

Cisco

Exam Questions 300-410

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)



NEW QUESTION 1

- (Exam Topic 3)

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

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

Answer: A

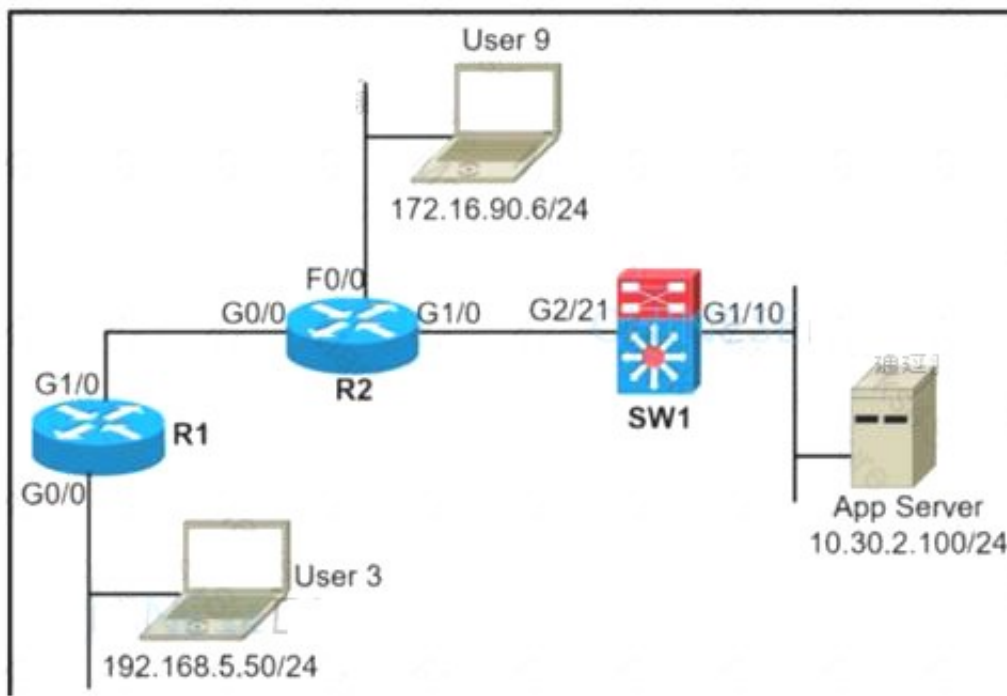
Explanation:

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

NEW QUESTION 2

- (Exam Topic 3)

Refer to the exhibit.



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

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

Answer: D

NEW QUESTION 3

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

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

Answer: A

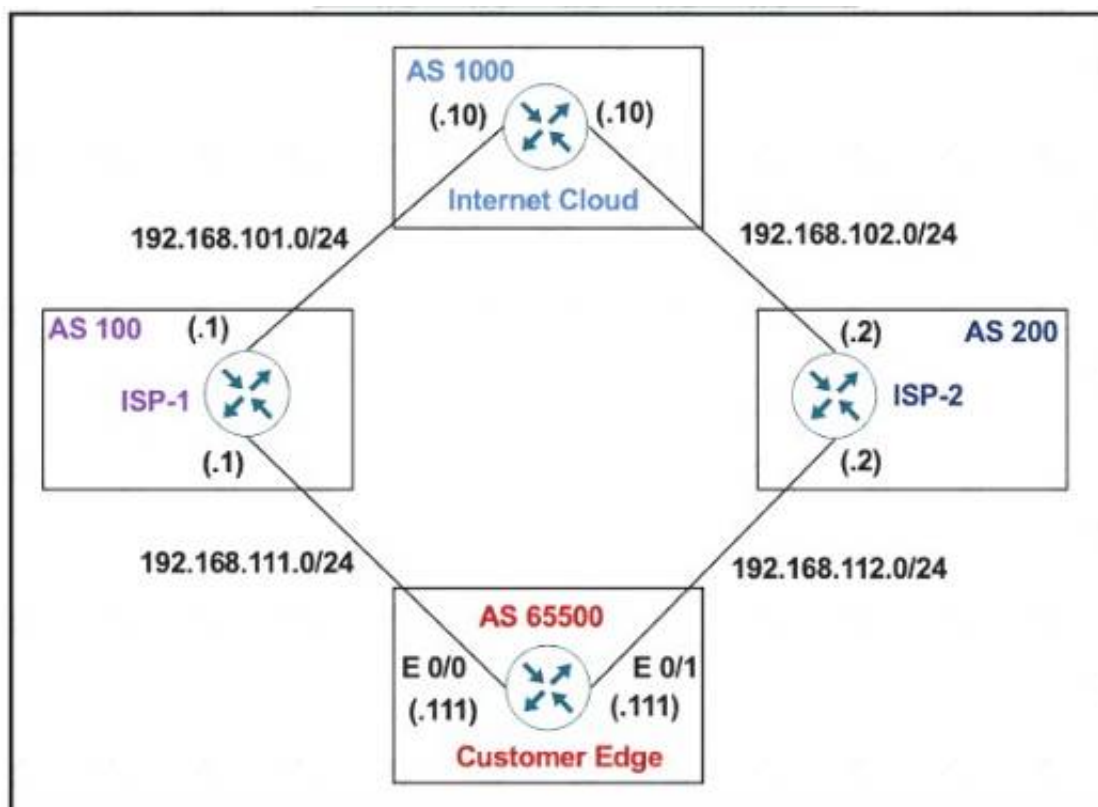
Explanation:

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

NEW QUESTION 4

- (Exam Topic 3)

Refer to the exhibit.



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

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

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

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

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

Answer: B

NEW QUESTION 5

- (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 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

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/mp-te-path-setup-xe-3s-book/mp-te-enhance-xe.html

NEW QUESTION 7

- (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?

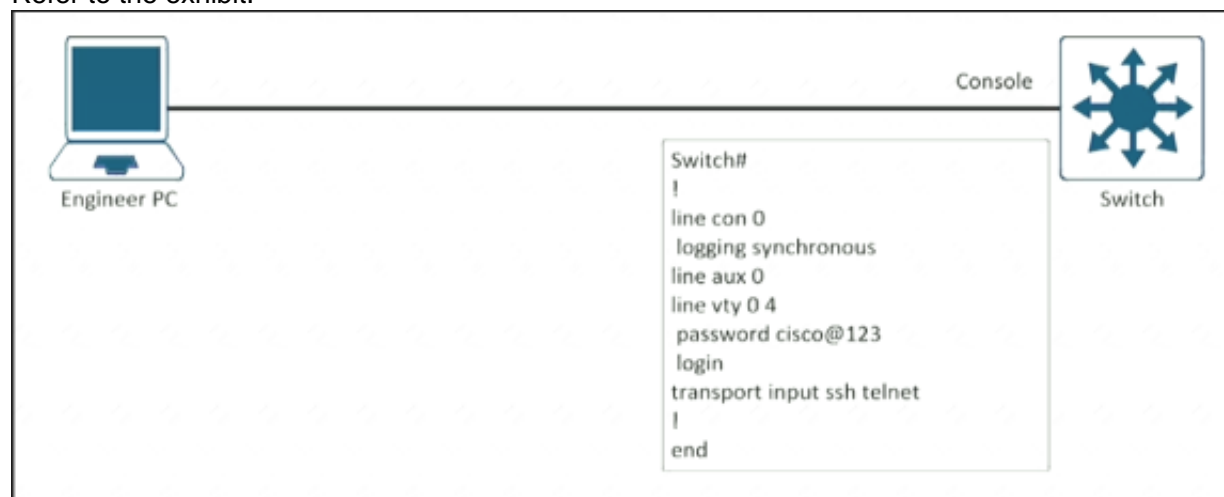
- A. Configure the debug uptime option
- B. Configure the msec option
- C. Configure the timezone option
- D. Configure the tog uptime option

Answer: D

NEW QUESTION 8

- (Exam Topic 3)

Refer to the exhibit.



An engineer must block access to the console ports for all corporate remote Cisco devices based on the recent corporate security policy but the security team still can connect through the console port. Which configuration on the console port resolves the issue?

