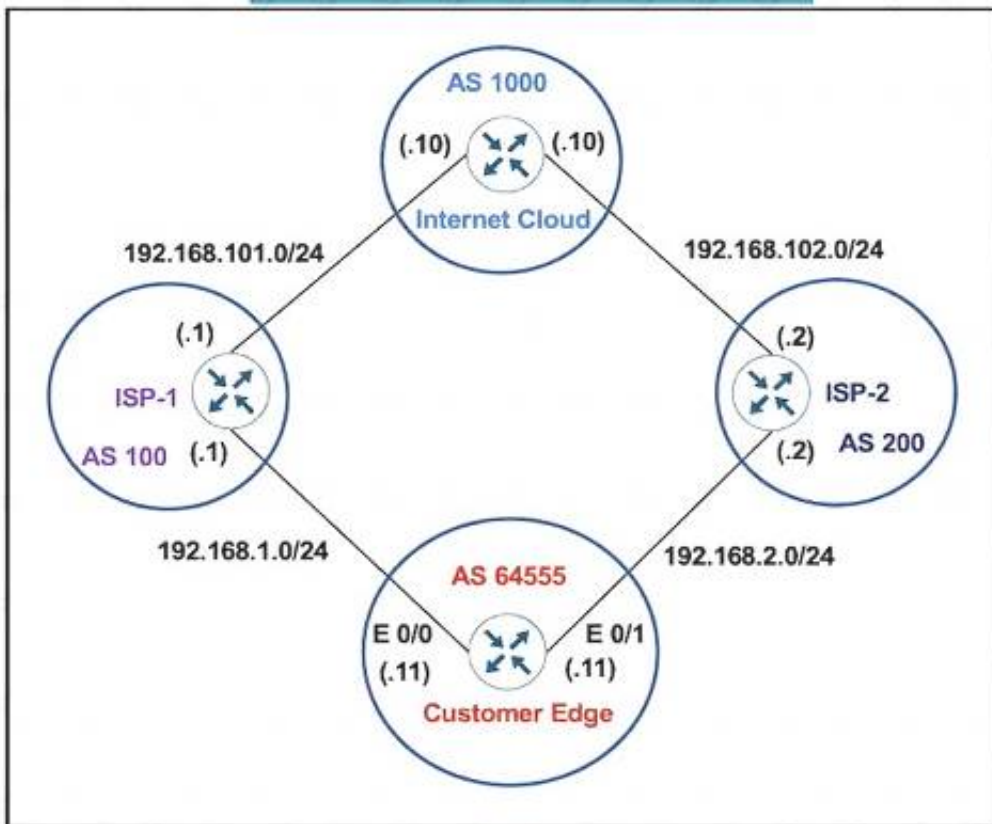
Which two commands provide the administrator with the information needed to resolve the issue? (Choose two.)

- A. snmp user
- B. debug snmp engine-id
- C. debug snmpv3 engine-id
- D. debug snmp packet
- E. showsnmpv3 user

**Answer: AE**

#### NEW QUESTION 118

- (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 122

- (Exam Topic 3)

What does the MP-BGP OPEN message contain?

- A. MPLS labels and the IP address of the router that receives the message
- B. the version number and the AS number to which the router belongs
- C. IP routing information and the AS number to which the router belongs
- D. NLRI, path attributes, and IP addresses of the sending and receiving routers

**Answer: B**

#### NEW QUESTION 123

- (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 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1400R2(config-if)# ip tcp adjust-mss 1360 R2(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 10.10.2.2R2(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 124

- (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/xr-3s/ipv6-xr-3s-book/ipv6-src-guar](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xr-3s/ipv6-xr-3s-book/ipv6-src-guar)

**NEW QUESTION 126**

- (Exam Topic 3)

Refer to the exhibit.

```
Configuration Output:
aaa new-model
aaa group server tacacs+ admin
server name admin
!
ip tacacs source-interface GigabitEthernet1
aaa authentication login admin group tacacs+ local enable
aaa session-id common
!
tacacs server admin
address ip 10.11.15.6
key 7 01150F165E1C07032D
!
line vty 0 4
login authentication admin

Debug Output:
Oct 22 12:38:57.587: AAA/BIND(0000001A): Bind vrf
Oct 22 12:38:57.587: AAA/AUTHEN/LOGIN (0000001A): Pick method list 'admin'
Oct 22 12:38:57.587: AAA/AUTHEN/ENABLE(0000001A): Processing request action LOGIN
Oct 22 12:38:57.587: AAA/AUTHEN/ENABLE(0000001A): Done status GET_PASSWORD
Oct 22 12:39:02.327: AAA/AUTHEN/ENABLE(0000001A): Processing request action LOGIN
Oct 22 12:39:02.327: AAA/AUTHEN/ENABLE(0000001A): Done status FAIL - bad password
```

An administrator configured a Cisco router for TACACS authentication, but the router is using the local enable password instead. Which action resolves the issue?

- A. Configure the aaa authentication login admin group admin local enable command instead.
- B. Configure the aaa authentication login admin group tacacs+ local enable none command instead.
- C. Configure the aaa authentication login admin group tacacs+ local if-authenticated command instead.
- D. Configure the aaa authentication login default group admin local if-authenticated command instead.

**Answer: C**

**NEW QUESTION 128**

- (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 name ISP2 track 1
```

An administrator configures a router to stop using a particular default route if the DNS server 8.8.8.8 is not reachable through that route. However, this configuration did not work as desired and the default route still works even if the DNS server 8.8.8.8 is unreachable. Which two configuration changes resolve the issue? (Choose two.)

- A. Configure two static routes for the 8.8.8.8/32 destination to match the IP SLA probe for each ISP.
- B. Associate every IP SLA probe with the proper WAN address of the router.
- C. Reference the proper exit interfaces along with the next hops in both static default routes.
- D. Use a separate track object to reference the existing IP SLA 1 probe for every static route.
- E. Use a separate IP SLA probe and track object for every static route

**Answer: AE**

**NEW QUESTION 133**

- (Exam Topic 3)

```

100.0.0.0/32 is subnetted, 3 subnets
C   100.1.1.1 is directly connected, Loopback0
D   100.2.2.2 [90/156160] via 10.1.1.2, 00:00:46, FastEthernet0/0
D   100.3.3.3 [90/158720] via 10.1.1.14, 00:00:44, FastEthernet1/0
    [90/158720] via 10.1.1.2, 00:00:44, FastEthernet0/0
10.0.0.0/8 is variably subnetted, 13 subnets, 4 masks
D   10.1.1.8/30 [90/30720] via 10.1.1.14, 00:00:44, FastEthernet1/0
C   10.1.1.12/30 is directly connected, FastEthernet1/0
C   10.1.1.0/30 is directly connected, FastEthernet0/0
D   10.1.1.4/30 [90/30720] via 10.1.1.2, 00:00:45, FastEthernet0/0
C   10.100.1.40/32 is directly connected, Loopback40
D EX 10.1.1.80/29 [170/33280] via 10.1.1.14, 00:00:45, FastEthernet1/0
    [170/33280] via 10.1.1.2, 00:00:45, FastEthernet0/0
C   10.100.1.50/32 is directly connected, Loopback50
C   10.100.1.10/32 is directly connected, Loopback10
S   10.100.1.0/24 is a summary, 00:00:48, Null0
C   10.100.1.30/32 is directly connected, Loopback30
C   10.100.1.20/32 is directly connected, Loopback20
C   10.200.1.0/24 is directly connected, FastEthernet0/1
D EX 10.247.10.0/30 [170/2174976] via 10.1.1.14, 00:00:46, FastEthernet1/0
    [170/2174976] via 10.1.1.2, 00:00:46, FastEthernet0/0

```

Refer to the exhibit. R1 must advertise all loopback interfaces IP addresses to neighbors, but EIGRP neighbors receive a summary route. Which action resolves the issue?

- A. Redistribute connected routes into EIGRP Enable
- B. EIGRP on loopback Interfaces.
- C. Disable auto summarization on R1.
- D. Remove the 10.100.1.0/24 static route.

**Answer: D**

#### NEW QUESTION 134

- (Exam Topic 3)

```

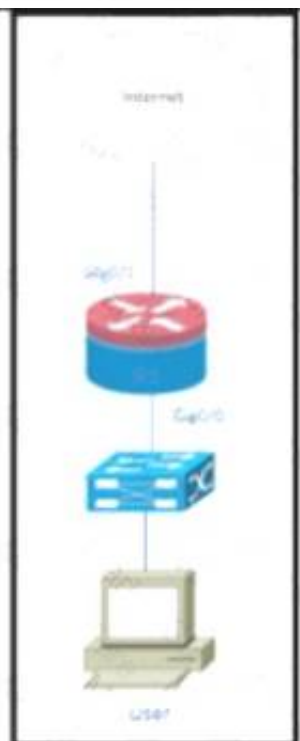
R1#show time-range

time-range entry: timer (active)
  periodic weekend 9:00 to 17:00
  used in: IP ACL entry
  used in: IP ACL entry

R1#show ip access-list interface gig0/0

Extended IP access list NO_Internet in
  10 deny tcp any any eq www time-range timer (active)
  20 deny tcp any any eq 443 time-range timer (active)
  30 permit ip any any

```



Refer to the exhibit. Users on a call center report that they cannot browse the internet on Saturdays during the afternoon. Which configuration resolves the issue?

A)

```

interface gig0/0
ip access-group NO_Internet out

```

B)

```

ip access-list extended NO_Internet
15 permit tcp any any eq www

```

C)

```

no time-range timer

```

D)

time-range timer

no periodic weekend 9:00 to 17:00

periodic weekend 17:00 to 23:59

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

**Answer: D**

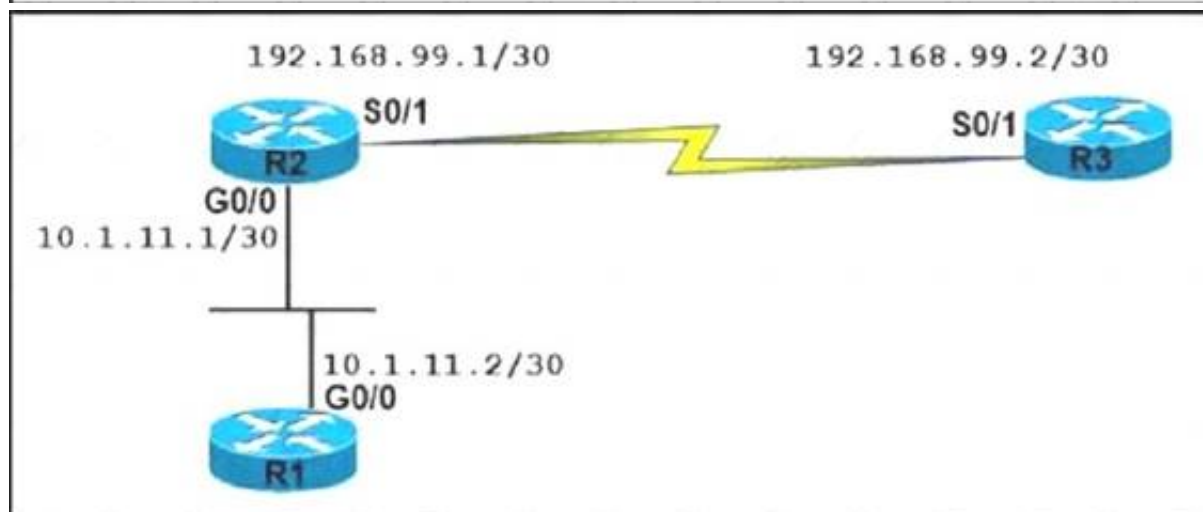
#### NEW QUESTION 138

- (Exam Topic 3)

Refer to the exhibit.

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

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



An OSPF neighbor relationship between R2 and R3 is showing stuck in EXCHANGE/EXSTART state. The neighbor is established between R1 and R2. The network engineer can ping from R2 to R3 and vice versa, but the neighbor is still down. Which action resolves the issue?

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

**Answer: B**

#### Explanation:

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

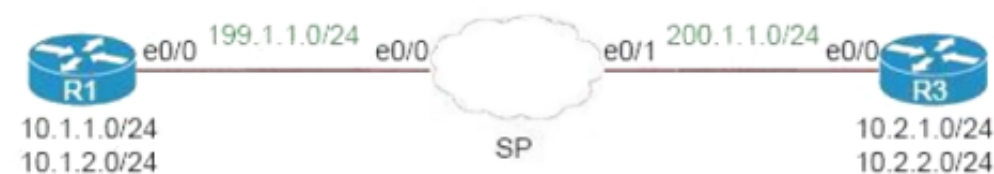
Neighbors Stuck in Exstart/Exchange State

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

#### NEW QUESTION 142

- (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 3deshash sha group 2!crypto isakmp key cisco123 address 200.1.1.3
- B. crypto isakmp policy 5 authentication pre-share encryption 3deshash md5 group 2!crypto isakmp key cisco123 address 200.1.1.3
- C. crypto isakmp policy 5 authentication pre-share encryption 3deshash md5 group 2!crypto isakmp key cisco123 address 199.1.1.1
- D. crypto isakmp policy 5 authentication pre-share encryption 3deshash md5group 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 145

- (Exam Topic 3)

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

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

**Answer: B**

#### NEW QUESTION 146

- (Exam Topic 3)

```
R1#show bgp ipv6 unicast 2001:db8::1/128
BGP routing table entry for 2001:db8::1/128, version 3
Paths: (1 available, best #1, table Global-IPv6-Table)
Not advertised to any peer
Local
2001:db8:33:33::33 (metric 128) from 2001:db8:11:11::11 (1.1.1.1)
Origin IGP, metric 0, localpref 100, valid, internal, best
Originator: 3.3.3.3, Cluster list: 1.1.1.1
```

Refer to the exhibit. An engineer examines the BGP update for the IPv6 prefix 2001:db8::1/128. which should have been summarized into a /64 prefix. Which sequence of actions achieves the summarization?

- A. R1 is a route reflector client of a RR with a router ID of 1.1.1.1. and the originator of the prefix has a router ID of 3.3.3.3. Both routers belong to different AS
- B. The prefix is not advertised to any peer and must be advertised using the network statement on R3.
- C. R1 is a route reflector with a router ID of 3.3.3.3. and the originator of the prefix is a route reflector client, which has a router ID of 3.3.3.3. Both routers belong to the same AS Configure an aggregate address on the router with ID 1.1.1.1 for the prefix
- D. R1 is a route reflector with a router ID of 1.1.1.1. and the originator of the prefix is a route reflector client, which has a router ID of 3.3.3.3. Both routers belong to the same AS Configure an aggregate address on the router with ID 1.1.1.1 for the prefix
- E. R1 is a route reflector client of a RR with a router ID of 1.1.1.1. and the originator of the prefix has a router ID of 3.3.3.3. Both routers belong to the same AS
- F. Configure an aggregate address on the router with ID 3.3.3.3 for the prefix.

**Answer: D**

#### NEW QUESTION 148

- (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`

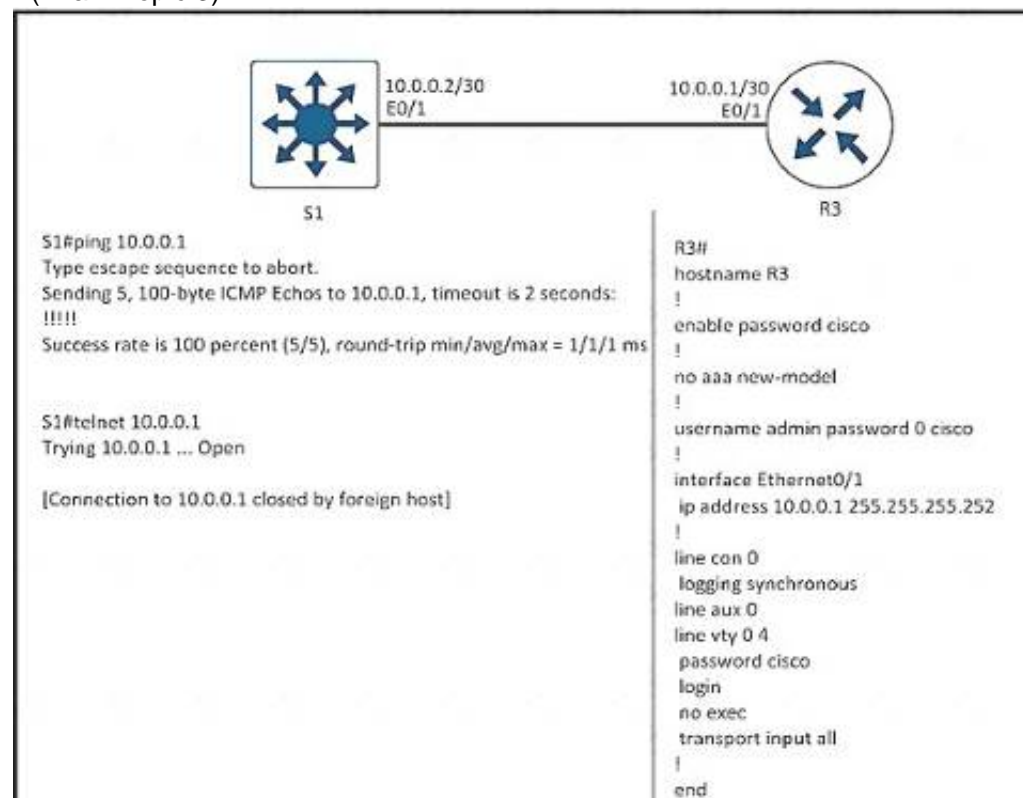
A. Option A

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

**Answer: C**

#### NEW QUESTION 149

- (Exam Topic 3)



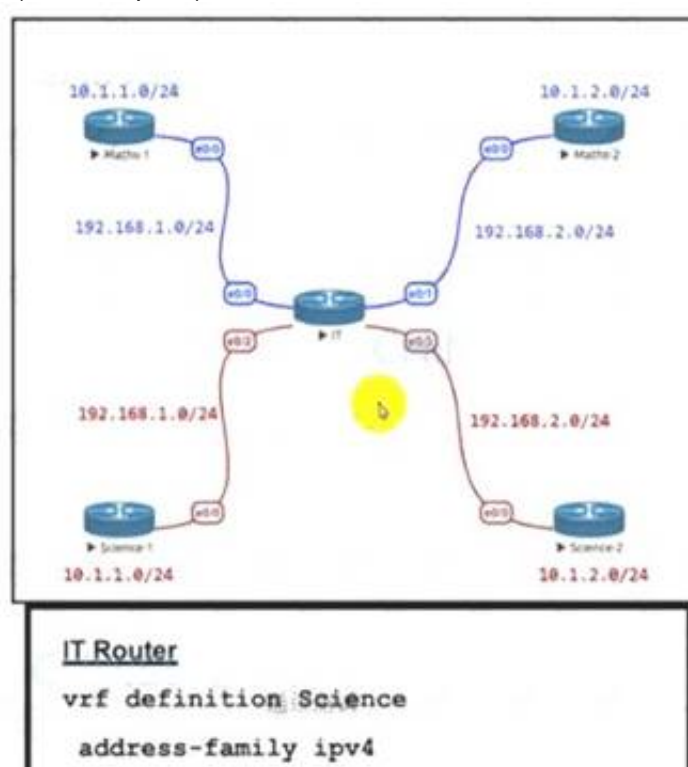
Refer to the exhibit. A network engineer cannot remote access R3 using Telnet from switch S1. Which action resolves the issue?

- A. Allow the inbound connection via the exec command on R3.
- B. Add the transport input telnet command on R3.
- C. Allow to use the ssh -l admin 10.0.0.1 command on the switch.
- D. Add the login admin command on the switch.

**Answer: A**

#### NEW QUESTION 151

- (Exam Topic 3)



```
!
Interface E 0/2
Vrf forwarding Science
Ip address 192.168.1.1 255.255.255.0
No shut
!
Interface E 0/3
Vrf forwarding Science

!
Interface E 0/3
Vrf forwarding Science
Ip address 192.168.2.1 255.255.255.0
No shut
```

Refer to the exhibit. The IT router has been configured with the Science VRF and the interfaces have been assigned to the VRF. Which set of configurations advertises Science-1 and Science-2 routes using EIGRPAS 111?

☒ router eigrp 111  
 address-family ipv4 vrf Science autonomous-system 1  
 network 192.168.1.0  
 network 192.168.2.0

☐ router eigrp 111  
 address-family ipv4 vrf Science  
 network 192.168.1.0  
 network 192.168.2.0

☐ router eigrp 111  
 network 192.168.1.0  
 network 192.168.2.0

☐ router eigrp 1  
 address-family ipv4 vrf Science autonomous-system 111  
 network 192.168.1.0  
 network 192.168.2.0

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

**Answer: D**

#### NEW QUESTION 155

- (Exam Topic 3)

Which two protocols are used by a P router to transfer VPN traffic between PE routers in an MPLS network? (Choose two.)

- A. BGP
- B. OSPF
- C. MP-BGP
- D. LDP
- E. RSVP

**Answer: CD**

#### NEW QUESTION 157

- (Exam Topic 3)

Refer to the exhibit.



