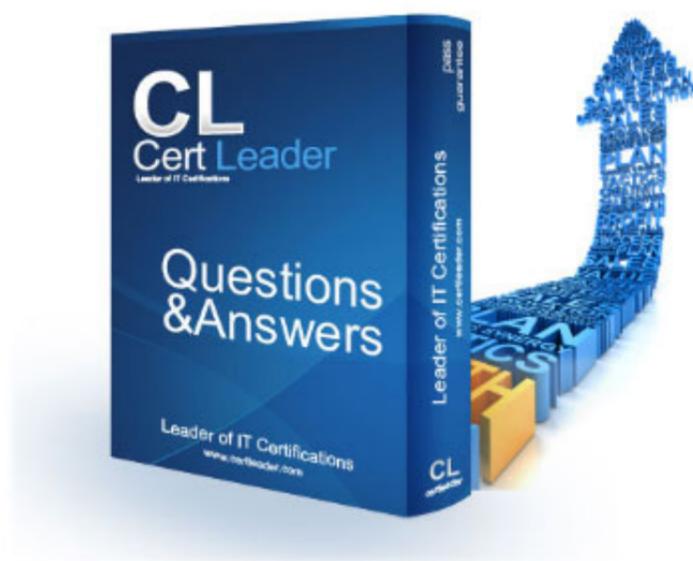


## 300-410 Dumps

# Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

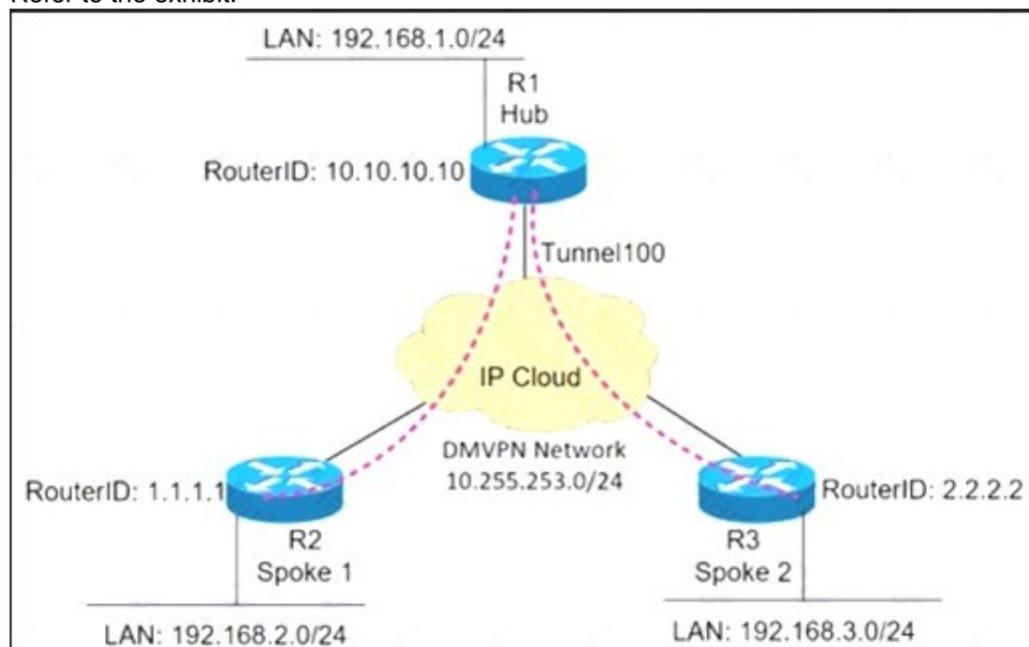
<https://www.certleader.com/300-410-dumps.html>



**NEW QUESTION 1**

- (Exam Topic 3)

Refer to the exhibit.



```

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

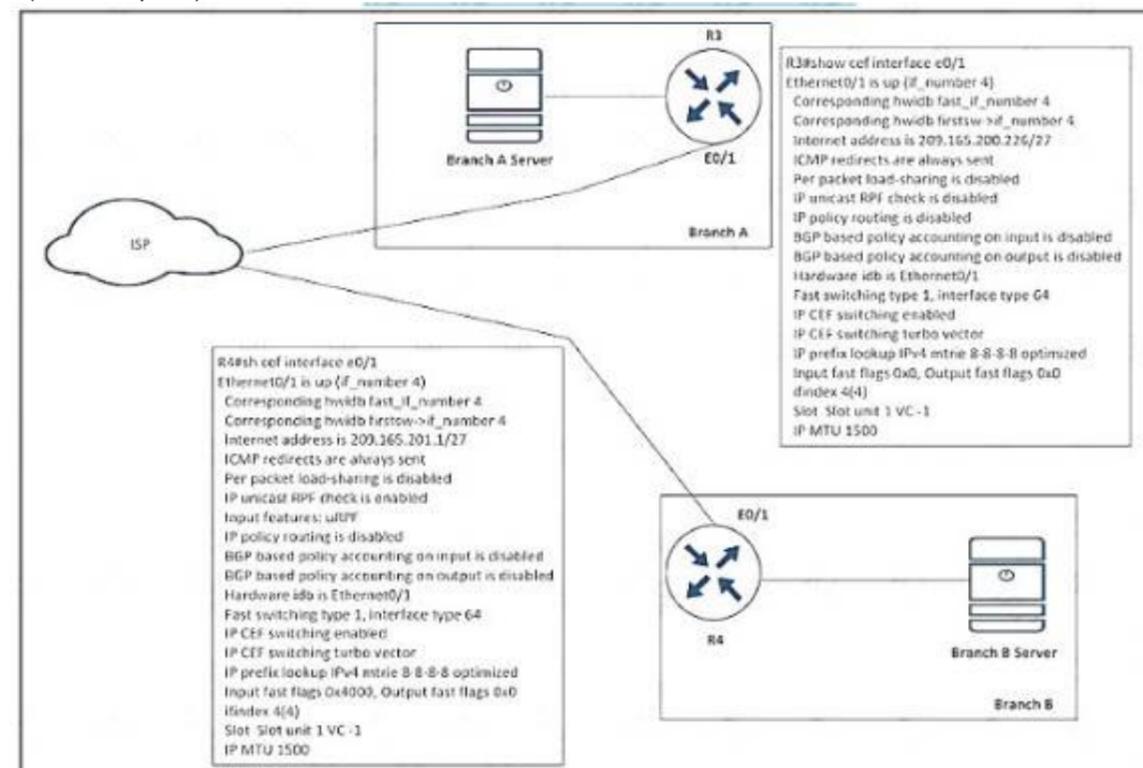
A network administrator sets up an OSPF routing protocol for a DMVPN network on the hub router. Which configuration required to establish a DMVPN tunnel with multiple spokes?

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

**Answer: A**

**NEW QUESTION 2**

- (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)

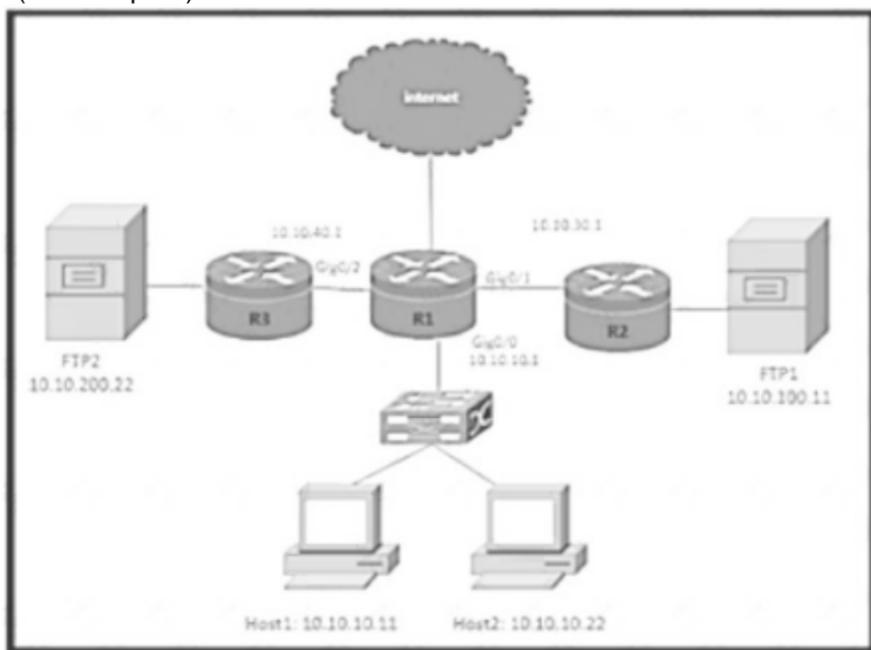
```
R3
interface ethernet0/1
ip unicast RPF check reachable-via any allow-default allow-self-ping
```

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

**Answer: C**

**NEW QUESTION 3**

- (Exam Topic 3)



Refer to the exhibit. The R1 routing table has the prefixes for the FTP1 and FTP2 file servers. A network engineer must configure the R1 with these requirements:

- > Host1 must use the FTP1 fileserver.
- > Host2 must use the FTP2 fileserver.

Which configuration meets the requirement on R1?

A)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.40.1
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.30.1
!
ip local policy route-map PBR_FTP
```

B)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
ip local policy route-map PBR_FTP
```

C)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
interface GigabitEthernet 0/0
 ip policy route-map PBR_FTP
```

D)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 any
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 any
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
interface GigabitEthernet 0/0
 ip policy route-map PBR_FTP
```

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

**Answer: C**

**NEW QUESTION 4**

- (Exam Topic 3)

An engineer notices that R1 does not hold enough log messages to identify the root cause during troubleshooting. Which command resolves this issue?

- A. #logging buffered 4096 critical
- B. (config)#logging buffered 16000 informational
- C. #logging buffered 16000 critical
- D. (config)#logging buffered 4096 informational

**Answer: B**

**NEW QUESTION 5**

- (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 6**

- (Exam Topic 3)

What is a characteristic of Layer 3 MPLS VPNs?

- A. LSP signaling requires the use of unnumbered IP links for traffic engineering.
- B. Traffic engineering supports multiple IGP instances
- C. Traffic engineering capabilities provide QoS and SLAs.
- D. Authentication is performed by using digital certificates or preshared keys.

Answer: C

**Explanation:**

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_te\\_diffserv/configuration/15-mt/mp-te-diffserv-15-mt-bo](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_te_diffserv/configuration/15-mt/mp-te-diffserv-15-mt-bo)

MPLS traffic engineering supports only a single IGP process/instance

The MPLS traffic engineering feature does not support routing and signaling of LSPs over unnumbered IP links.

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_te\\_path\\_setup/configuration/xs-3s/mp-te-path-setup-xe-3s-book/mp-te-enhance-xe.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_te_path_setup/configuration/xs-3s/mp-te-path-setup-xe-3s-book/mp-te-enhance-xe.html)

**NEW QUESTION 7**

- (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?

```

1 access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
2 |
3 route-map POLICY permit 10
4 match ip address 100
5 set ip next-hop recursive 10.4.4.4
6 |
7 access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
8 |
9 route-map POLICY permit 10
10 match ip address 100
11 set ip next-hop 10.4.4.4
12 route-map POLICY permit 20
13 |
14 access-list 100 deny tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
15 |
16 route-map POLICY permit 10
17 match ip address 100
18 set ip next-hop 10.4.4.4
19 route-map POLICY permit 20
20 |
21 access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
22 |
23 route-map POLICY permit 10
24 match ip address 100
25 set ip next-hop recursive 10.4.4.4
26 route-map POLICY permit 20

```

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

Answer: B

**NEW QUESTION 8**

- (Exam Topic 3)

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

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

Answer: A

**NEW QUESTION 9**

- (Exam Topic 3)

Which IPv6 first hop security feature controls the traffic necessary for proper discovery of neighbor device operation and performance?

- A. RA Throttling
- B. Source or Destination Guard
- C. ND Multicast Suppression
- D. IPv6 Snooping

Answer: D

**NEW QUESTION 10**

- (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 10**

- (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
```

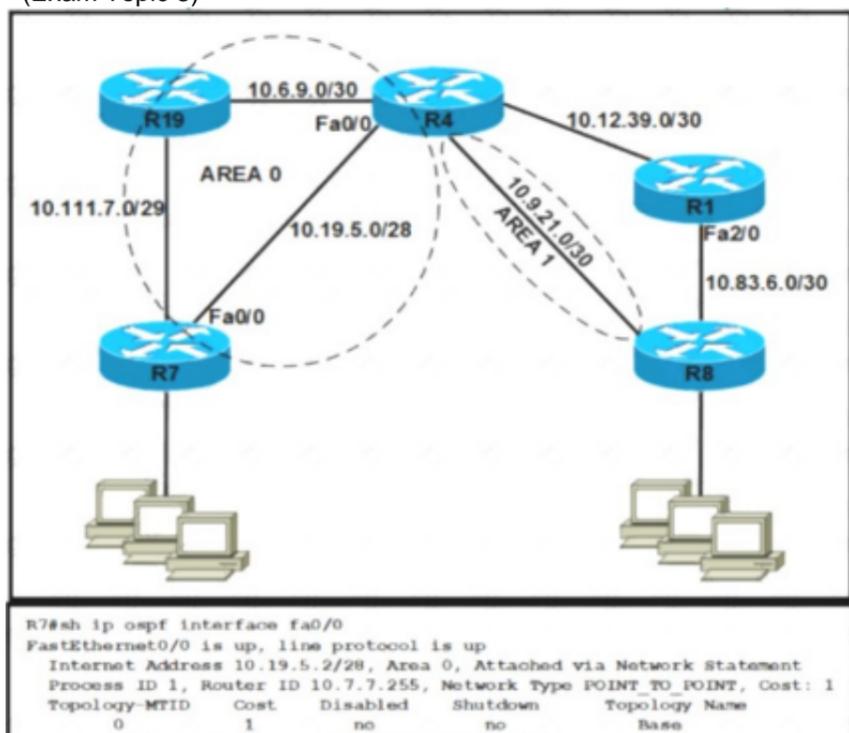
Refer to the exhibit. An engineer noticed that the router log messages do not have any information about when the event occurred. Which action should the engineer take when enabling service time stamps to improve the logging functionality at a granular level?

- 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 15**

- (Exam Topic 3)



Refer to the exhibit. Router R4 is configured correctly with default OSPF values. A network engineer configured R7 for OSPF. R7 must not be elected as a DR for the segment between R4-R7. The adjacency between R4 and R7 failed to form. Which configuration resolves the issue?

- R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 255  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 30  
R7(config-if)#ip ospf network broadcast
- R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 0  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 30  
R7(config-if)#ip ospf network non-broadcast
- R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 0  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 40  
R7(config-if)#ip ospf network broadcast
- R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 255  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 40  
R7(config-if)#ip ospf network non-broadcast

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

Answer: C

**NEW QUESTION 18**

- (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?

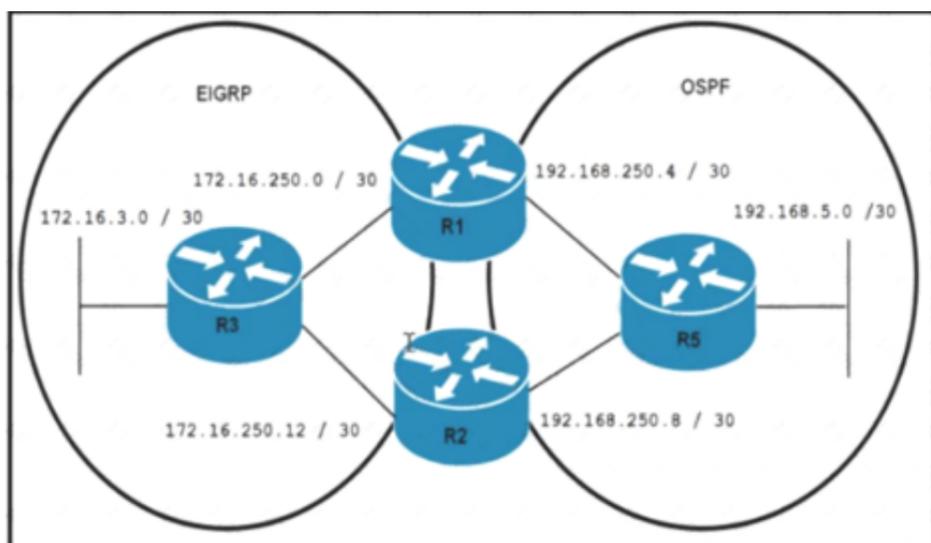
- A. Configure host IP address in access-list 16
- B. Configure SNMPv3 on the router
- C. Configure SNMP authentication on the router
- D. Configure a valid SNMP community string

Answer: D

**NEW QUESTION 19**

- (Exam Topic 3)

<pre>R1#show running-config   begin router eigrp router eigrp 100 network 172.16.250.0 0.0.0.255  redistribute ospf 1 metric 1 1 1 1 1 ! router ospf 1  redistribute eigrp 100 subnets network 192.168.250.0 0.0.0.255 area 0</pre>	<pre>R5#traceroute 172.16.3.1 Type escape sequence to abort. Tracing the route to 172.16.3.1 VRF info: (vrf in name/id, vrf out name/id)  0 192.168.250.9 66 msec  1 192.168.250.6 6 msec  2 192.168.250.9 8 msec  3 172.16.250.2 33 msec  4 172.16.250.14 88 msec  5 172.16.250.2 11 msec R5#</pre>
<pre>R2#show runn   begin router eigrp router eigrp 100 network 172.16.250.0 0.0.0.255  redistribute ospf 1 metric 1 1 1 1 1 ! router ospf 1  redistribute eigrp 100 subnets network 192.168.250.0 0.0.0.255 area 0 ! ip forward-protocol nd</pre>	



Refer to the exhibit. An engineer is troubleshooting a routing loop on the network to reach the 172.16.3.0/16 from the OSPF domain. Which configuration on router R1 resolves the issue?

A)

```
router ospf 1
 redistribute eigrp 100 subnets route-map LOOPFILT
!
route-map LOOPFILT deny 10
 match ip address 15
!
route-map LOOPFILT permit 20
!
access-list 15 permit 172.16.0.0 0.0.255.255
```

B)

```
router eigrp 100
 redistribute ospf 1 metric 1 1 1 1 1 route-map LOOPFILT
!
route-map LOOPFILT deny 10
 match ip address 15
!
route-map LOOPFILT permit 20
!
access-list 15 permit 172.16.0.0 0.0.255.255
```

C)

```
router ospf 1
 redistribute eigrp 100 route-map LOOPFILT
!
route-map LOOPFILT deny 10
 match ip address 15
!
access-list 15 permit 172.16.0.0 0.0.255.255
```

D)

```
router eigrp 100
 redistribute ospf 1 metric 1 1 1 1 1 route-map LOOPFILT
!
route-map LOOPFILT deny 10
 match ip address 15
!
access-list 15 permit 172.16.0.0 0.0.255.255
```

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

**Answer: C**

**NEW QUESTION 23**

- (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 25**

- (Exam Topic 3)

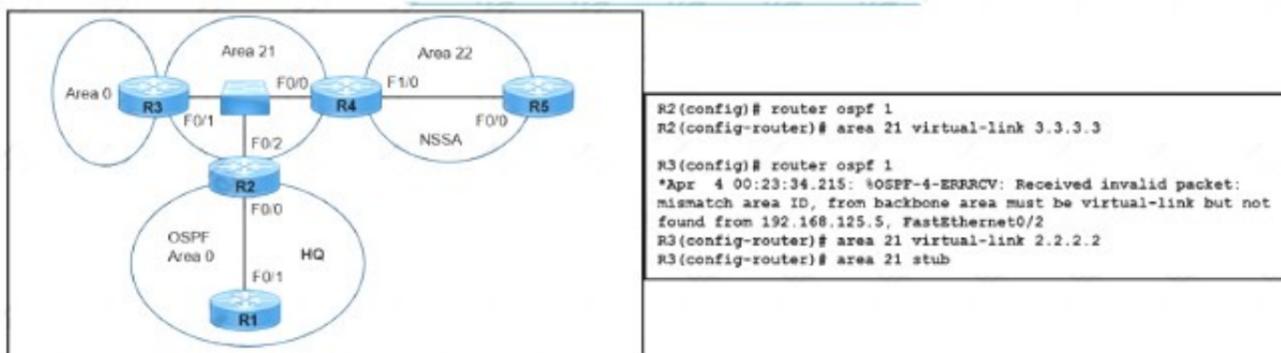
What are the two prerequisites to enable BFD on Cisco routers? (Choose two)

- 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 29**

- (Exam Topic 3)



Refer to the exhibit. A network engineer is troubleshooting a failed link between R2 and R3. No traffic loss is reported from router R5 to HQ. Which command fixes the separated backbone?