- A. transport input telnet
- B. login and password
- C. no exec
- D. exec 0.0

Answer: C

Explanation:

“no exec” will disable access to a line. It is used if we want to allow only outgoing session (and disable incoming session) so this command will block all console port access.

There is no “exec 0 0” command. We can only find the “exec prompt” command in IOS Version 15.4(2)T4.

```
Router(config-line)#exec ?
prompt EXEC prompt
<cr>

Router(config-line)#exec pro
Router(config-line)#exec prompt ?
timestamp Print timestamps for show commands

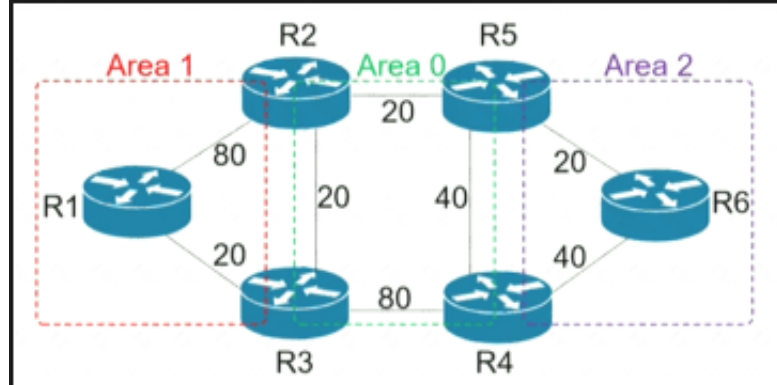
Router(config-line)#exec prompt █
```

The most similar command is “exec-timeout 0 0” command, which is used to prevent Telnet/SSH sessions from timing out.

NEW QUESTION 9

- (Exam Topic 3)

Refer to the exhibit.



R6 should reach R1 via R5>R2>R1. Which action resolves the issue?

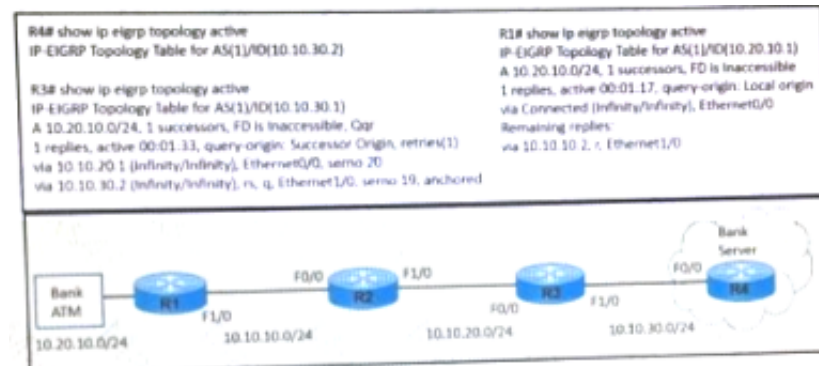
- A. Increase the cost to 61 between R2-R3-R1
- B. Increase the cost to 61 between R2 and R3
- C. Decrease the cost to 2 between R6-R5-R2
- D. Decrease the cost to 41 between R2 and R1

Answer: B

NEW QUESTION 10

- (Exam Topic 3)

Refer to the exhibit.



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

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

Answer: D

NEW QUESTION 10

- (Exam Topic 3)

Which router takes an active role between two LDP neighbors when initiating LDP session negotiation and LDP TCP connection establishment?

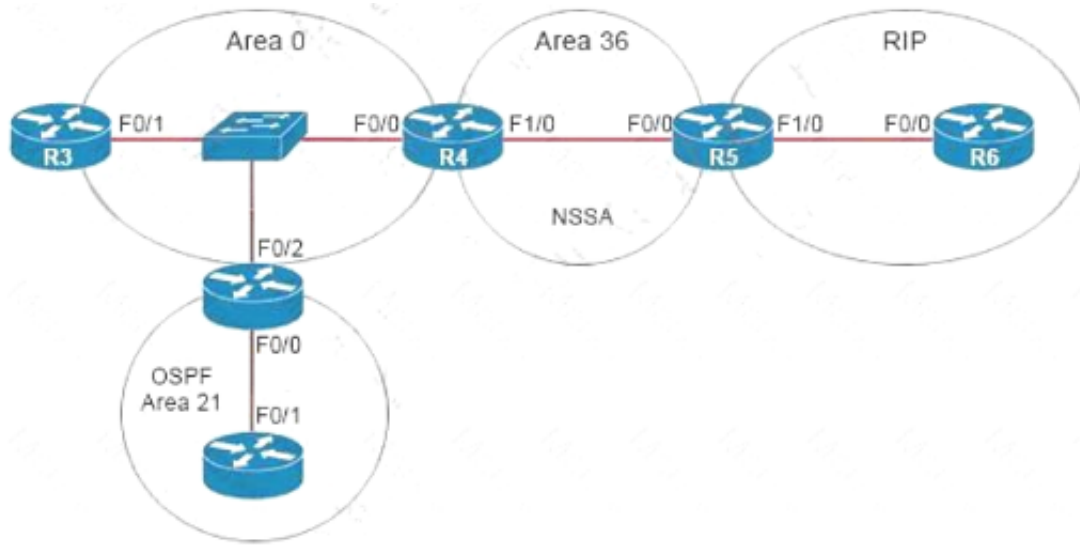
- A. with the higher IP address
- B. with the larger number of LDP TCP neighbors
- C. with the lowest IP address
- D. with one interface in the MPLS backbone

Answer: A

NEW QUESTION 14

- (Exam Topic 3)

Refer to the exhibit.



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

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

- A. R5(config)#router ospf 1 R5(config-router)#no areaR5(config-router)#summary-address 172.16.0.0 255.255.252.0
- B. R4(config)#router ospf 99R4(config-router)#network 172.16.0.0 0.255.255.255 area 56R4(config-router)#area 56 range 172.16.0.0 255.255.255.0
- C. R4(config)#router ospf 1 R4(config-router)#no areaR4(config-router)#summary-address 172.16.0.0 255.255.252.0
- D. R5(config)#router ospf 99R5(config-router)#network 172.16.0.0 0.255.255.255 area 56R5(config-router)#area 56 range 172.16.0.0 255.255.255.0

Answer: A

Explanation:

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

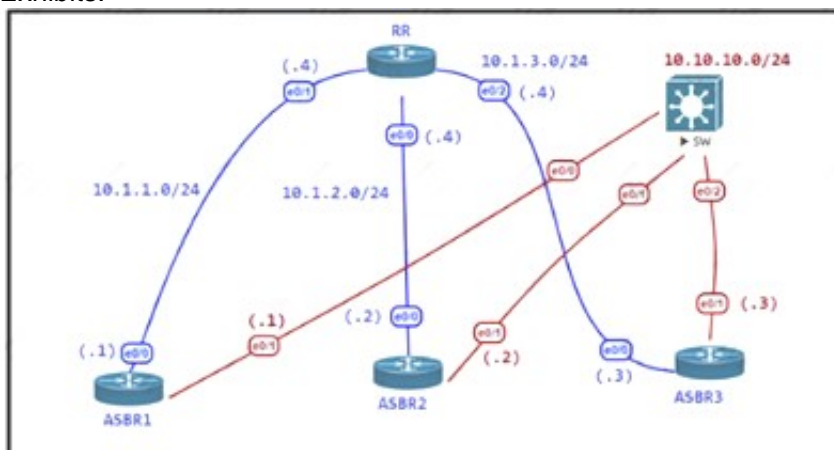
The summarization must be done on the ASBR which is R5, not R4 so the correct answer must be started with “R5(config)#router ospf 1”.

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

NEW QUESTION 19

- (Exam Topic 3)

Exhibits:



RR

```
router bgp 100
neighbor 10.1.1.1 remote-as 100
neighbor 10.1.2.2 remote-as 100
neighbor 10.1.3.3 remote-as 100
```

ASBR2

```
router bgp 100
neighbor 10.1.1.4 remote-as 100
```

```

ASBR2

router bgp 100
 neighbor 10.1.1.4 remote-as 100

ASBR3

router bgp 100
 neighbor 10.1.2.4 remote-as 100

ASBR4

router bgp 100
 neighbor 10.1.3.4 remote-as 100
    
```

Refer to the exhibit The administrator configured the network devices for end-to-end reachability, but the ASBRs are not propagating routes to each other Which set of configurations resolves this issue?