```

ipv6 inspect udp idle-time 3600
ipv6 inspect name ipv6-firewall tcp
ipv6 inspect name ipv6-firewall udp

!

ipv6 access-list ipv6-internet
deny ipv6 any FEC0::/10
deny ipv6 any FF00::/8
permit ipv6 any FF02::/16
permit ipv6 any FF0E::/16
permit udp any any eq domain log

!

Interface gi0/1
ipv6 traffic-filter ipv6-internet in
ipv6 inspect ipv6-firewall in
ipv6 inspect ipv6-firewall out
    
```

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

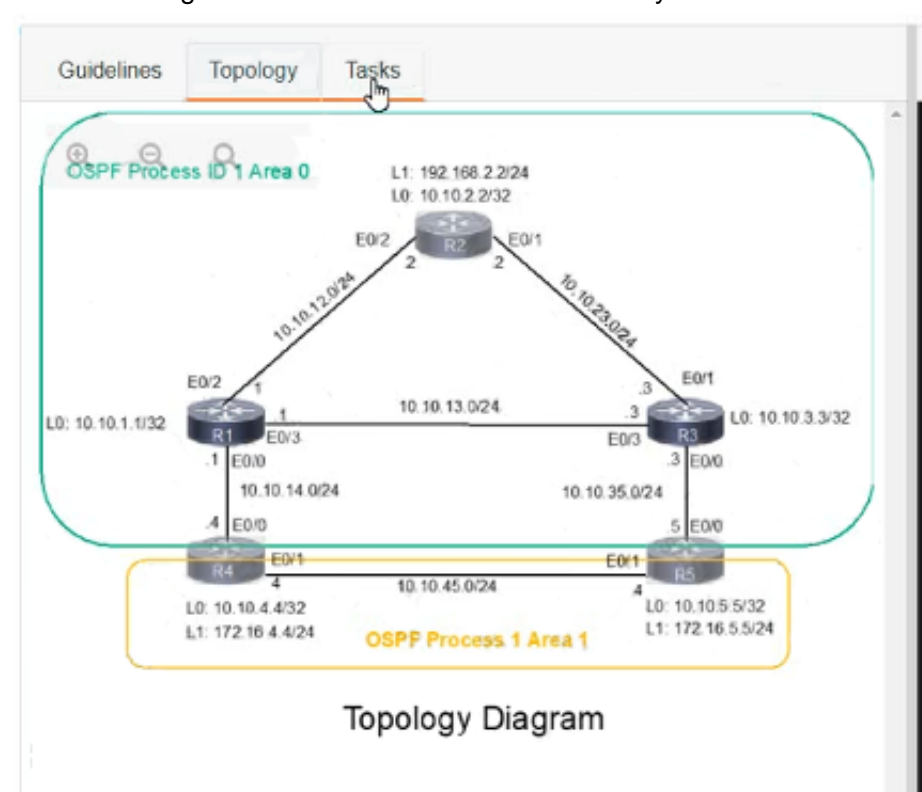
- A. Remove `ipv6 inspect ipv6-firewall in` from interface `gi0/1`
- B. Add `permit udp any eq domain any log` in the access list.
- C. `inspect ipv6 inspect name ipv6-firewall udp 53` in global config.
- D. Add `permit any eq domain 53 any log` in the access list.

**Answer:** A

#### NEW QUESTION 162

- (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
```

```

R2  R4  R5
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
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!
!
!
control-plane
!
!
!
!
!
!
!
line con 0

```

R4

```
R2  R4  R5
```

```
R4>
R4>
R4>
R4>
R4>en
R4#sh run
Building configuration...

Current configuration : 1479 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R4
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmio polling-interval 60
no mmio auto-configure
no mmio pvc
--More--
```

Activate V  
Go to Setting



Activate  
Go to Settings

Activate Wi-Fi  
Go to Settings

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

Current configuration : 1496 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R5
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
--More--
```

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

```

R2  R4  R5
!
!
!
!
!
!
interface Loopback0
 ip address 10.10.5.5 255.255.255.255
 ip ospf 1 area 1
!
interface Loopback1
 ip address 172.16.5.5 255.255.255.0
!
interface Ethernet0/0
 ip address 10.10.35.5 255.255.255.0
 ip ospf authentication key-chain CCNP
 ip ospf 1 area 0
 duplex auto
!
interface Ethernet0/1
 ip address 172.16.45.5 255.255.255.0
 ip ospf 1 area 1
 ip ospf cost 60
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address

```

```

R2  R4  R5
!
router ospf 1
 redistribute connected subnets route-map to-ospf
 passive-interface default
 no passive-interface Ethernet0/0
 no passive-interface Ethernet0/1
!
 ip forward-protocol nd
!
!
 no ip http server
 no ip http secure-server
!
 ipv6 ioam timestamp
!
 route-map to-ospf permit 10
  match interface Loopback1
!
!
!
 control-plane
!
!
!
!
!
!
!
 line con 0
  logging synchronous
 line aux 0

```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

R4  
 Int range et0/0 – 1  
 Ip ospf authentication message-digest  
 Ip ospf message-digest-key 1 md5 CCNP  
 Router ospf 1  
 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        00:00:38    10.10.12.1   Ethernet0/2
R2#
```

#### NEW QUESTION 166

- (Exam Topic 3)

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

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

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

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

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

**Answer:** CE

#### NEW QUESTION 168

- (Exam Topic 3)

Refer to the exhibit.

```

RD#
*Sep 19 00:53:43.004: BGPNSF state: 10.10.10.3 went from nsf not active to
nsf not active
*Sep 19 00:53:43.006: BGP: 10.10.10.3 went from Established to Idle
*Sep 19 00:53:43.006: BGP-5-ADJCHANGE: neighbor 10.10.10.3 Down User reset
*Sep 19 00:53:43.006: BGP: 10.10.10.3 closing
*Sep 19 00:53:43.106: BGP_Router: unhandled major event code 128, minor 0

RD#show ip bgp neighbors 10.10.10.2
BGP neighbor is 10.10.10.2, remote AS 65101, external link
BGP version 4, remote router ID 0.0.0.0
BGP state = Active
Last read 00:01:35, last write 00:01:35, hold time is 180, keepalive
interval is 60 seconds
Default minimum time between advertisement runs is 30 seconds
Address tracking is enabled, the RIB does have a route to 10.10.10.2
Connections established 11; dropped 11
Last reset 00:01:36, due to Peer closed the session
External BGP neighbor may be up to 3 hops away.
Transport(tcp) path-mtu-discovery is enabled
No active TCP connection
  
```

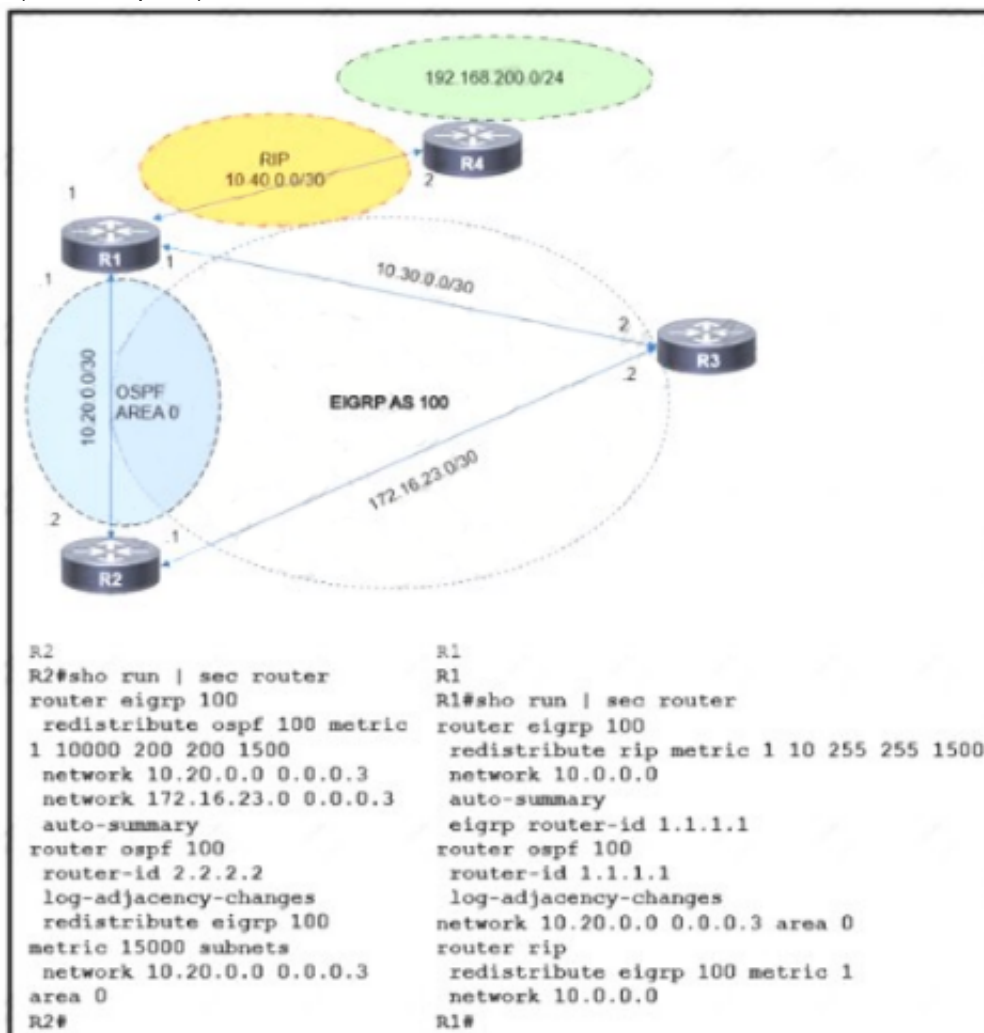
A NOC team receives a ticket that data traffic from RA to RF is not forwarded when the link between the RC-RE path goes down. All routers learn loopback IP through the IGP protocol. Which configuration resolves?

- A. RD(config)#router bgp B5201RD(config-router)# neighbor 10.10.10.2 update-source loopback 0
- B. RD(config-router)# neighbor bgp 65101RB(config-router)# neighbor 10.10.10.3 ebgp-multihop 3
- C. RB(config)# router bgp 65101RB(config)#neighbor 10.10.10.3 update-source loopback 0
- D. RD(config)# router bgp 65201RD(config-router)# neighbor 10.10.10.2 ebgp-multihop 3

**Answer: B**

#### NEW QUESTION 170

- (Exam Topic 3)



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

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

A. Option A

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

**Answer: D**

#### NEW QUESTION 174

- (Exam Topic 3)

```
R4#
interface FastEthernet1/0
ip address 10.1.1.14 255.255.255.252
ip access-group VENDOR in
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 EIGRPKEY
speed 100
full-duplex
!
interface loopback 100
ip address 10.199.100.1 255.255.255.255
!
router eigrp 100
network 10.1.1.8 0.0.0.3
network 10.1.1.12 0.0.0.3
no auto-summary
eigrp router-id 100.4.4.4
neighbor 10.1.1.13 FastEthernet1/0
redistribute connected
!
router bgp 65001
no synchronization
bgp log-neighbor-changes
network 100.4.4.4 mask 255.255.255.255
neighbor 10.1.1.13 remote-as 65001
no auto-summary
!
ip access-list extended VENDOR
permit tcp 192.168.32.0 0.0.7.255 host 10.199.100.1 eq 22 time-range VENDOR_ACCESS
!
time-range VENDOR_ACCESS
periodic weekend 22:00 to 23:00
```

Refer to the exhibit A network engineer received a call from the vendor for a failed attempt to remotely log in to their managed router loopback interface from 192.168.40.15 Which action must the network engineer take to resolve the issue?

- A. The IP access list VENDOR must be applied to interface loopback 100
- B. The time-range configuration must be changed to use absolute instead of periodic
- C. The EIGRP configuration must be updated to include a network statement for loopback 100
- D. The source IP summarization must be updated to include the vendor source IP address

**Answer: C**

#### NEW QUESTION 179

- (Exam Topic 3)



```
R4#show ip flow export
Flow export v9 is enabled for main cache
Export source and destination details :
VRF ID : Default
Source(1)      10.0.0.10 (GigabitEthernet2/0)
Destination(1) 192.168.10.1 (656)
Version 9 flow records
254 flows exported in 41 udp datagrams
0 flows failed due to lack of export packet
0 export packets were sent up to process level
41 export packets were dropped due to no fib
0 export packets were dropped due to adjacency issues
0 export packets were dropped due to fragmentation failures
0 export packets were dropped due to encapsulation fixup failures

R4#show ip flow interface
GigabitEthernet2/0
ip flow ingress
```



Refer to the exhibit An enterprise operations team must monitor all application server traffic in the data center The team finds that traffic coming from the hub site from R3 and R6 is monitored successfully but traffic destined to the application server is not monitored Which action resolves the issue?

A)

```
R4(config)#int gigabitEthernet 1/0
R4(config-if)#ip flow ingress
```

B)

```
R1(config)#int gigabitEthernet 0/0
R1(config-if)#ip flow egress
```

C)

```
R4(config)#int gigabitEthernet 2/0
R4(config-if)#ip flow egress
```

D)

```
R3(config)#int gigabitEthernet 0/0
R3(config-if)#ip flow egress
```

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

**Answer: C**

#### NEW QUESTION 182

- (Exam Topic 3)

What is LDP label binding?

- A. neighboring router with label
- B. source prefix with label
- C. destination prefix with label
- D. two routers with label distribution session

**Answer: C**

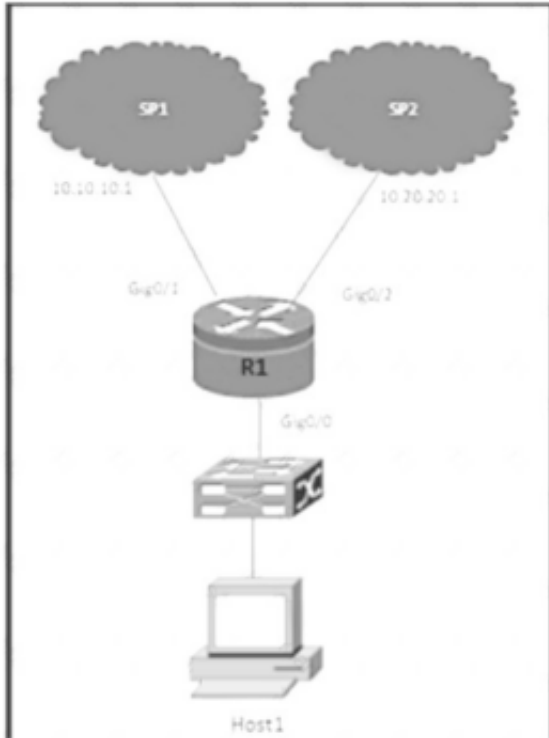
#### Explanation:

Text Description automatically generated with medium confidence

For every IGP IP prefix in its IP routing table, each LSR creates a local binding—that is, it binds a label to the IPv4 prefix. The LSR then distributes this binding to all its LDP neighbors. These received bindings become remote bindings. The neighbors then store these remote and local bindings in a special table, the label information base (LIB). Each LSR has only one local binding

#### NEW QUESTION 187

- (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
- B. Option
- C. Option

D. Option

**Answer: C**

#### NEW QUESTION 191

- (Exam Topic 3)

```
ip access-list extended CoPP-ICMP
 permit icmp any any echo
!
ip access-list extended CoPP-BGP
 permit tcp any eq bgp any established
!
ip access-list extended CoPP-EIGRP
 permit eigrp any host 224.0.0.10
!
Class-map match-all CoPP-CLASS
 match access-group name CoPP-ICMP
 match access-group name CoPP-BGP
 match access-group name CoPP-EIGRP
!
```

Refer to the exhibit A CoPP policy is implemented to allow specific control traffic, but the traffic is not matching as expected and is getting unexpected behavior of control traffic. Which action resolves the issue?

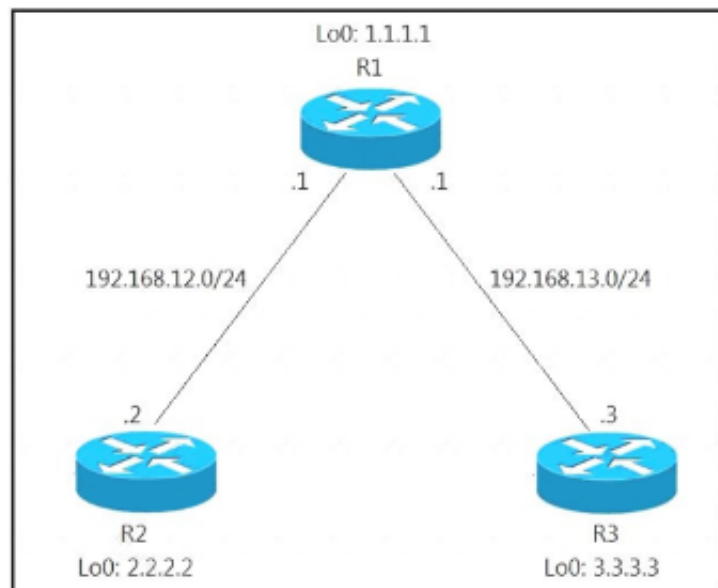
- A. Use match-any instruction in class-map
- B. Create a separate class map against each ACL.
- C. Create a separate class map for ICMP traffic.
- D. Use default-class to match ICMP traffic

**Answer: A**

#### NEW QUESTION 193

- (Exam Topic 3)

Refer to the exhibit.



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

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

**Answer: B**

#### Explanation:

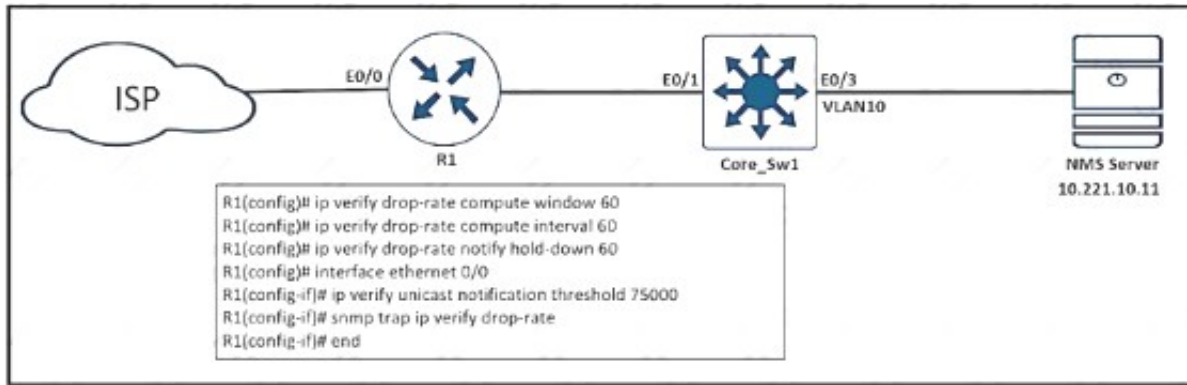
The EIGRP stub feature is useful to prevent unnecessary EIGRP queries and to filter some routes that you advertise. What if you want to configure your router as a stub router but still make an exception to some routes that it advertises? That is possible with the leak-map feature. This is how to configure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

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

#### NEW QUESTION 196

- (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?