- A. R2(config-router)#no area 21 stub
- B. R2(config\_router)#area 21 virtual-link 192.168.125.5
- C. R3(config-router)#area 21 virtual-link 192.168.125.5
- D. R3(config-router)#no area 21 stub

Answer: D

**NEW QUESTION 31**

- (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 35**

- (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
```

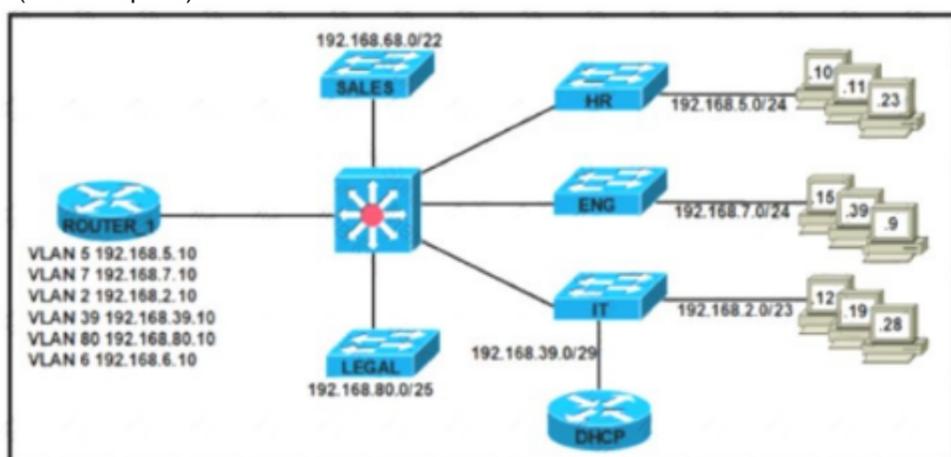
Refer to the exhibit. An administrator must harden a router, but the administrator failed to test the SSH access successfully to the router. Which action resolves the issue?

- A. Configure SSH on the remote device to log m 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 37**

- (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 41**  
- (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
    
```

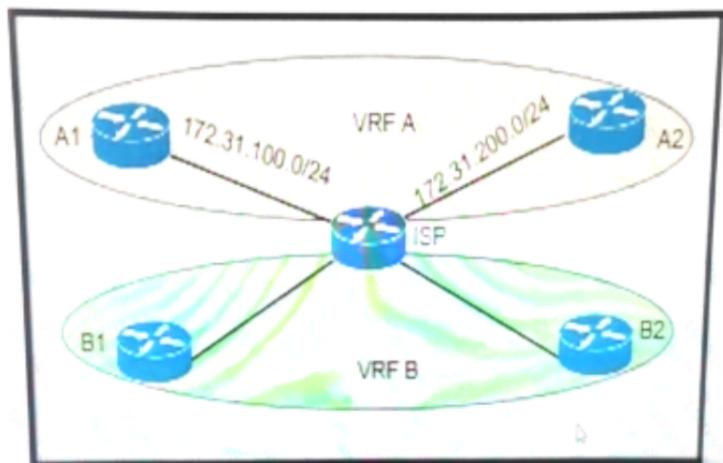
- A. Option A  
B. Option B  
C. Option C  
D. Option D

Answer: D

**NEW QUESTION 45**

- (Exam Topic 3)

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



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

**Answer: C**

**Explanation:**

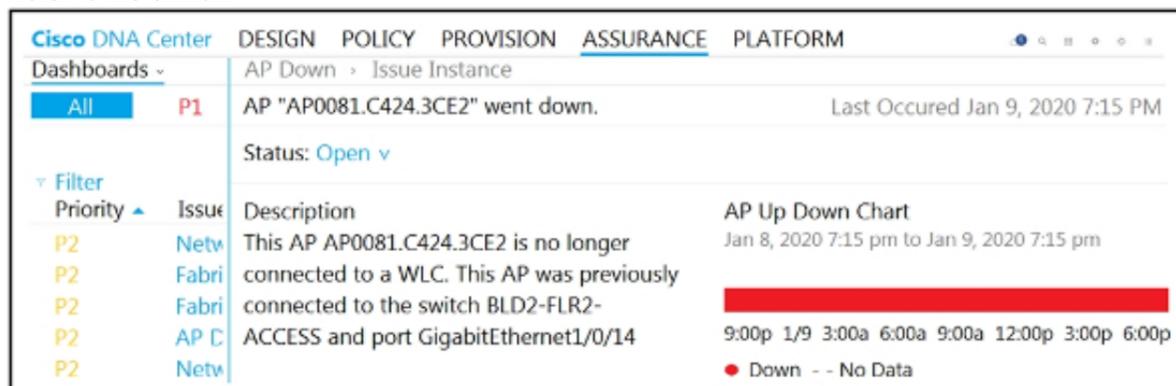
A1 and A2 routers do not know they belong to VRF A. The two interfaces of ISP (which are connected to A1 & A2) should be configured like this (we only show the configure of one interface):

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

**NEW QUESTION 49**

- (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
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 16:50:53
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 53**

- (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 57**

- (Exam Topic 3)

How do devices operate in MPLS L3VPN topology?

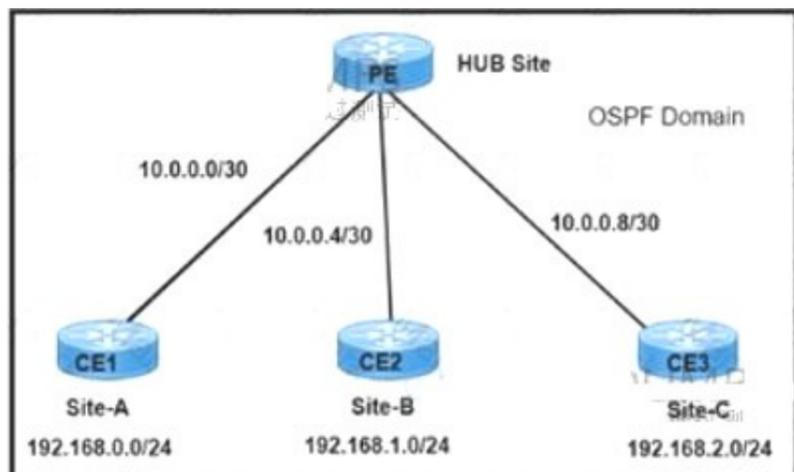
- A. P and associated PE routers with IGP populate the VRF table in different VPNs.
- B. CE routers connect to the provider network and perform LSP functionality
- C. P routers provide connectivity between PE devices with MPLS switching.
- D. P routers support PE to PE VPN tunnel without LSP functionality

**Answer: C**

**NEW QUESTION 60**

- (Exam Topic 3)

Refer to the exhibit.



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

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

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

Which configuration meets the requirements?

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

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

Answer: C

**NEW QUESTION 62**

- (Exam Topic 3)

Refer to the exhibit.

```
R2(config)# int tun0
*Jun 23 00:42:06.179: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down

R2(config-if)# ip address 192.168.12.2 255.255.255.0
R2(config-if)# tunnel source lo0
R2(config-if)# tunnel destination 10.255.255.1

*Jun 23 00:42:15.845: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to up

R2(config-if)# router eigrp E
R2(config-router)# address-family ipv4 autonomous-system 1
R2(config-router-af)# net 192.168.12.2 0.0.0.0

*Jun 23 00:43:05.730: %DUAL-5-NBRCHANGE: EIGRP-IPv4 1: Neighbor
192.168.12.1 (Tunnel0) is up: new adjacency
* Jun 23 00:43:05.993: %ADJ-5-PARENT: Midchain parent maintenance
for IP midchain out of Tunnel0 - looped chain attempting to stack
*Jun 23 00:43:15.193: %TUN-5-RECURDOWN: Tunnel0 temporarily
disabled due to recursive routing

*Jun 23 00:43:15.193: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down
```

An administrator is configuring a GRE tunnel to establish an EIGRP neighbor to a remote router. The other tunnel endpoint is already configured. After applying the configuration as shown, the tunnel started flapping. Which action resolves the issue?

- A. Modify the network command to use the Tunnel0 interface netmask
- B. Advertise the Loopback0 interface from R2 across the tunnel
- C. Stop sending a route matching the tunnel destination across the tunnel
- D. Readdress the IP network on the Tunnel0 on both routers using the /31 netmask

**Answer: C**

**Explanation:**

In this question we are advertising the tunnel IP address 192.168.12.2 to the other side. When other end receives the EIGRP advertisement, it realizes it can reach the other side of the tunnel via EIGRP. In other words, it reaches the tunnel destination through the tunnel itself -> This causes "recursive routing" error.

Note: In order to avoid this error, do not advertise the tunnel destination IP address on the tunnel interface to other side.

Good recursive routing reference: <https://networklessons.com/cisco/ccie-routing-switching/gretunnel-recursive-routing-error>

**NEW QUESTION 66**

- (Exam Topic 3)

```

RouterB:
router eigrp CLASS
!
address-family ipv4 unicast autonomous-system 10
!
topology base
 redistribute ospf 10 match external 1 external 2 metric 1000000 10 255 1 1500
exit-af-topology
network 172.16.2.2 0.0.0.0
eigrp router-id 2.2.2.2
exit-address-family

172.16.0.0/16 is variably subnetted, 4 subnets, 2 masks
C 172.16.1.0/30 is directly connected, GigabitEthernet0/0
L 172.16.1.2/32 is directly connected, GigabitEthernet0/0
C 172.16.2.0/30 is directly connected, GigabitEthernet0/1
L 172.16.2.2/32 is directly connected, GigabitEthernet0/1
O 192.168.0.0/32 is subnetted, 1 subnets
O 192.168.0.1 [110/2] via 172.16.1.1, 1d03h, GigabitEthernet0/0
O 192.168.1.0/32 is subnetted, 1 subnets
O 192.168.1.1 [110/2] via 172.16.1.1, 1d03h, GigabitEthernet0/0
O 192.168.2.0/32 is subnetted, 1 subnets
O 192.168.2.1 [110/2] via 172.16.1.1, 1d03h, GigabitEthernet0/0
D 192.168.11.0/24 [90/10880] via 172.16.2.1, 1d03h, GigabitEthernet0/1
D 192.168.12.0/24 [90/10880] via 172.16.2.1, 1d03h, GigabitEthernet0/1
D 192.168.13.0/24 [90/10880] via 172.16.2.1, 1d03h, GigabitEthernet0/1
    
```

Refer to the exhibit. An engineer configured route exchange between two different companies for a migration project EIGRP routes were learned in router C but no OSPF routes were learned in router A. Which configuration allows router A to receive OSPF routes?

- A. (config-router-af)#redistribute ospf 10 1000000 10 255 1 1500
- B. (config-router-af-topology)#redistribute ospf 10 metric 1000000 10 255 1 1500
- C. (config-router-af-topology)#redistribute connected
- D. (config-router-af-topology)#no redistribute ospf 10 match external 1 external 2 metric 1000000 10 255 1 1500

**Answer: B**

**NEW QUESTION 68**

- (Exam Topic 3)

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

A)

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

B)

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

C)

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

D)

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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 71**

- (Exam Topic 3)

Refer to the exhibit.

```
ip prefix-list DMZ-STATIC seq 5 permit 10.1.1.0/24
!
route-map DMZ permit 10
  match ip address prefix-list DMZ-STATIC
!
router ospf 1
network 0.0.0.0 0.0.0.0 area 0
redistribute static route-map DMZ
!
ip route 10.1.1.0 255.255.255.0 10.20.20.1
```

The static route is not present in the routing table of an adjacent OSPF neighbor router. Which action resolves the issue?

- A. Configure the next hop of 10.20.20.1 in the prefix list DMZ-STATIC
- B. Configure the next-hop interface at the end of the static router for it to get redistributed
- C. Configure a permit 20 statement to the route map to redistribute the static route
- D. Configure the subnets keyword in the redistribution command

**Answer: D**

**NEW QUESTION 72**

- (Exam Topic 3)

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

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

**Answer: AC**

**Explanation:**

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

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

Reference: <https://www.ccexpert.us/mpls-network/mpls-ldp-session-protection.html> Or from the reference at <https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2019/pdf/5eU6DfQV/TECMPL-3201.pdf>

Troubleshooting LDP Issues

Problem:

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

... Solution:

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

#### NEW QUESTION 77

- (Exam Topic 3)

What are the two reasons for RD and VPNv4 addresses in an MPLS Layer 3 VPN? (Choose two.)

- A. RD is prepended to each prefix to make routes unique.
- B. VPN RT communities are used to identify customer unique routes.
- C. When the PE redistributes customer routes into MP-BGP, they must be unique.
- D. They are on a CE device to use for static configuration.
- E. They are used for a BGP session with the CE device.

**Answer:** AC

#### NEW QUESTION 80

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

#### NEW QUESTION 82

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

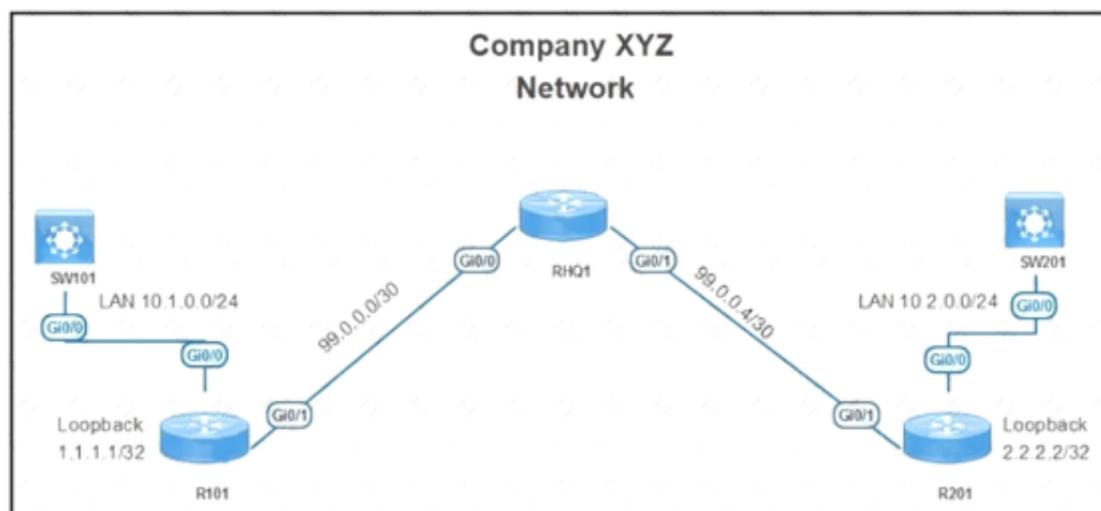
**Answer:** A

**Explanation:**

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

#### NEW QUESTION 86

- (Exam Topic 3)



```
R101#sh run | section sla
ip sla 1
  tcp-connect 2.2.2.2 3000 source-ip 1.1.1.1
  threshold 1000
  timeout 1000
```

```
ip sla 2
  icmp-jitter 2.2.2.2 source-ip 1.1.1.1 num-packets 100 interval 10
  threshold 1000
  timeout 1000
  frequency 10
ip sla schedule 2 life forever start-time now
R101#sh ip sla summary
IPSLAs Latest Operation Summary
Codes: * active, ^ inactive, ~ pending

ID   Type           Destination   Stats (ms)  Return Code  Last Run
-----
*1   tcp-connect    2.2.2.2       -           No connection 33 seconds ago
*2   icmp-jitter    2.2.2.2       RTT=4       OK           3 seconds ago
```

Refer to the exhibit While troubleshooting an issue on the network, an engineer notices that a TCP Connect operation failed on port 3000 between R101 and R201. Which command must be configured on R201 to respond to the R101 IP SLA configurations with a control connection on UDP port 1967?

- A. ip sla responder udp-echo ipaddress 1.1.1.1 port 1967
- B. ip sla responder tcp-connect ipaddress 1.1.1.1 port 3000
- C. ip sla responder tcp-connect ipaddress 2.2.2.2 port 3001
- D. ip sla responder

**Answer: A**

**NEW QUESTION 89**

- (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 94**

- (Exam Topic 3)

```

router eigrp 1
 variance 2

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

```

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

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

**Answer: B**

**NEW QUESTION 98**

- (Exam Topic 3)

Refer to the exhibit.

```

crypto isakmp policy 1
 authentication pre-share
 crypto isakmp key cisco47 address 0.0.0.0
!
crypto ipsec transform-set trans2 esp-des esp-md5-hmac
 mode transport
!
crypto ipsec profile vpnprof
 set transform-set trans2
!
interface Tunnel0
 bandwidth 1000
 ip address 10.0.0.1 255.255.255.0
 ip mtu 1400
 ip nhrp authentication donttell
 ip nhrp map multicast dynamic
 ip nhrp network-id 99
 ip nhrp holdtime 300
 no ip split-horizon eigrp 1
 ip tcp adjust-mss 1360
 delay 1000
 tunnel source GigabitEthernet 0/0/0
 tunnel mode gre multipoint
 tunnel key 100000
 tunnel protection ipsec profile vpnprof
!
interface FastEthernet0/0/0
 ip address 172.17.0.1 255.255.255.0
!
interface FastEthernet0/0/1
 ip address 192.168.0.1 255.255.255.0
!
router eigrp 1
 network 10.0.0.0 0.0.0.255
 network 192.168.0.0 0.0.0.255
!

```

A network administrator must configure DMVPN tunnels between the hub and spoke with dynamic spoke-to-spoke tunnel capabilities using EIGRP. Which tunnel interface command must the network administrator configure to establish an EIGRP peer?

- A. no ip next-hop-self eigrp 1

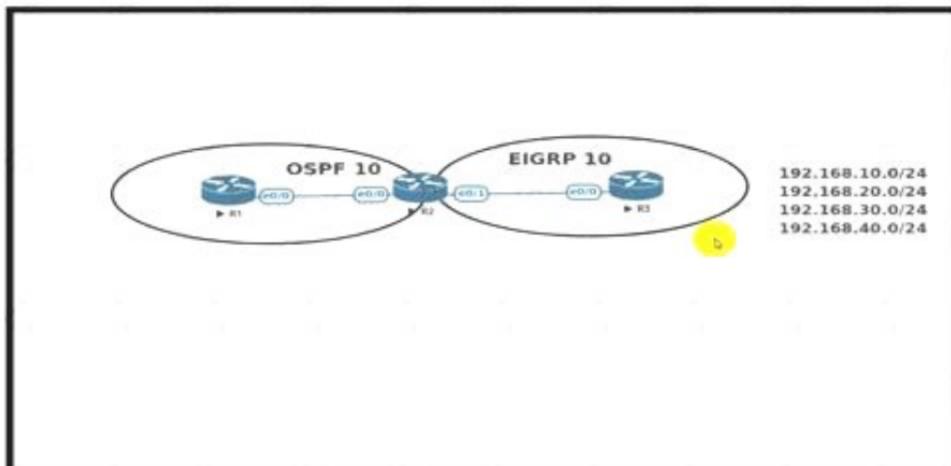
- B. ip next-hop-self eigrp 1
- C. no ip nhrp next-hop-self
- D. ip nhrp next-hop-self

Answer: C

**NEW QUESTION 99**

- (Exam Topic 3)

Refer to the exhibit.



An engineer must redistribute networks 192.168.10.0/24 and 192.168.20.0/24 into OSPF from EIGRP. where the metric must be added when traversing through multiple hops to start an external route of 20 The engineer notices that the external metric is fixed and does not add at each hop. Which configuration resolves the issue?

```

R2(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R2(config)#access-list 10 permit 192.168.20.0 0.0.0.255
|
R2(config)#route-map RD permit 10
R2(config-route-map)#match ip address 10
R2(config-route-map)#set metric 20
R2(config-route-map)#set metric-type type-2
|
R2(config)#router ospf 10
R2(config-router)#redistribute eigrp 10 subnets route-map RD

```

```

R1(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R1(config)#access-list 10 permit 192.168.20.0 0.0.0.255
|
R1(config)#route-map RD permit 10
R1(config-route-map)#match ip address 10
R1(config-route-map)#set metric 20
R1(config-route-map)#set metric-type type-1
|
R1(config)#router ospf 10
R1(config-router)#redistribute eigrp 10 subnets route-map RD

```

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

Answer: B

**NEW QUESTION 103**

- (Exam Topic 3)

```

interface GigabitEthernet0/0
description FTP SERVER
no ip address
ipv6 address 2001:DB8::F/33
ipv6 enable
ipv6 traffic-filter FTP-SERVER in
!
interface GigabitEthernet0/1
description FTP CLIENT
no ip address
ipv6 address 2001:DB8:8000::F/33
ipv6 enable
ipv6 traffic-filter FTP-CLIENT in

ipv6 access-list FTP-CLIENT
permit tcp host 2001:DB8:8000::1 host 2001:DB8::1 eq ftp
permit tcp host 2001:DB8:8000::1 host 2001:DB8::1 eq ftp-data

ipv6 access-list FTP-CLIENT
permit tcp host 2001:DB8:8000::1 host 2001:DB8::1 eq ftp
permit tcp host 2001:DB8:8000::1 host 2001:DB8::1 eq ftp-data
!
ipv6 access-list FTP-SERVER
permit tcp host 2001:DB8::1 host 2001:DB8:8000::1 eq ftp-established
permit tcp host 2001:DB8::1 host 2001:DB8:8000::1 eq ftp-data established
    
```

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

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

Answer: D

**NEW QUESTION 108**

- (Exam Topic 3)

```

RF#traceroute 192.168.1.1
 1 10.0.0.9 40 msec 28 msec 24 msec
 2 * * *
 3 * * *

RE#show ip prefix-list detail
Prefix-list with the last deletion/insertion: Customer
ip prefix-list Customer:
  count: 2, range entries: 1, sequences: 5 - 10, refcount: 3
  seq 5 deny 192.168.1.1/32 (hit count: 5, refcount: 1)
  seq 10 permit 0.0.0.0/0 le 32 (hit count: 26, refcount: 1)

RC#show ip prefix-list detail
Prefix-list with the last deletion/insertion: Customer
ip prefix-list Customer:
  count: 1, range entries: 1, sequences: 10 - 10, refcount: 4
  seq 10 permit 0.0.0.0/0 le 32 (hit count: 7, refcount: 1)
    
```

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

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

Which configuration resolves the issue?