- ☒ router bgp 100
neighbor 10.1.1.1 route-reflector-client
neighbor 10.1.2.2 route-reflector-client
neighbor 10.1.3.3 route-reflector-client
- ☐ router bgp 100
neighbor 10.1.1.1 update-source Loopback0
neighbor 10.1.2.2 update-source Loopback0
neighbor 10.1.3.3 update-source Loopback0
- ☐ 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 10.1.1.1 ebgp-multihop
neighbor 10.1.2.2 ebgp-multihop
neighbor 10.1.3.3 ebgp-multihop

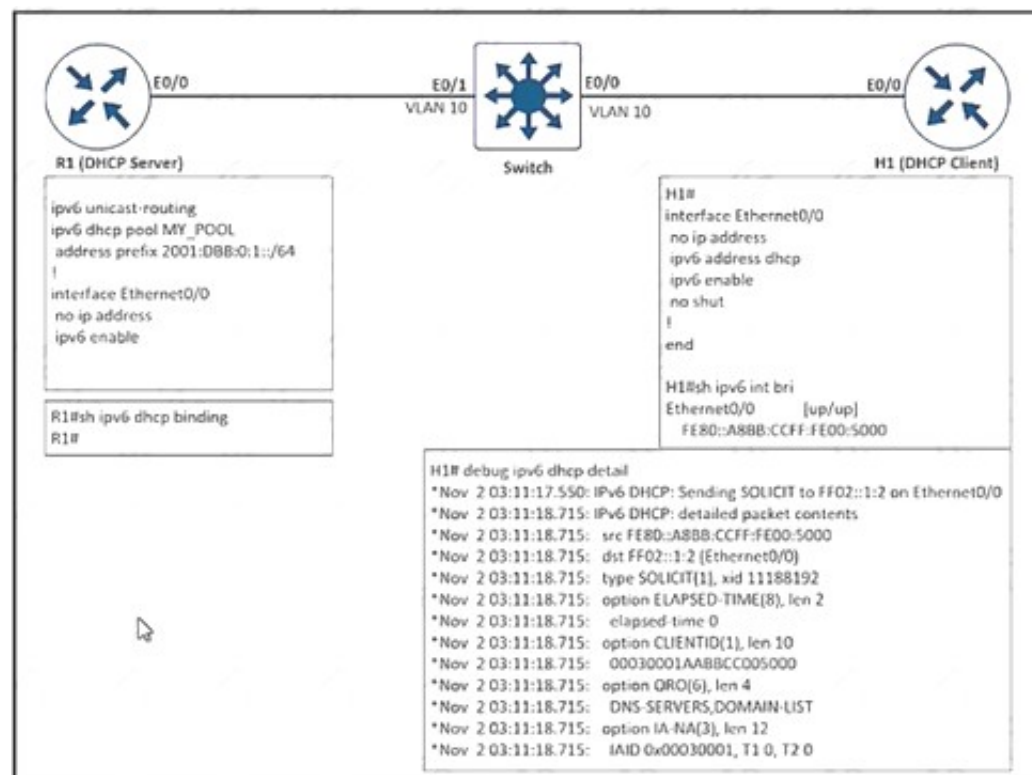
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 21

- (Exam Topic 3)

Refer to the exhibit.



After the network administrator rebuilds the IPv6 DHCP server, clients are not getting the IPv6 address lease. Which action resolves the issue?

- A. Remove FE80 A8BB CCFF FE00 5000 assigned by the IPV6 DHCP server.
- B. Add Ipv6 dhcp sarver MY_POOL under the interface ethernet 0/0 on H1.
- C. Add Ipv6 dhcp server MY_POOL under the interface ethernet 0/0 on R1.
- D. Configure FF02::1:2 to discover al IPV6 OHCP cfcents

Answer: C

NEW QUESTION 23

- (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
  
```

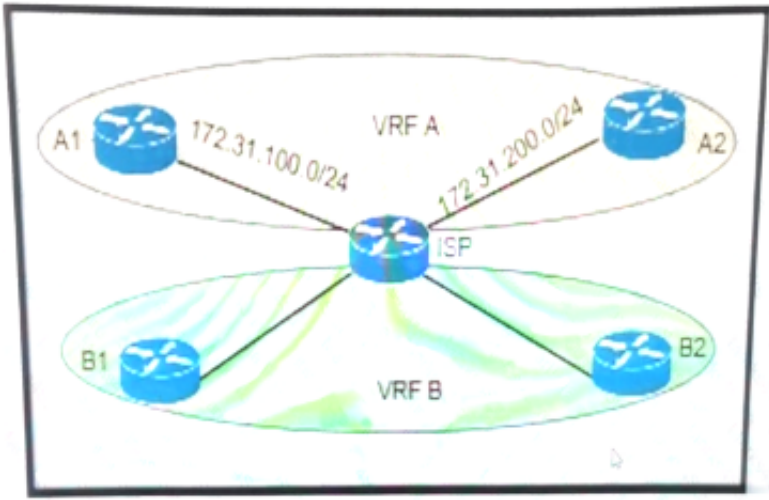
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 25

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

Answer: C

Explanation:

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

ISP router:

interface g0/0

description ISP->To_CustomerA ip vrf forwarding A

ip address 172.31.100.2 255.255.255.0

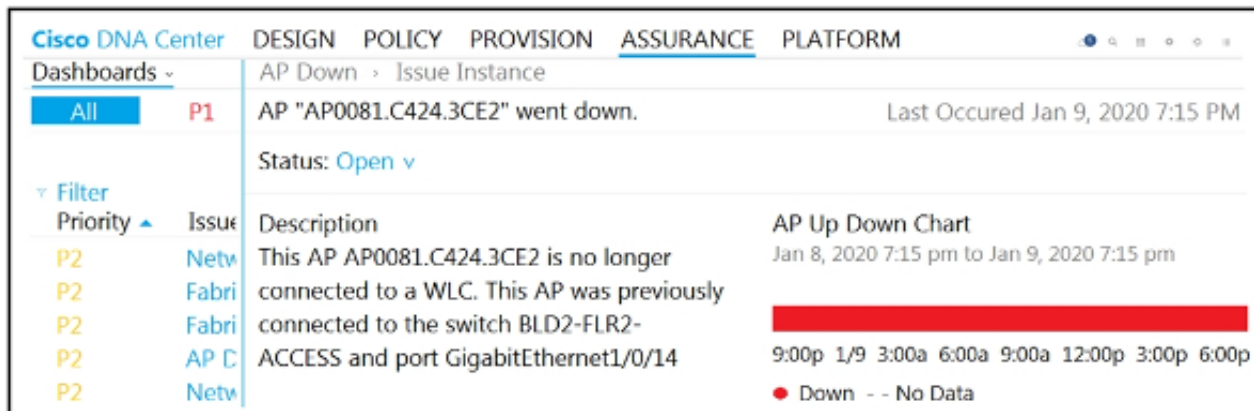
router ospf 100 vrf A

network 172.31.200.2 0.0.0.255 area 0

NEW QUESTION 29

- (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:

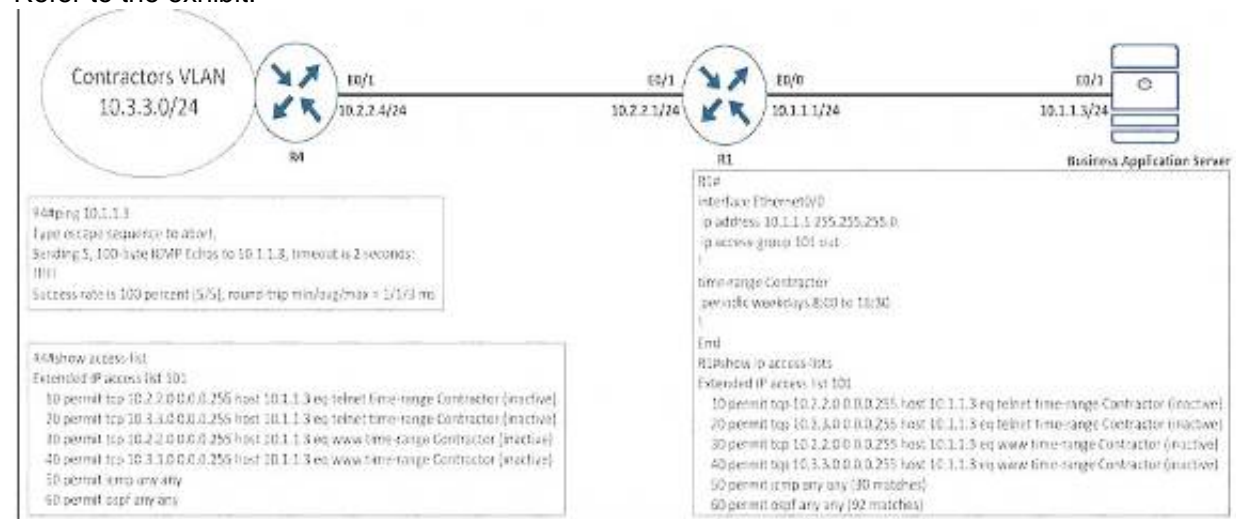
```
TDR test last run on: December 05 18:50:53
Interface Speed Local pair Pair length Remote pair Pair status
Gi1/0/14 1000M Pair A 19 +/- 10 meters Pair B Normal
          Pair B 19 +/- 10 meters Pair A Normal
          Pair C 19 +/- 10 meters Pair D Normal
          Pair D 19 +/- 10 meters Pair C Normal
```

Notice that the results are "Normal" in the above example. Other results can be:
 + Open: Open circuit. This means that one (or more) pair has "no pin contact".
 + Short: Short circuit.
 + Impedance Mismatched: Bad cable.

NEW QUESTION 30

- (Exam Topic 3)

Refer to the exhibit.



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

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

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

Answer: A

NEW QUESTION 34

- (Exam Topic 3)