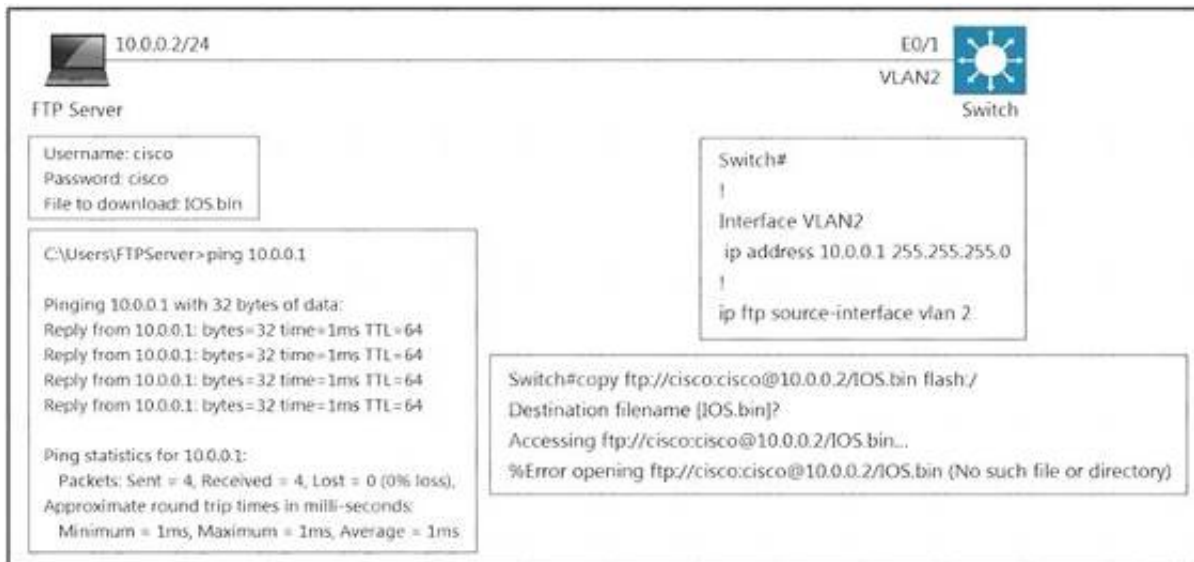
- A. ip verify unicast notification threshold 48000
- B. ip verify unicast notification threshold 8000
- C. ip verify unicast notification threshold 800
- D. ip verify unicast notification threshold 80

**Answer: C**

### NEW QUESTION 198

- (Exam Topic 3)

Refer to the exhibit.



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 201

- (Exam Topic 3)



Refer to the exhibit. The traffic from spoke to hub is dropping. The operations team observes:

- R2-R3 link is down due to the fiber cut.
- R2 and R5 receive traffic from R1 in AS 65101.
- R3 and R5 receive traffic from R4 in AS 65201.

Which configuration resolves the issue?

A)

```
R6(config)#router bgp 65101
R6(config-router)#no neighbor 10.0.0.17 update-source Loopback0
```

B)

```
R5(config)#router bgp 65101
R5(config-router)#no neighbor 10.0.0.18 update-source Loopback0
```

C)

```
R6(config)#router bgp 65201
R6(config-router)#neighbor 10.10.10.5 remote-as 65101
R6(config-router)#neighbor 10.10.10.5 update-source Loopback0
R6(config-router)#neighbor 10.10.10.5 ebgp-multihop 3
```

D)

```
R5(config)#router bgp 65101
R5(config-router)#neighbor 10.10.10.6 remote-as 65201
R5(config-router)#neighbor 10.10.10.6 update-source Loopback0
R5(config-router)#neighbor 10.10.10.6 ebgp-multihop 3
```

A. Option A

B. Option B

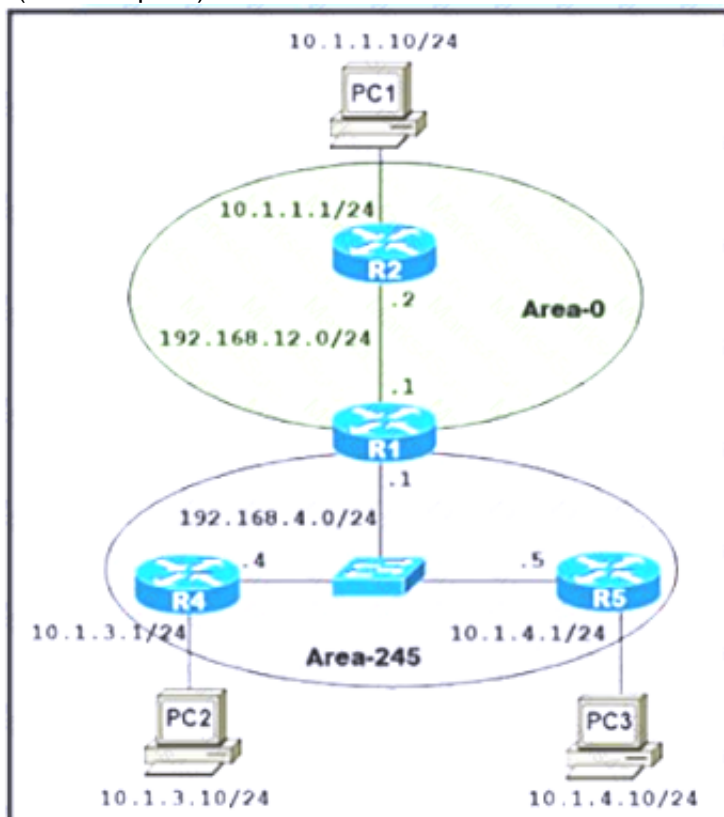
C. Option C

D. Option D

**Answer: C**

### NEW QUESTION 202

- (Exam Topic 3)



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

A)

```
R-1#default area 245
```

```
R-4#default area 245 default-cost
```

```
R-5#default area 245 default-cost
```

```
R-1#area 245 stub no-summary
```

B)

```
R-1#area 245 stub no-summary
```

```
R-4#area 245 stub
```

```
R-5#area 245 stub
```

C)

```
R-1#default area 245 default-cost
```

```
R-4#default area 245
```

```
R-5#default area 245
```

D)

R-5#area 245 stub no-summary

- Answer: D**

- (Exam Topic 3)



**Answer: B**

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```
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 OeKR-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?

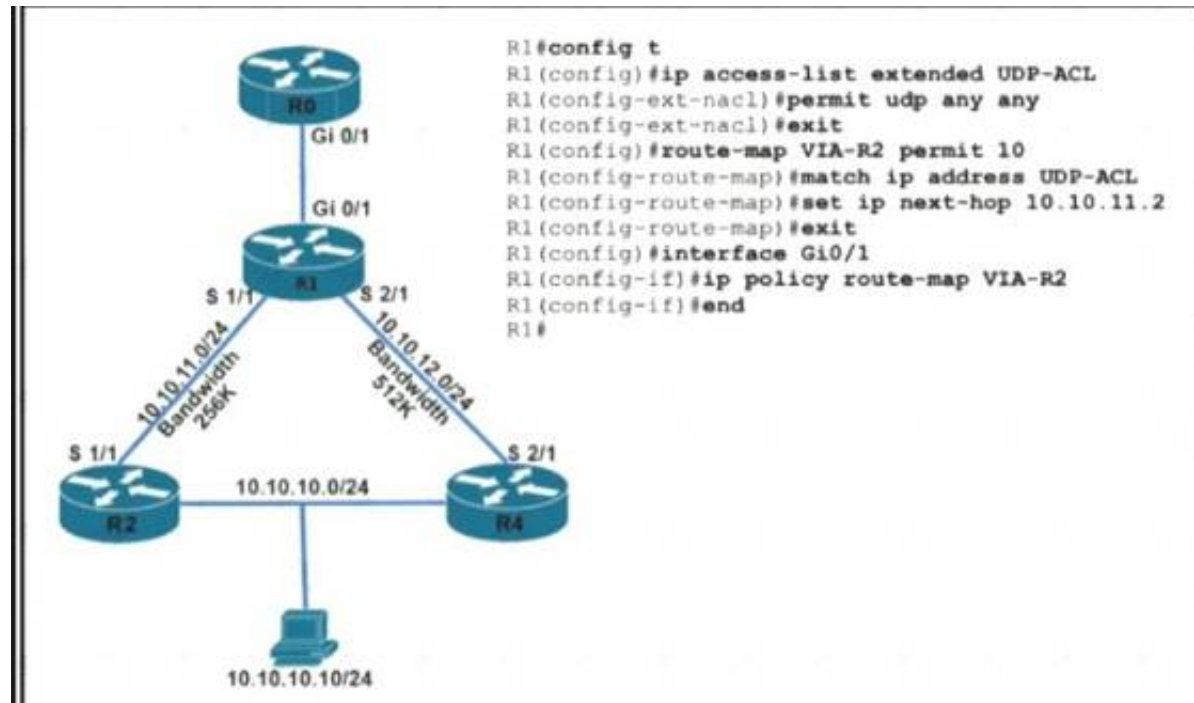
- A. Configure the management interface in the global routing table to send the records.
- B. Configure a different interface to send the records.
- C. Configure the NetFlow collector to listen at export-protocol netflow-v5.
- D. Rectify NetFlow collector reachability from the management interface.

**Answer: B**

#### NEW QUESTION 211

- (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 213

- (Exam Topic 3)

Which two components are required for MPLS Layer 3 VPN configuration? (Choose two)

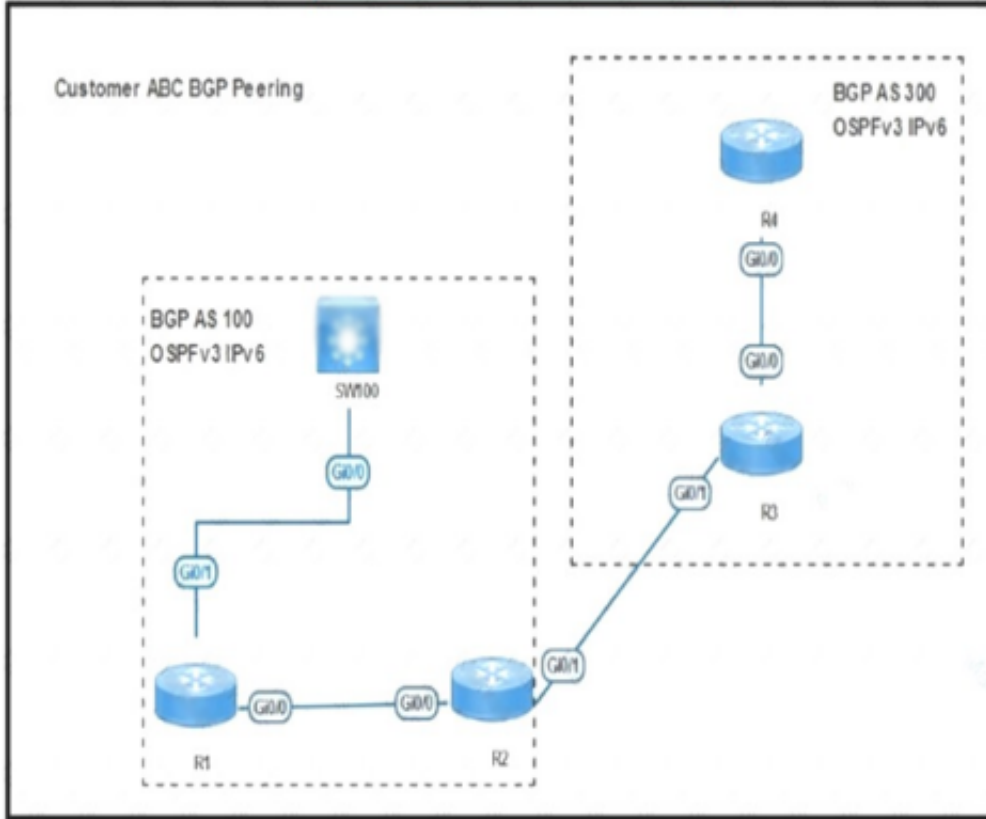
- A. Use pseudowire for Layer 2 routes
- B. Use MP-BGP for customer routes
- C. Use OSPF between PE and CE
- D. Use a unique RD per customer VRF
- E. Use LDP for customer routes

**Answer: CD**

#### NEW QUESTION 215



- (Exam Topic 3)



```
SW100#sh ip bgp ipv6 uni summ
BGP router identifier 100.0.0.1, local AS number 100
BGP table version is 1, main routing table version 1

Neighbor      V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/PfxRcd
2001:ABC:AABB:1100:1122:1111:2222:AAA1
      4      100      6      5        1    0    0 00:00:58      0

SW100#sh ip bgp ipv6 unicast
SW100#

R1#sh ip bgp ipv6 uni
BGP table version is 4, local router ID is 1.1.1.1
   Network        Next Hop        Metric LocPrf Weight Path
* i  2001::4/128    2001::4          0   100    0 300 i
*>i  2002::2/128    2001::2          0   100    0 i
R1#
R1#sh ipv6 route
O  2001::2/128 [110/1]
   via FE80::5200:C3FF:FE01:E600, GigabitEthernet0/0
B  2002::2/128 [200/0]
   via 2001::2
```

Refer to the exhibit SW100 cannot receive routes from R1 Which configuration resolves the issue?

- ☐ R1
 

```
router bgp 100
address-family ipv6
neighbor 2001::2 route-reflector-client
neighbor 2001:ABC:AABB:1100:1122:1111:2222:AAA2 route-reflector-client
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
neighbor 2001::2
neighbor 2001::1 next-hop-self
```
- ☐ R1
 

```
router bgp 100
address-family ipv6
neighbor 2001::2 route-reflector-client
neighbor 2001:ABC:AABB:1100:1122:1111:2222:AAA2 route-reflector-client
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
neighbor 2001::2
neighbor 2001::1 as-override
```

- ☐ R1  
 router bgp 100  
 address-family ipv6  
 no synchronization
- R2  
 router bgp 100  
 address-family ipv6  
 no synchronization  
 SW100  
 router bgp 100  
 address-family ipv6  
 no synchronization
- ☐ R1  
 router bgp 100  
 address-family ipv6  
 redistribute connected
- R2  
 router bgp 100  
 address-family ipv6  
 redistribute connected

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

**Answer:** A

#### NEW QUESTION 220

- (Exam Topic 3)

A network administrator is troubleshooting a high utilization issue on the route processor of a router that was reported by NMS. The administrator logged into the router to check the control plane policing and observed that the BGP process is dropping a high number of routing packets and causing thousands of routes to recalculate frequently. Which solution resolves this issue?

- A. Police the cir for BGP, conform-action transmit, and exceed action transmit.  
 B. Shape the pir for BGP, conform-action set-prec-transmit, and exceed action set-frde-transmit.  
 C. Shape the cir for BG  
 D. conform-action transmit, and exceed action transmit.  
 E. Police the pir for BGP, conform-action set-prec-transmit, and exceed action set-clp-transmit.

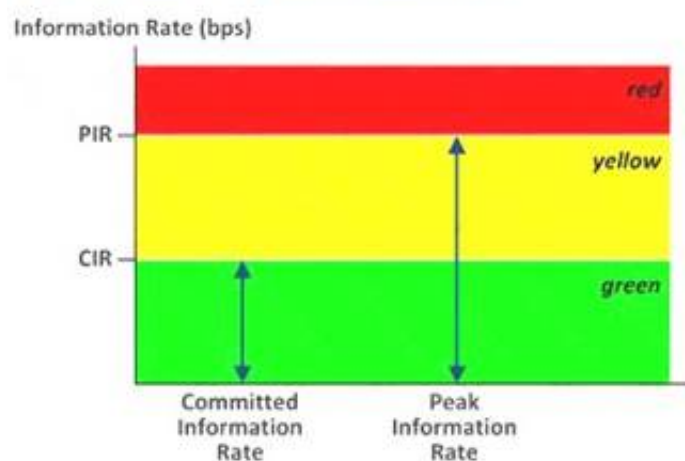
**Answer:** D

#### Explanation:

CIR (Committed Information Rate) is the minimum guaranteed traffic delivered in the network.

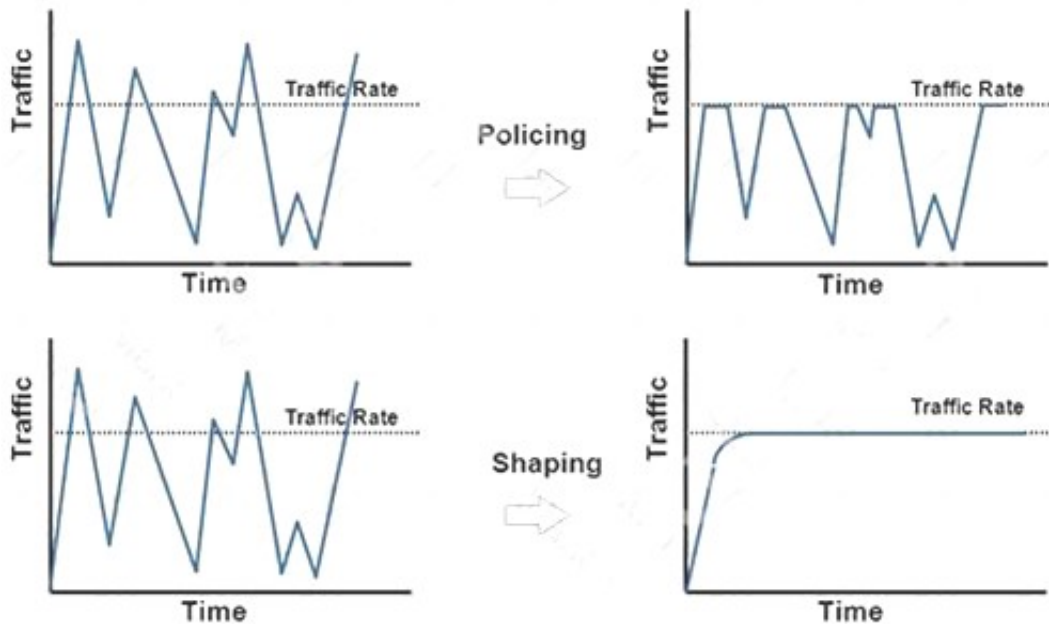
PIR (Peak Information Rate) is the top bandwidth point of allowed traffic in a non-busy time without any guarantee.

#### Two Rates & Three Colors



+ Policing: is used to control the rate of traffic flowing across an interface. During a bandwidth exceed (crossed the maximum configured rate), the excess traffic is generally dropped or remarked. The result of traffic policing is an output rate that appears as a saw-tooth with crests and troughs. Traffic policing can be applied to inbound and outbound interfaces. Unlike traffic shaping, QoS policing avoids delays due to queuing. Policing is configured in bytes.

+ Shaping: retains excess packets in a queue and then schedules the excess for later transmission over increments of time. When traffic reaches the maximum configured rate, additional packets are queued instead of being dropped to proceed later. Traffic shaping is applicable only on outbound interfaces as buffering and queuing happens only on outbound interfaces. Shaping is configured in bits per second.



Therefore in this case we can only policing, not shaping as traffic shaping is applicable only on outbound interfaces as buffering and queuing happens only on outbound interfaces. Moreover, BGP traffic is not important so we can drop the excess packets without any problems. And we only policing the PIR traffic so that the route processor is not overwhelmed by BGP calculation. Note: The “set-prec-transmit” is the same as “transmit” command except it sets the IP Precedence level as well. The “set-clp-transmit” sets the ATM Cell Loss Priority (CLP) bit from 0 to 1 on the ATM cell and transmits the packet.