A)

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

B)

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

C)

RF(config)#no ip prefix-list Customer seq 5 deny 192.168.1.1/32

D)

RF(config)#router bgp 65201  
RF(config-router)# neighbor 10.0.0.17 prefix-list Customer out

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

**Answer: C**

**NEW QUESTION 110**

- (Exam Topic 3)

Refer to the exhibit.

```
RR# show running-config
!
interface Ethernet0/1
 no ip address
 ipv6 address 2001:DB8:1:12::2/64
 ipv6 traffic-filter ACL in
!
ipv6 access-list ACL
 sequence 10 permit tcp any any eq 22
 sequence 20 permit tcp any eq 22 any
 sequence 30 permit tcp any any eq bgp
 sequence 40 permit tcp any eq bgp any
 sequence 50 permit udp any any eq ntp
 sequence 60 permit udp any eq ntp any
 sequence 70 permit udp any any eq snmp
 sequence 80 deny ipv6 any any log

RR# show ipv6 cef ::/0
::/0
  nexthop 2001:DB8:1:12::1 Ethernet0/1

*Feb 23 00:23:17.211: %IPV6_ACL-6-ACCESSLOGDP: list ACL/80
denied icmpv6 2001:DB8:1:12::1 -> FF02::1:FF00:2 (135/0), 7321
packets
```

After a security audit, the administrator implemented an ACL in the route reflector. The RR became unreachable from any router in the network. Which two actions resolve the issue? (Choose two.)

- A. Enable the ND proxy feature on the default gateway.
- B. Configure a link-local address on the Ethernet0/1 interface.
- C. Permit ICMPv6 neighbor discovery traffic in the ACL.
- D. Remove the ACL entry 80.
- E. Change the next hop of the default route to the link-local address of the default gateway.

**Answer: CD**

**NEW QUESTION 113**

- (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 117**

- (Exam Topic 3)

Refer to the exhibit.

```
snmp-server community Public RO 90
snmp-server community Private RW 90
R1#show access-list 90
Standard IP access list 90
 permit 10.11.110.11
 permit 10.11.111.12
```

```
Nov 6 06:45:11: %SNMP-3-AUTHFAIL: Authentication failure for SNMP req from host
10.11.110.12
```

```
Nov 6 06:45:12: %SNMP-3-AUTHFAIL: Authentication failure for SNMP req from host
10.11.110.12
```

A network administrator notices these console messages from host 10.11.110.12 originating from interface E1/0. The administrator considers this an unauthorized attempt to access SNMP on R1. Which action prevents the attempts to reach R1 E1/0?

- A. Configure IOS control plane protection using ACL 90 on interface E1/0
- B. Configure IOS management plane protection using ACL 90 on interface E1/0
- C. Create an inbound ACL on interface E1/0 to deny SNMP from host 10.11.110.12
- D. Add a permit statement including the host 10.11.110.12 into ACL 90

**Answer: C**

**NEW QUESTION 122**

- (Exam Topic 3)

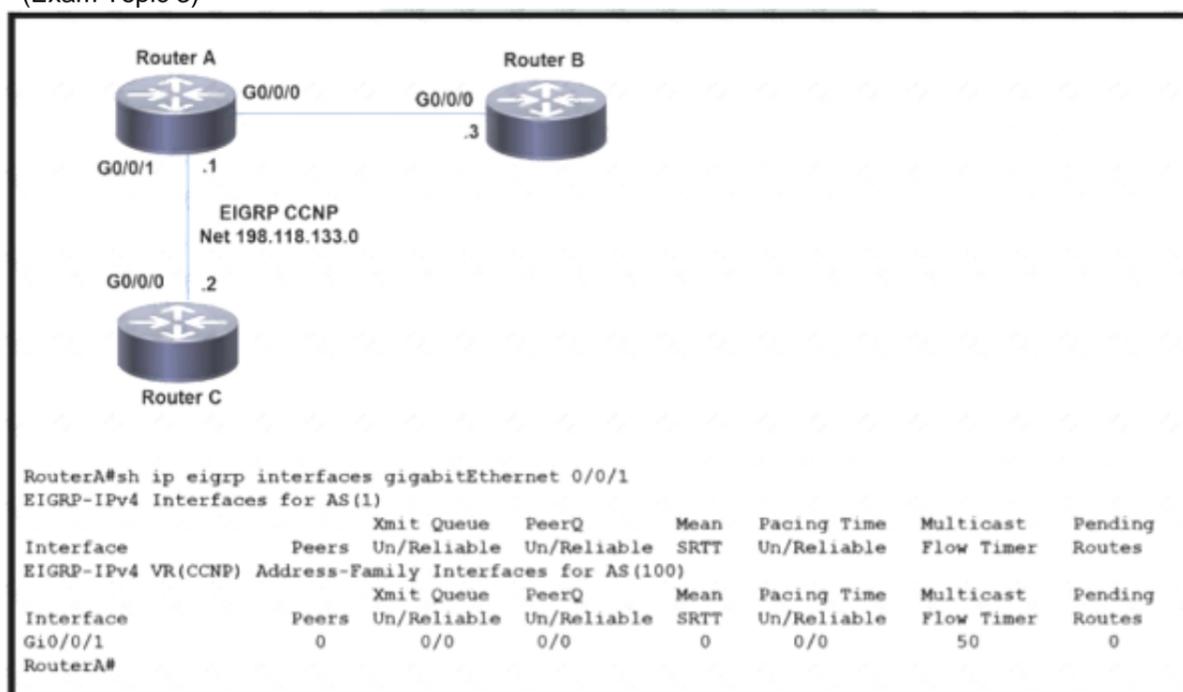
What is a function of the IPv6 DHCP Guard feature for DHCP messages?

- A. Only access lists are supported for matching traffic.
- B. All client messages are always switched regardless of the device role.
- C. It blocks only DHCP request messages.
- D. If the device is configured as a DHCP server, no message is switched.

**Answer: B**

**NEW QUESTION 127**

- (Exam Topic 3)



Refer to the exhibit EIGRP adjacency between router A and router C is not working as expected Which two configurations resolve the issue? (Choose two )

A)

```
Router C
router eigrp CCNP
 address-family ipv4 unicast autonomous-system 100
 topology base
 exit-af-topology
 network 198.18.133.0
 exit-address-family
```

B)

```
Router C
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
af-interface GigabitEthernet0/0/0
hold-time 90
exit-af-interface
topology base
exit-af-topology
exit-address-family
```

C)

```
Router A
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
af-interface GigabitEthernet0/0/1
hello-interval 15
topology base
exit-af-topology
network 192.18.133.0
exit-address-family
```

D)

```
Router A
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
topology base
exit-af-topology
network 198.18.133.0
exit-address-family
```

E)

```
Router A
router eigrp CCNP
address-family ipv4 unicast autonomous-system 10
af-interface GigabitEthernet0/0/1
hello-interval 15
hold-time 90
exit-af-interface
topology base
exit-af-topology
network 198.18.133.0
exit-address-family
```

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

**Answer:** BC

**NEW QUESTION 131**

- (Exam Topic 3)

```
*Sep 3 23:18:21.264: EIGRP: Neighbor (10.1.2.192) not yet found
*Sep 3 23:19:18.675: Going down: Peer 10.1.2.1 total=2 stub 0, iidb-stub=0 iid-all=0
*Sep 3 23:19:18.675: EIGRP: Handle deallocation failure [1]
*Sep 3 23:19:18.675: EIGRP: Neighbor 10.1.2.1 went down on Tunnel1.
*Sep 3 23:19:22.943: EIGRP: New peer 10.1.2.1.
*Sep 3 23:19:22.943: %DUAL-5-NBRCHANGE: EIGRP-IPv4 3111: Neighbor 10.1.2.1 (Tunnel1) is up: new adjacency
```

Refer to the exhibit. Which configuration command establishes an EIGRP neighbor adjacency between the hub and spoke?

- A. connected 10.1.2.192 command on spoke router
- B. network 10.1.2.192 command on spoke router
- C. eigrp-peer 10.1.2.192 command on the hub router
- D. neighbor 10.1.2.192 command on hub router

**Answer:** D

**NEW QUESTION 133**

- (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 134**

- (Exam Topic 3)

The network administrator configured R1 to authenticate Telnet connections based on Cisco ISE using TACACS+. ISE has been configured with an IP address of 192.168.1.5 and with a network device pointing toward R1(192.168.1.1) with a shared secret password of Cisco123.

```
aaa new-model
!
tacacs server ISE1
address ipv4 192.168.1.5
key Cisco123
!
aaa group server tacacs+ TAC-SERV
server name ISE1
!
aaa authentication login telnet group TAC-SERV
```

The administrator cannot authenticate to R1 based on ISE. Which configuration fixes the issue?

- A. ip tacacs-server host 192.168.1.5 key Cisco123
- B. line vty 0 4login authentication TAC-SERV
- C. line vty 0 4login authentication telnet
- D. tacacs-server host 192.168.1.5 key Cisco123

**Answer: C**

**Explanation:**

The last command "aaa authentication login telnet group TAC-SERV" created the method list name telnet so we need to assign it to line vty.  
Reference: <https://www.cisco.com/c/en/us/support/docs/security/identity-services-engine/200208-Configure-ISE-2-0-IOS-TACACS-Authentic.html>

**NEW QUESTION 135**

- (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 rs 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 139**

- (Exam Topic 3)

```
R1#show ip bgp 10.0.0.0/8
BGP routing table entry for 10.0.0.0/8, version 0
Paths: (1 available, no best path)
Not advertised to any peer
Refresh Epoch 1
100
192.168.10.20 (inaccessible) from 192.168.20.20 (192.168.20.20)
Origin incomplete, metric 0, localpref 100, valid, internal rx
pathid: 0, tx pathid: 0
```

Refer to the exhibit. An engineer is troubleshooting a prefix advertisement issue from R3, which is not directly connected to R1. Which configuration resolves the issue?

A)

```
R1(config)#router bgp 64512
R1(config-router)#neighbor 192.168.10.20 next-hop-self
```

B)

```
R1(config)#router bgp 64512
R1(config-router)#neighbor 192.168.20.20 next-hop-self
```

C)

```
R2(config)#router bgp 64512
R2(config-router)#neighbor 192.168.20.10 next-hop-self
```

D)

```
R2(config)#router bgp 64512
R2(config-router)#neighbor 192.168.10.20 next-hop-self
```

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

**Answer:** A**NEW QUESTION 141**

- (Exam Topic 3)

A customer is running an mGRE DMVPN tunnel over WAN infrastructure between hub and spoke sites. The existing configuration allows NHRP to add spoke routers automatically to the multicast NHRP mappings. The customer is migrating the network from IPv4 to the IPv6 addressing scheme for those spokes' routers that support IPv6 and can run DMVPN tunnel over the IPv6 network. Which configuration must be applied to support IPv4 and IPv6 DMVPN tunnel on spoke routers?

- A. Tunnel mode ipv6ip 6to4
- B. Tunnel mode ipv6ip isatap
- C. Tunnel mode ipv6ip auto-tunnel
- D. Tunnel mode ipv6ip 6rd

**Answer:** C**NEW QUESTION 145**

- (Exam Topic 3)

- A. The administrative distance should be raised to 120 from the ASBR 104 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

**Answer:** B**NEW QUESTION 147**

- (Exam Topic 3)

What are two characteristics of a VRF instance? (Choose two)

- A. It is defined by the VPN membership of a customer site attached to a P device.
- B. Each VRF has a different set of routing and CEF tables.
- C. All VRFs share customer's routing and CEF tables.
- D. An interface must be associated to one VRF
- E. A customer site can be associated to different VRFs.

**Answer:** BD**NEW QUESTION 149**

- (Exam Topic 3)

```

Router#show ip bgp vpvv4 rd 1100:1001:10:30:116:0/23
BGP routing table entry for 1100:1001:10:30:116:0/23, version 26765275
Paths: (9 available, best #8, no table)
Advertised to update-groups:
 1      2      3
(65001 64955 65003) 65089, (Received from a RR-client)
172.16.254.226 (metric 20645) from 172.16.224.236 (172.16.224.236)
  Origin IGP, metric 0, localpref 100, valid, confed-internal
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(65008 64955 65003) 65089
172.16.254.226 (metric 20645) from 10.131.123.71 (10.131.123.71)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.253 (172.16.216.253)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.252 (172.16.216.252)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.77.255.57 (10.77.255.57)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.57.255.11 (10.57.255.11)
  Origin IGP, metric 0, localpref 100, valid, confed-external, best
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362

(64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.224.253 (172.16.224.253)
  Origin IGP, metric 0, localpref 100, valid, confed-internal
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
(65003) 65089
172.16.254.226 (metric 20645) from 172.16.254.234 (172.16.254.234)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/362
65089, (Received from a RR-client)
172.16.228.226 (metric 20645) from 172.16.228.226 (172.16.228.226)
  Origin IGP, metric 0, localpref 100, valid, confed-internal
  Extended Community: RT 1100:1001
  mpis labels in/out nolabel/278
    
```

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

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

**Answer: D**

**NEW QUESTION 151**

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

Which action resolves this issue?

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

**Answer: D**

**NEW QUESTION 152**

- (Exam Topic 3)

Refer to the exhibit.

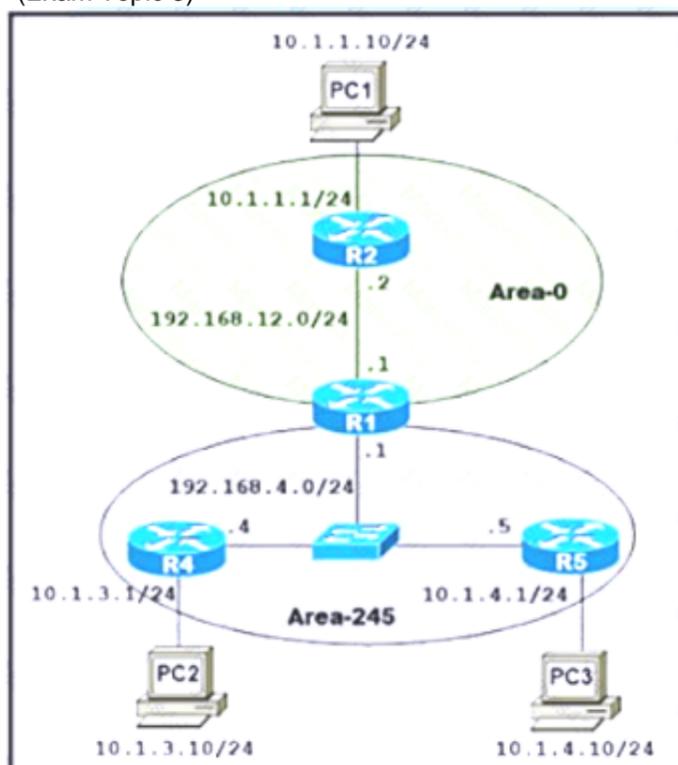
An engineer cannot copy the IOS.bin file from the FTP server to the switch. Which action resolves the issue?

- 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 154**

- (Exam Topic 3)



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

- A)
  - R-1#default area 245
  - R-4#default area 245 default-cost
  - R-5#default area 245 default-cost
  - R-1#area 245 stub no-summary
- B)
  - R-1#area 245 stub no-summary
  - R-4#area 245 stub
  - R-5#area 245 stub
- C)
  - R-1#default area 245 default-cost
  - R-4#default area 245
  - R-5#default area 245

D)

R-1#area 245 stub

R-4#area 245 stub no-summary

R-5#area 245 stub no-summary

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

Answer: D

**NEW QUESTION 159**

- (Exam Topic 3)

```

B(config-if)# do sh run int e0/1 | b int
B(config-if)# interface Ethernet0/1
B(config-if)# ip address 78.1.1.8 255.255.255.0
B(config-if)# ipv6 enable
B(config-if)# ospfv3 1 ipv4 area 1

C(config)# interface Ethernet0/1.78
C(config-subif)# encaps dot1q 78
C(config-subif)# ip add 78.1.1.7 255.255.255.0
C(config-subif)# ospfv3 1 ipv4 area 0

D(config-if)# do sh run int e0/1 | b int
D(config-if)# interface Ethernet0/1
D(config-if)# no ip address
D(config-if)# ipv6 address 37::3/64
D(config-if)# ipv6 enable
D(config-if)# ipv6 ospf 1 area 0
    
```

Refer to the exhibit. A network engineer receives a report that Spoke 1 users can perform bank transactions with the server located at the Center site, but Spoke 2 users cannot. Which action resolves the issue?

- A. Configure the Spoke 2 users IP on the router B OSPF domain
- B. Configure encapsulation dot1q 78 on the router C interface.
- C. Configure IPv6 on the routers B and C interfaces
- D. Configure OSPFv2 on the routers B and C interfaces

Answer: C

**NEW QUESTION 160**

- (Exam Topic 3)

```

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

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

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

Answer: B

**NEW QUESTION 165**

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

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

D. Configure feasible distance greater than the reported distance

**Answer:** D

**Explanation:**

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

+ From 192.168.254.2 with FD = 307200 and AD = 281600

+ From 192.168.253.2 with FD = 410200 and AD = 352300

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

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

**NEW QUESTION 168**

- (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 171**

- (Exam Topic 3)

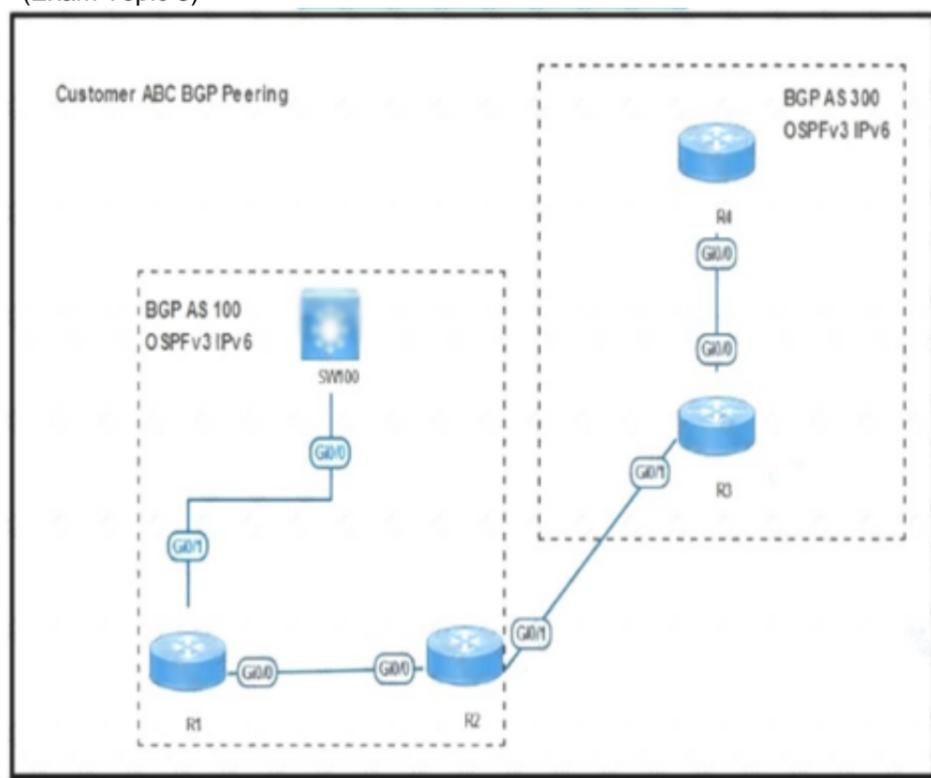
What is a characteristic of IPv6 RA Guard?

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

**Answer:** C

**NEW QUESTION 176**

- (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 181**

- (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.

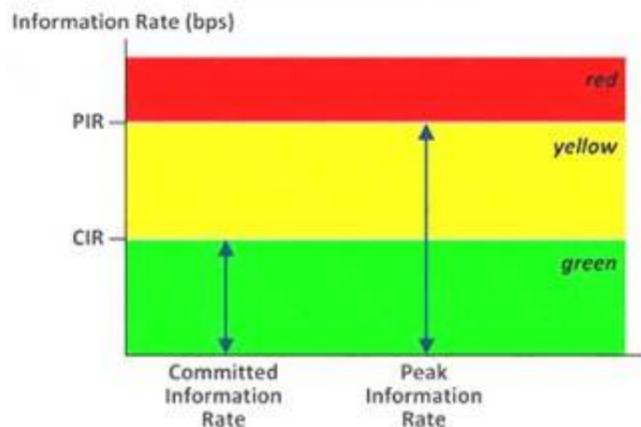
Answer: D

**Explanation:**

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

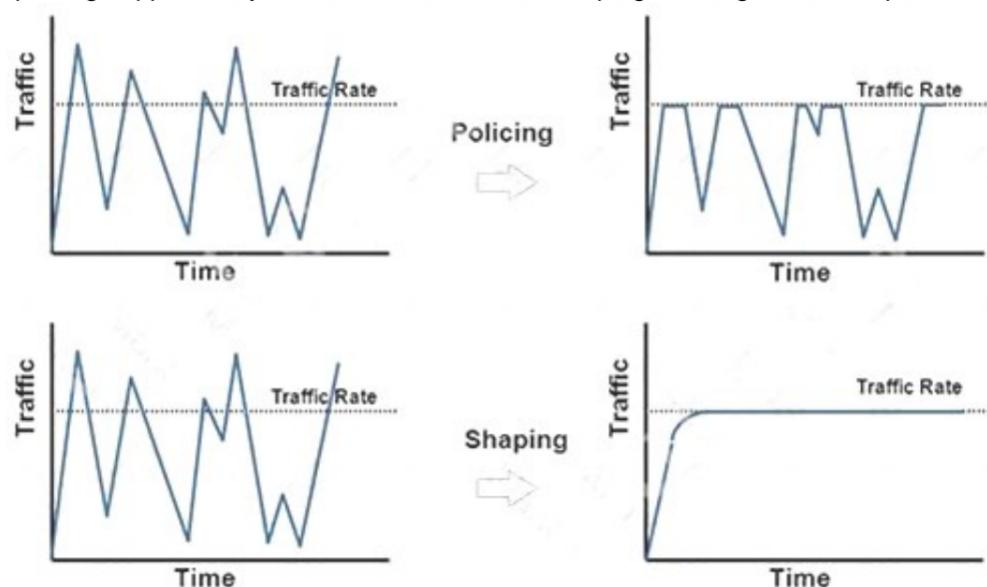
PIR (Peak Information Rate) is the top bandwidth point of allowed traffic in a non busy times without any guarantee.

**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 182**

- (Exam Topic 3)

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

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

Answer: D

**NEW QUESTION 187**

- (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 191**

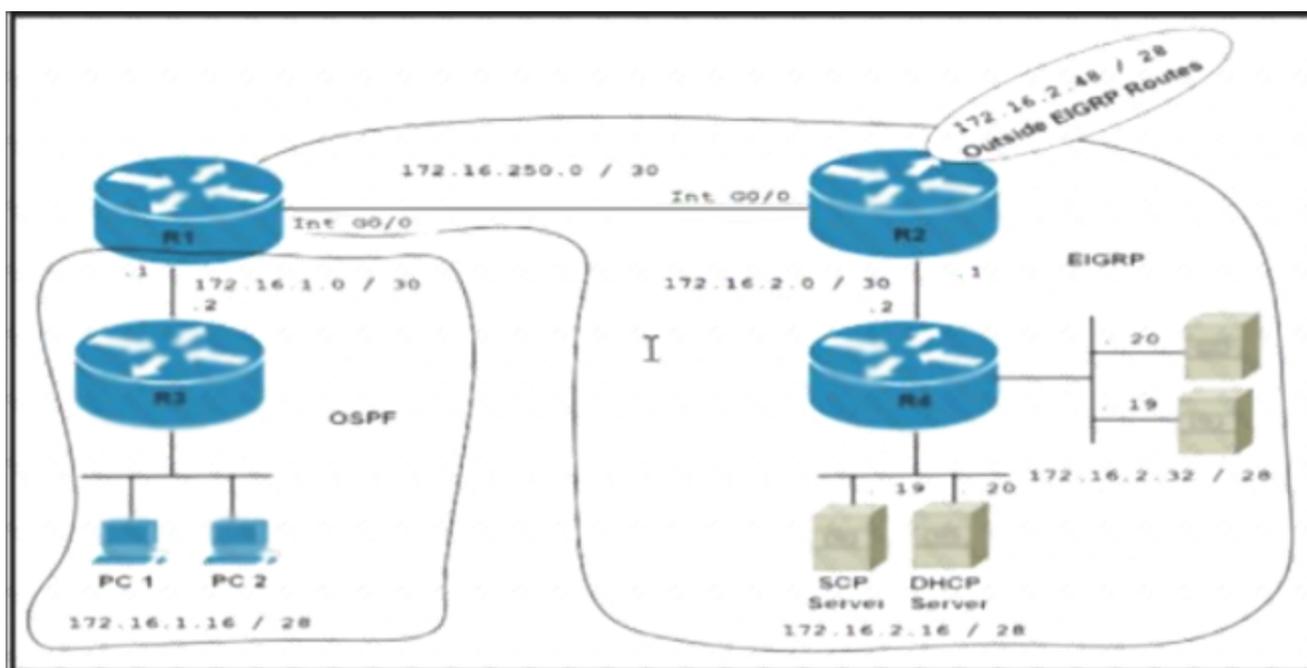
- (Exam Topic 3)