```
atomic-aggregate, best
Extended Community: RT:1:4099
rx pathid: 0, tx pathid: 0x0
Updated on Jul 28 2022 15:17:49 UTC

router#

router#sh ip bgp 10.140.217.0/24
% Network not in table
router#

router#sh ip bgp 10.140.217.0/24
BGP routing table entry for 10.140.217.0/24, version 685
Paths: (1 available, best #1, table default)
  Advertised to update-groups:
    5      11
  Refresh Epoch 1
  65396, (aggregated by 65396 10.140.210.2), imported path from
1:4099:10.140.217.0/24 (Guest_VN)

    10.140.212.5 from 10.140.212.5 (10.140.210.2)
      Origin IGP, metric 0, localpref 100, valid, external,
atomic-aggregate, best
Extended Community: RT:1:4099
rx pathid: 0, tx pathid: 0x0
Updated on Jul 31 2022 18:32:12 UTC
```

Refer to the exhibit. In Cisco DNA Center, a network engineer identifies that BGP-learned networks are repeatedly withdrawn from peers. Which configuration must the engineer apply to resolve the issue?

A)

```
router bgp 100
bgp graceful-restart
```

B)

```
router bgp 100
bgp dampening
```

C)

```
route-map Dampening permit 10
set dampening 15 750 2000 60
router bgp 100
neighbor 10.140.212.5 route-map Dampening in
```

D)