### NEW QUESTION 223

- (Exam Topic 3)

```
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 Ethernet0/0 203.0.113.1 name ISP1 track 1
ip route 0.0.0.0 0.0.0.0 Ethernet0/1 198.51.100.1 2 name ISP2
```

Refer to the exhibit. After recovering from a power failure, Ethernet0/1 stayed down while Ethernet0/0 returned to the up/up state. The default route through ISP1 was not reinstated in the routing table until Ethernet0/1 also came up. Which action resolves the issue?

- A. Reference the track object 1 in both static default routes
- B. Remove the references to the interface names from both static default routes
- C. Configure the default route through ISP1 with a higher administrative distance than 2.
- D. Add a static route to the 8.8.8/32 destination through the next hop 203.0.113.1

**Answer: D**

### NEW QUESTION 228

- (Exam Topic 3)

An engineer creates a default static route on a router with a hop of 10.1.1.1. On inspection, the engineer finds the router has two VRFs, Red and Blue. The next hop is valid for both VRFs and exists in each assigned VRF. Which configuration achieves connectivity?

A)

```
ip route vrf BLUE 0.0.0.0 255.255.255.255 10.1.1.1
ip route vrf RED 0.0.0.0 255.255.255.255 10.1.1.1
```

B)

```
ip route vrf Red 0.0.0.0 0.0.0.0 10.1.1.1
ip route vrf Blue 0.0.0.0 0.0.0.0 10.1.1.1
```

C)

```
ip route 0.0.0.0 0.0.0.0 10.1.1.1
```

D)

```
ip route vrf Red 0.0.0.0 255.255.255.255 10.1.1.1
ip route vrf Blue 0.0.0.0 255.255.255.255 10.1.1.1
```

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

**Answer: A**

#### NEW QUESTION 230

- (Exam Topic 3)

Refer to the exhibit.

```
ip vrf CCNP
rd 1:1
interface Ethernet1
ip vrf forwarding CCNP
ip address 10.1.1.1 255.255.255.252
!
interface Ethernet2
ip vrf forwarding CCNP
ip address 10.2.2.2 255.255.255.252
```

Which configuration enables OSPF for area 0 interfaces to adjacency with a neighboring router with the same VRF?

- A. router ospf 1 vrf CCNP interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- B. router ospf 1 interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- C. router ospf 1 vrf CCNP network 10.1.1.1 0.0.0.0 area 0 network 10.2.2.2 0.0.0.0 area 0
- D. router ospf 1 vrf CCNP network 10.0.0.0 0.0.255.255 area 0

**Answer: C**

#### NEW QUESTION 233

- (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 236

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

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

**Answer: C**

#### NEW QUESTION 240

- (Exam Topic 3)

Refer to the exhibit.

```
CPE(config)# lin c 0
CPE(config-line)# no exec
CPE(config-line)# end
CPE#
*Jan 31 23:07:22.655: %SYS-5-CONFIG_I: Configured from console
by console
CPE# wr
Building configuration...
[OK]
CPE# exit

CPE con0 is now available

Press RETURN to get started.

! Console stopped responding at this moment !
```



An administrator is attempting to disable the automatic logout after a period of inactivity. After logging out the console stopped responding to all keyword inputs. Remote access through SSH still work resolves the issue?

- A. Configure the exec command on line con 0.
- B. Configure the absolute-timeout command on line con 0.
- C. Configure the default exec-timeout command on line con 0.
- D. Configure the no exec-timeout command on line con 0.

**Answer: D**

#### NEW QUESTION 244

- (Exam Topic 3)

The network administrator configured the router for Control Plane Policing so that inbound SSH traffic is policed to 500 kbps This policy must apply to traffic coming in from 10.10.10.0/24 and 192.168.10.0/24 networks

```
access-list 100 permit ip 10.10.10.0 0.0.0.255 any
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 23
!
class-map CLASS-SSH
match access-group 100
!
policy-map PM-COPP
class CLASS-SSH
police 500000 conform-action transmit
!
Interface E0/0
service-policy input PM-COPP
!
Interface E0/1
service-policy input PM-COPP
```

The Control Plane Policing is not applied to SSH traffic and SSH is open to use any bandwidth available. Which configuration resolves this issue?

- ☐ no access-list 100  
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22  
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22  
!  
policy-map PM-COPP  
class CLASS-SSH  
no police 500000 conform-action transmit  
police 500000 conform-action transmit exceed-action drop
- ☐ interface E0/0  
no service-policy input PM-COPP  
!  
interface E0/1  
no service-policy input PM-COPP  
!  
control-plane  
service-policy input PM-COPP
- ☐ no access-list 100  
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22  
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22  
!  
Interface E0/0  
no service-policy input PM-COPP  
!  
Interface E0/1  
no service-policy input PM-COPP  
!  
control-plane  
service-policy input PM-COPP
- ☒ no access-list 100  
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22  
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22

A)

```
no access-list 100
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22
!
policy-map PM-COPP
class CLASS-SSH
no police 500000 conform-action transmit
police 500000 conform-action transmit exceed-action drop
```

B)

```
interface E0/0
no service-policy input PM-COPP
!
interface E0/1
no service-policy input PM-COPP
!
control-plane
service-policy input PM-COPP
```

C)

```
no access-list 100
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22
!
Interface E0/0
no service-policy input PM-COPP
!
Interface E0/1
no service-policy input PM-COPP
!
control-plane
service-policy input PM-COPP
```

D)

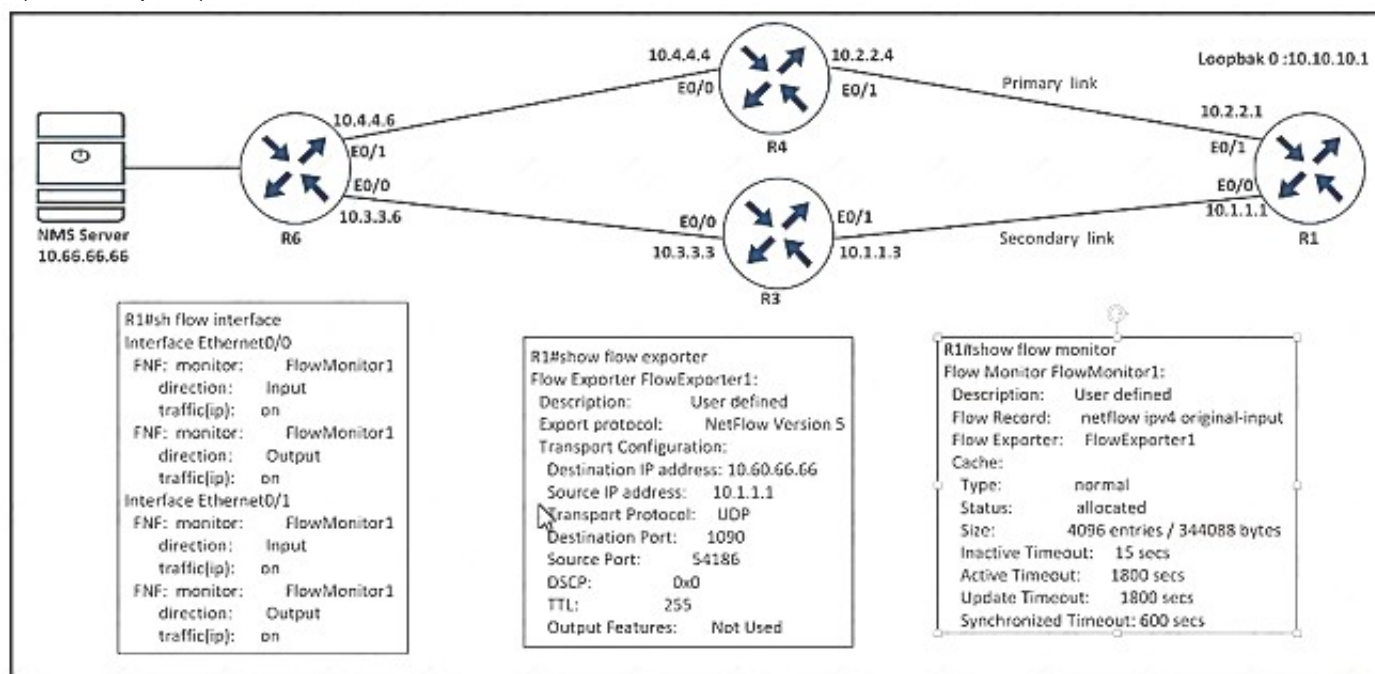
```
no access-list 100
access-list 100 permit tcp 10.10.10.0 0.0.0.255 any eq 22
access-list 100 permit tcp 192.168.10.0 0.0.0.255 any eq 22
```

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

**Answer: C**

#### NEW QUESTION 246

- (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 247

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

R1# show ip eigrp topo all-links
EIGRP-IPv4 Topology Table for AS(1)/ID(172.16.10.1)
Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply,
       r - reply Status, s - via Status
P 192.168.10.0/24, 1 successors, FD is 409600, serno 34
   via 203.0.113.2 (409600/128256), Ethernet1/0
P 172.16.100.0/24, 1 successors, FD is 128256, serno 32
   via Connected, Loopback2
P 192.168.30.0/24, 1 successors, FD is 409600, serno 36
   via 203.0.113.2 (409600/128256), Ethernet1/0
P 203.0.113.0/24, 1 successors, FD is 281600, serno 33
   via Connected, Ethernet1/0
P 172.16.150.0/24, 1 successors, FD is 128256, serno 31
   via Connected, Loopback3
P 172.16.50.0/24, 1 successors, FD is 128256, serno 30
   via Connected, Loopback1
P 192.168.20.0/24, 1 successors, FD is 409600, serno 35
   via 203.0.113.2 (409600/128256), Ethernet1/0

```

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

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

**Answer: D**

#### NEW QUESTION 251

- (Exam Topic 3)

Refer to the exhibit.

```

R1#sh run | s bgp
router bgp 65001
no synchronization
bgp router-id 10.100.1.50
bgp log-neighbor-changes
network 10.1.1.0 mask 255.255.255.252
network 10.1.1.12 mask 255.255.255.252
network 10.100.1.50 mask 255.255.255.255
timers bgp 20 60
neighbor R2 peer-group
neighbor R4 peer-group
neighbor 10.1.1.2 remote-as 65001
neighbor 10.1.1.2 peer-group R2
neighbor 10.1.1.14 remote-as 65001
neighbor 10.1.1.14 peer-group R4
no auto-summary

```

While troubleshooting a BGP route reflector configuration, an engineer notices that reflected routes are missing from neighboring routers. Which two BGP configurations are needed to resolve the issue? (Choose two)

- A. neighbor 10.1.1.14 route-reflector-client
- B. neighbor R2 route-reflector-client
- C. neighbor 10.1.1.2 allowas-in
- D. neighbor R4 route-reflector-client
- E. neighbor 10.1.1.2 route-reflector-client

**Answer: AE**

#### NEW QUESTION 255

- (Exam Topic 3)



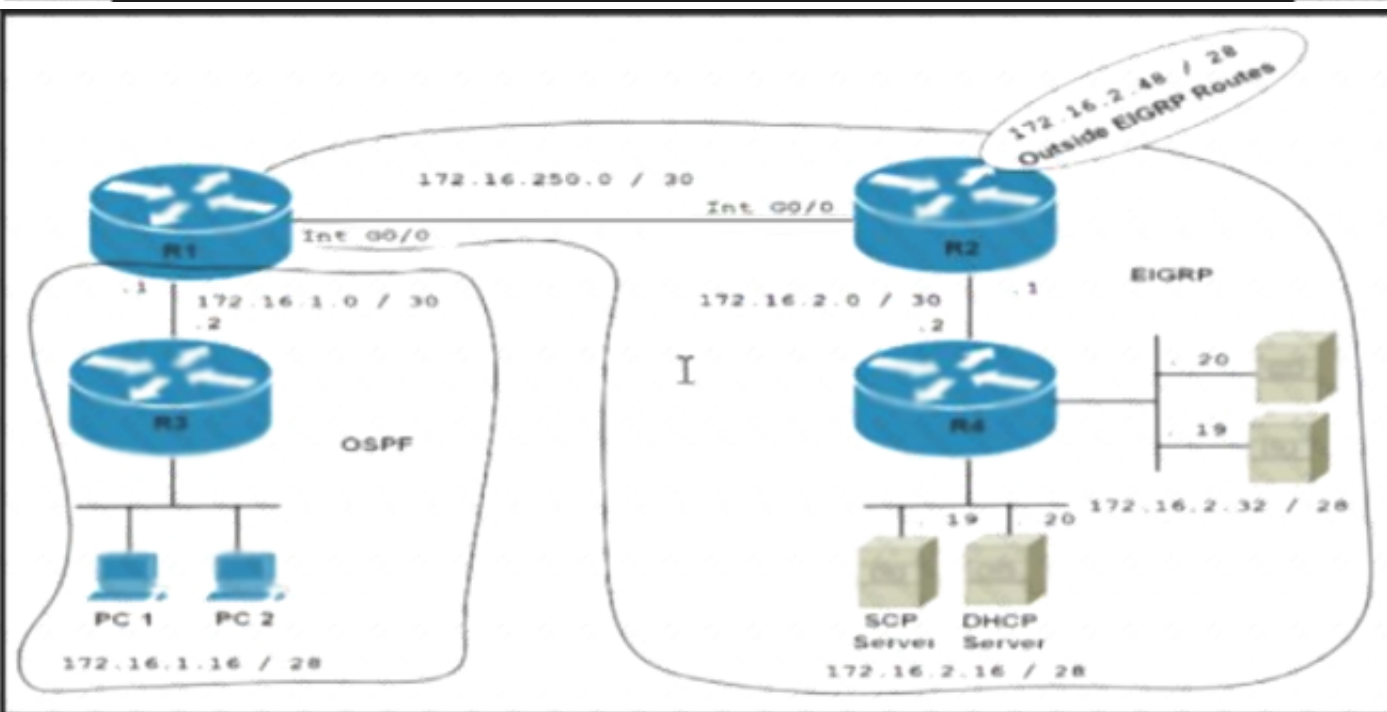
```
R1#show running-config | begin router eigrp
router eigrp 100
network 172.16.250.0 0.0.0.3
redistribute ospf 10 metric 1 1 1 1
!
router ospf 10
redistribute eigrp 100 metric 100 subnets route-map CCNP
network 172.16.1.0 0.0.0.3 area 0
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
route-map CCNP deny 10
match route-type local
!
access-list 10 permit 172.16.2.32
!

R3#sh ip route

Gateway of last resort is not set

172.16.0.0/16 is variably subnetted, 7 subnets, 3 masks
C    172.16.1.0/30 is directly connected, GigabitEthernet0/1
L    172.16.1.2/32 is directly connected, GigabitEthernet0/1
C    172.16.1.16/28 is directly connected, Loopback1
L    172.16.1.17/32 is directly connected, Loopback1
C    172.16.1.32/28 is directly connected, Loopback2
L    172.16.1.33/32 is directly connected, Loopback2
S    172.16.1.48/28 [1/0] via 172.16.1.18
R3#
```

```
R4#show running-config | begin router eigrp
router eigrp 100
network 172.16.2.0 0.0.0.3
network 172.16.2.16 0.0.0.15
network 172.16.2.32 0.0.0.15
redistribute static metric 100 1 1 1 route-map CCNP
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
ip route 172.16.2.48 255.255.255.240 172.16.2.1
!
route-map CCNP permit 10
match ip address 10
set tag 200
!
!
access-list 10 permit 172.16.2.48 0.0.0.15
!
```



Refer to the exhibit. Which configuration resolves the route filtering issue on R1 to redistribute all the routes except 172.16.2.48/28?

A)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external type-1
R1(config)#route-map CCNP permit 20
```

B)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)# match route-type level-2
R1(config)#route-map CCNP permit 20
```

C)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external
R1(config)#route-map CCNP permit 20
```

D)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external type-2
R1(config)#route-map CCNP permit 20
```

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



Answer: D

#### NEW QUESTION 256

- (Exam Topic 3)

CPE# show snmp mib ifmib ifindex detail						
Description	ifIndex	Active	Persistent	Saved	TrapStatus	
Loopback1	8	yes	disabled	no	enabled	
GigabitEthernet1	1	yes	disabled	no	enabled	
GigabitEthernet3	3	yes	disabled	no	enabled	
GigabitEthernet3.123	10	yes	disabled	no	disabled	
VoIP-Null0	5	yes	disabled	no	enabled	
Loopback0	7	yes	disabled	no	enabled	
Null0	6	yes	disabled	no	enabled	
Loopback2	9	yes	disabled	no	enabled	
GigabitEthernet4	4	yes	disabled	no	enabled	
GigabitEthernet2	2	yes	disabled	no	enabled	

Refer to the exhibit. After reloading the router an administrator discovered that the interface utilization graphs displayed inconsistencies with their previous history in the NMS. Which action prevents this issue from occurring after another router reload in the future?

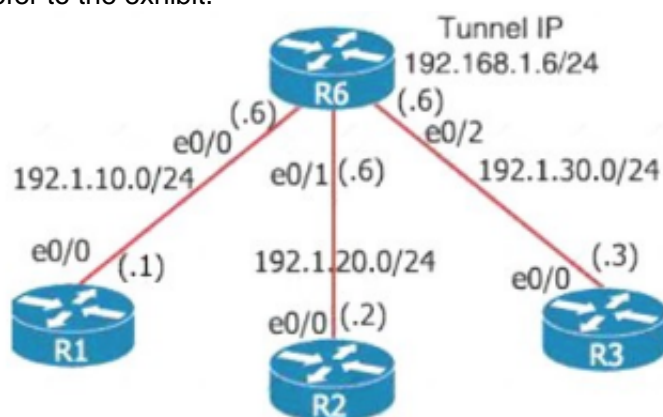
- A. Rediscover all the router interfaces through SNMP after the router is reloaded
- B. Save the router configuration to startup-config before reloading the router
- C. Configure SNMP to use static OIDs referring to individual router interfaces
- D. Configure SNMP interface index persistence on the router

Answer: D

#### NEW QUESTION 258

- (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)

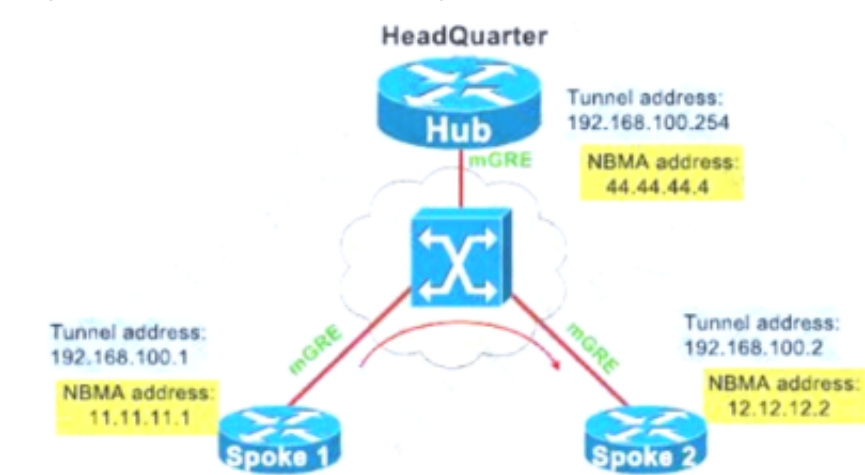
```
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source e0/0
tunnel mode gre multipoint
ip nhrp network-id 1
ip nhrp nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.6
```

- 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

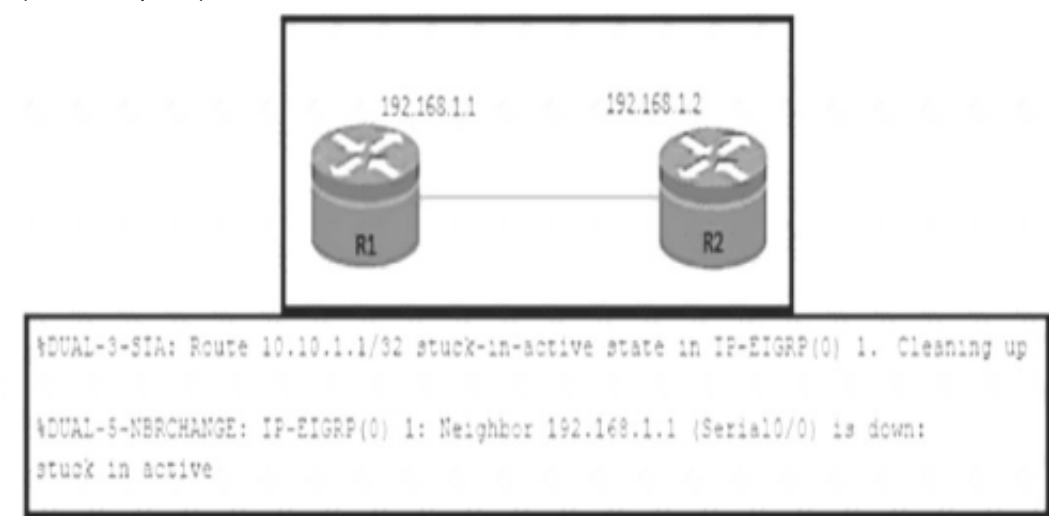


DMVPN Phase II – Dynamic Mapping  
 Text Description automatically generated

<b>Hub</b> 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	<b>Spoke 1</b> 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	<b>Spoke 2</b> 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 261**  
 - (Exam Topic 3)



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 263**  
 - (Exam Topic 3)  
 Refer to the exhibit.