```
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# show 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 194**

- (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 199**

- (Exam Topic 3)

An engineer failed to run diagnostic commands on devices using Cisco DNA Center. Which action in Cisco DNA Center resolves the issue?

- A. Enable Command Runner
- B. Enable APIs
- C. Enable CDP
- D. Enable Secure Shell

Answer: A

**NEW QUESTION 204**

- (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
```

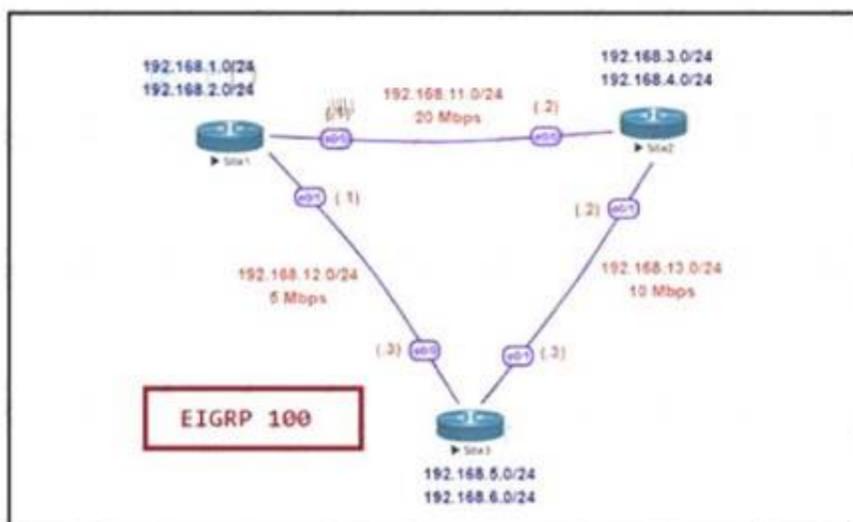
Refer to the exhibit An engineer observes that every time the ICMP packet is lost at a polling interval, track 1 goes down, which causes unnecessary disruption and instability in the network. The engineer does not want the traffic to be rerouted if the loss of ICMP packets is negligible. If the packet 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 207**

- (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
```

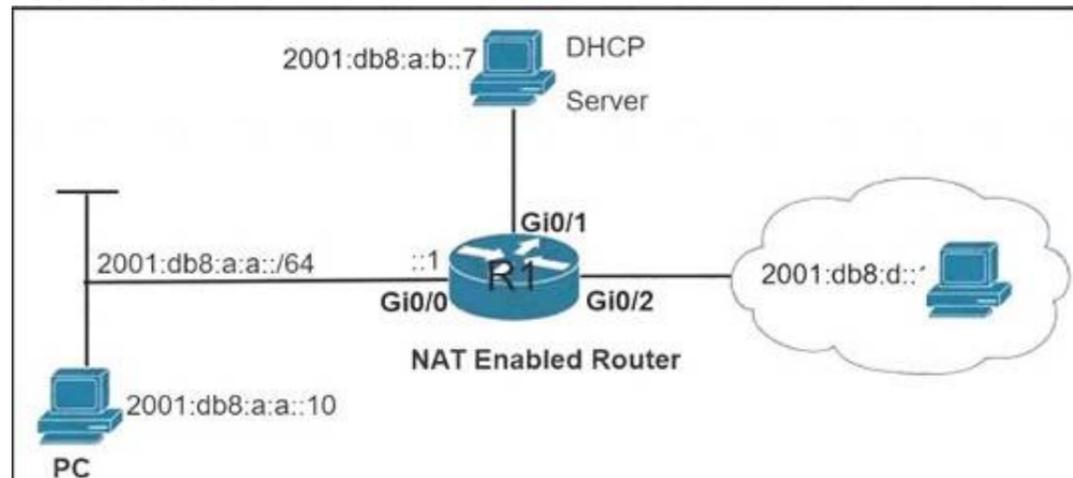
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

**NEW QUESTION 211**

- (Exam Topic 3)

Refer to the exhibit.



```
C:\PC> ping 2001:db8:a:b::7
Pinging 2001:db8:a:b::7 with 32 bytes of data:
Reply from 2001:db8:a:b::7: time=46ms
Reply from 2001:db8:a:b::7: time=40ms
Reply from 2001:db8:a:b::7: time=40ms
Reply from 2001:db8:a:b::7: time=40ms
Ping statistics for 2001:db8:a:b::7:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 40ms, Maximum = 46ms, Average = 41ms

R1# telnet 2001:db8:a:b::7
Trying 2001:DB8:A:B::7 ... Open
User Access Verification
Password:

R1# show ipv6 access-list TSHOOT
IPv6 access list TSHOOT
deny tcp any host 2001:DB8:A:B::7 eq telnet (6 matches) sequence 10
permit tcp host 2001:DB8:A:A::10 host 2001:DB8:A:B::7 eq telnet sequence 20
permit tcp host 2001:DB8:A:A::10 host 2001:DB8:D::1 eq www sequence 30
permit ipv6 2001:DB8:A:A::/64 any (67 matches) sequence 40
```

An engineer is troubleshooting a failed Telnet session from PC to the DHCP server. Which action resolves the issue?

- A. Remove sequence 30 and add it back to the IPv6 traffic filter as sequence 5.
- B. Remove sequence 20 and add it back to the IPv6 traffic filter as sequence 5.
- C. Remove sequence 10 to add the PC source IP address and add it back as sequence 10.
- D. Remove sequence 20 for sequence 40 in the access list to allow Telnet.

**Answer: B**

**NEW QUESTION 214**

- (Exam Topic 3)

Refer to the exhibit.

```
interface Tunnel0
 ip address 172.23.5.10 255.255.255.0
 no ip redirects
 ip mtu 1420
 ip nhrp authentication C@trts81
 ip nhrp map multicast 192.168.200.1
 ip nhrp map 172.23.5.1 192.168.200.1
 ip nhrp network-id 10
 ip nhrp holdtime 300
 ip nhrp shortcut
 ip ospf network broadcast
 ip ospf priority 0
 tunnel source 192.168.100.146
 tunnel mode gre multipoint
 tunnel key 100
```

A network engineer is adding a new spoke router into an existing DMVPN Phase 3 tunnel with a hub router to provide secure communication between sites Which additional configuration must the engineer apply to enable the tunnel to come up?

- A. ip nhrp registration no-unique
- B. ip nhrp server-only non-caching
- C. ip nhrp responder tunnel
- D. ip nhrpnhs 172.23.5.1

**Answer: D**

**NEW QUESTION 217**

- (Exam Topic 3)

```

Lo0: 192.168.1.55
    255.255.255.128

R1
-----
aaa new-model
!
aaa authentication login default line enable
aaa authorization commands 15 default local
!
!
username admin privilege 15 password cisco123!
!
ip ssh version 2
!
access-list 101 permit tcp 192.168.1.0 0.0.0.255 any eq 22
access-list 101 permit tcp 192.168.5.0 0.0.0.255 any range 22 smtp
!
line vty 0 4
  access-class 101 in
  password cisco
  transport input all
  login local
  !
!
Admin PC
-----
ip address:
192.168.1.200
255.255.255.128
  
```

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

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

**Answer: C**

**NEW QUESTION 219**

- (Exam Topic 3)

```

R1
-----
service timestamps debug datetime msec
service timestamps log datetime msec
!
clock timezone EET 2 0
!
end

R1#show clock
*23:50:13.297 EET Sat Nov 14 2020

R1#
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, local feature, Logical MN local(14), rtype 0,
forus FALSE, sendself FALSE, mtu 0, fwdchk FALSE
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, sending broad/multicast
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, sending full packet
*Nov 14 21:50:00.336: IP: s=10.2.2.4 (Ethernet0/1), d=224.0.0.5, len 80, rcvd 0
*Nov 14 21:50:00.336: IP: s=10.2.2.4 (Ethernet0/1), d=224.0.0.5, len 80, input feature, packet consumed, MCI Check(101),
rtype 0, forus FALSE, sendself FALSE, mtu 0, fwdchk FALSE
  
```

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 datebug datetime localtime msec
- D. service timestamps log datetime msec show-timezone

**Answer: B**

**NEW QUESTION 220**

- (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 223**

- (Exam Topic 3)

Refer to the exhibit.

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
!
interface FastEthernet1/0
 Description *** WAN link ***
 ip address 10.0.0.1 255.255.255.0
!
interface FastEthernet1/1
 Description *** LAN Network ***
 ip address 192.168.1.1 255.255.255.0
!
!
router ospf 1
 router-id 4.4.4.4
 log-adjacency-changes
 network 4.4.4.4 0.0.0.0 area 0
 network 10.0.0.1 0.0.0.0 area 0
 network 192.168.1.1 0.0.0.0 area 10
!
```

Which set of commands restore reachability to loopback0?

A)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf network point-to-point
```

B)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf network broadcast
```

C)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf interface area 10
```

D)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf interface type network
```

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

**Answer: A**

**Explanation:**

We tested this config in GNS3 (except the LAN interface) but R1 loopback0 was advertised normally on R2 and R2 could reach this loopback0.

```
R1#sh run | b. interface
interface Loopback0
 ip address 4.4.4.4 255.255.255.0
!
interface FastEthernet0/0
 ip address 10.0.0.1 255.255.255.0
 duplex auto
 speed auto
!
router ospf 1
 log-adjacency-changes
 network 4.4.4.4 0.0.0.0 area 0
 network 10.0.0.1 0.0.0.0 area 0
!
```

```
R2#sh ip route ospf
 4.0.0.0/32 is subnetted, 1 subnets
O    4.4.4.4 [110/2] via 10.0.0.1, 00:41:03, FastEthernet0/0
R2#ping 4.4.4.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.4, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/34/56 ms
```

Note: Although the configured loopback address is 4.4.4.4/24 but by default OSPF will advertise this route to loopback0 as 4.4.4.4/32 (most specific route to that loopback). In order to override this, we have to change the network type to point-to-point. After this OSPF will advertise the address to loopback as 4.4.4.0/24.

**NEW QUESTION 228**

- (Exam Topic 3)

A network administrator performed a Compact Flash Memory upgrade on a Cisco Catalyst 6509 Switch. Everything is functioning normally except SNMP, which was configured to monitor the bandwidth of key interfaces but the interface indexes are changed. Which global configuration resolves the issue?

- A. snmp-server ifindex permanent
- B. snmp ifindex permanent
- C. snmp-server ifindex persist
- D. snmp ifindex persist

**Answer: C**

**Explanation:**

The SNMP ifIndex persistence feature provides an interface index (ifIndex) value that is retained and used when the router reboots. The ifIndex value is a unique identifying number associated with a physical or logical interface. In the following example, SNMP ifIndex persistence is enabled for all interfaces:  
router(config)# snmp-server ifindex persist

**NEW QUESTION 233**

- (Exam Topic 3)

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

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

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

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

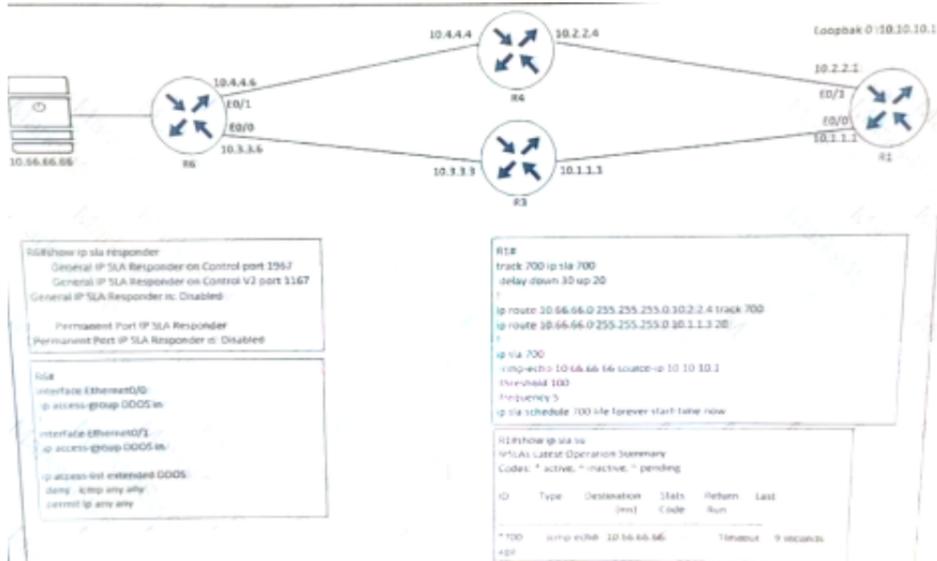
Reference:

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

**NEW QUESTION 238**

- (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 241**

- (Exam Topic 3)

Refer to the exhibit.

```
*Sep 26 19:50:43.504: SNMP: Packet received via UDP from
192.168.1.2 on GigabitEthernet0/1SrParseV3Snmplib: No
matching Engine ID.

SrParseV3Snmplib: Failed.
SrDoSnmplib: authentication failure, Unknown Engine ID

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

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

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

**Answer:** AD

**Explanation:**

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

To specify the Engine ID, we can use the command "show snmp user". The following example specifies the username as abcd with Engine ID: 00000009020000000C025808:

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

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

**NEW QUESTION 243**

- (Exam Topic 3)

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

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

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

```
!
policy-map PM-COPP class CM-ROUTING
police 1000000 conform-action transmit class CM-MGMT
police 500000 conform-action transmit
```

```
!
control-plane
service-policy output PM-COPP
```

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

- A. no access-list 100access-list 100 permit tcp any any eq 179 access-list 100 permit ospf any anyaccess-list 101 Permit tcp any any range 22 23!class-map CM-MGMTno match access-group 100 match access-group 101
- B. control-planeno service-policy output PM-COPP service-policy input PM-COPP
- C. No access-list 100access-list 100 permit tcp any any eq 179 access-list 100 permit tcp any any range eq 22 access-list 100 permit tcp any any range eq 23 access-list 100 permit ospf any any

D. no access-list 100access-list 100 permit tcp any any eq 179 access-list 100 permit ospf any anyaccess-list 101 Permit tcp any any range 22 23!class-map CM-MGMTno match access-group 100 match access-group 101!control-planeno service-policy output PM-COPP service-policy input PM-COPP

Answer: D

**NEW QUESTION 246**

- (Exam Topic 3)

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

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

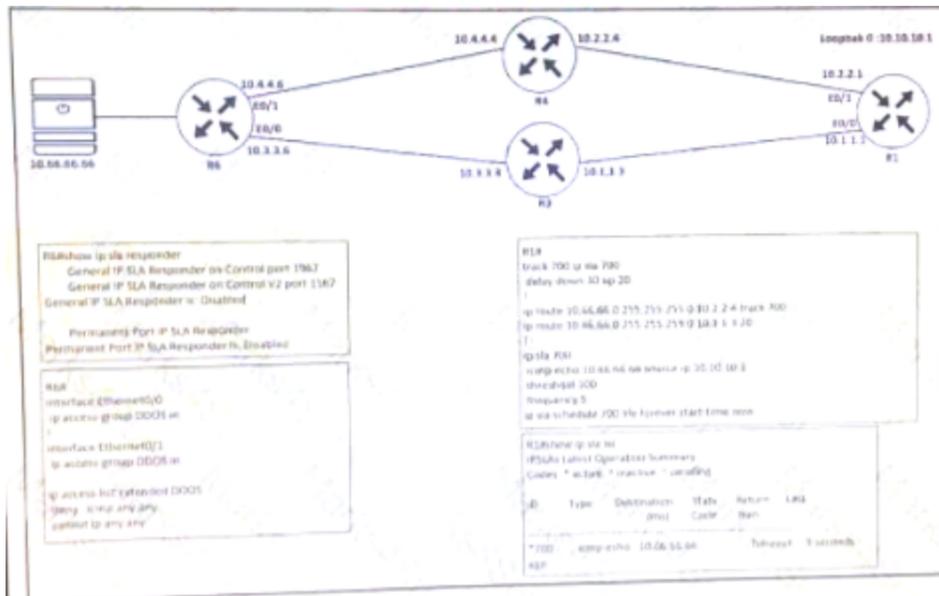
- A. Use the ftp username and ip ftp password configuration commands to specify valid FTP server credentials.
- B. Use the copy flash:packages.conf scp: command instead and enter the FTP server credentials when prompted.
- C. Enter the FTP server credentials directly in the FTP URL using the ftp://username:password@192.0.2.40/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

Answer: AC

**NEW QUESTION 248**

- (Exam Topic 3)

Refer to the exhibit.



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

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

Answer: D

**NEW QUESTION 251**

- (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 252**

- (Exam Topic 3)

How is a preshared key "Test" for all the remote VPN routers configured in a DMVPN using GRE over IPsec set up?

- A. authentication pre-share Test address 0.0.0.0 0.0.0.0
- B. set pre-share Test address 0.0.0.0 0.0.0.0
- C. crypto ipsec key Test address 0.0.0.0 0.0.0.0
- D. crypto isakmp key Test address 0.0.0.0 0.0.0.0

Answer: D

**NEW QUESTION 254**

- (Exam Topic 3)

```
R1#sh run | section eigrp
router eigrp 10
network 10.10.10.0 0.0.0.255
no auto-summary
neighbor 10.10.10.2 FastEthernet0/0
neighbor 10.10.10.3 FastEthernet0/0

R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 10
H   Address          Interface      Hold Uptime    SRTT   RTO   Q
Seq
                               (sec)         (ms)          Cnt
Num
1   10.10.10.2        Fa0/0         10 00:01:01    42    232   0   6
0   10.10.10.3        Fa0/0         10 00:01:03    43    244   0   6
```

Refer to the exhibit The remote branch locations have a static neighbor relationship configured to R1 only R1 has successful neighbor relationships with the remote locations of R2 and R3, but the end users cannot communicate with each other. Which configuration resolves the issue?