```
route-map Dampening permit 10
set dampening 15 750 2000 60
router bgp 100
neighbor 10.140.212.5 route-map Dampening out
```

A. Option A

B. Option B

C. Option C

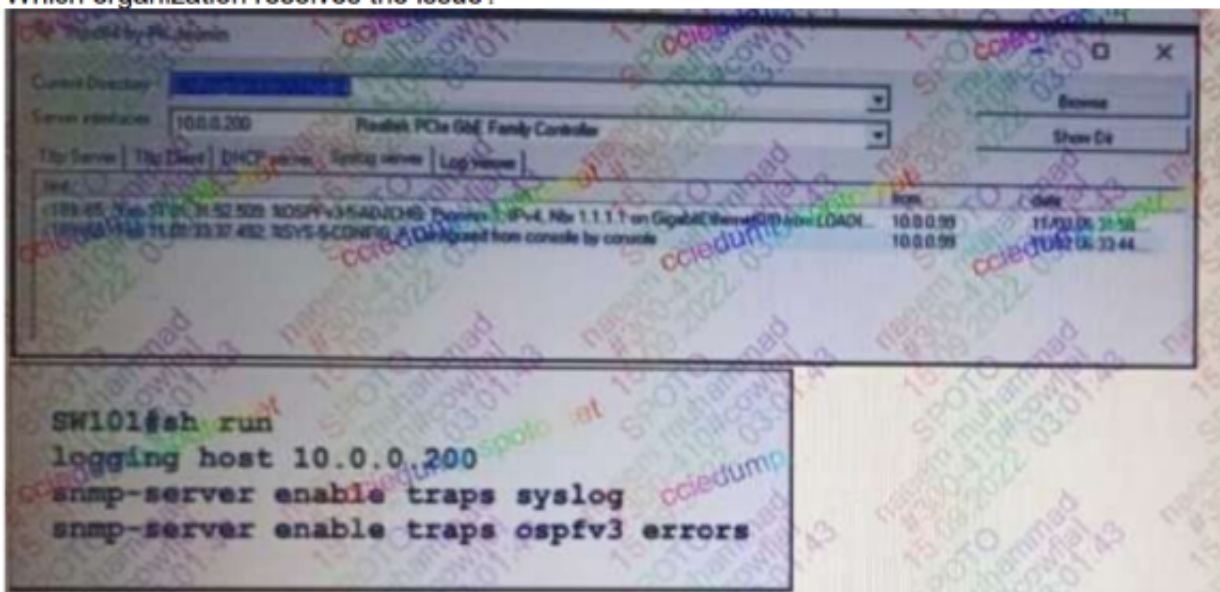
D. Option D

Answer: D

NEW QUESTION 37

- (Exam Topic 3)

Refer to the exhibit.



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

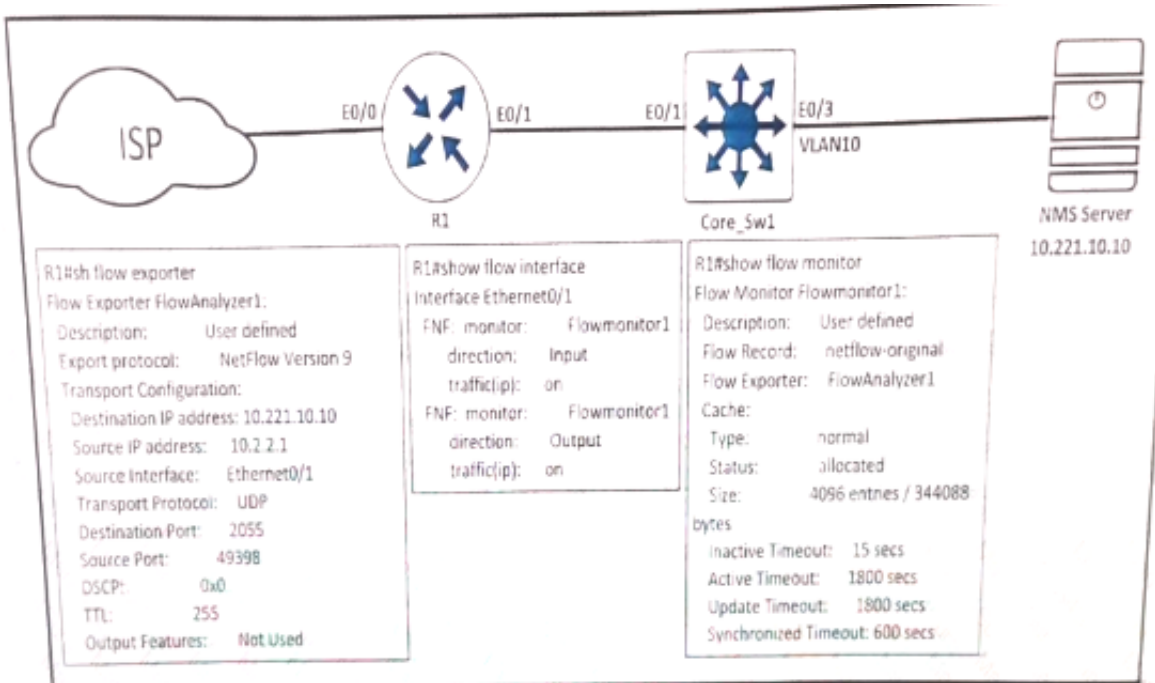
- A. snmp-server enable traps ospfv3 state-change if-state-change
- B. snmp-server enable traps ospfv3 state-change restart-status-change
- C. snmp-server enable traps ospfv3 state-change neighbor-state-change.
- D. snmp-server enable traps ospfv3 state-change if-state-change neighbor-state-change

Answer: D

NEW QUESTION 40

- (Exam Topic 3)

Refer to the exhibit.



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

- A. flow monitor Flowmonitor1 source Ethernet0/0
- B. interface Ethernet0/1 ip flow monitor Flowmonitor1 input ip flow monitor Flowmonitor1 output
- C. interface Ethernet0/0 ip flow monitor Flowmonitor1 input ip flow monitor Flowmonitor1 output
- D. flow exporter FlowAnalyzer1 source Ethernet0/0

Answer: C

NEW QUESTION 41

- (Exam Topic 3)

What is the purpose of an OSPF sham-link?

- A. to allow intra-area routing when OSPF is used as the PE-CE connection protocol in an MPLS VPN network
- B. to correct OSPF backdoor routing when OSPF is used as the PE-CE connection protocol in an MPLS VPN network
- C. to correct OSPF backdoor routing when OSPF is used as the PE-PE connection protocol in an MPLS VPN network
- D. to allow inter-area routing when OSPF is used as the PE-CE connection protocol in a MPLS VPN network

Answer: C

NEW QUESTION 43

- (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 44

- (Exam Topic 3)

What does the MP-BGP OPEN message contain?

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

Answer: B

NEW QUESTION 46

- (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:

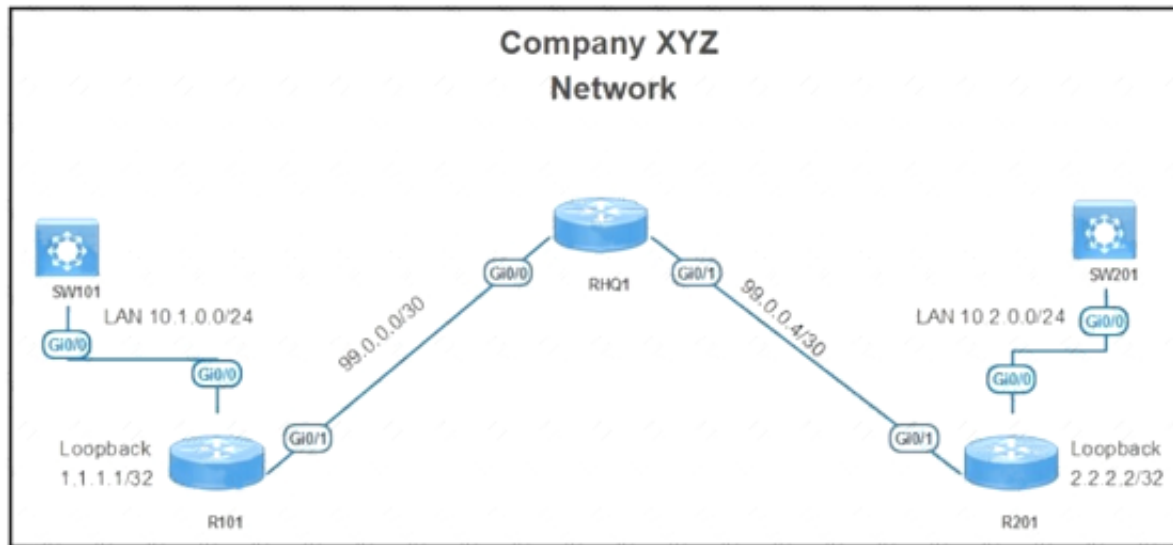
I. When a link flaps (for a short time),

... Solution:

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

NEW QUESTION 50

- (Exam Topic 3)



```

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 59

- (Exam Topic 3)

```

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

```

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

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

Answer: D

NEW QUESTION 62

- (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 dontell
 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?

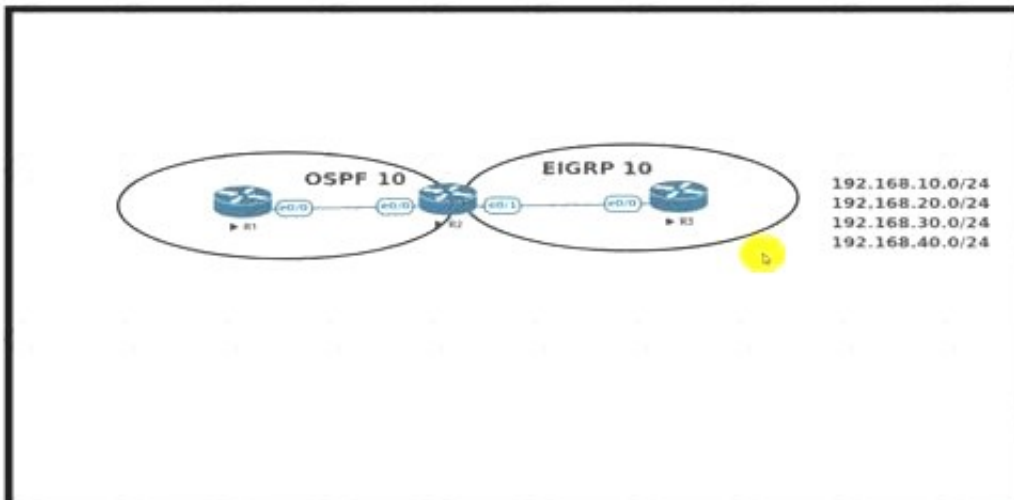
- A. no ip next-hop-self eigrp 1
- B. ip next-hop-self eigrp 1
- C. no ip nhrp next-hop-self
- D. ip nhrp next-hop-self

Answer: C

NEW QUESTION 66

- (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
```

```
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-1
!
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
```

```
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-2
!
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

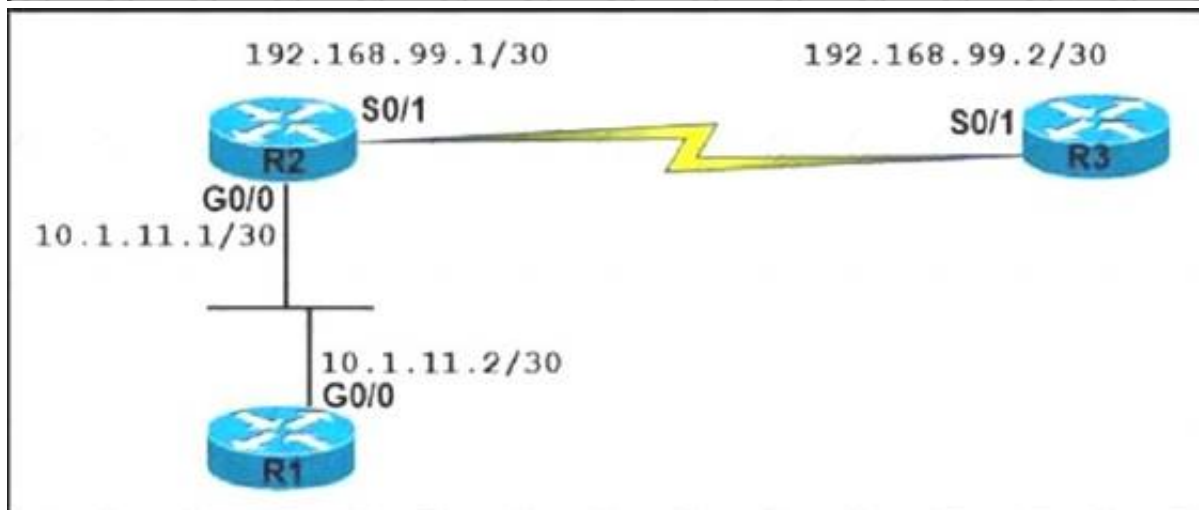
NEW QUESTION 67

- (Exam Topic 3)

Refer to the exhibit.