```
!-- ACL for CoPP Routing class-map
!
access-list 120 permit tcp any gt 1024 eq bgp log
access-list 120 permit tcp any bgp gt 1024 established
access-list 120 permit tcp any gt 1024 eq 639
access-list 120 permit tcp any eq 639 gt 1024 established
access-list 120 permit tcp any eq 646
access-list 120 permit udp any eq 646
access-list 120 permit ospf any
access-list 120 permit ospf any host 224.0.0.5
access-list 120 permit ospf any host 224.0.0.6
access-list 120 permit eigrp any
access-list 120 permit eigrp any host 224.0.0.10
access-list 120 permit udp any any eq pim-auto-rp
```

The control plane is heavily impacted after the CoPP configuration is applied to the router. Which command removal lessens the impact on the control plane?

- A. access-list 120 permit udp any any eq pim-auto-rp
- B. access-list 120 permit eigrp any host 224.0.0.10
- C. access-list 120 permit ospf any
- D. access-list 120 permit tcp any gt 1024 eq bgp log

**Answer:** A

#### NEW QUESTION 266

- (Exam Topic 3)

Which two label distribution methods are used by routers in MPLS? (Choose two )

- A. targeted hello message
- B. LDP discovery hello message
- C. LDP session protection message
- D. downstream unsolicited
- E. downstream on demand

**Answer:** DE

#### NEW QUESTION 267

- (Exam Topic 3)

What are the two goals of micro BFD sessions? (Choose two.)

- A. The high bandwidth member link of a link aggregation group must run BFD
- B. Run the BFD session with 3x3 ms hello timer
- C. Continuity for each member link of a link aggregation group must be verified
- D. Eny member link on a link aggregation group must run BFD
- E. Each member link of a link aggregation group must run BFD.

**Answer:** CE

#### Explanation:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_bfd/configuration/xr-16-8/irb-xe-16-8-book/irb-micr](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bfd/configuration/xr-16-8/irb-xe-16-8-book/irb-micr)

#### NEW QUESTION 268

- (Exam Topic 3)

Refer to the exhibits.

```
London - "show ip route" output

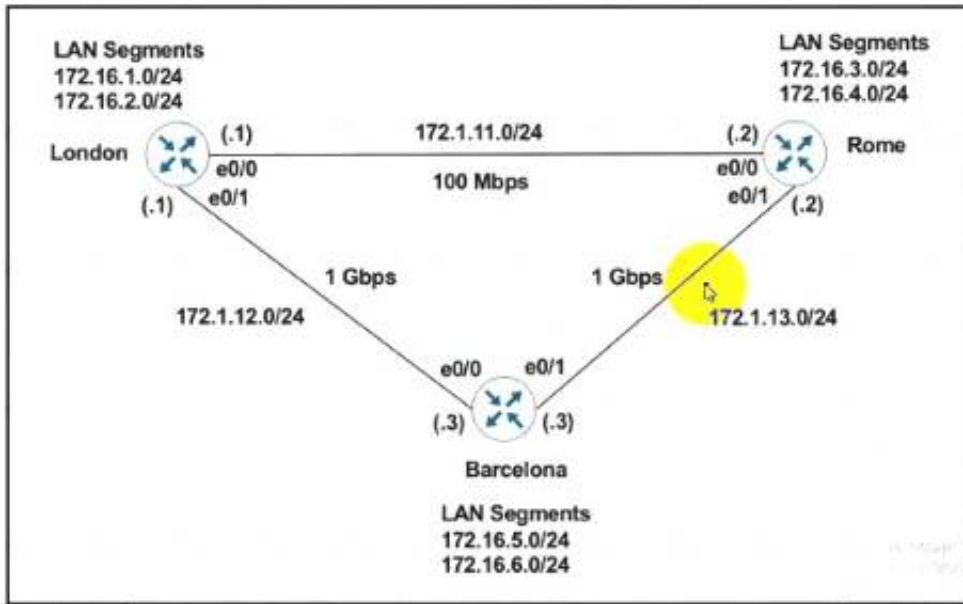
Gateway of last resort is not set

  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 271

- (Exam Topic 3)

IPv6 is enabled in the infrastructure to support customers with an IPv6 network over WAN and to connect the head office to branch offices in the local network. One of the customers is already running IPv6 and wants to enable IPv6 over the DMVPN network infrastructure between the headend and branch sites. Which configuration command must be applied to establish an mGRE IPv6 tunnel neighborship?

- A. tunnel protection mode ipv6
- B. ipv6 unicast-routing
- C. ipv6 nhrp holdtime 30
- D. tunnel mode gre multipoint ipv6

**Answer: D**

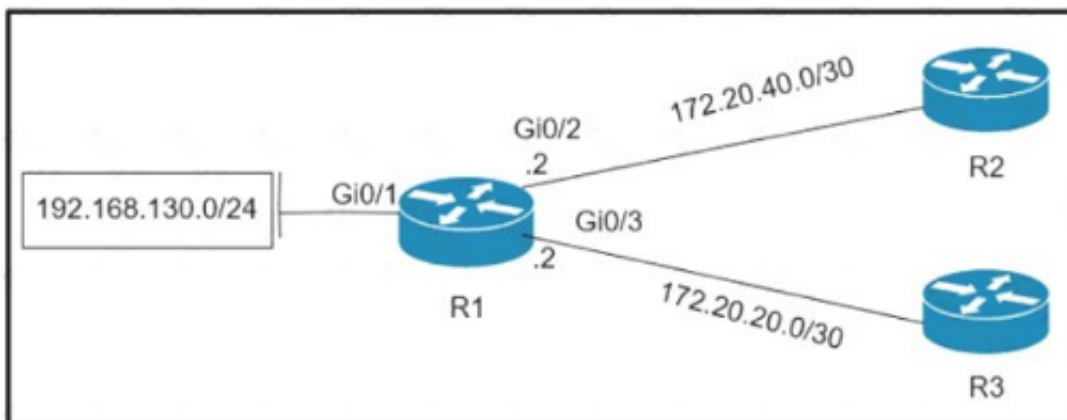
#### Explanation:

The command "tunnel mode gre multipoint ipv6" sets the encapsulation mode of the tunnel to mGRE IPv6.

#### NEW QUESTION 272

- (Exam Topic 3)

Refer to the exhibit.



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

A)

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

B)

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

C)



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

D)

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

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

**Answer: B**

#### NEW QUESTION 276

- (Exam Topic 3)

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

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

**Answer: B**

#### NEW QUESTION 281

- (Exam Topic 3)

Refer to the exhibit. An engineer is trying to log in to R1 via R3 loopback address. Which action resolves the issue?

- A. Add transport input SCP
- B. Add transport input none
- C. Remove the IPv6 traffic filter from R1, which is blocking the Telnet.
- D. Remove the IPv6 traffic from R1, which is blocking the SSH

**Answer: C**

#### NEW QUESTION 286

- (Exam Topic 3)

```
!
ip sla 1
icmp-echo 192.168.2.1 source-interface GigabitEthernet0/0/1
timeout 1000
threshold 1000
frequency 30
ip sla schedule 1 life forever start-time now
!
track 1 ip sla 1 reachability
```

Refer to the exhibit An engineer observes that every time the ICMP packet is lost at a polling interval, track 1 goes down, which causes unnecessary disruption and instability in the network. The engineer does not want the traffic to be rerouted if the loss of ICMP packets is negligible. If the packet loss is persistent for a longer duration, the track must go down and the traffic must be rerouted. Which action resolves the issue?

- A. Change the IP SLA schedule to run only at certain intervals.
- B. Increase the threshold value from 1000 to 1500.
- C. Increase the timeout value from 1000 to 1500
- D. Define a delay timer under track 1.

**Answer: D**

#### NEW QUESTION 290

- (Exam Topic 3)

A network administrator must optimize the segment size of the TCP packet on the DMVPN IPsec protected tunnel interface, which carries application traffic from the head office to a designated branch. The TCP segment size must not overwhelm the MTU of the outbound link. Which configuration must be applied to the router to improve the application performance?

- ☐ interface tunnel30  
ip mtu 1400  
ip tcp packet-size 1360  
!  
crypto ipsec fragmentation after-encryption
- ☐ interface tunnel30  
ip mtu 1400  
ip tcp payload-size 1360  
!  
crypto ipsec fragmentation before-encryption
- ☐ interface tunnel30  
ip mtu 1400  
ip tcp adjust-mss 1360  
!  
crypto ipsec fragmentation after-encryption
- ☐ interface tunnel30  
ip mtu 1400  
ip tcp max-segment 1360  
!  
crypto ipsec fragmentation before-encryption

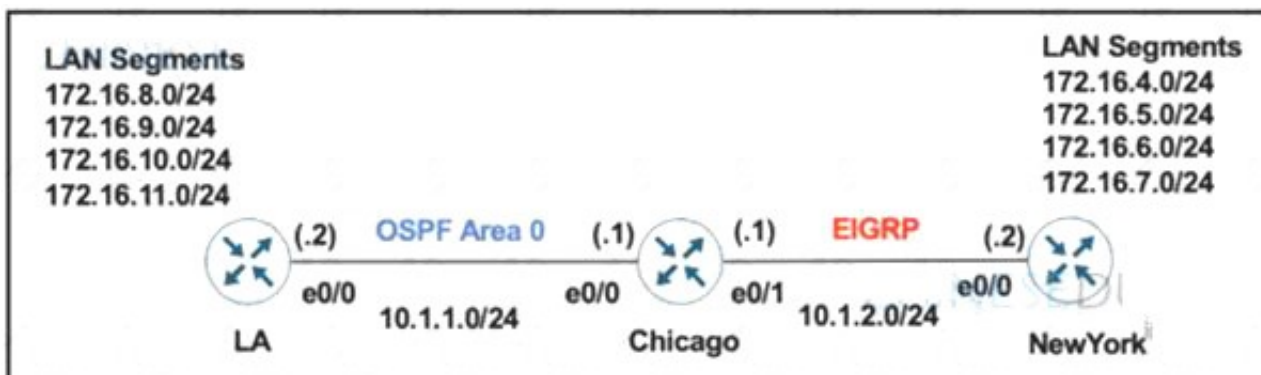
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

#### NEW QUESTION 295

- (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?

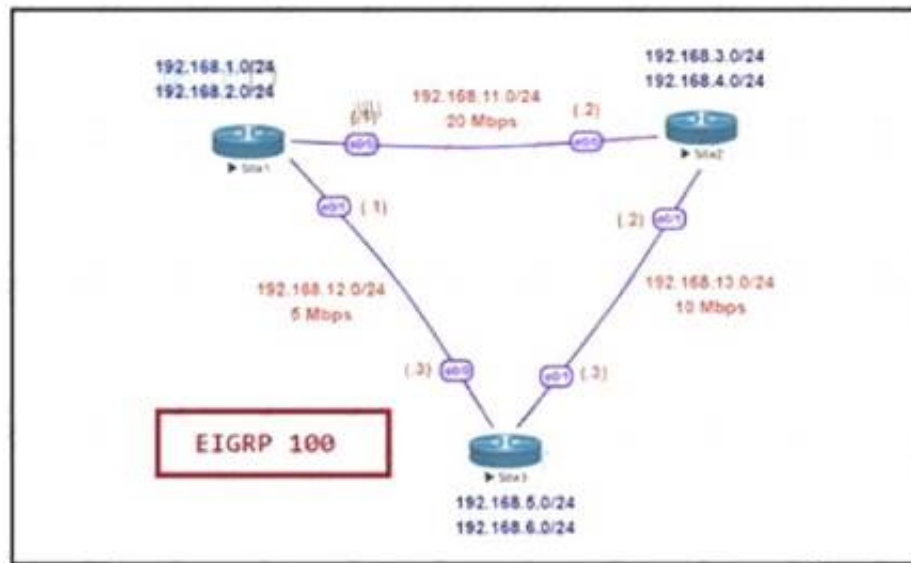
- ☒ interface E 0/1  
ip summary-address eigrp 100 172.16.0.0 255.255.0.0
- ☐ interface E 0/1  
ip summary-address eigrp 100 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.0.0 255.255.0.0

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

**Answer: B**

#### NEW QUESTION 298

- (Exam Topic 3)



#### Site1 - Show ip route

```
Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Loopback0
L    192.168.1.1/32 is directly connected, Loopback0
D    192.168.3.0/24 [90/281600] via 192.168.11.2, 00:00:23, Ethernet0/0
D    192.168.4.0/24 [90/281600] via 192.168.11.2, 00:00:23, Ethernet0/0
D    192.168.5.0/24 [90/665600] via 192.168.12.3, 00:00:23, Ethernet0/1
    [90/435200] via 192.168.11.2, 00:00:23, Ethernet0/0
D    192.168.6.0/24 [90/665600] via 192.168.12.3, 00:00:23, Ethernet0/1
    [90/435200] via 192.168.11.2, 00:00:23, Ethernet0/0
192.168.11.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.11.0/24 is directly connected, Ethernet0/0
L    192.168.11.1/32 is directly connected, Ethernet0/0
```

```
D    192.168.13.0/24 [90/563200] via 192.168.12.3, 00:00:23, Ethernet0/1
    [90/307200] via 192.168.11.2, 00:00:23, Ethernet0/0
```

#### Site1 - Show ip eigrp topology

```
P 192.168.3.0/24, 1 successors, FD is 230400
  via 192.168.11.2 (281600/128256), Ethernet0/0
  via 192.168.12.3 (691200/204800), Ethernet0/1
P 192.168.12.0/24, 1 successors, FD is 537600
  via Connected, Ethernet0/1
P 192.168.13.0/24, 2 successors, FD is 307200
  via 192.168.12.3 (563200/76800), Ethernet0/1
  via 192.168.11.2 (307200/281600), Ethernet0/0
P 192.168.1.0/24, 1 successors, FD is 128256
  via Connected, Loopback0
P 192.168.6.0/24, 2 successors, FD is 435200
  via 192.168.12.3 (665600/128256), Ethernet0/1
  via 192.168.11.2 (435200/409600), Ethernet0/0
P 192.168.4.0/24, 1 successors, FD is 230400
  via 192.168.11.2 (281600/128256), Ethernet0/0
  via 192.168.12.3 (691200/204800), Ethernet0/1
P 192.168.5.0/24, 2 successors, FD is 435200
  via 192.168.12.3 (665600/128256), Ethernet0/1
  via 192.168.11.2 (435200/409600), Ethernet0/0
P 192.168.11.0/24, 1 successors, FD is 153600
  via Connected, Ethernet0/0
```

#### Site1 - Show run | section router eigrp

```
router eigrp 100
 variance 2
 network 192.168.1.0
 network 192.168.2.0
 network 192.168.11.0
 network 192.168.12.0
```

Refer to the exhibit. Site1 must perform unequal cost load balancing toward the segments behind Site2 and Site3. Some of the routes are getting load balanced but others are not. Which configuration allows Site1 to load balance toward all the LAN segments of the remote routers?

☐ Site2

```
router eigrp 100
 variance 3
```

☐ Site2

```
router eigrp 100
 variance 2
```

☐ Site3

```
router eigrp 100
 variance 2
```

☐ Site1

```
router eigrp 100
 variance 3
```

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

Answer: D

### NEW QUESTION 300

- (Exam Topic 3)

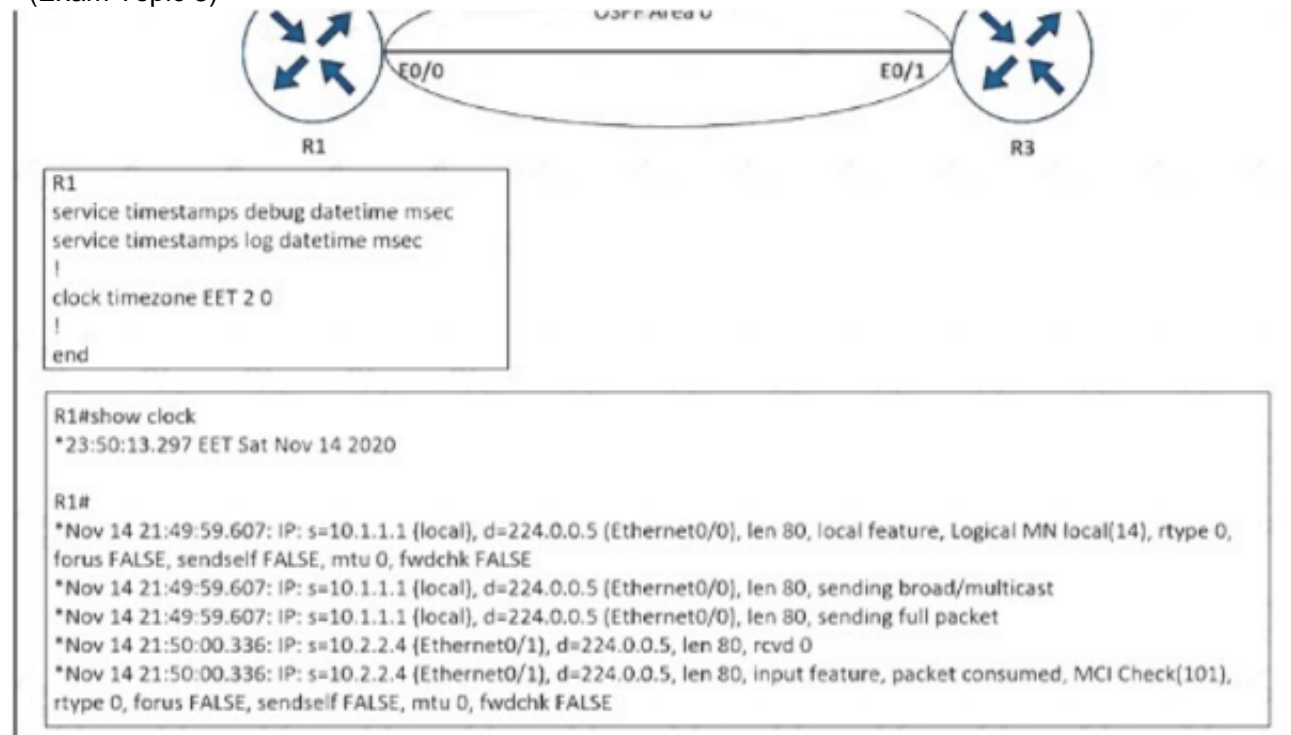
What is the function of BFD?