- R2
 

```
interface FastEthernet0/0.10
encapsulation dot1Q
ip address 10.10.10.2 255.255.255.0
```
- R3
 

```
interface FastEthernet0/0.10
encapsulation dot1Q
ip address 10.10.10.3 255.255.255.0
```
- R2
 

```
interface FastEthernet0/0.10
encapsulation dot1Q
ip address 10.10.10.2 255.255.255.0
```
- R3
 

```
interface FastEthernet0/0.10
encapsulation dot1Q
ip address 10.10.10.3 255.255.255.0
```
- R2
 

```
interface FastEthernet0/0.10
encapsulation dot1Q 10
ip address 10.10.10.2 255.255.255.0
```
- R3
 

```
interface FastEthernet0/0.10
encapsulation dot1Q 10
ip address 10.10.10.3 255.255.255.0
```
- R2 and R3
 

```
interface FastEthernet0/0
no ip split-horizon eigrp 10
```
- R1
 

```
interface FastEthernet0/0
no ip split-horizon eigrp 10
```

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

**Answer: E**

**NEW QUESTION 256**

- (Exam Topic 3)

Refer to the exhibit.

```
interface GigabitEthernet2
no ip address
ip helper-address 192.168.255.3
no shutdown
!
interface GigabitEthernet2.10
encapsulation dot1Q 210
ip address 192.168.210.1 255.255.255.0
ip ospf 1 area 0
no shutdown
```

With the partial configuration of a router-on-a-stick. Clients in VLAN 10 on Gi2 cannot obtain IP configuration from the central DHCP server is reachable by a successful ping from the route. Which action resolves the issue?

- A. Configure the ip/ip/dhcp pool f and network 192.168..210.0.255.255/0 commands.
- B. Configure the ip header-address 192-168.265.3 command on the Gi2 10 subinterface.
- C. Configure a valid IP address on the Gi2 interface so that DHCP requests can be forwarded.
- D. Configure the Ip dhcp excluded-address 192.168.255.3 command on the Gi1.10 subinterface.

Answer: B

**NEW QUESTION 258**

- (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?

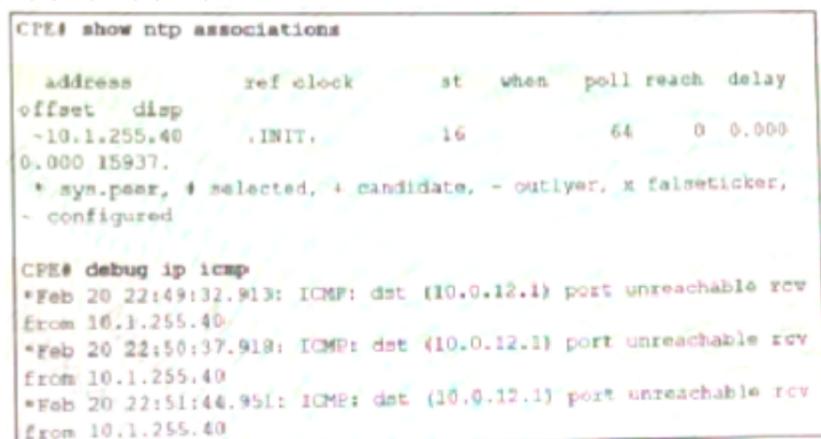
- A. One of the neighbor links is down Bring the interface up by running shut and no shut
- B. One of the interfaces is using the wrong MTU Match interface MTU on both links
- C. An ACL entry blocking multicast on the interfaces Allow multicast through the interface ACL
- D. One of the interfaces is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

Answer: B

**NEW QUESTION 263**

- (Exam Topic 3)

Refer to the exhibit.



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 266**

- (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

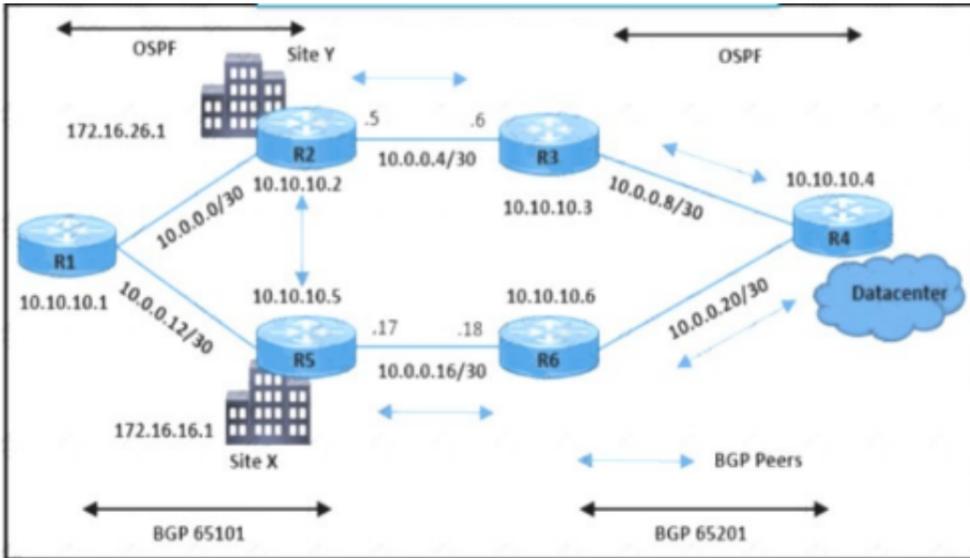
**NEW QUESTION 268**

- (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?

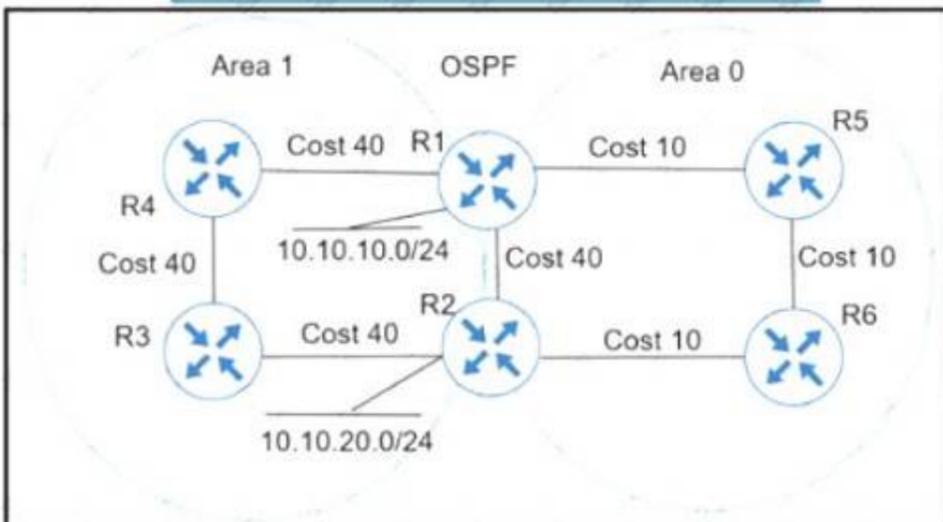
- A) RC(config)# ip prefix-list Customer seq 5 permit 192.168.30.1/32
- B) RC(config)#router bgp 65101  
RC(config-router)# neighbor 10.0.0.18 prefix-list Customer in
- C) RF(config)#no ip prefix-list Customer seq 5 deny 192.168.1.1/32
- D) RF(config)#router bgp 65201  
RF(config-router)# neighbor 10.0.0.17 prefix-list Customer out

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

Answer: C

**NEW QUESTION 270**

- (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 273**

- (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 277**

- (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 (3192 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 280**

- (Exam Topic 3)

```
GigabitEthernet2 is up, line protocol is up
Internet Address 172.16.1.42/30, Interface ID 8, Area 1
Attached via Network Statement
Process ID 1, Router ID 172.16.100.7, Network Type BROADCAST, Cost: 1
Topology-MTID Cost Disabled Shutdown Topology Name
0 1 no no Base
Transmit Delay is 1 sec, State DR, Priority 1
Designated Router (ID) 172.16.100.7, Interface address 172.16.1.42
Backup Designated router (ID) 172.16.100.5, Interface address 172.16.1.41
Timer intervals configured, Hello 10, Dead 40, wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:01

Neighbor Count is 1, Adjacent neighbor count is 1
Adjacent with neighbor 172.16.100.5 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
Cryptographic authentication enabled
Sending SA: key 1, Algorithm HMAC-SHA-256 - key chain ospf
Rollover in progress, 1 neighbor(s) using the old key(s):
key id 1 algorithm MD5

CSR103#
CSR103#
CSR103#sh ip ospf nei

Neighbor ID Pri State Dead Time Address Interface
172.16.100.3 1 FULL/DR 00:00:30 172.16.1.25 GigabitEthernet3
172.16.100.5 1 FULL/BDR 00:00:16 172.16.1.41 GigabitEthernet2
CSR103#
CSR103#
*Jan 11 16:49:35.311: %SYS-6-LOGOUT: User admin has exited tty session 1(10.228.200.250)
*Jan 11 16:49:45.396: %OSPF-5-ADJCHG: Process 1, Nbr 172.16.100.5 on GigabitEthernet2 from FULL to DOWN, Neighbor Down: Dead timer expired
```

Refer to the exhibit. Which configuration resolves the issue?

A)

```
router ospf 1
area 1 authentication message-digest
int GigabitEthernet 2
ip ospf message-digest-key 1 md5 cisco
```

B)

```
int GigabitEthernet 2
ip ospf message-digest-key 1 md5 cisco
ip ospf authentication message-digest
```

C)

```
int GigabitEthernet 2
ip ospf key 1 cisco
ip ospf authentication
```

D)

```
key chain ospf
key 1
key-string 7 02050D480809
cryptographic-algorithm hmac-sha-1
interface GigabitEthernet2
ip ospf authentication key-chain ospf
```

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

Answer: D

**NEW QUESTION 285**

- (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?

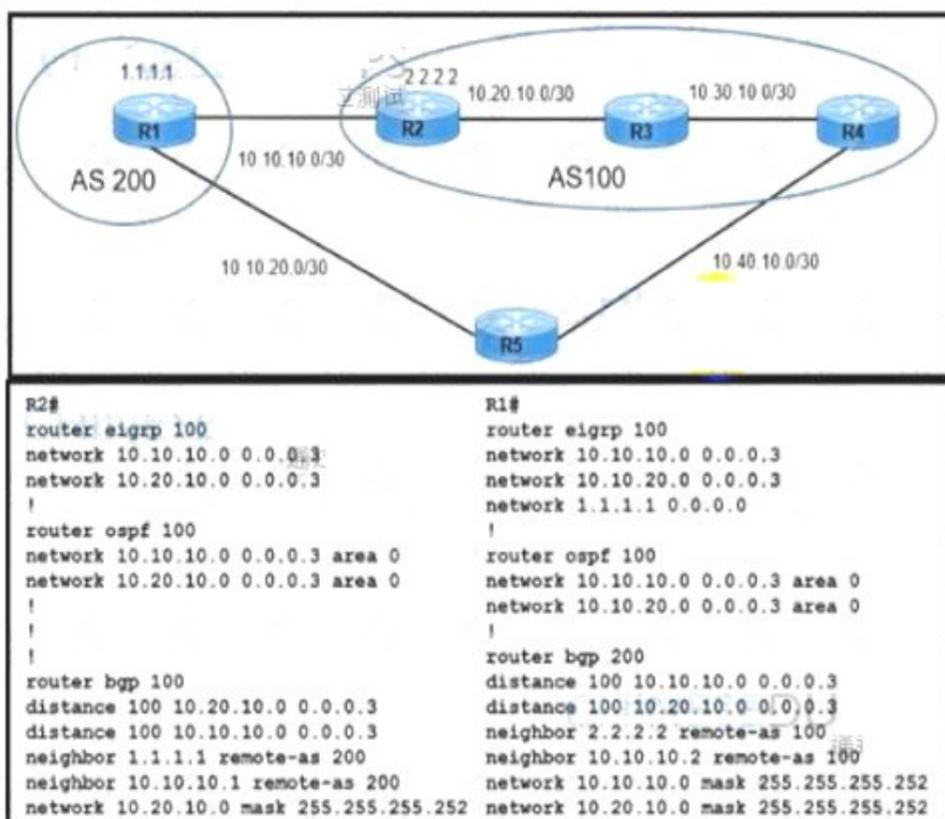
- A. A permit 20 statement should be added before completing the ACL with the required prefixes, and then the permit 20 statement can be removed.
- B. A permit any statement should be added before completing the ACL with the required prefixes and then the permit any statement can be removed.
- C. A continue 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 290**

- (Exam Topic 3)

Refer to the Exhibit.



R1 and R2 use IGP protocol to route traffic between AS 100 and AS 200 despite being configured to use BGP. Which action resolves the issue and ensures the use of BGP?

- A. Configure distance to 100 under the EIGRP process of R1 and R2.
- B. Remove distance commands under BGP AS 100 and AS 200.
- C. Remove distance commands under BGP AS 100.
- D. Configure distance to 100 under the OSPF process of R1 and R2

**Answer: B**

**NEW QUESTION 293**

- (Exam Topic 3)

Refer to the exhibit.

```
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.
```

Which command must be configured to make VRF CCNP work?

- A. interface Loopback0 vrf forwarding CCNP
- B. interface Loopback0 ip address 10.1.1.1 255.255.255.0
- C. interface Loopback0 ip address 10.1.1.1 255.255.255.0 vrf forwarding CCNP
- D. interface Loopback0 ip address 10.1.1.1 255.255.255.0 ip vrf forwarding CCNP

Answer: B

**Explanation:**

From the exhibit, we learn that the command "ip address 10.1.1.1 255.255.255.0" has been issued before the command "ip vrf forwarding CCNP". But the second command removed the IP address configured in the first command so we have to retype the IP address command.

**NEW QUESTION 295**

- (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 298**

- (Exam Topic 3)

What is an advantage of implementing BFD?

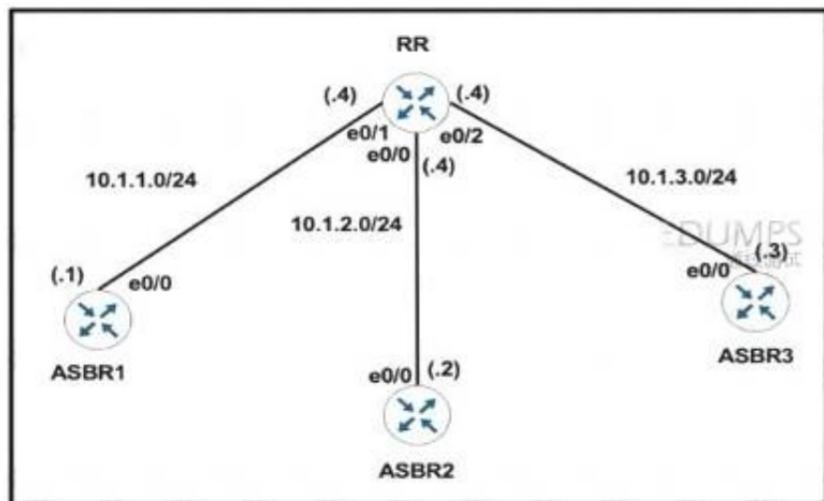
- A. BFD provides faster updates for any flapping route.
- B. BFD provides millisecond failure detection
- C. BFD is deployed without the need to run any routing protocol
- D. BFD provides better capabilities to maintain the routing table

Answer: B

**NEW QUESTION 300**

- (Exam Topic 3)

Refer to the exhibit.



RR Configuration:

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

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

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

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

**Answer: D**

**NEW QUESTION 302**

- (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 303**

- (Exam Topic 3)

Refer to the exhibit.

```
access-list 1 permit 209.165.200.215
access-list 2 permit 209.165.200.216
!
interface ethernet 1
ip policy route-map Texas
!
route-map Texas permit 10
match ip address 1
set ip precedence priority
set ip next-hop 209.165.200.217
!
route-map Texas permit 20
match ip address 2
set ip next-hop 209.165.200.218
```

Packets arriving from source 209.165.200.215 must be sent with the precedence bit set to 1, and packets arriving from source 209.165.200.216 must be sent with the precedence bit set to 5. Which action resolves the issue?

- A. set ip precedence critical in route-map Texas permit 10
- B. set ip precedence critical in route-map Texas permit 20
- C. set ip precedence immediate in route-map Texas permit 10
- D. set ip precedence priority in route-map Texas permit 20

**Answer: B**

**NEW QUESTION 307**

- (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?

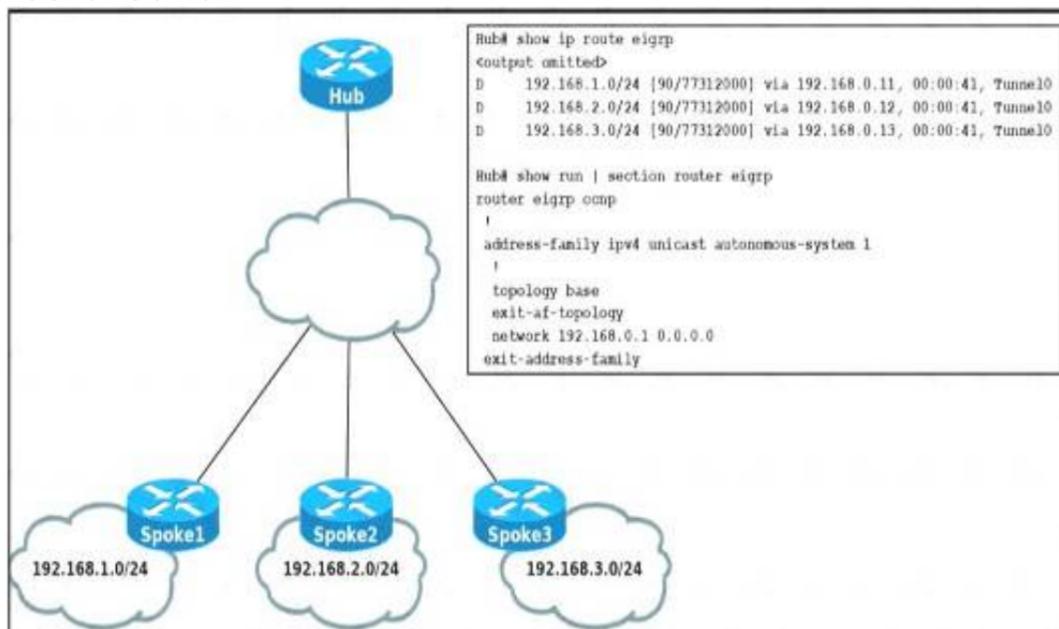
- A. Replace OSPF process 10 on the interface with OSPF process 1, and configure an additional router ID with IPv6 address.
- B. Replace OSPF process 10 on the interface with OSPF process 1, for the VPv6 address and remove process route ID with IPv6 address.
- C. Replace OSPF process 10 on the interface 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 309**

- (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 311**

- (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.

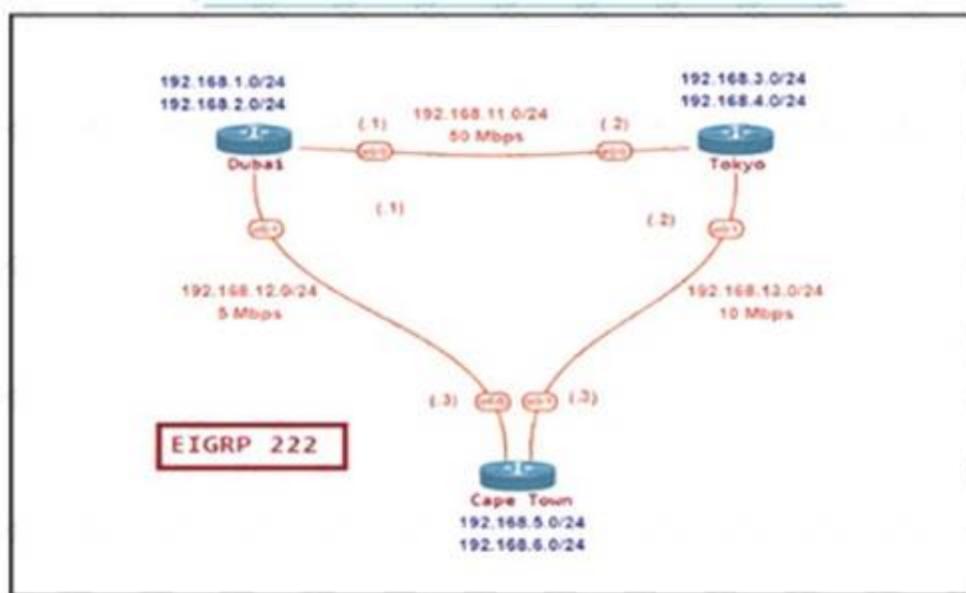
- C. Change the R2 hello timer to 20.
- D. Change the R1 hello timer to 20.

Answer: A

**NEW QUESTION 314**

- (Exam Topic 3)

Refer to the exhibit.