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

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



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

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

Answer: B

Explanation:

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

Neighbors Stuck in Exstart/Exchange State

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

NEW QUESTION 72

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

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

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

Answer: A

NEW QUESTION 74

- (Exam Topic 3)

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

The administrator has configured the following on R1:

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

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

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

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

Answer: CE

NEW QUESTION 78

- (Exam Topic 3)

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

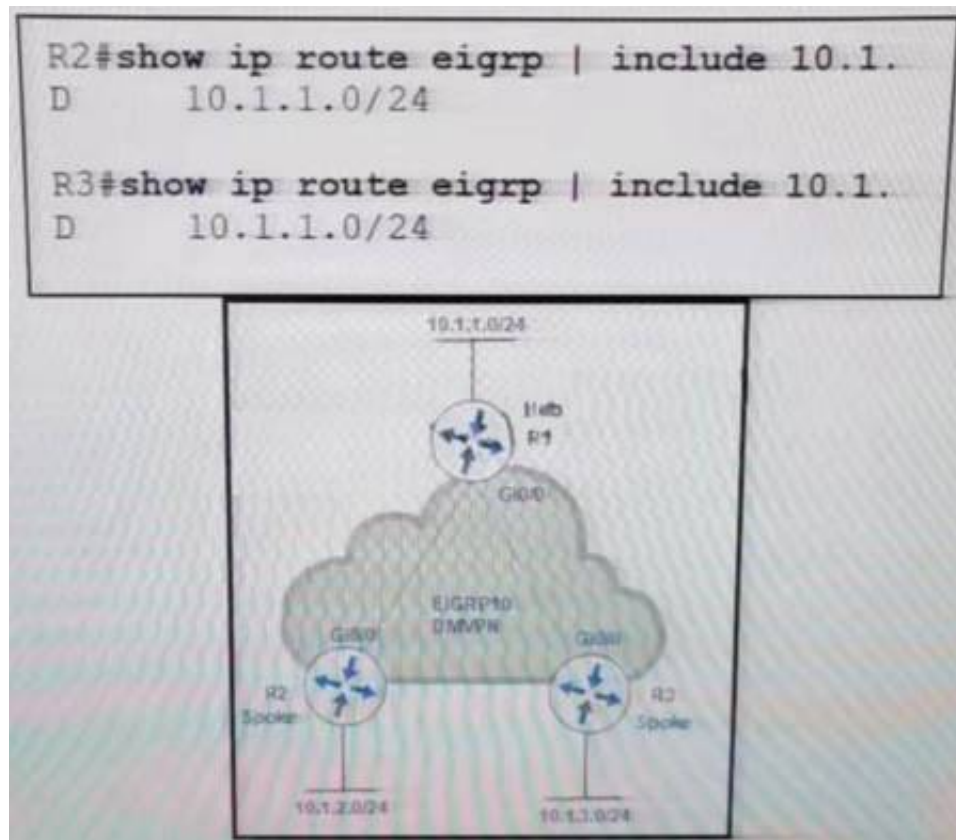
- A. Only access lists are supported for matching traffic.
- B. All client messages are always switched regardless of the device role.
- C. It blocks only DHCP request messages.
- D. If the device is configured as a DHCP server, no message is switched.

Answer: B

NEW QUESTION 82

- (Exam Topic 3)

Refer to the exhibit.



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

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

Answer: A

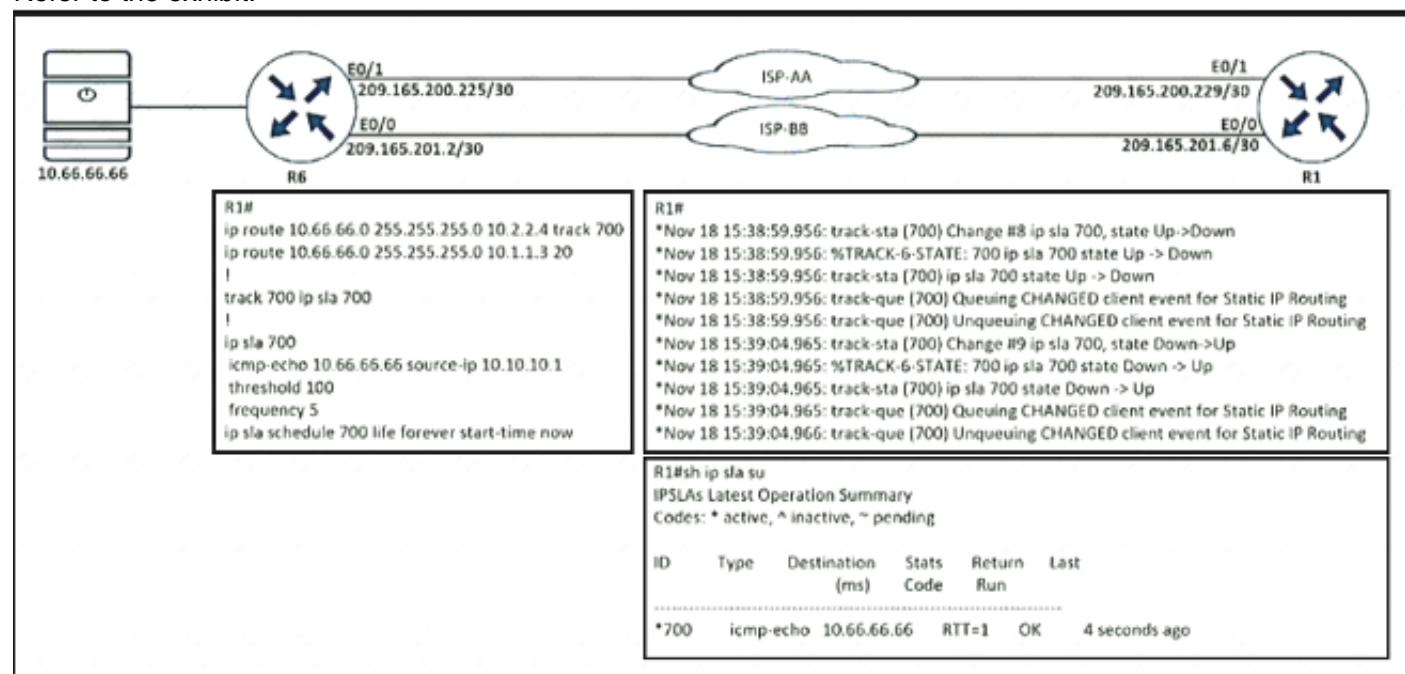
Explanation:

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

NEW QUESTION 86

- (Exam Topic 3)

Refer to the exhibit.