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

**Answer: A**

### NEW QUESTION 303

- (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 304

- (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\\_1\\_5\\_0s\\_book/IPv6\\_Security.pdf](https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600_1_5_0s_book/IPv6_Security.pdf)

### NEW QUESTION 306

- (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 310

- (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 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 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 313

- (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-plane no service-policy input PM-CoPP! interface Ethernet 0/0 service-policy input PM-CoPP
- B. control-plane no service-policy input PM-CoPP service-policy input PM-CoPP
- C. no access-list 101 access-list 101 deny tcp host 10.1.1.1 any eq 23 access-list 101 deny tcp host 172.16.1.1 any eq 23 access-list 101 permit ip any any
- D. no access-list 101 access-list 101 deny tcp host 10.1.1.1 any eq 23 access-list 101 deny tcp host 172.16.1.1 any eq 23 access-list 101 permit ip any any! interface E0/0 service-policy input PM-CoPP

**Answer: C**

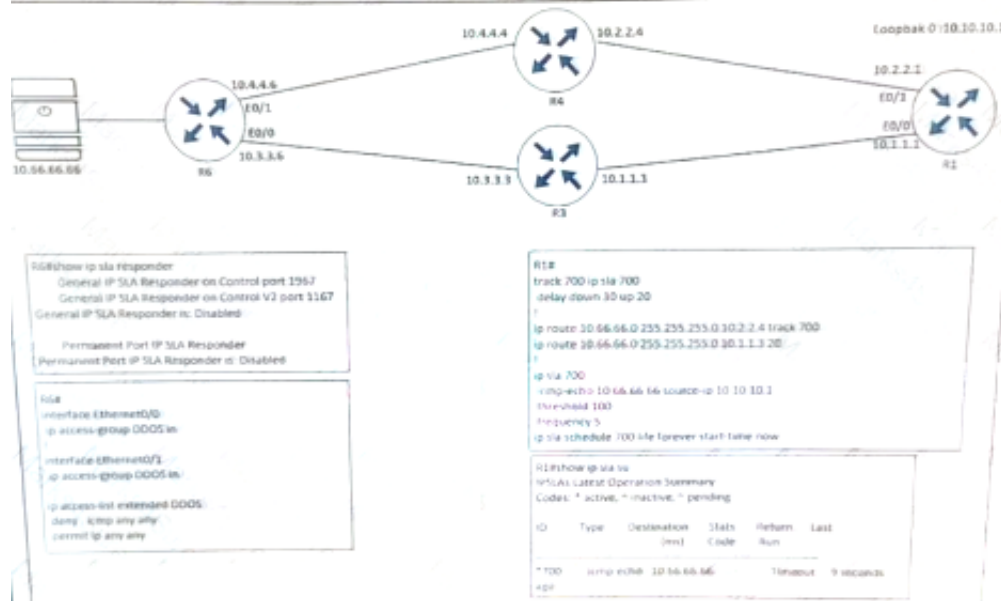
#### Explanation:

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 314

- (Exam Topic 3)

Refer to the exhibit.



R1 is configured with IP SLA to check the availability of the server behind R6 but it kept failing. Which configuration resolves the issue?

- A. R6(config)# ip sla responder
- B. R6(config)# ip sla responder udp-echo ip address 10.10.10.1 port 5000
- C. R6(config)# ip access-list extended DDOSR6(config ext-nac)# 5 permit icmp host 10.66.66.66 host 10.10.10.1
- D. R6(config)# ip access-list extended DDOSR6(config ext-nac)# 5 permit icmp host 10.10.10.1 host 10.66.66.66

**Answer: D**

#### Explanation:

In this IP SLA tracking, we don't need a IP SLA Responder so the command "ip sla responder" on R6 is not necessary.

We also notice that the ACL is blocking ICMP packets on both interfaces E0/0 & E0/1 of R6 so we need to allow ICMP from source 10.10.10.1 to destination 10.66.66.66.

### NEW QUESTION 318

- (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.ipinspace.net/2013/07/first-hop-ipv6-security-features-in.html>

### NEW QUESTION 321

- (Exam Topic 3)

Refer to the exhibit.

```
R2#show ip eigrp neighbors
IP-EIGRP neighbors for process 100
H   Address                Interface      Hold Uptime    SRTT   RTO  Q  Seq
                               (sec)          (ms)          Cnt  Num
1   192.168.10.1            Ser1/0        12 00:00:39    1   5000  2   0
*Jan 1 15:40:21.295: \DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is down: retry limit exceeded
*Jan 1 15:40:51.567: \DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is up: new adjacency
*Jan 1 15:42:11.107: \DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is down: retry limit exceeded
*Jan 1 15:42:14.879: \DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is up: new adjacency
```

```
R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 100
```

#### R1 Configuration:

```
key chain cisco
key 2
  key-string abc
!
interface Loopback0
ip address 10.10.1.1 255.255.255.0
!
interface Serial1/0
ip address 192.168.10.1 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 cisco
serial restart-delay 0
!
router eigrp 100
network 10.10.1.0 0.0.0.255
network 192.168.10.0
no auto-summary
```

#### R2 configuration:

```
key chain cisco
key 1
  key-string 123
key 2
  key-string abc
!
interface Loopback0
ip address 10.10.2.2 255.255.255.0
!
interface Serial1/0
ip address 192.168.10.2 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 cisco
no fair-queue
!
!
router eigrp 100
network 10.10.2.0 0.0.0.255
network 192.168.10.0
no auto-summary
```

R1 and R2 are configured for EIGRP peering using authentication and the neighbors failed to come up. Which action resolves the issue?

- A. Configure a matching key-id number on both routers
- B. Configure a matching lowest key-id on both routers
- C. Configure a matching key-chain name on both routers
- D. Configure a matching authentication type on both router

**Answer: A**

#### NEW QUESTION 325

- (Exam Topic 3)

Refer to the exhibit.

```
*Sep 26 19:50:43.504: SNMP: Packet received via UDP from
192.168.1.2 on GigabitEthernet0/1SrParseV3SnmppMessage: No
matching Engine ID.

SrParseV3SnmppMessage: Failed.
SrDoSnmpp: 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. showsnmppv3 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 330**

- (Exam Topic 3)

What action is performed for untagged outgoing labels in an MPLS router?

- A. Convert the incoming MPLS packet to an untagged packet and then do a FIB lookup
- B. Convert the incoming MPLS packet to an untagged packet and then do a RIB lookup.
- C. Convert the untagged packet to a labeled packet and forward it to the next router
- D. Convert the incoming MPLS packet to an IP packet and forward it to the next router.

**Answer: C**

**NEW QUESTION 335**

- (Exam Topic 3)

Refer to the exhibit.

```
R1#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR

Gateway of last resort is not set

D    10.0.0.0/8 [90/409600] via 172.16.1.200, 00:00:28, Ethernet0/0
    172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.16.1.0/24 is directly connected, Ethernet0/0
L    172.16.1.100/32 is directly connected, Ethernet0/0
    192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Loopback0
L    192.168.1.100/32 is directly connected, Loopback0
R1#
```

The R2 loopback interface is advertised with RIP and EIGRP using default values. Which configuration changes make R1 reach the R2 loopback using RIP?

- A. R1(config)# router rip R1(config-router)# distance 90
- B. R1(config)# router rip R1(config-router)# distance 100
- C. R1(config)# router eigrp 1R1(config-router)# distance eigrp 130 120
- D. R1(config)# router eigrp 1R1(config-router)# distance eigrp 120 120

**Answer: C**

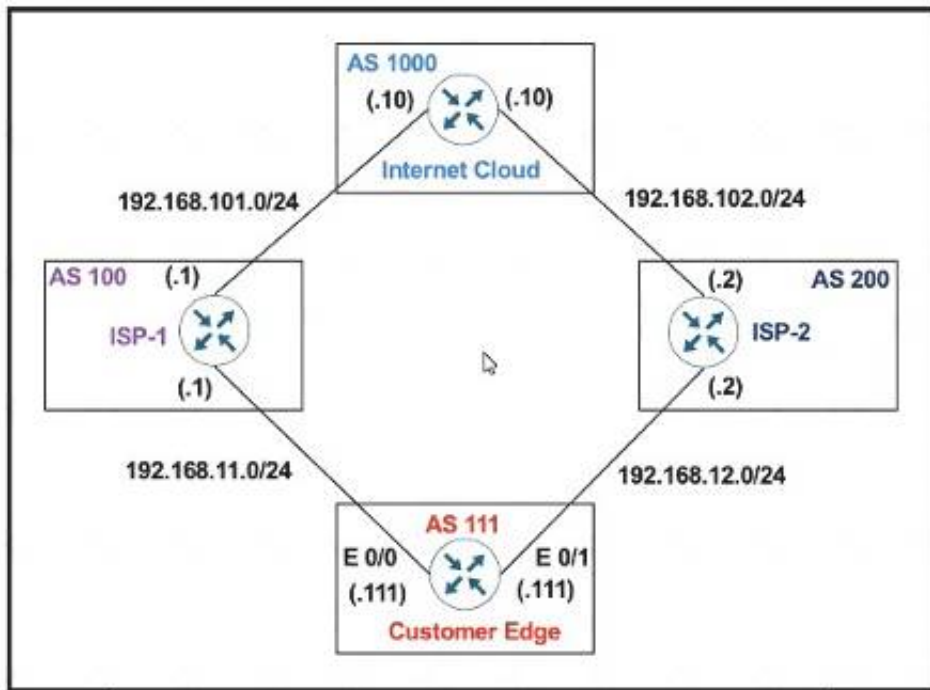
**Explanation:**

distance (AD Number u want to change to) (neighbor IP) (Wildcard Mask) (access-list number)

**NEW QUESTION 339**

- (Exam Topic 3)





```
ISP-1
ip as-path access-list 1 permit ^111
!
router bgp 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 342

- (Exam Topic 3)



Refer to the exhibit. An engineer is investigating an OSPF issue reported by the Cisco DNA Assurance Center. Which action resolves the issue?

- A. One of the neighbor links is down Bring the interface up by running shut and no shut
- B. One of the interfaces is using the wrong MTU Match interface MTU on both links
- C. An ACL entry blocking multicast on the interfaces Allow multicast through the interface ACL
- D. One of the interfaces is using the wrong authentication Match interface authentication on both links

**Answer: B**

### NEW QUESTION 347

- (Exam Topic 3)

```
R1#show ip route ospf

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

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

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

**Answer: D**

#### NEW QUESTION 352

- (Exam Topic 3)

Refer to the exhibit.

```
CPE# show ntp associations

address      ref clock      st  when  poll reach  delay
offset disp
-10.1.255.40 .INIT.         16      64    0 0.000
0.000 15937.
* syn-peer, + selected, + candidate, - outlier, x fakesyncer,
- configured

CPE# debug ip icmp
*Feb 20 22:49:32.913: ICMP: dst (10.0.12.1) port unreachable rcv
from 10.1.255.40
*Feb 20 22:50:37.918: ICMP: dst (10.0.12.1) port unreachable rcv
from 10.1.255.40
*Feb 20 22:51:44.951: ICMP: dst (10.0.12.1) port unreachable rcv
from 10.1.255.40
```

An administrator is troubleshooting a time synchronization problem for the router time to another Cisco IOS XE-based device that has recently undergone hardening. Which action resolves the issue?

- A. Allow NTP in the ingress ACL on 10.1.225.40 by permitting UDP destined to port 123.
- B. Ensure that the CPE router has a valid route to 10.1.255.40 for NTP and rectify if not reachable.
- C. NTP service is disabled and must be enabled on 10.1.225.40.
- D. Allow NTP in the ingress ACL on 10.1.255.40 by permitting TCP destined to port 123.

**Answer: C**

#### NEW QUESTION 355

- (Exam Topic 3)

What is a MPLS PHP label operation?

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

**Answer: A**

#### NEW QUESTION 356

- (Exam Topic 3)

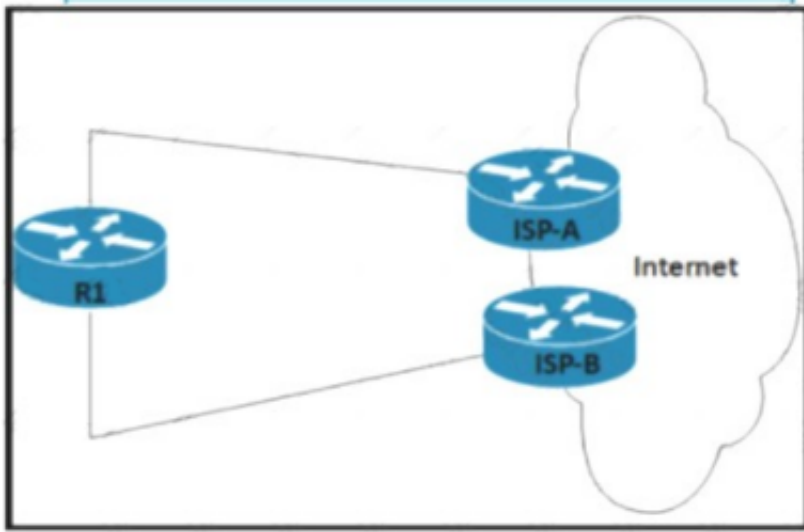
What must a network architect consider for RTs when planning for a single customer full-mesh VPN in an MPLS Layer 3 network?

- A. RT must be globally unique within the same VPN
- B. RT must be globally identical within the same VPN
- C. RT values must be different from the RD values in the same VPN
- D. Each RT value must be identical to an RD value within the same VPN.

**Answer: D**

#### NEW QUESTION 357

- (Exam Topic 3)



Refer to the exhibit. Router R1 peers with two ISPs using static routes to get to the internet. The requirement is that R1 must prefer ISP-A under normal circumstances and failover to ISP-B if the connectivity to ISP-A is lost. The engineer observes that R1 is load balancing traffic across the two ISPs Which action resolves the issue by sending traffic to ISP-A only with failover to ISP-B?

- A. Configure OSPF between R1. ISP-
- B. and ISP-B for dynamic failover if any ISP link to R1 fails
- C. Configure two static routes on R1. one pointing to ISP-A and another pointing to ISP- B with 222 admin distance
- D. Change the bandwidth of the interface on R1 so that interface to ISP-A has a higher value than the interface to ISP-B
- E. Configure two static routes on R1. one pointing to ISP-B with more specific routes and another pointing to ISP-A with summary routes

**Answer: D**

#### NEW QUESTION 359

- (Exam Topic 3)

Which router translates the customer routing information into VPNv4 routes to exchange VPNv4 routes with other devices through MP-BGP?

- A. PE
- B. CE
- C. P
- D. VPNv4 RR

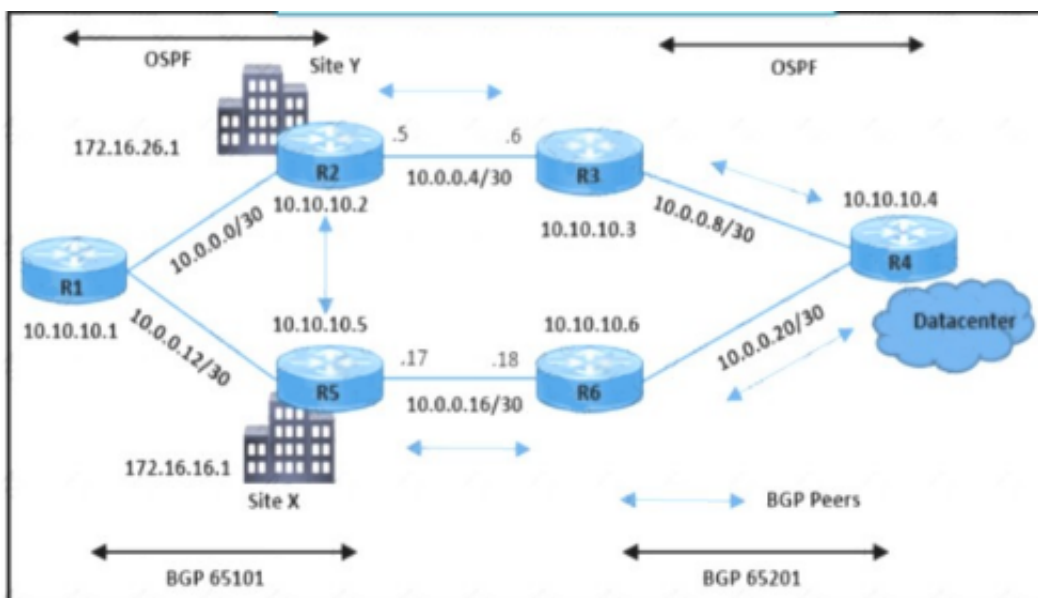
**Answer: A**

#### NEW QUESTION 360

- (Exam Topic 3)

```
R5#
*Sep 19 08:29:51.088: BGP: 10.10.10.2 open active, local address 10.0.0.14
*Sep 19 08:29:51.120: BGP: 10.10.10.2 read request no-op
*Sep 19 08:29:51.124: BGP: 10.10.10.2 open failed: Connection refused by
remote host, open active delayed 12988ms (20000ms max, 60% jitter)

R2#show ip bgp neighbors 10.10.10.5
BGP neighbor is 10.10.10.5, remote AS 65101, internal link
  BGP version 4, remote router ID 0.0.0.0
  BGP state = Active
    Last read 00:01:18, last write 00:01:18, hold time is 15, keepalive
interval is 3 seconds
  Configured hold time is 15, keepalive interval is 3 seconds
  Minimum holdtime from neighbor is 0 seconds
  Address tracking is enabled, the RIB does have a route to 10.10.10.5
  Connections established 13; dropped 13
  Last reset 00:01:18, due to User reset
  Transport(tcp) path-mtu-discovery is enabled
  No active TCP connection
```



Refer to the exhibit A customer reported a failure and intermittent disconnection between two office buildings site X and site Y The network team finds that site X and site Y are exchanging email application traffic with the data center network Which configuration resolves the issue between site X and site Y?

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 362

- (Exam Topic 3)

Users report issues with reachability between areas as soon as an engineer configured summary routes between areas in a multiple area OSPF autonomous system. Which action resolves the issue?

- A. Configure the summary-address command on the ASBR.  
B. Configure the summary-address command on the ABR.  
C. Configure the area range command on the ABR.  
D. Configure the area range command on the ASBR.

**Answer: C**

#### Explanation:

For OSPF, we can only summary at the ABR with the command "area range" or at the ASBR with the command "summary-address" -> Therefore answer A and answer B are not correct.

In this question, the most likely problem is that when doing summarization, the network mask is configured wrong and summarization doesn't work because of the misconfiguration. When configuring the area range command, make sure that the summarization mask is in the form of a prefix mask rather than a wildcard mask (that is, 255.255.255.0 instead of 0.0.0.255).

Good reference: <https://www.configrouter.com/troubleshooting-route-summarization-ospf-14082/>

#### NEW QUESTION 365

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

**Answer: D**

#### NEW QUESTION 366

- (Exam Topic 3)

Refer to the exhibit.