D	192.168.2.0/24 [90/4096000] via 192.168.12.1, 00:09:11, Ethernet0/0
D	192.168.3.0/24 [90/409600] via 192.168.13.2, 00:17:23, Ethernet0/1
D	192.168.4.0/24 [90/409600] via 192.168.13.2, 00:17:23, Ethernet0/1
	192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C	192.168.5.0/24 is directly connected, Loopback0
L	192.168.5.1/32 is directly connected, Loopback0
	192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C	192.168.6.0/24 is directly connected, Loopback1
L	192.168.6.1/32 is directly connected, Loopback1
D	192.168.11.0/24 [90/307200] via 192.168.13.2, 00:17:40, Ethernet0/1
	[90/307200] via 192.168.12.1, 00:17:40, Ethernet0/0
	192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C	192.168.12.0/24 is directly connected, Ethernet0/0
L	192.168.12.3/32 is directly connected, Ethernet0/0
	192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C	192.168.13.0/24 is directly connected, Ethernet0/1
L	192.168.13.3/32 is directly connected, Ethernet0/1

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

A)

**Dubai**

```
router eigrp 100
variance 2
```

B)

**Cape Town**

```
router eigrp 100
variance 2
```

C)

**Cape Town**

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

D)

**CapeTown**

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

**Dubai**

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

**Tokyo**

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

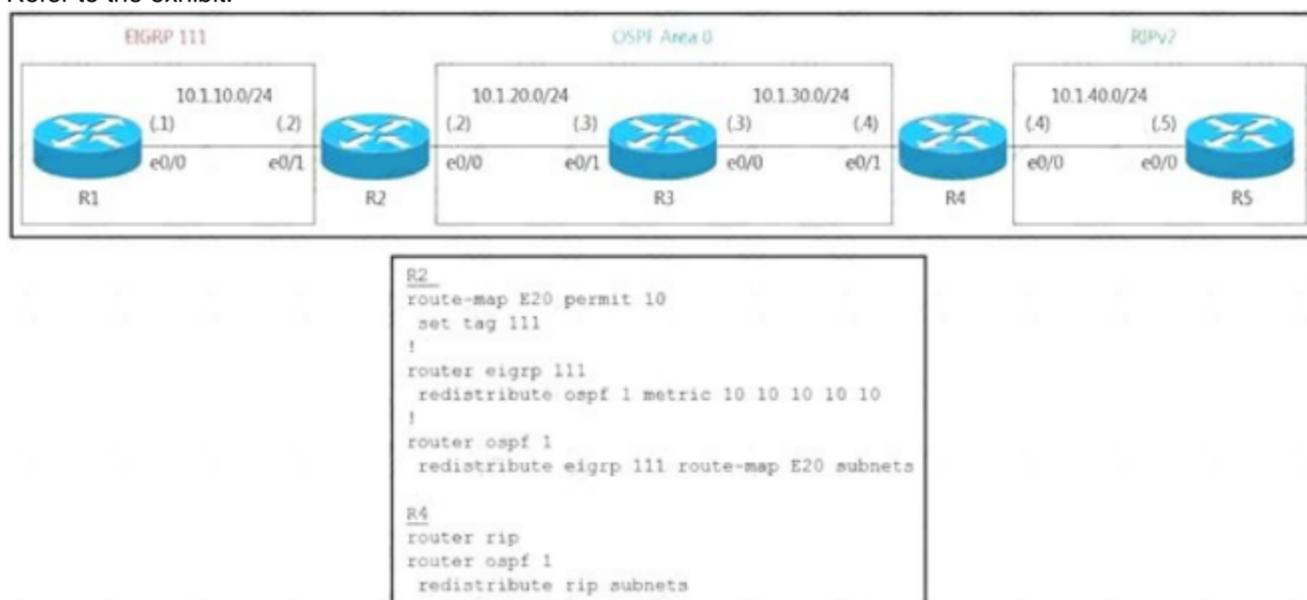
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: D**

**NEW QUESTION 319**

- (Exam Topic 3)

Refer to the exhibit.



R5 should not receive any routes originated in the EIGRP domain. Which set of configuration changes removes the EIGRP routes from the R5 routing table to fix the issue?

- A. R4route-map O2R deny 10 match tag 111route-map O2R permit 20!router ripredistribute ospf 1 route-map O2R metric 1
- B. R2route-map E20 deny 20 R4route-map O2R deny 10 match tag 111!router ripredistribute ospf 1 route-map O2R metric 1
- C. R4route-map O2R permit 10 match tag 111route-map O2R deny 20!router ripredistribute ospf 1 route-map O2R metric 1
- D. R4route-map O2R deny 10 match tag 111!router ripredistribute ospf 1 route-map O2R metric 1

**Answer: A**

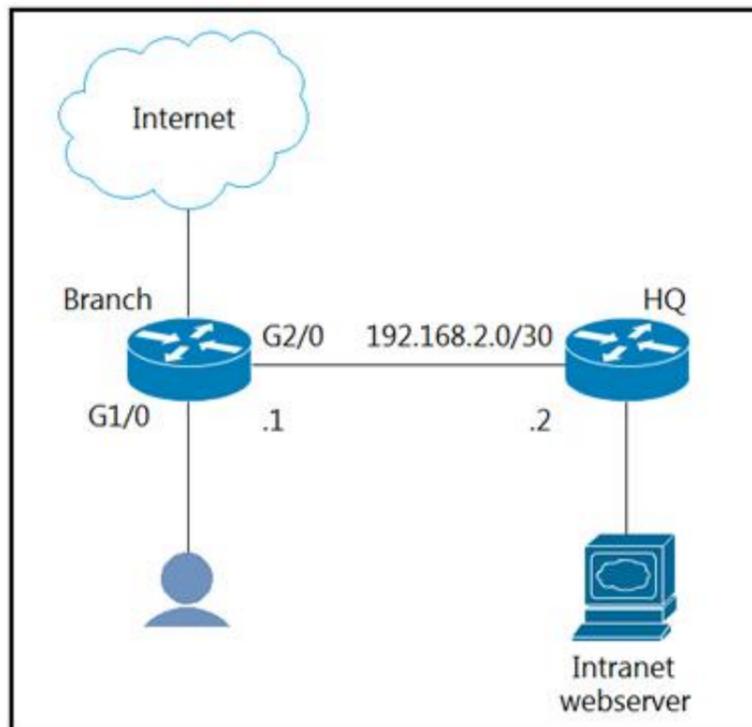
**Explanation:**

In this question, routes from EIGRP domain are redistributed into OSPF (with tag 111) then RIPv2 but without any filtering so R5 learns all routes from both EIGRP and OSPF domain. If we only want R5 to learn routes from OSPF domain then we must filter out routes with tag 111 and permit other routes. The line "route-map O2R permit 20" is important to allow other routes because of the implicit deny all at the end of each route-map.

**NEW QUESTION 321**

- (Exam Topic 3)

Refer to the exhibit.



The branch router is configured with a default route toward the internet and has no routes configured for the HQ site that is connected through interface G2/0. The HQ router is fully configured and does not require changes. Which configuration on the branch router makes the intranet website (TCP port 80) available to the branch office users?

A)

```
access-list 100 permit tcp any host intranet-webserver-ip eq 80
|
route-map pbr permit 10
match ip address 100
set ip next-hop 192.168.2.2
|
interface G2/0
ip policy route-map pbr
```

B)

```
access-list 101 permit tcp any any eq 80
access-list 102 permit tcp any host intranet-webserver-ip
|
route-map pbr permit 10
match ip address 101 102
set ip next-hop 192.168.2.2
|
interface G1/0
ip policy route-map pbr
```

C)

```
access-list 101 permit tcp any any eq 80
access-list 102 permit tcp any host intranet-webserver-ip
|
route-map pbr permit 10
match ip address 101
set ip next-hop 192.168.2.2
route-map pbr permit 20
match ip address 102
set ip next-hop 192.168.2.2
|
interface G2/0
ip policy route-map pbr
```

D)

```
access-list 100 permit tcp host intranet-webserver-ip eq 80 any
|
route-map pbr permit 10
match ip address 100
set ip next-hop 192.168.2.2
|
interface G1/0
ip policy route-map pbr
```

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

**Answer: B**

**Explanation:**

the ACL 101 matches all HTTP packets while the ACL 102 matches TCP packets destined to Intranet webserver. These packets will be sent to HQ router. If a match command refers to several objects in one command, either of them should match (the logical OR algorithm is applied). For example, in the match ip address 101 102 command, a route is permitted if it is permitted by access list 101 or access list 102.

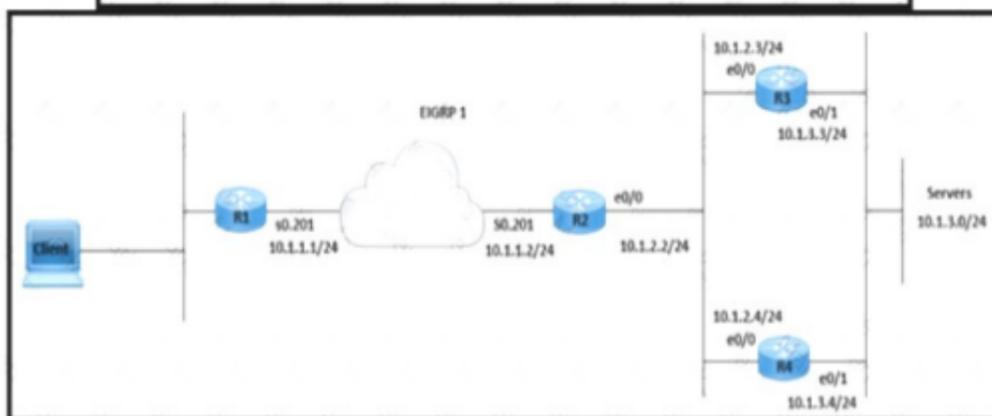
**NEW QUESTION 322**

- (Exam Topic 3)

Exhibit.

```
R2# show ip eigrp topology 10.1.3.0 255.255.255.0

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



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

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

**Answer: C**

**NEW QUESTION 323**

- (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 325**

- (Exam Topic 3)

Which router attaches the VPN label to incoming packets from CE routing?

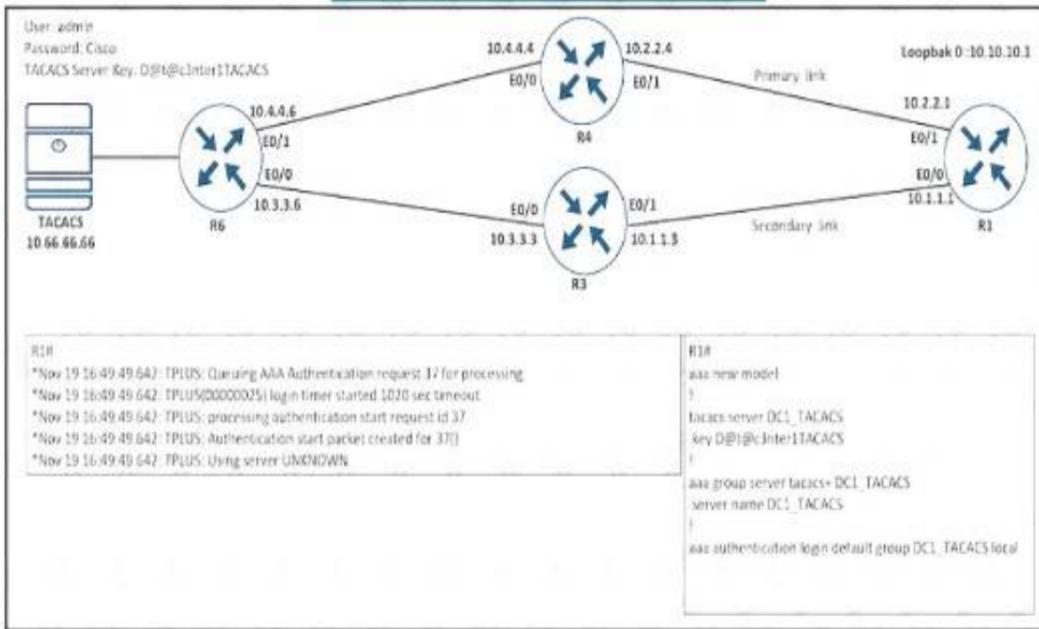
- A. CE router
- B. core router
- C. P router
- D. PE router

**Answer: D**

**NEW QUESTION 326**

- (Exam Topic 3)

Refer to the exhibit.



Refer to the exhibit  
R1 cannot authenticate via TACACS  
Which configuration resolves the issue?

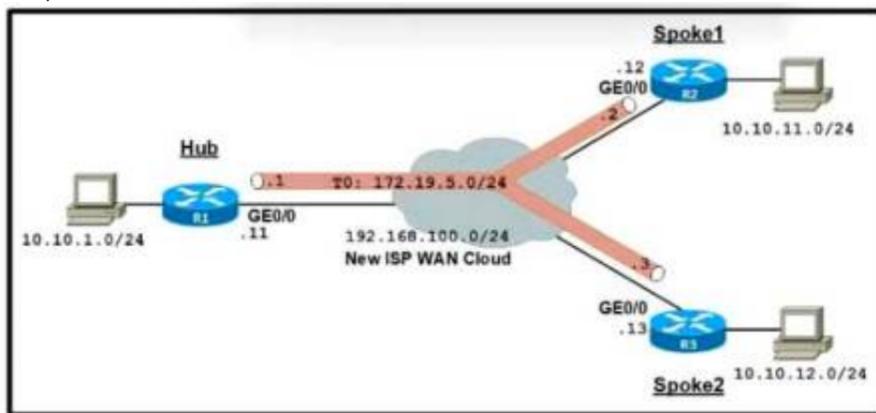
- aaa group server tacacs+ DC\_TACACS  
server name DC\_TACACS
- tacacs server DC1\_TACACS  
address ipv4 10.66.66.66  
key D@t@c3nter1TACACS
- aaa group server tacacs+ DC1\_TACACS  
server name DC\_TACACS
- tacacs server DC1\_TACACS  
address ipv4 10.60.66.66  
key D@t@c3nter1TACACS

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

Answer: B

**NEW QUESTION 329**

- (Exam Topic 3)



```

R1
interface Tunnel0
ip address 172.19.5.1 255.255.255.0
ip nhrp authentication t8li$C0
ip nhrp map multicast dynamic
ip nhrp network-id 10
ip ospf network broadcast
ip ospf priority 255
tunnel source 192.168.100.11
tunnel mode gre multipoint
tunnel key 100

R2
interface Tunnel0
ip address 172.19.5.2 255.255.255.0
ip nhrp authentication t8li$C0
ip nhrp map multicast 192.168.100.11
ip nhrp map 172.19.5.1 192.168.100.11
ip nhrp network-id 10
ip ospf network broadcast
ip ospf priority 0
tunnel source 192.168.100.12
tunnel destination 192.168.100.11
tunnel key 100

R3
interface Tunnel0
ip address 172.19.5.3 255.255.255.0
ip nhrp authentication t8li$C0
ip nhrp map multicast 192.168.100.11
ip nhrp map 172.19.5.1 192.168.100.11
ip nhrp network-id 10
ip ospf network broadcast
ip ospf priority 0
tunnel source 192.168.100.13
tunnel destination 192.168.100.11
tunnel key 100
    
```

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 333**

- (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 1011.2 and lower than 1011.2 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 1011.2 and higher than 1011.2 between RtrA and the destination

**Answer: A**

**NEW QUESTION 337**

- (Exam Topic 3)

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

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

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

Link ID      ADV Router  Age      Seq#      Checksum Tag
198.51.100.0 192.168.0.1 14       0x80000001 0x0007D0 0
203.0.113.0  192.168.0.1 14       0x80000001 0x009C5C 0
```

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

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

**Answer: D**

**NEW QUESTION 341**

- (Exam Topic 3)

Refer to the exhibit.

```

aaa new-model
aaa group server radius RADIUS-SERVERS
aaa authentication login default group RADIUS-SERVERS local
aaa authentication enable default group RADIUS-SERVERS enable
aaa authorization exec default group RADIUS-SERVERS if-authenticated
aaa authorization network default group RADIUS-SERVERS if-authenticated
aaa accounting send stop-record authentication failure
aaa session-id common
!
line con 0
logging synchronous
stopbits 1
line vty 0 4
logging synchronous
transport input ssh

```

A network administrator successfully logs in to a switch using SSH from a (RADIUS server When the network administrator uses a console port to access the switch the RADIUS server returns shell:priv-lvl=15" and the switch asks to enter the enable command \ the command is entered, it gets rejected. Which command set is used to troubleshoot and resolve this issue?

- A. line con 0aaa authorization console authorization exec!line vty 0 4 transport input ssh
- B. line con 0aaa authorization console!line vty 0 4 authorization exec
- C. line con 0aaa authorization console priv15!line vty 0 4 authorization exec
- D. line con 0aaa authorization console authorization priv15!line vty 0 4 transport input ssh

**Answer:** A

**NEW QUESTION 345**

- (Exam Topic 3)

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

- At the hub router:  
**interface tunnel10**  
**ip nhrp nhs multicast dynamic**  
**ip nhrp nhs shortcut**  
**tunnel mode gre multipoint**  
  
 On the spokes router:  
**interface tunnel10**  
**ip nhrp nhs multicast dynamic**  
**ip nhrp nhs redirect**  
**tunnel mode gre multipoint**
- At the hub router:  
**interface tunnel10**  
**ip nhrp map multicast dynamic**  
**ip nhrp redirect**  
**tunnel mode gre multipoint**  
  
 On the spokes router:  
**interface tunnel10**  
**ip nhrp map multicast dynamic**  
**ip nhrp shortcut**  
**tunnel mode gre multipoint**
- At the hub router:  
**interface tunnel10**  
**ip nhrp nhs dynamic multipoint**  
**ip nhrp nhs shortcut**  
**tunnel mode gre multicast**  
  
 On the spokes router:  
**interface tunnel10**  
**ip nhrp nhs multicast dynamic**  
**ip nhrp nhs redirect**  
**tunnel mode gre multicast**

```

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

```

A. Option A

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

**Answer:** B

**NEW QUESTION 349**

- (Exam Topic 2)

What are two functions of LDP? (Choose two.)

- A. It is defined in RFC 3038 and 3039.
- B. It requires MPLS Traffic Engineering.
- C. It advertises labels per Forwarding Equivalence Class.
- D. It must use Resource Reservation Protocol.
- E. It uses Forwarding Equivalence Class

**Answer:** CE

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5\\_x/nx-os/mpls/configuration/guide/mpls\\_cg/mp](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nx-os/mpls/configuration/guide/mpls_cg/mp)

**NEW QUESTION 350**

- (Exam Topic 2)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 351**

- (Exam Topic 2)

Refer to the exhibit.

```

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

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

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

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

**Answer: C**

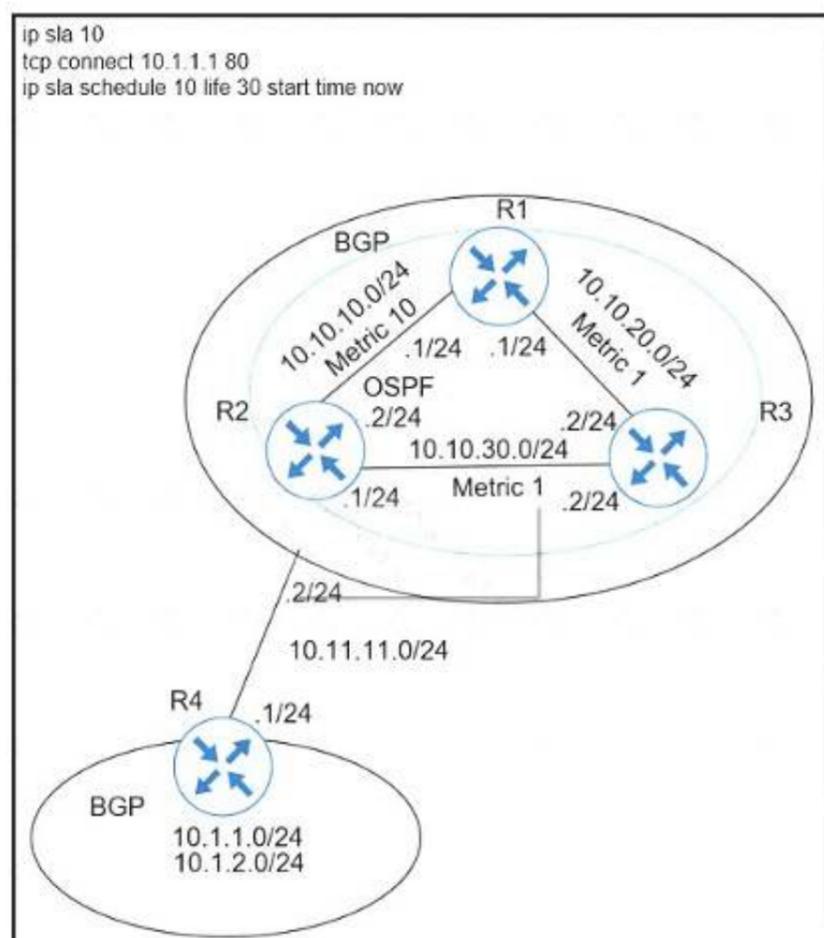
**Explanation:**

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

**NEW QUESTION 356**

- (Exam Topic 2)

Refer to the exhibit.



A user has set up an IP SLA probe to test if a non-SLA host web server on IP address 10.1.1.1 accepts HTTP sessions prior to deployment. The probe is failing. Which action should the network administrator recommend for the probe to succeed?

- A. Re-issue the ip sla schedule command.
- B. Add icmp-echo command for the host.
- C. Add the control disable option to the tcp connect.
- D. Modify the ip sla schedule frequency to forever.

**Answer: C**

**NEW QUESTION 359**

- (Exam Topic 2)

When determining if a system is capable of support, what is the minimum time spacing required for a BFD control packet to receive once a control packet is arrived?

- A. Desired Min TX Interval
- B. Detect Mult
- C. Required Min RX Interval
- D. Required Min Echo RX Interval

**Answer: C**

**Explanation:**

Required Min RX Interval: This is the minimum interval, in microseconds, between received BFD Control packets that this system is capable of supporting.  
Reference: [https://www.cisco.com/en/US/technologies/tk648/tk365/tk480/technologies\\_white\\_paper0900aecd80244005.ht](https://www.cisco.com/en/US/technologies/tk648/tk365/tk480/technologies_white_paper0900aecd80244005.ht)

**NEW QUESTION 360**

- (Exam Topic 2)