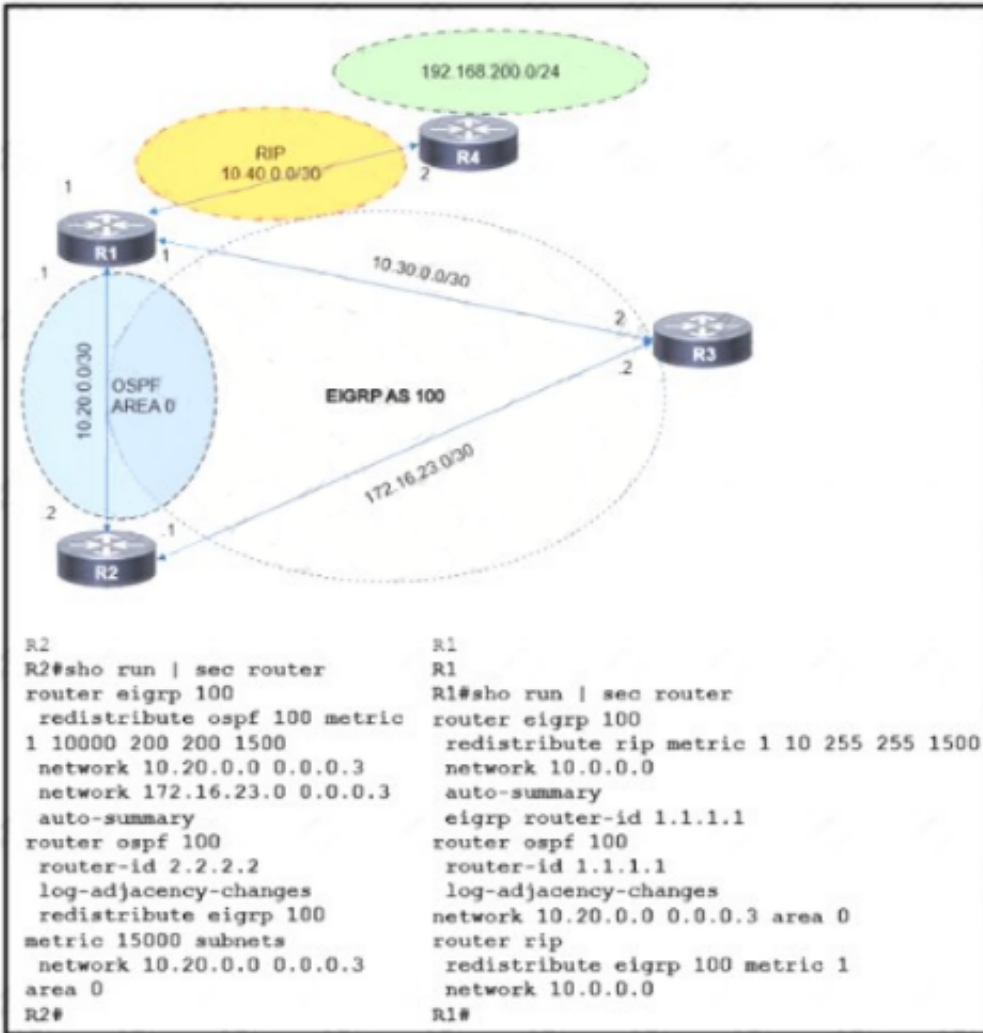
R1 is configured with IP SLA to check the availability of the server behind R6 but it kept failing. Which configuration resolves the issue?

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

Answer: C

NEW QUESTION 90

- (Exam Topic 3)



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

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

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

Answer: D

NEW QUESTION 94

- (Exam Topic 3)

Refer to the exhibit.

```

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

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

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

Answer: D

NEW QUESTION 99

- (Exam Topic 3)

Which mechanism must be chosen to optimize the reconvergence time for OSPF at company location 407173257 that is less CPU-intensive than reducing the hello and dead timers?

- A. BFD
- B. Dead Peer Detection keepalives
- C. SSO
- D. OSPF demand circuit

Answer: A

NEW QUESTION 102

- (Exam Topic 3)

- A. The administrator 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 tower metnc on R1
- D. The administrative distance should be raised to 120 from the ASBR 104 17 6

Answer: B

NEW QUESTION 106

- (Exam Topic 3)

Refer to the exhibit.

```
R2#sh ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.10.0/24 is directly connected, Serial1/0
C    172.16.0.0/16 is variably subnetted, 5 subnets, 2 masks
C    172.16.160.0/19 is directly connected, Loopback1
C    172.16.128.0/19 is directly connected, Loopback0
C    172.16.224.0/19 is directly connected, Loopback3
C    172.16.192.0/19 is directly connected, Loopback2
D    172.16.0.0/16 is a summary, 00:01:27, Null0
```

An engineer must configure EIGRP between R1 and R2 with no summary route. Which configuration resolves the issue?

A)

```
R1(config)#router eigrp 1
R1(config-router)#no auto-summary
```

B)

```
R2 (config)#router eigrp 1
R2 (config-router)#no auto-summary
```

C)

```
R2 (config)#router eigrp 1
R2 (config-router)#auto-summary
```

D)

```
R1(config)#router eigrp 1
R1(config-router)#auto-summary
```

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

Answer: B

NEW QUESTION 108

- (Exam Topic 3)

What is LDP label binding?

- A. neighboring router with label

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

Answer: C

Explanation:

Text Description automatically generated with medium confidence

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

NEW QUESTION 113

- (Exam Topic 2)

Which configuration feature should be used to block rogue router advertisements instead of using the IPv6 Router Advertisement Guard feature?

- A. VACL blocking broadcast frames from nonauthorized hosts
- B. PVLANS with promiscuous ports associated to route advertisements and isolated ports for nodes
- C. PVLANS with community ports associated to route advertisements and isolated ports for nodes
- D. IPv4 ACL blocking route advertisements from nonauthorized hosts

Answer: B

Explanation:

The IPv6 Router Advertisement Guard feature provides support for allowing the network administrator to block or reject unwanted or rogue router advertisement guard messages that arrive at the network device platform. Router Advertisements are used by devices to announce themselves on the link. The IPv6 Router Advertisement Guard feature analyzes these router advertisements and filters out router advertisements that are sent by unauthorized devices. Certain switch platforms can already implement some level of rogue RA filtering by the administrator configuring Access Control Lists (ACLs) that block RA ICMP messages that might be inbound on “user” ports.

Reference: <https://datatracker.ietf.org/doc/html/rfc6104>

NEW QUESTION 118

- (Exam Topic 2)

Refer to the exhibit.

```
Router# show ip route

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

Router# show ip bgp

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

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

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

Answer: C

Explanation:

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

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

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

redistribute ospf 1 match internal external

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

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

NEW QUESTION 123

- (Exam Topic 3)



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

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

Which configuration resolves the issue?

A)

```

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

B)

```

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

C)

```

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

D)

```

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

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

Answer: C

NEW QUESTION 128

- (Exam Topic 3)