```
R1# show ip ospf database self-originate

OSPF Router with ID (10.255.255.1) (Process ID 1)

Router Link States (Area 0)

Link ID      ADV Router   Age         Seq#         Checksum
Link count
10.255.255.1  10.255.255.1  4           0x800003BD  0x001AD9
3

Summary Net Link States (Area 0)

Link ID      ADV Router   Age         Seq#         Checksum
10.0.34.0    10.255.255.1  3604        0x80000380  0x00275C
10.255.255.4  10.255.255.1  3604        0x80000380  0x00762B

Type-5 AS External Link States

Link ID      ADV Router   Age         Seq#         Checksum
Tag
0.0.0.0      10.255.255.1  3604        0x800001D0  0x001CBC
0

*Feb 22 22:50:39.523: %OSPF-4-FLOOD_WAR: Process 1 flushes LSA
ID 0.0.0.0 type-5 adv-rtr 10.255.255.1 in area 0
```

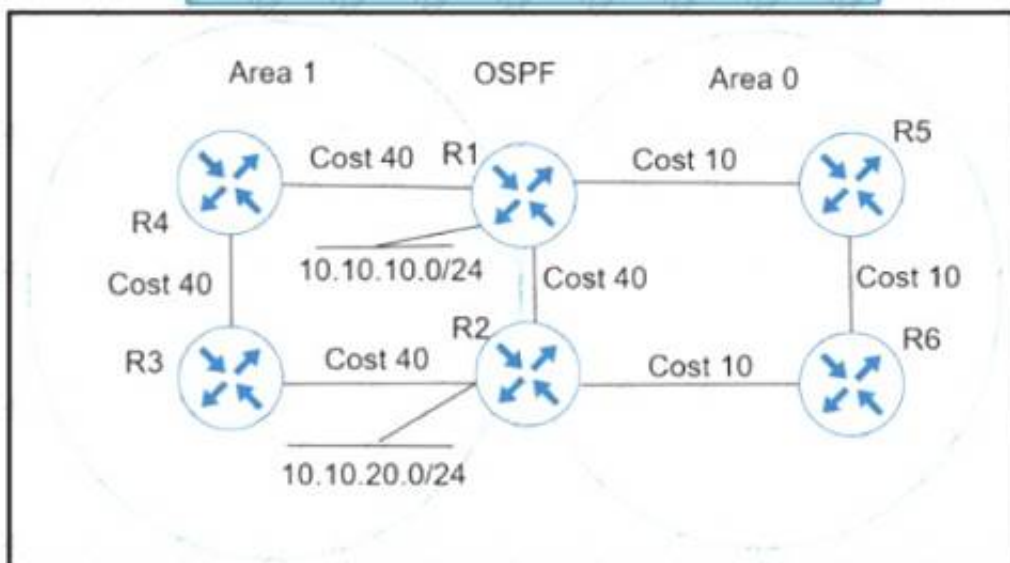
After configuring OSPF in R1, some external destinations in the network became unreachable. Which action resolves the issue?

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

**Answer: B**

#### NEW QUESTION 370

- (Exam Topic 3)



Refer to the exhibit Which action ensures that 10 10 10 0/24 reaches 10 10 20 0/24 through the direct link between R1 and R2?

- A. Configure R1 and R2 LAN links as nonpassive.
- B. Configure R1 and R2 links under area 1
- C. Configure OSPF link cost to 1 between R1 and R2
- D. Configure OSPF path cost to 3 between R1 and R2

**Answer: B**

#### NEW QUESTION 371

- (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?

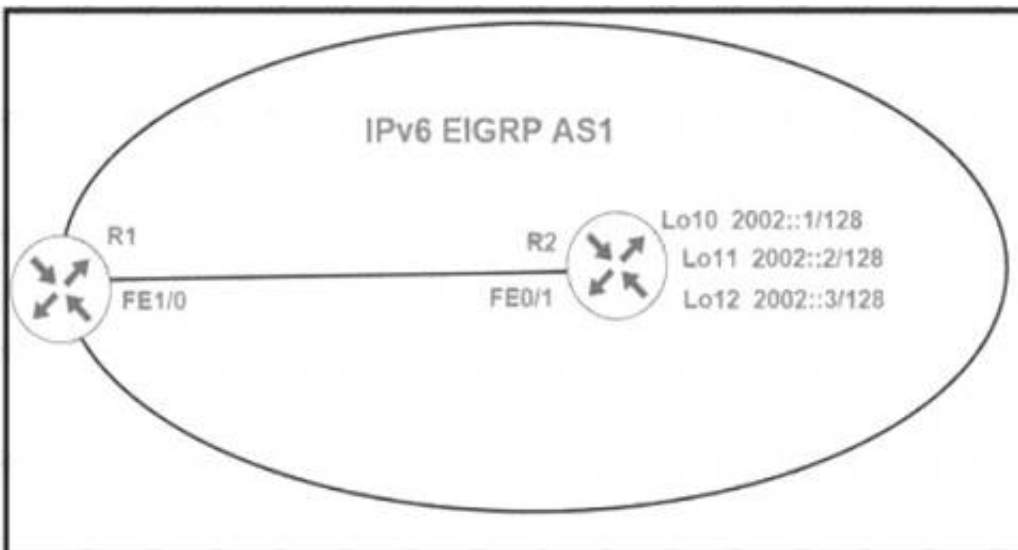
- A. access-list 1 permit 10.10.10.0 0.0.0.255 access-list 2 permit any route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5! route-map CCNP permit 20 match ip address 2 set ip next-hop 10.1.1.2 set ip precedence 0! route-map CCNP permit 30
- B. access-list 100 permit 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 374

- (Exam Topic 3)

```
R1#sh ipv6 route eigrp
IPv6 Routing Table - default - 1 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
B - BGP, HA - Home Agent, MR - Mobile Router, R - RIP
I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
D - EIGRP, EX - EIGRP external, ND - Neighbor Discovery, I - IISP
O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
R1#
R1#show ipv6 eigrp neighbors
EIGRP-IPv6 Neighbors for AS(1)
H Address Interface Hold Uptime SRTT RTO Q Seq
  (sec) (ms) Cnt Num
O Link-local address: Fa1/0 11 00:04:22 1593 5000 0 15
FE80::C004:22FF:FE78:1
R1#
```



```
R2#show run
interface Loopback10
no ip address
ipv6 address 2002::1/128
ipv6 eigrp 1
!
interface Loopback11
no ip address
ipv6 address 2002::2/128
ipv6 eigrp 1
!
interface Loopback12
no ip address
ipv6 address 2002::3/128
ipv6 eigrp 1
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address autoconfig
ipv6 eigrp 1
!
ipv6 router eigrp 1
stub summary
no shutdown
```

R1 cannot receive the R2 Interfaces with individual prefixes. What must be reconfigured to advertise R2 Interfaces to R1?

- A. EIGRP process on R2 by removing the stub command Keyword summary
- B. interface FastEthernet0/1 on R2 with an EIGRP summary for all three loopback prefixes
- C. EIGRP process on R2 with the command stub summary receive-only
- D. EIGRP process on R2 with the command stub summary connected

**Answer: D**

#### NEW QUESTION 378

- (Exam Topic 3)



```
admin@linux:~$ telnet 198.51.100.64
Trying 198.51.100.64...
Connected to 198.51.100.64.
Escape character is '^]'.

User Access Verification

Password: admin
CPE> exit
Connection closed by foreign host.
admin@linux:~$ ssh 198.51.100.64
admin@198.51.100.64's password: admin
Permission denied, please try again.
admin@198.51.100.64's password: admin
Permission denied, please try again.
admin@198.51.100.64's password: admin
Connection closed by 198.51.100.64 port 22
admin@linux:~$
```

Refer to the exhibit. An administrator can log in to the device using Telnet but the attempts to log in to the same device using SSH with the same credentials fail. Which action resolves this issue?

- A. Configure SSH service on the router
- B. Configure transport input all on the VTY lines to allow SSH
- C. Configure to use the Telnet user database for SSH as well
- D. Configure the VTY lines with login local

**Answer: A**

#### NEW QUESTION 382

- (Exam Topic 3)

```
Router# show logging

Syslog logging: enabled (0 messages dropped, 0 messages rate-limited, 0 flushes, 0
overruns, xml disabled, filtering disabled)

No Active Message Discriminator.
No Inactive Message Discriminator.

Console logging: level debugging, 8 messages logged, xml disabled,
filtering disabled

Monitor logging: level debugging, 0 messages logged, xml disabled,
filtering disabled

Buffer logging: level debugging, 8 messages logged, xml disabled,
filtering disabled

Exception Logging: size (8192 bytes)

Count and timestamp logging messages: disabled

Persistent logging: disabled
```

Refer to the exhibit. A network engineer lost remote access to the router due to a network problem. The engineer used the console to access the router and noticed continuous logs on the console terminal. Which configuration limits the number of log messages on the console to critical and higher severity level messages?

- A. term no monitor
- B. logging console 2
- C. no logging console
- D. logging console 5

**Answer: D**

#### NEW QUESTION 387

- (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 391

- (Exam Topic 3)

Which control plane process allows the MPLS forwarding state to recover when a secondary RP takes over from a failed primary RP?

- A. MP-BGP uses control plane services for label prefix bindings in the MPLS forwarding table
- B. LSP uses NSF to recover from disruption \*i control plane service
- C. FEC uses a control plane service to distribute information between primary and secondary processors
- D. LDP uses SSO to recover from disruption in control plane service

**Answer: C**

#### NEW QUESTION 394

- (Exam Topic 3)

Which method provides failure detection in BFD?

- A. short duration, high overhead
- B. short duration, low overhead
- C. long duration, high overhead
- D. long duration, low overhead

**Answer: B**

#### NEW QUESTION 396

- (Exam Topic 3)

Refer to the exhibit.

```
R1#show ip route ospf

      10.0.0.0/24 is subnetted, 7 subnets
O E2   10.4.9.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
           [110/200] via 10.4.15.5, 00:06:43,
FastEthernet0/1
O IA    10.4.27.0 [110/2] via 10.4.15.5, 00:06:44,
FastEthernet0/1
O E2    10.4.49.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
```

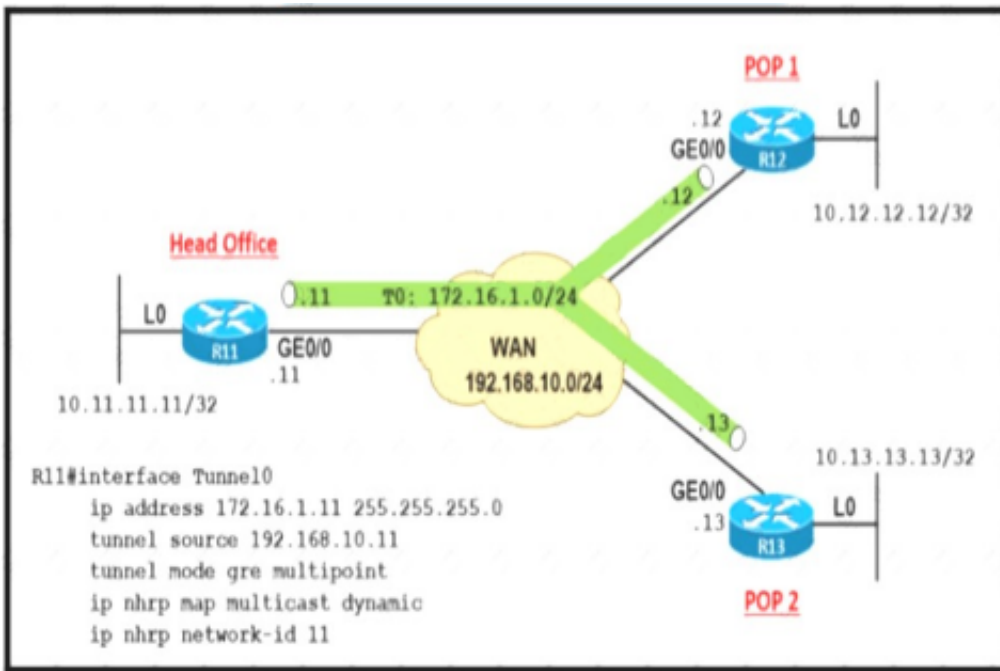
An engineer configures two ASBRs 10 4 17.6 and 10 4 15 5 in an OSPF network to redistribute routes from EIGRP. However, both ASBRs show the EIGRP routes as equal costs even though the next-hop router 10 4 17 6 is closer to R1. How should the network traffic to the EIGRP prefixes be sent via 10 4.17.6?

- A. The administrative distance should be raised to 120 from the ASBR 10.4.15.5.
- B. The redistributed prefixes should be advertised as Type 1.
- C. The ASBR 10 4 17 6 should assign a tag to match and assign a lower metric on R1.
- D. The administrative distance should be raised to 120 from the ASBR 104.17.6.
- E. The administrative distance should be raised to 120 from the ASBR 104 15.5.
- F. The redistributed prefixes should be advertised as Type 1.
- G. The ASBR 10 4 17 6 should assign a tag to match and assign a lower metric on R1.
- H. The administrative distance should be raised to 120 from the ASBR 104 17 6.

**Answer: B**

#### NEW QUESTION 398

- (Exam Topic 3)



Refer to the exhibit A company builds WAN infrastructure between the head office and POPs using DMVPN hub-and-spoke topology to provide end-to-end communication All POPs must maintain point-to-point connectivity with the head office Which configuration meets the requirement at routers R12 and R13?

- ☐ R12#  
**interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 12  
 ip nhrp nhs 172.16.1.11
- R13#  
**interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 13  
 ip nhrp nhs 172.16.1.11
- ☐ R12#  
**interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 12  
 ip nhrp nhs 192.168.10.11
- R13#  
**interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 13  
 ip nhrp nhs 192.168.10.11
- ☐ Configure routers R12 and R13 as:
- interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 11  
 ip nhrp nhs 192.168.10.11
- ☐ Configure routers R12 and R13 as:
- interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 11  
 ip nhrp nhs 172.16.1.11

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

**Answer: D**

#### NEW QUESTION 402

- (Exam Topic 3)

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



FEC	routers in the core of the provider network known as P routers
LSP	all traffic to be forwarded using the same path and same label
LER	routers that connect to the customer routers known as PE routers
LSR	used for exchanging label mapping information between MPLS enabled routers
LDP	path along which the traffic flows across an MPLS network

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:  
Table Description automatically generated

NEW QUESTION 407

- (Exam Topic 3)  
Refer to the exhibit.

```
R1(config)#ipv6 prefix-list PRE-PEND-PREFIX permit 2001:db8:0:a::/64
R1(config)#route-map PRE-PEND permit 10
R1(config-route-map)#match ipv6 address prefix-list PRE-PEND-PREFIX
R1(config-route-map)#set as-path prepend 65412
R1(config)#router bgp 65412
R1(config-router)#address-family ipv6
R1(config-router-af)#neighbor 2001:db8:0:20::2 route-map PRE-PEND out
```

R1 has a route map configured, which results in a loss of partial IPv6 prefixes for the BGP neighbor, resulting in service degradation. How can the full service be restored?

- A. The neighbor requires a soft reconfiguration, and this will clear the policy without resetting the BGP TCP connection.
- B. The prefix list requires all prefixes that R1 is advertising to be added to it, and this will allow additional prefixes to be advertised.
- C. The route map requires a deny 20 statement without set conditions, and this will allow additional prefixes to be advertised.
- D. The route map requires a permit 20 statement without set conditions, and this will allow additional prefixes to be advertised.

Answer: D

NEW QUESTION 410

- (Exam Topic 3)  
What is the purpose of the DHCPv6 Guard?

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

Answer: A

Explanation:  
[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xr-16/ipv6fxe-16-book/ipv6-dhcpv6-guard.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xr-16/ipv6fxe-16-book/ipv6-dhcpv6-guard.html)

NEW QUESTION 412

- (Exam Topic 3)

```
R2#show policy-map control-plane
Control Plane
Service-policy input: CoPP
Class-map: SSH (match-all)
  29 packets, 2215 bytes
  5 minute offered rate 0000 bps
  Match: access-group 100

Class-map: ANY (match-all)
  46 packets, 3878 bytes
  5 minute offered rate 0000 bps, drop rate 0000 bps
  Match: access-group 199
  drop

Class-map: class-default (match-any)
  41 packets, 5687 bytes
  5 minute offered rate 0000 bps, drop rate 0000 bps
  Match: any

R2#show access-list 100
Extended IP access list 100
  10 deny tcp any any eq 22 (14 matches)
  20 permit tcp host 192.168.12.1 any eq 22 (29 matches)
R2#show access-list 199
Extended IP access list 199
  10 permit ip any any (51 matches)
```

Refer to the exhibit. Which action limits the access to R2 from 192.168.12.1?

- A. Swap sequence 10 with sequence 20 in access-list 100.
- B. Modify sequence 20 to permit tcp host 192.168.12.1 eq 22 any to access-list 100
- C. Swap sequence 20 with sequence 10 in access-list 100
- D. Modify sequence 10 to deny tcp any eq 22 any to access-list 100.

**Answer: C**

#### NEW QUESTION 414

- (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 administrator must configure the router with OSPF for IPv4 and IPv6 networks under a single process. The OSPF adjacencies are not established and did not meet the requirement. Which action resolves the issue?

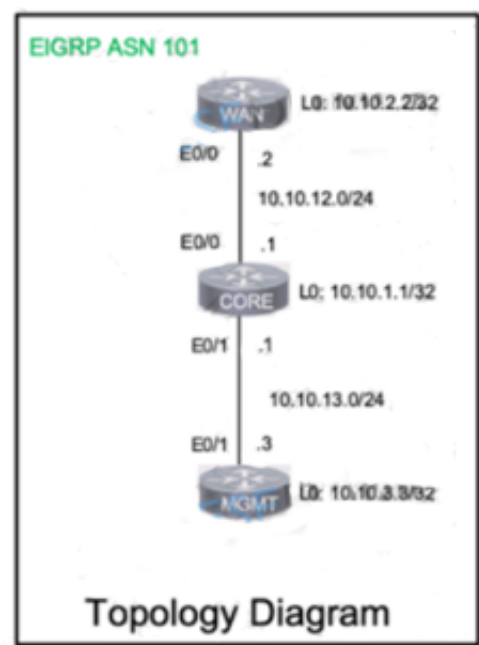
- A. Replace OSPF process 10 on the interface with OSPF process 1, and configure an additional router ID with IPv6 address.
- B. Replace OSPF process 10 on the interface with OSPF process 1, for the VpV6 addressma nd remove process route ID with IPv6 address.
- C. Replace OSPF process 10 on the interface with OSPF process 1, and remove process 10 from the global configuration.
- D. Replace OSPF process 10 on the interface with OSPF process 1 for the IPv4 address, and remove process 10 from the global configuration.

**Answer: C**

#### NEW QUESTION 417

- (Exam Topic 3)

A network is configured with CoPP to protect the CORE router route processor for stability and DDoS protection. As a company policy, a class named class-default is preconfigured and must not be modified or deleted. Troubleshoot CoPP to resolve the issues introduced during the maintenance window to ensure that:



Guidelines
Topology
Tasks

A network is configured with CoPP to protect the CORE router ~~route processor~~ for stability and DDoS protection. As a company policy, a class named class-default is preconfigured and must not be modified or deleted. Troubleshoot CoPP to resolve the issues introduced during the maintenance window to ensure that:

- Dynamic routing policies are under CoPP-CRITICAL and are allowed only from the 10.10.x.x range.
- Telnet, SSH, and ping are under CoPP-IMPORTANT and are allowed strictly to/from 10.10.x.x to the CORE router (Hint: you can verify using Loopback1).
- All devices ping (UDP) any CORE router interface ~~successfully to/from the 10.10.x.x range~~ and do not allow any other IP address. NORMAL (Hint: Traceroute port range 33434 33464).

WAN

WAN
CORE
MGMT

```

!
!
interface Loopback0
 ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
 ip address 172.16.2.2 255.255.255.0
!
!
interface Ethernet0/0
 ip address 10.10.12.2 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 network 172.16.2.0 0.0.0.255
 eigrp router-id 10.10.2.2
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 network 172.16.2.0 0.0.0.255
 eigrp router-id 10.10.2.2
!
!

```

CORE



```
!
class-map match-all CoPP-CRITICAL
 match access-group 120
class-map match-all CoPP-NORMAL
 match access-group 122
class-map match-all CoPP-IMPORTANT
 match access-group 121
!
policy-map CoPP
 class CoPP-CRITICAL
  police 1000000 50000 50000 conform-action transmit exceed-
-action drop
 class CoPP-IMPORTANT
  police 100000 20000 20000 conform-action transmit exceed-
action drop
 class CoPP-NORMAL
  police 64000 6400 64000 conform-action transmit exceed-ac
tion drop
 class class-default
  police 8000 1500 1500 conform-action drop exceed-action d
rop
!
```

```
!
interface Loopback0
 ip address 10.10.1.1 255.255.255.255
!
interface Ethernet0/0
 ip address 10.10.12.1 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 ip address 10.10.13.1 255.255.255.0
 duplex auto
!
```

```
!
interface Ethernet0/1
 ip address 10.10.13.1 255.255.255.0
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 eigrp router-id 10.10.1.1
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
```

```
!
!
access-list 120 remark *** ACL for CoPP-Critical ***
access-list 121 remark *** ACL for CoPP-IMPORTANT
access-list 122 remark *** ACL for CoPP-NORMAL
!
control-plane
 service-policy input CoPP
!
```

MGMT

```

WAN    CORE    MGMT
no ip address
shutdown
duplex auto
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 network 172.16.3.0 0.0.0.255
 eigrp router-id 10.10.3.3
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!
!
!
control-plane
!
!
!
```

- Answer: A**

## CORE

```
class CoPP-CRITICAL
```

Text Description automatically generated with medium confidence

CORE# Copy run start TESTING: CORE

Graphical user interface is completely automatically generated from internal code.