```

R1
interface Loopback0
 ip address 172.16.1.1 255.255.255.255
interface FastEthernet0/0
 ip address 192.168.12.1 255.255.255.0
router eigrp 100
 no auto-summary
 network 192.168.12.0
 network 172.16.0.0
 neighbor 192.168.12.2 FastEthernet0/0

R2
interface Loopback0
 ip address 172.16.2.2 255.255.255.255
interface FastEthernet0/0
 ip address 192.168.12.2 255.255.255.0
router eigrp 100
 network 192.168.12.0
 network 172.16.0.0
 neighbor 192.168.12.1 FastEthernet0/0
 passive-interface FastEthernet0/0

```

Refer to the exhibit. R1 and R2 cannot establish an EIGRP adjacency. Which action establishes EIGRP adjacency?

- A. Remove the current autonomous system number on one of the routers and change to a different value.
- B. Remove the passive-interface command from the R2 configuration so that it matches the R1 configuration.
- C. Add the no auto-summary command to the R2 configuration so that it matches the R1 configuration.
- D. Add the passive-interface command to the R1 configuration so that it matches the R2 configuration.

**Answer: B**

**NEW QUESTION 362**

- (Exam Topic 2)

How does an MPLS Layer 3 VPN function?

- A. set of sites use multiprotocol BGP at the customer site for aggregation
- B. multiple customer sites interconnect through service provider network to create secure tunnels between customer edge devices
- C. set of sites interconnect privately over the Internet for security
- D. multiple customer sites interconnect through a service provider network using customer edge to provider edge connectivity

**Answer: D**

**Explanation:**

A Multiprotocol Label Switching(MPLS) Layer 3 Virtual Private Network (VPN) consists of a set of sites that are interconnected by means of an MPLS provider core network. At each customer site, one or more customer edge (CE) routers attach to one or more provider edge (PE) routers. Reference: [https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-5/lxvpn/configuration/guide/b-l3vpn-cg-asr9000-65x/b-l3vpn-cg-asr9000-65x\\_chapter\\_010.pdf](https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-5/lxvpn/configuration/guide/b-l3vpn-cg-asr9000-65x/b-l3vpn-cg-asr9000-65x_chapter_010.pdf)

**NEW QUESTION 366**

- (Exam Topic 2)

What are two characteristics of VRF instance? (Choose two.)

- A. All VRFs share customers routing and CEF tables .
- B. An interface must be associated to one VRF.
- C. Each VRF has a different set of routing and CEF tables
- D. It is defined by the VPN membership of a customer site attached to a P device.
- E. A customer site can be associated to different VRFs

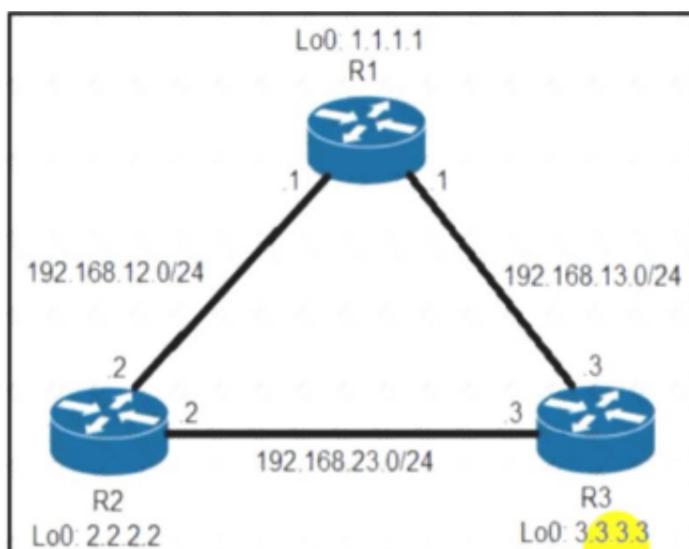
**Answer: BC**

**Explanation:**

Reference:  
[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipswitch\\_cef/configuration/xs-3s/isw-cef-xe-3s-book/isw-cef](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipswitch_cef/configuration/xs-3s/isw-cef-xe-3s-book/isw-cef)  
[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_l3\\_vpns/configuration/15-s/mp-l3-vpns-15-s-book/mp-b](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_l3_vpns/configuration/15-s/mp-l3-vpns-15-s-book/mp-b)

**NEW QUESTION 368**

- (Exam Topic 2)



```
R2#show ip protocols | include eigrp|Maximum
Routing Protocol is "eigrp 1"
  Maximum path: 4
  Maximum hopcount 100
  Maximum metric variance 1

R2#show ip eigrp topology 192.168.13.0/24
EIGRP-IPv4 Topology Entry for AS(1)/ID(2.2.2.2) for 192.168.13.0/24
State is Passive, Query origin flag is 1, 1 Successor(s), FD is 1075200
Descriptor Blocks
192.168.23.3 (FastEthernet0/1), from 192.168.23.3, Send flag is 0x0
  Composite metric is (1075200/281600), route is Internal
  Vector metric:
    Minimum bandwidth is 2500 Kbit
    Total delay is 2000 microseconds
    Reliability is 255/255
    Load is 255/255
    Minimum MTU is 1500
    Hop count is 1
    Originating router is 3.3.3.3
192.168.12.1 (FastEthernet0/0), from 192.168.12.1, Send flag is 0x0
  Composite metric is (2611200/281600), route is Internal
  Vector metric:
    Minimum bandwidth is 1000 Kbit
    Total delay is 2000 microseconds
    Reliability is 255/255
    Load is 1/255
    Minimum MTU is 1500
    Hop count is 1
    Originating router is 1.1.1.1

R2#show ip route 192.168.13.0
Routing entry for 192.168.13.0/24
  Known via "eigrp 1", distance 90, metric 1075200, type internal
  Redistributing via eigrp 1
  Last update from 192.168.23.3 on FastEthernet0/1, 00:00:57 ago
  Routing Descriptor Blocks
  * 192.168.23.3, from 192.168.23.3, 00:00:57 ago, via FastEthernet0/1
    Route metric is 1075200, traffic share count is 1
    Total delay is 2000 microseconds, minimum bandwidth is 2500 Kbit
    Reliability 255/255, minimum MTU 1500 bytes
    Loading 255/255, Hops 1
```

Refer to the exhibit. R2 has two paths to reach 192.168.13.0/24. but traffic is sent only through R3. Which action allows traffic to use both paths?

- A. Configure the bandwidth 2000 command under interface FastEthernet0/0 on R2.
- B. Configure the variance 4 command under the EIGRP process on R2.
- C. Configure the delay 1 command under interface FastEthernet0/0 on R2.
- D. Configure the variance 2 command under the EIGRP process on R2

**Answer: B**

**Explanation:**

From the output of the “show ip eigrp topology ...” command, we notice network 192.168.13.0/24 was learned via two routes:+ From 192.168.23.3 (R3) with FD = 1075200 and AD = 281600+ From 192.168.12.1 (R1) with FD = 2611200 and AD = 281600

From the output of the “show ip route ...” command, we learned that the best (and chosen) path is via 192.168.23.3 (R3).

To use both paths (called unequal cost load balancing) with EIGRP, the second path via R1 must satisfy the feasibility condition. The feasibility condition states that, theAdvertised Distance (AD) of a route must be lower than the feasible distance of the current successor route.

In this case, the second path satisfies the feasible condition as its AD (281600) is smaller than the FD (1075200) of the best path. Therefore we can configure loadbalancing with “variance” command.

In other words, EIGRP will install all paths with metric < variance \* best\_metric into the local routing table, provided that it meets the feasibility condition to preventrouting loop. Therefore we can calculate the variance

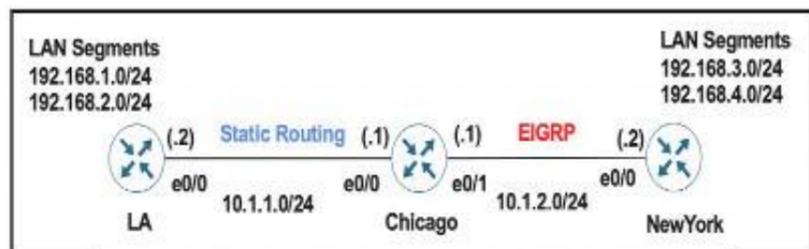
$$> \text{metric} / \text{best\_metric} = 2611200 / 1075200 = 2.4.$$

So with a variance greater than 2 (and must be an integer), we can load balance traffic to network 192.168.13.0/24.

**NEW QUESTION 373**

- (Exam Topic 2)

Refer to the exhibits.



```

Chicago Router

ip route 192.168.1.0 255.255.255.0 10.1.1.2
ip route 192.168.2.0 255.255.255.0 10.1.1.2
!
router eigrp 100
 redistribute static

LA Router

ip route 0.0.0.0 0.0.0.0 10.1.1.1
    
```

A user on the 192.168.1.0/24 network can successfully ping 192.168.3.1, but the administrator cannot ping 192.168.3.1 from the LA router. Which set of configurations fixes the issue?

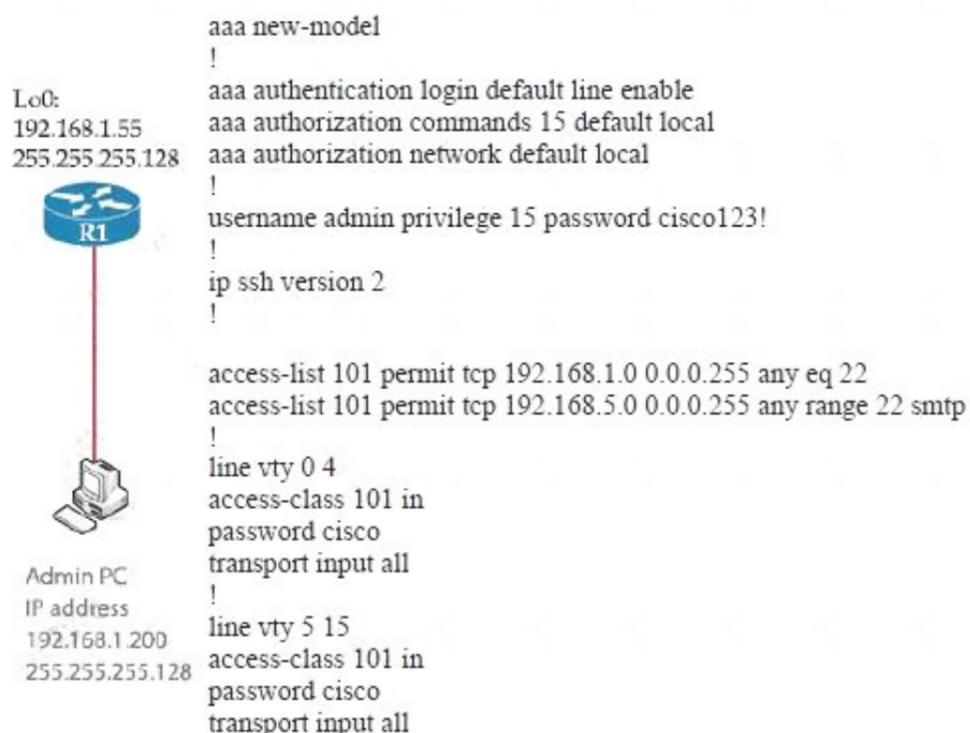
- A) **Chicago Router**  
 router eigrp 100  
 redistribute static metric 10 10 10 10 10
- B) **Chicago Router**  
 router eigrp 100  
 redistribute connected
- C) **Chicago Router**  
 ip route 192.168.3.0 255.255.255.0 10.1.2.2  
 ip route 192.168.4.0 255.255.255.0 10.1.2.2
- D) **LA Router**  
 ip route 192.168.3.0 255.255.255.0 10.1.1.1  
 ip route 192.168.4.0 255.255.255.0 10.1.1.1

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

**Answer: B**

**NEW QUESTION 375**

- (Exam Topic 2)  
Refer to the exhibit.



The administrator successfully logs into R1 but cannot access privileged mode commands. What should be configured to resolve the issue?

- A. aaa authorization reverse-access
- B. secret cisco123! at the end of the username command instead of password cisco123!
- C. matching password on vty lines as cisco123!
- D. enable secret or enable password commands to enter into privileged mode

**Answer: D**

**NEW QUESTION 377**

- (Exam Topic 2)

Refer to the exhibit.

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
time-range Office-hour
periodic weekdays 08:00 to 17:00
!
access-list 101 permit tcp 10.0.0.0 0.0.0.0 172.16.1.0 0.0.0.255 eq ssh time-range Office-hour
```

An IT staff member comes into the office during normal office hours and cannot access devices through SSH Which action should be taken to resolve this issue?

- A. Modify the access list to use the correct IP address.
- B. Configure the correct time range.
- C. Modify the access list to correct the subnet mask
- D. Configure the access list in the outbound direction.

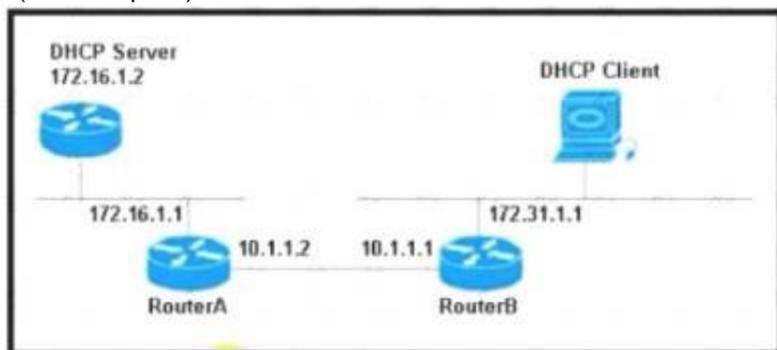
**Answer: A**

**Explanation:**

To ACL should be permit tcp 101 10.1.1.1 0.0.0.0

**NEW QUESTION 378**

- (Exam Topic 2)



Refer to the exhibit. The DHCP client is unable to receive an IP address from the DHCP server RouterB is configured as follows:

```
Interface fastethernet 0/0
description Client DHCP ID 394482431 Ip address 172 31 11 255 255.255 0
!
ip route 172.16.1.0 255 255 255.0 10.1.1.2
```

Which command is required on the fastethernet 0/0 interface of RouterB to resolve this issue?

- A. RouterB(config-if)#ip helper-address 172.31.1.1
- B. RouterB(config-if)#ip helper-address 255.255 255 255
- C. RouterB(config-if)#ip helper-address 172.16.1.1
- D. RouterB(config-if)#ip helper-address 172.16.1.2

**Answer: D**

**NEW QUESTION 381**

- (Exam Topic 2)

```

Configuration output:
clock timezone PST -8
clock summer-time PDT recurring
service timestamps debug datetime
service timestamps log datetime
logging buffered 16000 debugging
ntp clock-period 17179272
ntp server 161.181.92.152

Debug output:
router#show clock
14:12:26.312 PDT Thu Apr 27 2019
router#config t
Enter configuration commands, one per line. End with CNTL/Z.
router(config)#exit

router#
Apr 27 21:12:28 %SYS-5-CONFIG_I: Configured from console by vty0
    
```

Refer to the exhibit. A network administrator configured NTP on a Cisco router to get synchronized time for system and logs from a unified time source. The configuration did not work as desired. Which service must be enabled to resolve the issue?

- A. Enter the service timestamps log datetime localtime global command.
- B. Enter the service timestamps log datetime synchronize global command.
- C. Enter the service timestamps log datetime console global command.
- D. Enter the service timestamps log datetime clock-period global command.

**Answer: A**

**Explanation:**

If a router is configured to get the time from a Network Time Protocol (NTP) server, the times in the router's log entries may be different from the time on the systemclock if the [localtime] option is not in the service timestamps log command. To solve this issue, add the [localtime] option to the service timestamps log command. The times should now be synchronized between the system clock and the log message timestamps.

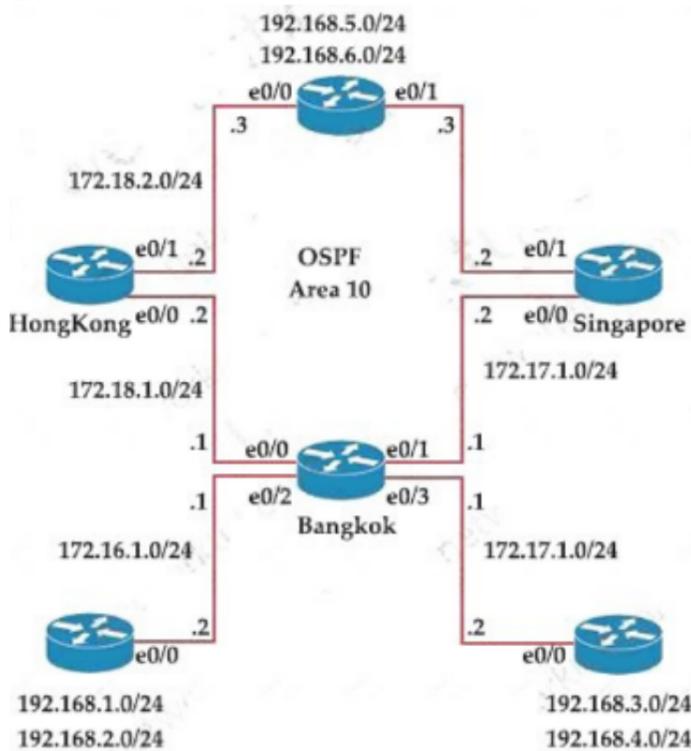
Reference:

<https://community.cisco.com/t5/networking-documents/router-log-timestamp-entries-are-different-from-the-syst>

**NEW QUESTION 385**

- (Exam Topic 2)

Exhibit:



Bangkok is using ECMP to reach to the 192.168.5.0/24 network. The administrator must configure Bangkok in such a way that Telnet traffic from 192.168.3.0/24 and 192.168.4.0/24 networks uses the HongKong router as the preferred router. Which set of configurations accomplishes this task?

- A. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 route-map PBR1 permit 10 match ip address 101 set ip next-hop 172.18.1.2 interface Ethernet0/3 ip policy route-map PBR1
- B. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23 access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23 route-map PBR1 permit 10 match ip address 101 set ip next-hop 172.18.1.2 interface Ethernet0/1 ip policy route-map PBR1
- C. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23 access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23 route-map PBR1 permit 10 match ip address 101 set ip next-hop 172.18.1.2 interface Ethernet0/3 ip policy route-map PBR1
- D. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 route-map PBR1 permit 10 match ip address 101 set ip next-hop 172.18.1.2 interface Ethernet0/1 ip policy route-map PBR1

**Answer: C**

**Explanation:**

We need to use Policy Based Routing (PBR) here on Bangkok router to match the traffic from 192.168.3.0/24 & 192.168.4.0/24 and "set ip next-hop" to HongKong router (172.18.1.2 in this case).

Note: Please notice that we have to apply the PBR on incoming interface e0/3 to receive traffic from 192.168.3.0/24 and 192.168.4.0/24.

**NEW QUESTION 386**

- (Exam Topic 2)

```

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

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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 390**

- (Exam Topic 2)

What are two MPLS label characteristics? (Choose two.)

- A. The label edge router swaps labels on the received packets.
- B. Labels are imposed in packets after the Layer 3 header.
- C. LDP uses TCP for reliable delivery of information.
- D. An MPLS label is a short identifier that identifies a forwarding equivalence class.
- E. A maximum of two labels can be imposed on an MPLS packet.

**Answer: CD**

**Explanation:**

Reference:

<https://www.cisco.com/c/en/us/support/docs/multiprotocol-label-switching-mpls/mpls/4649-mpls-faq-4649.html>

**NEW QUESTION 393**

- (Exam Topic 2)

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

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

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface, application Description automatically generated

**NEW QUESTION 398**

- (Exam Topic 2)

Drag and drop the actions from the left into the correct order on the right to configure a policy to avoid following packet forwarding based on the normal routing path.

Configure route map instances.	step 1
Configure set commands.	step 2
Configure fast switching for PBR.	step 3
Configure ACLs.	step 4
Configure match commands.	step 5
Configure PBR on the interface.	step 6

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

<https://community.cisco.com/t5/networking-documents/how-to-configure-pbr/ta-p/3122774>

**NEW QUESTION 399**

- (Exam Topic 2)

Refer to the exhibit.

```

IPV6 access list PERMIT_SSH
10 deny tcp 2001:ABC:2000::/36 host 2000:ABC:20:2:2::2 eq 23
20 permit tcp 2001:ABC:2000:2:2::/64 host 2000:ABC:20:2:2::2 eq 22
30 deny tcp 2002:ABC:2000::/36 host 2000:ABC:20:2:2::2 eq 22
40 permit tcp 2000:ABC:2000::/36 host 2000:ABC:20:2:2::2 eq 22
50 permit tcp 2000:ABC:2000::/36 host 2000:ABC:20:2:2::2 eq 23
60 permit tcp host 2002:ABC:2000:2:2::2 host 2000:ABC:20:2:2::2 eq 22
70 deny ipv6 any any
    
```

An IPv6 network was newly deployed in the environment and the help desk reports that R3 cannot SSH to the R2s Loopback interface. Which action resolves the issue?

- A. Modify line 10 of the access list to permit instead of deny.
- B. Remove line 60 from the access list.
- C. Modify line 30 of the access list to permit instead of deny.
- D. Remove line 70 from the access list.

**Answer:** C

**NEW QUESTION 400**

- (Exam Topic 2)

An engineer is troubleshooting on the console session of a router and turns on multiple debug commands. The console screen is filled with scrolling debug messages that none of the commands can be verified if entered correctly or display any output. Which action allows the engineer to see entered console commands while still continuing the analysis of the debug messages?

- A. Configure the logging synchronous command
- B. Configure the no logging console debugging command globally
- C. Configure the logging synchronous level all command
- D. Configure the term no mon command globally

**Answer:** A

**Explanation:**

Let's see how the "logging synchronous" command affect the typing command:

Without this command, a message may pop up and you may not know what you typed if that message is too long. When trying to erase (backspace) your command, you realize you are erasing the message instead.

```

R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#?
R1#
Jan 18 16:38:02: %SYS-5-CONFIG_I: Configured from console by admin on vty0 (10.0.1.11)
    
```

With this command enabled, when a message pops up you will be put to a new line with your typing command which is very

```
NVbos2811-1(config)#line con 0
NVbos2811-1(config-line)#logging synch
NVbos2811-1(config-line)#line vty 0 4
NVbos2811-1(config-line)#logging synchr
NVbos2811-1(config-line)#logging synchronous
NVbos2811-1(config-line)#^Z
NVbos2811-1#sh ip
Jan 18 16:39:33: %SYS-5-CONFIG_I: Configured from console by admin
NVbos2811-1#sh ip
```

**NEW QUESTION 401**

- (Exam Topic 2)

Refer to the exhibit.

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

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

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

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

**Answer: D**

**Explanation:**

Step 7 hidekeys

Example:

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

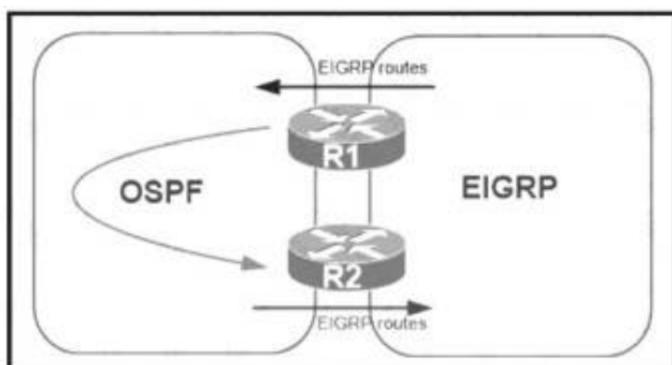
(Optional) Suppresses the display of password information in configuration log files.

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

**NEW QUESTION 405**

- (Exam Topic 2)

Refer to the exhibit.



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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 410**

- (Exam Topic 2)

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

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

**Answer: B**

**Explanation:**

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

DHCP options 3, 66, and 150 are used to configure Cisco IP Phones. Cisco IP Phones download their configuration from a TFTP server. When a Cisco IP Phone starts, if it does not have both the IP address and TFTP server IP address preconfigured, it sends a request with option 150 or 66 to the DHCP server to obtain this information. + DHCP option 150 provides the IP addresses of a list of TFTP servers. + DHCP option 66 gives the IP address or the hostname of a single TFTP server.

Reference:

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

**NEW QUESTION 411**

- (Exam Topic 2)

Refer to Exhibit.

```

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

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

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

**Answer: A**

**Explanation:**

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

**NEW QUESTION 413**

- (Exam Topic 2)

Refer to the exhibit.

```
access-list 1 permit 1.1.1.0 0.0.0.255
!
route-map FILTER1 deny 10
match ip address 1
!
router eigrp 1
distribute-list route-map FILTER1 in
```

Which action restores the routes from neighbors while still filtering 1.1.1.0/24?

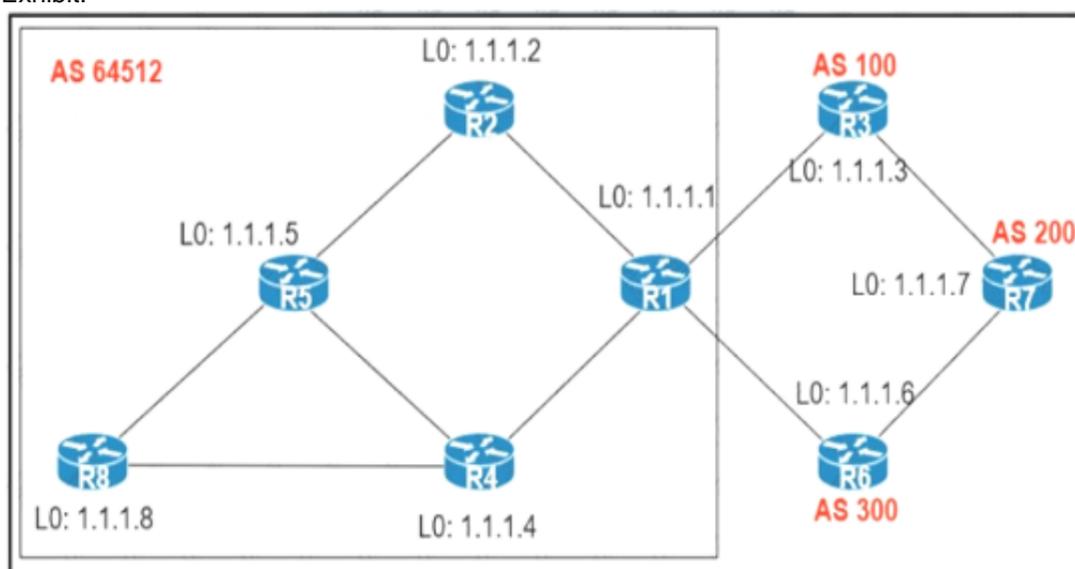
- A. Add a second line in the access list to permit any.
- B. Modify the route map to permit the access list instead of deny it
- C. Modify the access list to deny instead of permit it.
- D. Add a second sequence in the route map permit 20

**Answer: D**

**NEW QUESTION 418**

- (Exam Topic 2)

Exhibit:



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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 423**

- (Exam Topic 2)

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

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

**Answer: A**

**NEW QUESTION 424**

- (Exam Topic 2)

Refer to Exhibit.

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

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

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

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

- A. Configure access-list 100 permit udp any any eq 61 as the first line
- B. Configure access-list 100 permit udp any any eq 86 as the first line
- C. Configure access-list 100 permit udp any any eq 68 as the first line
- D. Configure access-list 100 permit udp any any eq 69 as the first line
- E. Configure access-list 100 permit udp any any eq 67 as the first line

**Answer:** CE

**Explanation:**

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

...

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

Reference:

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

**NEW QUESTION 425**

- (Exam Topic 2)

```
OSPF: Send DBD to 10.100.1.2 on GigabitEthernet0/1 seq 0x9E6 opt
0x52 flag 0x7
len 32
OSPF: Retransmitting DBD to 10.100.1.2 on GigabitEthernet0/1
[10]
OSPF: Send DBD to 10.100.1.2 on GigabitEthernet0/1 seq 0x9E6 opt
0x52 flag 0x7
len 32
OSPF: Retransmitting DBD to 10.100.1.2 on GigabitEthernet0/1
[11]
%OSPF-5-ADJCHG: Process 1, Nbr 10.100.1.2 on GigabitEthernet0/1
from EXSTART to
DOWN, Neighbor Down: Too many retransmissions
```

Refer to the exhibit. The OSPF neighbor relationship is not coming up What must be configured to restore OSPF neighbor adjacency?

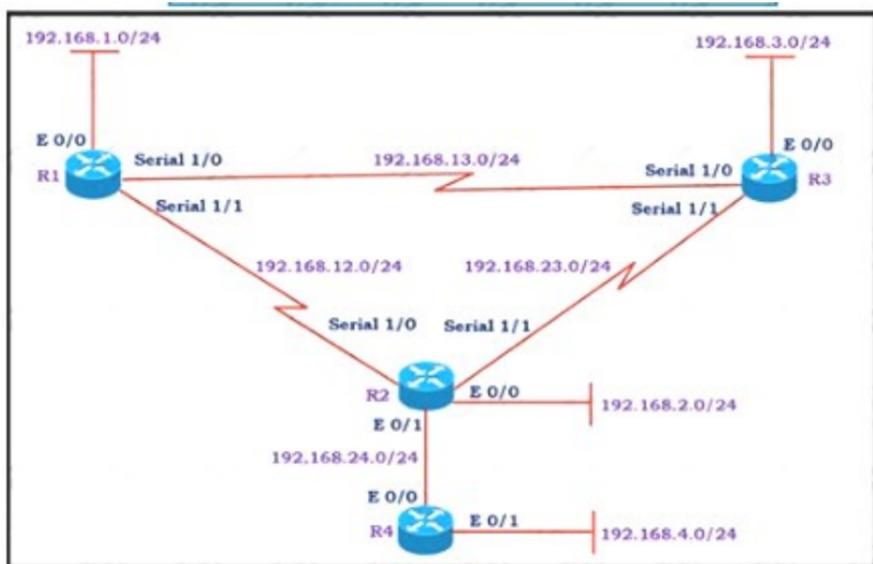
- A. OSPF on the remote router
- B. matching hello timers
- C. use router ID
- D. matching MTU values

**Answer:** D

**NEW QUESTION 429**

- (Exam Topic 2)

Refer to the exhibit.



# Show IP route on R1

```

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.1.0/24 is directly connected, Ethernet0/0
L   192.168.1.1/32 is directly connected, Ethernet0/0
D   192.168.2.0/24 [90/2297856] via 192.168.12.2, 00:02:14, Serial1/1
S   192.168.3.0/24 [1/0] via 192.168.12.2
192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.12.0/24 is directly connected, Serial1/1
L   192.168.12.1/32 is directly connected, Serial1/1
192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.13.0/24 is directly connected, Serial1/0
L   192.168.13.1/32 is directly connected, Serial1/0
D   192.168.23.0/24 [90/2681856] via 192.168.13.3, 00:06:38, Serial1/0
    [90/2681856] via 192.168.12.2, 00:06:38, Serial1/1
    
```

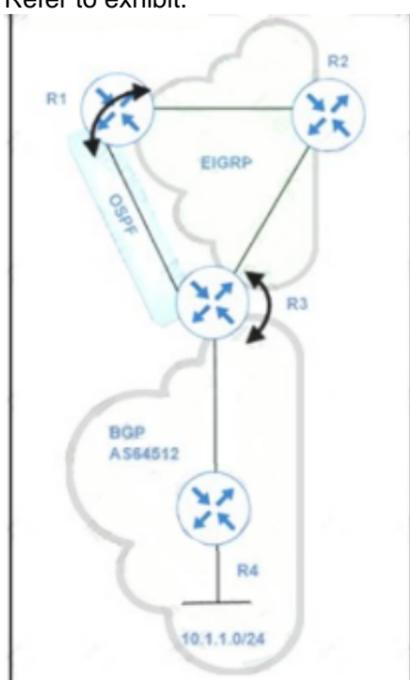
All the serial between R1, R2, and R3 have the Same bandwidth. User on the 192.168.1.0/24 network report slow response times while they access resource on network 192.168.3.0/24. When a traceroute is run on the path. It shows that the packet is getting forwarded via R2 to R3 although the link between R1 and R3 is still up. What must the network administrator to fix the slowness?

- A. Change the Administrative Distance of EIGRP to 5.
- B. Add a static route on R1 using the next hop of R3.
- C. Remove the static route on R1.
- D. Redistribute the R1 route to EIGRP

**Answer: C**

**NEW QUESTION 433**

- (Exam Topic 2)  
Refer to exhibit.



Routing protocols are mutually redistributed on R3 and R1. Users report intermittent connectivity to services hosted on the 10.1.1.0/24 prefix. Significant routing update changes are noticed on R3 when the show ip route profile command is run. How must the services be stabilized?

- A. The issue with using BGP must be resolved by using another protocol and redistributing it into EIGRP on R3
- B. The routing loop must be fixed by reducing the admin distance of iBGP from 200 to 100 on R3
- C. The routing loop must be fixed by reducing the admin distance of OSPF from 110 to 80 on R3
- D. The issue with using iBGP must be fixed by running eBGP between R3 and R4

**Answer: B**

**Explanation:**

After redistribution, R3 learns about network 10.1.1.0/24 via two paths: + Internal BGP (IBGP): advertised from R4 with AD of 200 (and metric of 0) + OSPF: advertised from R1 with AD of 110 (O E2) (and metric of 20) Therefore R3 will choose the path with the lower AD via OSPF. But this is a looped path which is received from R3 -> R2 -> R1 -> R3. So when the advertised route from R4 is expired, the looped path is also expired soon and R3 will reinstall the main path from R4. This is the cause of intermittent connectivity. In order to solve this issue, we can lower the AD of iBGP to a value which is lower than 110 so that it is preferred over OSPF-advertised route.

**NEW QUESTION 437**

- (Exam Topic 2)

What does IPv6 Source Guard utilize to determine if IPv6 source addresses should be forwarded?

- A. ACE
- B. ACLS
- C. DHCP
- D. Binding Table

**Answer: D**

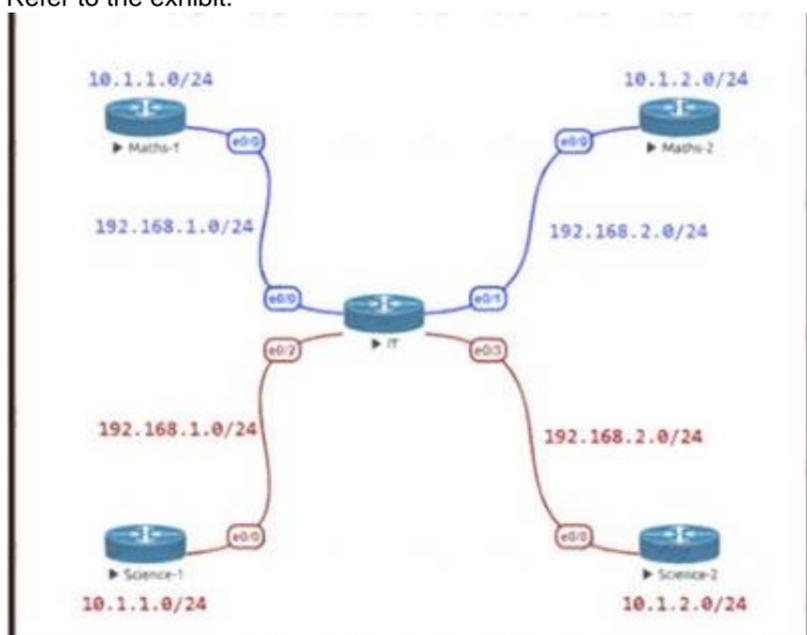
**Explanation:**

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

**NEW QUESTION 438**

- (Exam Topic 2)

Refer to the exhibit.



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

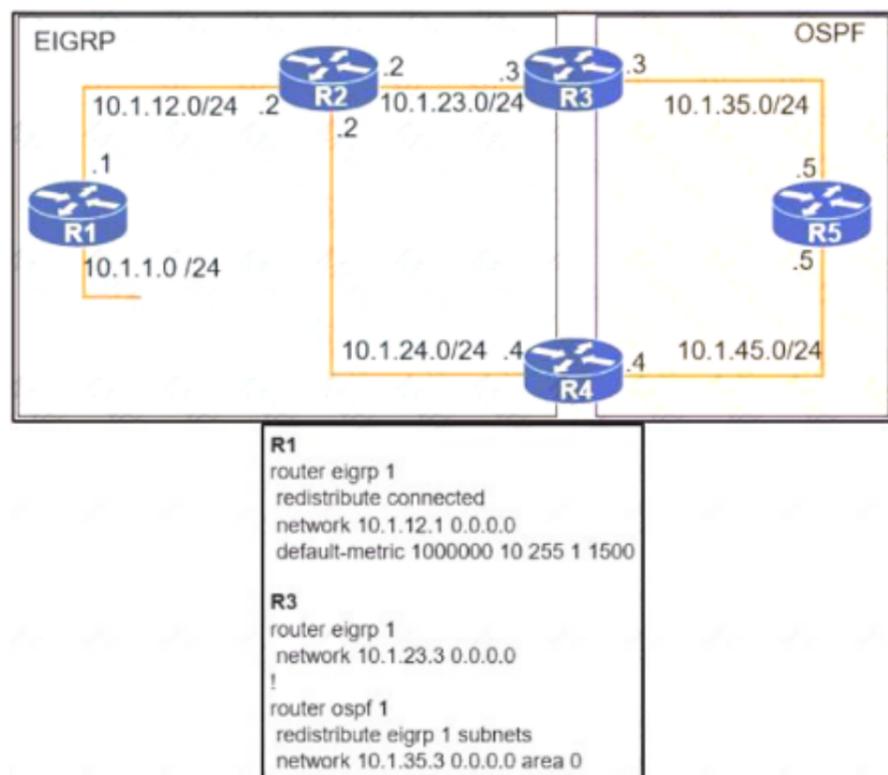
- A. vrf definition Science interface E 0/2 ip address 192.168.1.1 255.255.255.0 no shut interface E 0/3 ip address 192.168.2.1 255.255.255.0 no shut
- B. vrf definition Science address-family ipv4 ! interface E 0/2 ip address 192.168.1.1 255.255.255.0 vrf forwarding Science no shut ! interface E 0/3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

**Answer: D**

**NEW QUESTION 442**

- (Exam Topic 2)

Refer to the exhibit.



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

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

**Answer: A**

**NEW QUESTION 443**

- (Exam Topic 2)

Refer to the exhibit.

```

R1#show run | begin line
line con 0
  exec-timeout 0 0
  privilege level 15
  logging synchrounous
  transport preferred telnet
  transport output none
  stopbits 0 4
line vty 0 4
  login
  transport referred telnet
  transport input none
  transport output telnet
R1#

R1#ssh -1 cisco 192.168.12.2
% ssh connections not permitted from this terminal
R1#
    
```

An engineer receives this error message when trying to access another router in-band from the serial interface connected to the console of R1. Which configuration is needed on R1 to resolve this issue?

- R1(config)#line console 0  
R1(config-line)# transport preferred ssh
- R1(config)#line vty 0  
R1(config-line)# transport output ssh
- R1(config)#line vty 0  
R1(config-line)# transport output ssh  
R1(config-line)# transport preferred ssh
- R1(config)#line console 0  
R1(config-line)# transport output ssh

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

**Answer:** D

**Explanation:**

<https://community.cisco.com/t5/other-network-architecture/out-of-band-router-access/td-p/333295> The "transport output none" command prevents any protocol connection made from R1. Therefore our SSH connection to 192.168.12.2 was refused. In order to fix this problem we can configure "transport output ssh" under "line console 0" of R1.

Note: The parameter "-l" specifies the username to log in as on the remote machine.

**NEW QUESTION 444**

- (Exam Topic 2)

Refer to the exhibit.

```

router# show running-config
Building configuration
|
<output omitted ---->
|
hostname R1
|
ip domain-name cisco.com
|
crypto key generate rsa modulus 2048
|
username admin privilege 15 secret cisco123
|
access-list 1 permit 10.1.1.0 0.0.0.255
access-list 1 deny any log
|
line vty 0 15
access-class 1 in
login local
|
<output omitted ---->
|
end
    
```

A user cannot SSH to the router. What action must be taken to resolve this issue?

- A. Configure transport input ssh
- B. Configure transport output ssh
- C. Configure ip ssh version 2
- D. Configure ip ssh source-interface loopback0

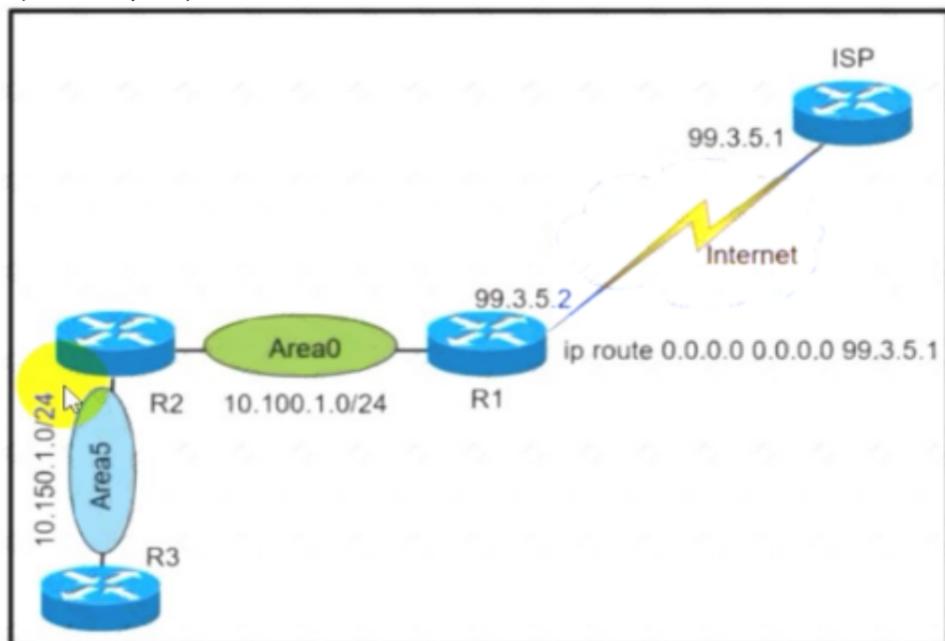
**Answer:** A

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960x/software/15-0\\_2\\_EX/security/configuration\\_](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960x/software/15-0_2_EX/security/configuration_)

**NEW QUESTION 445**

- (Exam Topic 2)



Refer to the exhibit. A network administrator redistributed the default static route into OSPF toward all internal routers to reach to Internet. Which set of commands restores reachability to the Internet by internal routers?

- A. router ospf 1 default-information originate
- B. router ospf 1 network 0.0.0.0 0.0.0.0 area 0
- C. router ospf 1 redistribute connected 0.0.0.0

D. router ospf 1 redistribute static subnets

**Answer:** A

**NEW QUESTION 449**

.....

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