```

CORE#sh ip eigrp neighbors
EIGRP-IPv4 Neighbors for AS(101)
H   Address          Interface      Hold Uptime
me  SRTT    RTO   Q   Seq
   (ms)          Cnt Num
0   10.10.13.3      Et0/1         11 00:00
3:15   5    100  0   35
1   10.10.12.2      Et0/0         11 00:00
3:24   7    100  0   33
CORE#copy run star

```

MGMT

Graphical user interface, text Description automatically generated

```

MGMT#telnet 10.10.13.1
Trying 10.10.13.1 ...
% Connection refused by remote host

MGMT#telnet 10.10.13.1
Trying 10.10.13.1 ... Open

Password required, but none set

[Connection to 10.10.13.1 closed by foreign host]
MGMT#

```

#### NEW QUESTION 422

- (Exam Topic 3)

Refer to the exhibit.

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

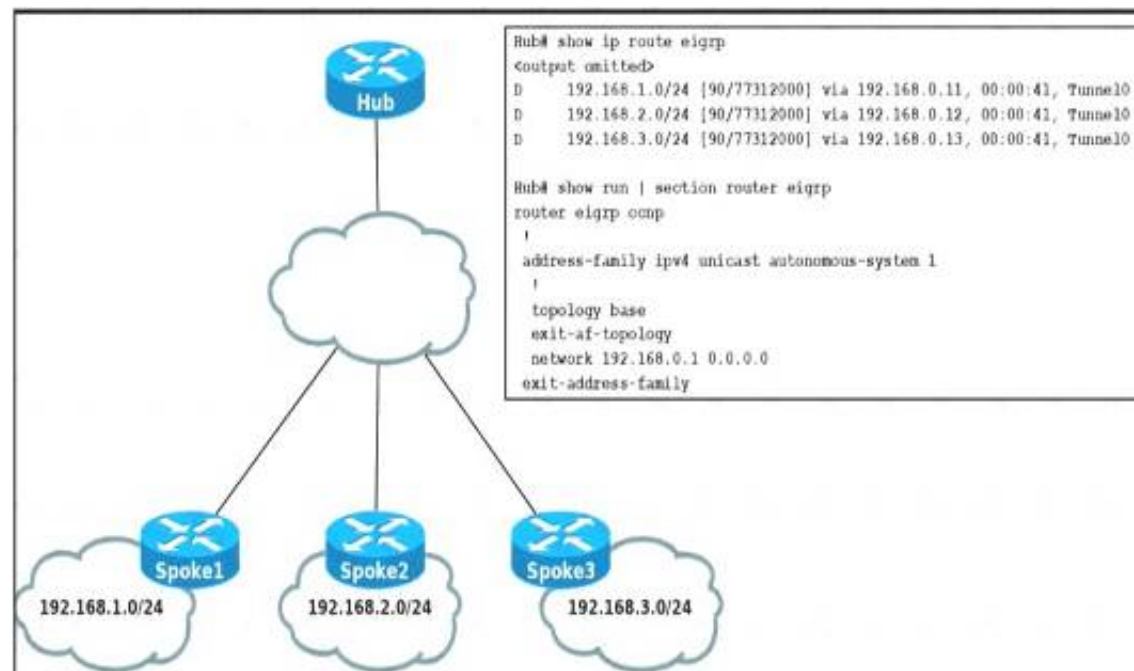
- A. RC(config)#router bgp 65201RC(config-router)#neighbor 10.10.10.4 route-reflector-client
- B. RF(config)#router bgp 65201RF(config-router)#neighbor 10.10.10.6 route-reflector-client
- C. RC(config)#router bgp 65201RC(config-router)#neighbor 10.10.10.2 route-reflector-client
- D. RB(config)#router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

**Answer: A**

#### NEW QUESTION 427

- (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 431

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

```



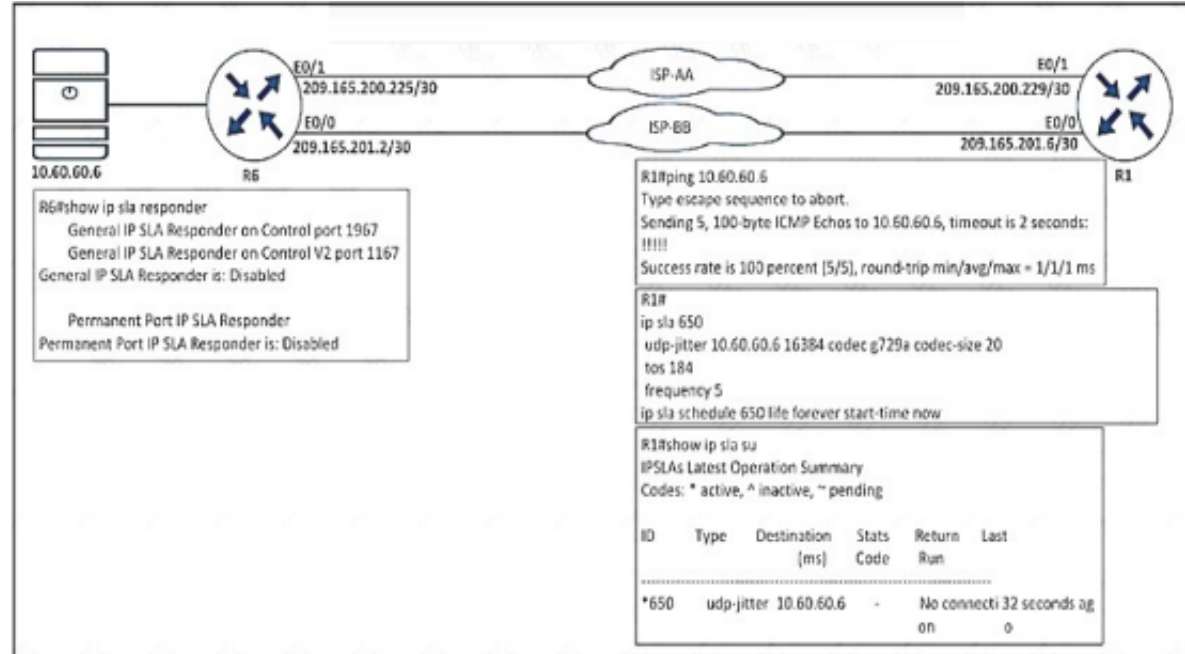
The connected routers do not show up as OSPF neighbors. Which action resolves the issue?

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

**Answer: A**

#### NEW QUESTION 433

- (Exam Topic 3)



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

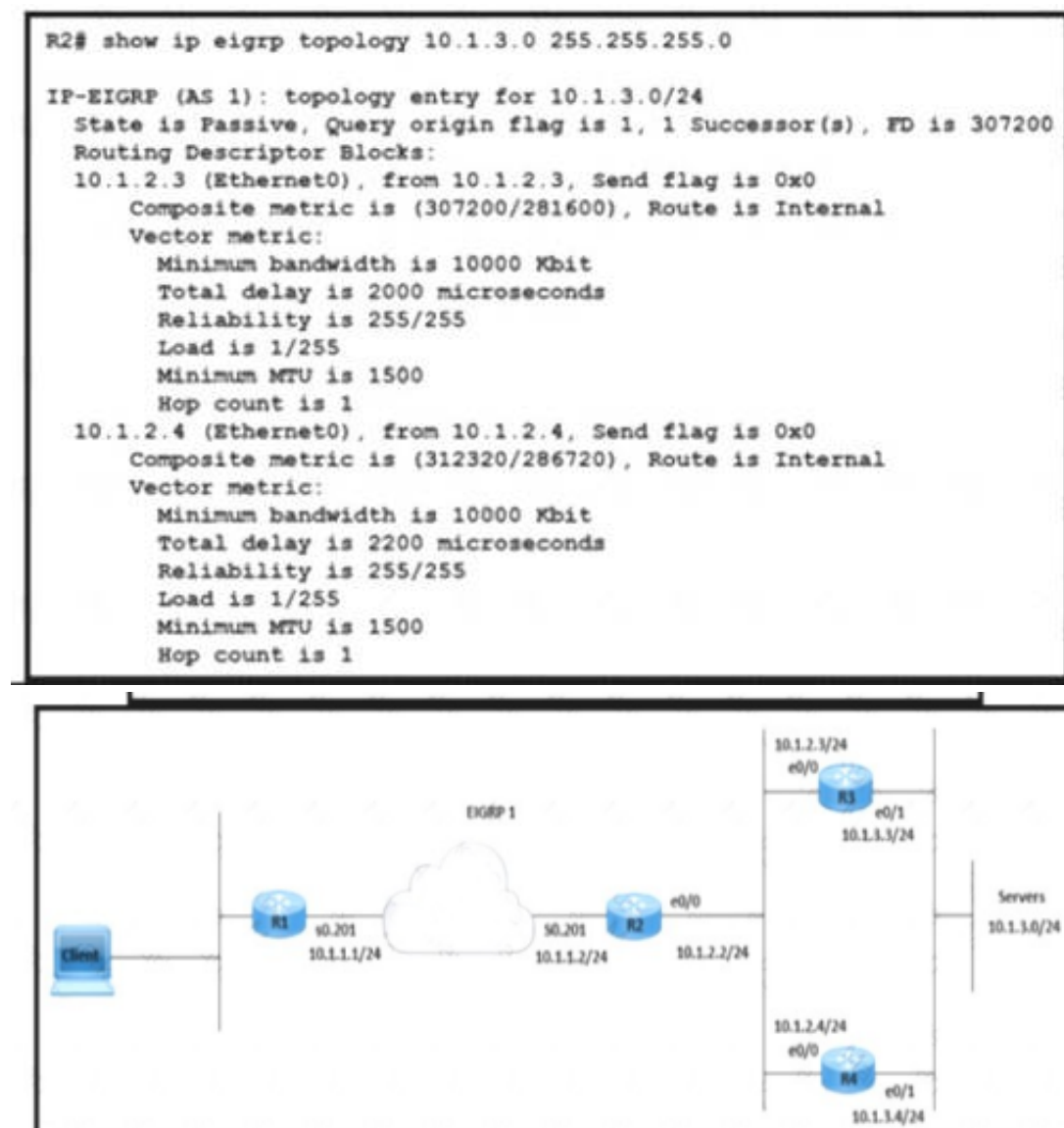
- A. R6(config)#ip sla responder
- B. R6(config)#ip sla responder udp-echo ipaddress 10.60.60.6 po 5000
- C. R6(config)#ip sla 650 R6(config-ip-sla)ff udp-jitter 10.60.60.6
- D. R6(config)#ip sla schedule 10 life forever start-time now

**Answer: A**

#### NEW QUESTION 434

- (Exam Topic 3)

Exhibit.



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

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

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

**Answer: C**

#### NEW QUESTION 438

- (Exam Topic 3)

How does LDP operate in an MPLS network?

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

**Answer: D**

#### NEW QUESTION 441

- (Exam Topic 3)

Which function does LDP provide in an MPLS topology?

- A. It enables a MPLS topology to connect multiple VPNs to P routers.
- B. It provides hop-by-hop forwarding in an MPLS topology for LSRs.
- C. It exchanges routes for MPLS VPNs across different VRFs.
- D. It provides a means for LSRs to exchange IP routes.

**Answer: B**

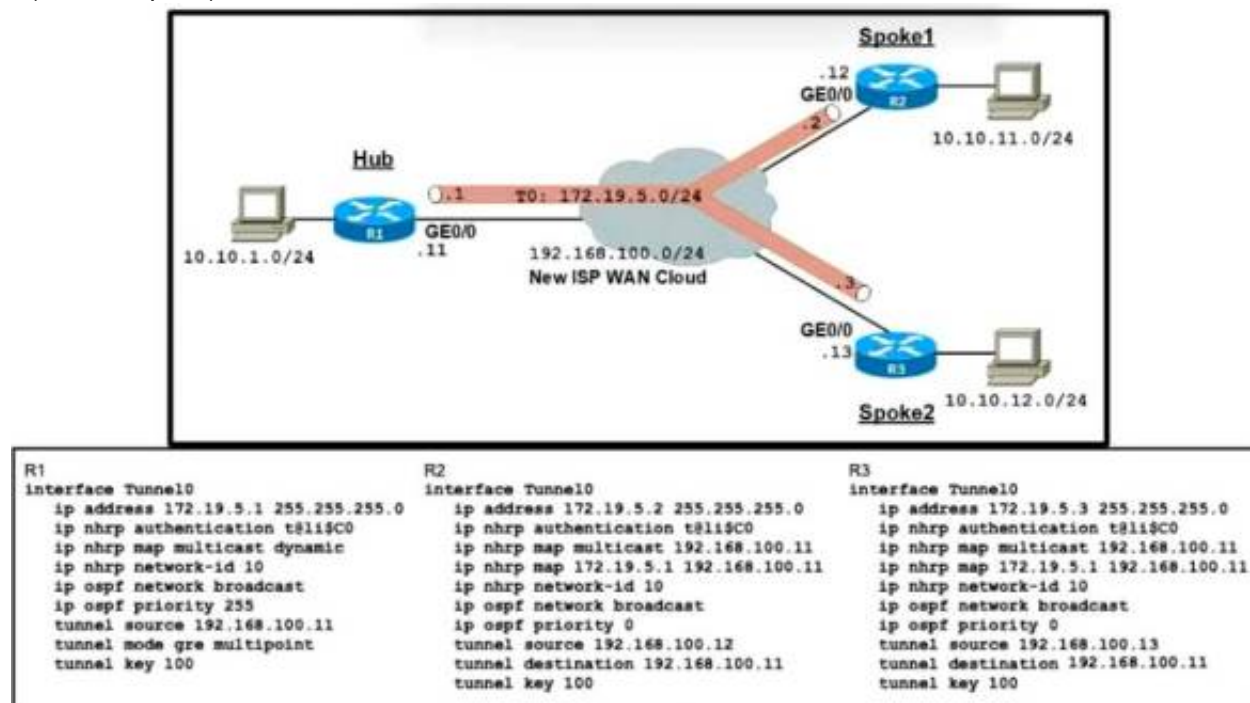
#### Explanation:

LDP provides a standard methodology for hop-by-hop, or dynamic label, distribution in an MPLS network by assigning labels to routes that have been chosen by the underlying Interior Gateway Protocol (IGP) routing protocols. The resulting labeled paths, called label switch paths (LSPs), forward label traffic across an MPLS backbone to particular destinations.

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

#### NEW QUESTION 442

- (Exam Topic 3)



Refer to the exhibit. An organization is installing a new L3 MPLS link to establish DM VPN Phase 2 tunnels between the hub and two spoke routers Which additional configuration should the engineer implement on each device to achieve optimal routing between the spokes?

A)

```
interface Tunnel0
no tunnel destination 192.168.100.11
tunnel mode mpls traffic-eng
```

B)

```
interface Tunnel0
ip ospf priority 1
ip ospf network non-broadcast
```

C)

```
interface Tunnel0
no tunnel destination 192.168.100.11
tunnel mode gre multipoint
```

D)

```
interface Tunnel0
 ip ospf priority 253
 ip ospf network point-to-multipoint
```

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

**Answer: C**

#### NEW QUESTION 447

- (Exam Topic 3)

Which mechanism provides traffic segmentation within a DMVPN network?

- A. RSVP
- B. BGP
- C. MPLS
- D. IPsec

**Answer: C**

#### Explanation:

To use the DMVPN – Traffic Segmentation Within DMVPN feature you must configure Multiprotocol Label Switching (MPLS) by using the `mpls ip` command.

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\\_conn\\_dmvpn/configuration/xr-16/sec-conn-dmvpn-xr-16-book/sec-conn-dmvpn-dmvpn.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_dmvpn/configuration/xr-16/sec-conn-dmvpn-xr-16-book/sec-conn-dmvpn-dmvpn.html)

#### NEW QUESTION 450

- (Exam Topic 3)

Refer to the exhibit.

```
RtrA#show ip eigrp topology all-links
IP-EIGRP Topology Table for AS(1)/ID(10.1.6.1)
... snip ...
P 10.200.1.0/24, 1 successors, FD is 21026560
via 10.1.1.2 (21026560/20514560), Serial1/0
via 10.1.2.2 (46740736/20514560), Serial1/1
via 10.1.3.2 (46740736/46228736), Serial1/2
```

Which action makes 10.1.3.2 the feasible successor to reach 10.200.1.0/24 for location S42T447E33F95?

- A. Increase path bandwidth lower than 1011.2 and lower than 1012.2 between RtrA and the destination
- B. Increase path bandwidth higher than 10.1.2.2 and lower than 101.1.2 between RtrA and the destination.
- C. Increase path bandwidth higher than 1011.2 and lower than 1012.2 between RtrA and the destination
- D. Increase path bandwidth higher than 10.1.2.2 and higher than 10.1.1.2 between RtrA and the destination

**Answer: A**

#### NEW QUESTION 454

- (Exam Topic 3)

```
R1 (config)# ip vrf CCNP
R1 (config-vrf)# rd 1:100
R1 (config-vrf)# exit
R1 (config)# interface Loopback0
R1 (config-if)# ip address 10.1.1.1 255.255.255.0
R1 (config-if)# ip vrf forwarding CCNP
R1 (config-if)# exit
R1 (config)# exit
R1# ping vrf CCNP 10.1.1.1
% Unrecognized host or address, or protocol not running.
```

Refer to the exhibit Which command must be configured to make VRF CCNP work?

- ☒ interface Loopback0  
ip address 10.1.1.1 255.255.255.0  
vrf forwarding CCNP
- ☐ interface Loopback0  
ip address 10.1.1.1 255.255.255.0
- ☐ interface Loopback0  
vrf forwarding CCNP
- ☐ interface Loopback0  
ip address 10.1.1.1 255.255.255.0  
ip vrf forwarding CCNP

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



**Answer:** B

**NEW QUESTION 455**

- (Exam Topic 3)

An engineer creates a Cisco DNA Center cluster with three nodes, but all the services are running on one host node. Which action resolves this issue?

- A. Restore the link on the switch interface that is connected to a cluster link on the Cisco DNA Center
- B. Click the master host node with all the services and select services to be moved to other hosts
- C. Enable service distribution from the Systems 360 page.
- D. Click system updates, and upgrade to the latest version of Cisco DNA Center.

**Answer:** C

**Explanation:**

To deploy Cisco DNA Center on a three-node cluster with High Availability (HA) enabled, complete the following procedure:

Step 1: Configure Cisco DNA Center on the first node in your cluster... Step 2: Configure Cisco DNA Center on the second node in your cluster... Step 3: Configure Cisco DNA Center on the third node in your cluster... Step 4: Enable high availability on your cluster:

\* a. In the Cisco DNA Center GUI, click and choose System Settings. The System 360 tab is displayed by default.

\* b. In the Hosts area, click Enable Service Distribution.

After you click Enable Service Distribution, Cisco DNA Center enters into maintenance mode. In this mode, Cisco DNA Center is unavailable until the redistribution of services is completed. You should take this into account when scheduling an HA deployment.

Reference: [https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automationand-management/dna-center/1-3-3-0/ha\\_guide/b\\_cisco\\_dna\\_center\\_ha\\_guide\\_1\\_3\\_3\\_0.html](https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automationand-management/dna-center/1-3-3-0/ha_guide/b_cisco_dna_center_ha_guide_1_3_3_0.html)

Therefore we can choose "Enable Service Distribution" to distribute services to other host nodes.

**NEW QUESTION 457**

.....

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