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

```

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

The transfer fails. Which action resolves the issue?

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

Answer: B

NEW QUESTION 132

- (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 136

- (Exam Topic 3)

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

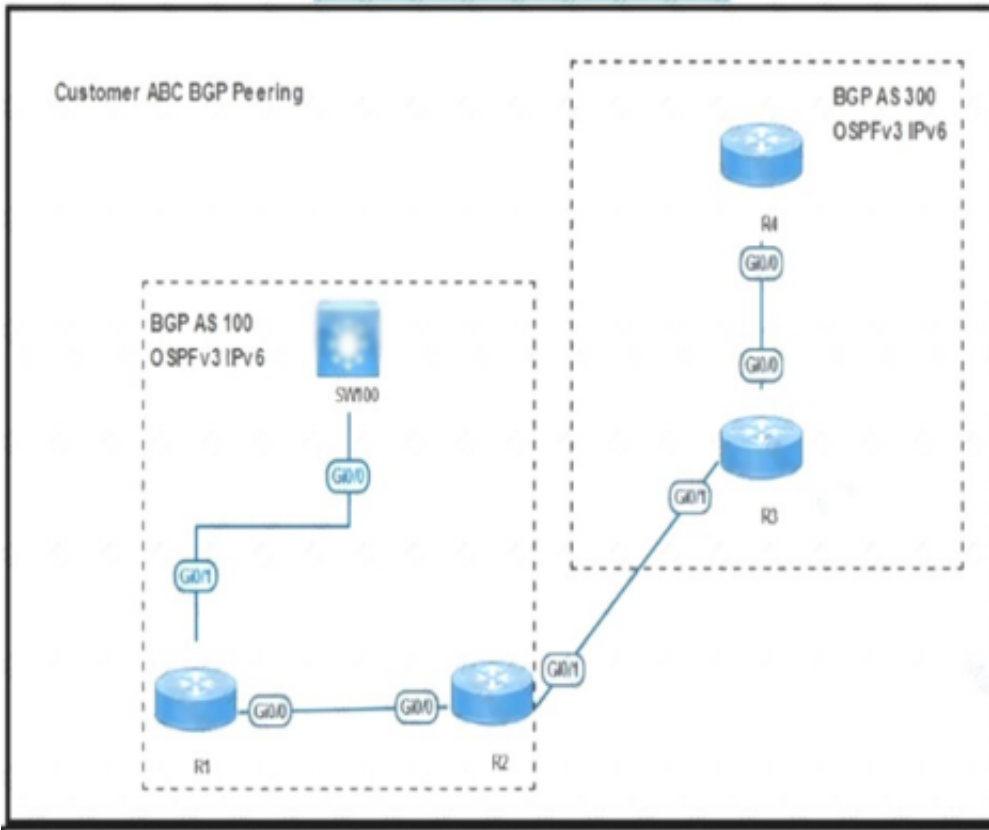
- ☐ router ospf 1 vrf blue
network 10.10.10.0 0.0.0.15 area 0
router ospf 2 vrf red
network 192.168.0.0 0.0.0.3 area 0
- ☐ router ospf 1 vrf blue
network 10.10.10.0 0.0.0.240 area 0
router ospf 2 vrf red
network 192.168.0.0 0.0.0.252 area 0
- ☐ router ospf 1 vrf blue
network 10.10.10.0 0.0.0.252 area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

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

Answer: A

NEW QUESTION 141

- (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 142

- (Exam Topic 3)

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

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

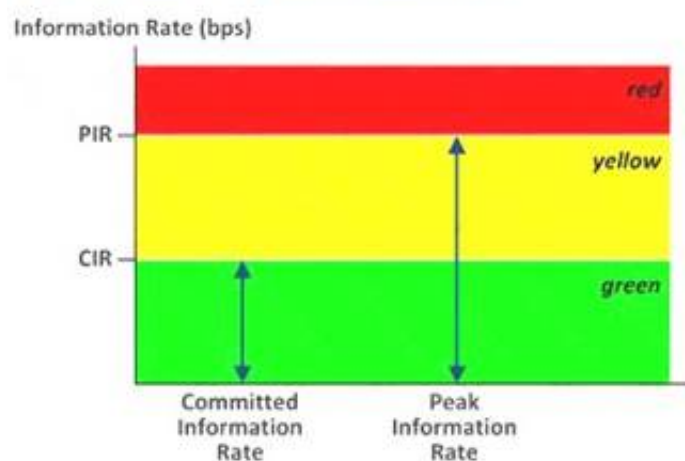
**Answer:** D

#### Explanation:

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

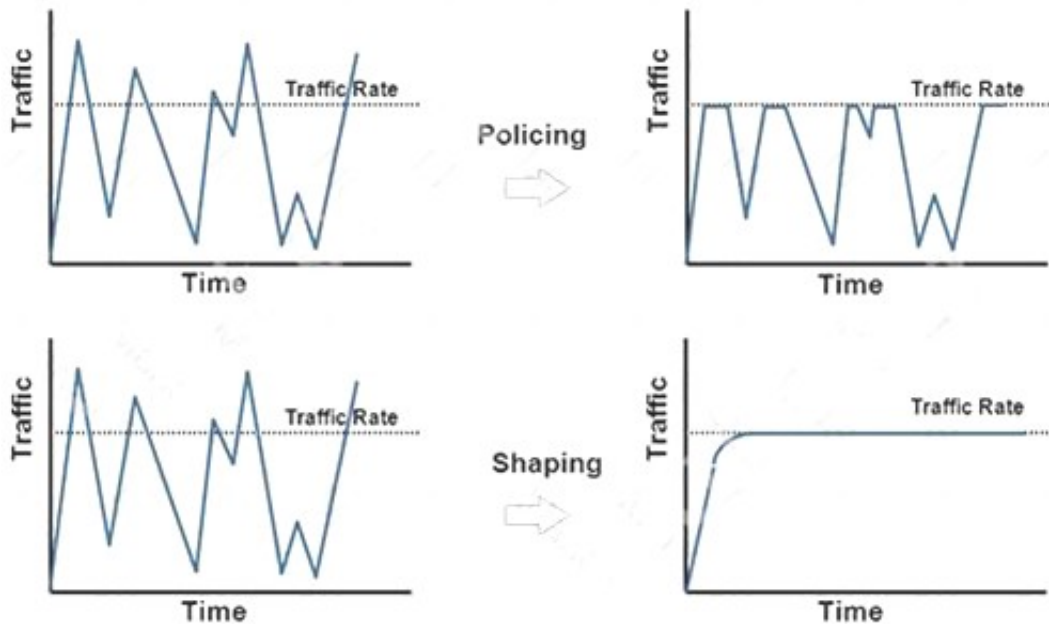
PIR (Peak Information Rate) is the top bandwidth point of allowed traffic in a non-busy time without any guarantee.

#### Two Rates & Three Colors



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

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



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

#### NEW QUESTION 146

- (Exam Topic 3)

Refer to the exhibit.

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

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

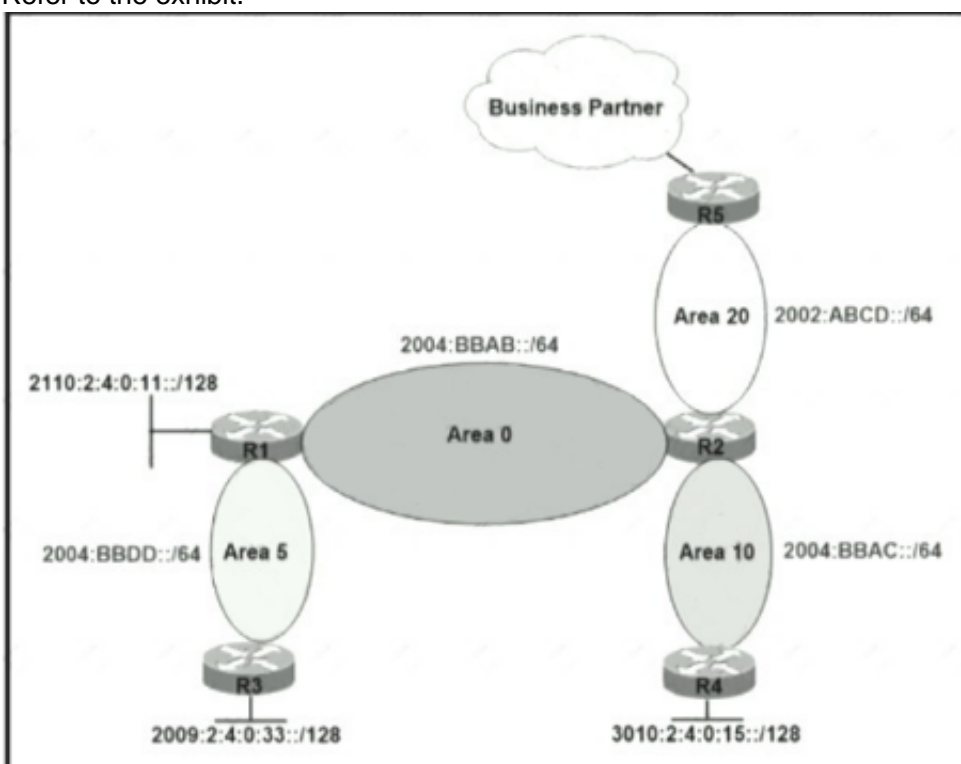
- A. router ospf 1 vrf CCNP interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- B. router ospf 1 interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- C. router ospf 1 vrf CCNP network 10.1.1.1 0.0.0.0 area 0 network 10.2.2.2 0.0.0.0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

**Answer: C**

#### NEW QUESTION 150

- (Exam Topic 3)

Refer to the exhibit.



```
R2#sh ipv6 route ospf
O 2002:ABCD::/64 [110/1]
via FastEthernet0/1, directly connected
O 2004:BBAB::/64 [110/1]
via FastEthernet0/0, directly connected
O 2004:BBAC::/64 [110/1]
via FastEthernet1/0, directly connected
O 3010:2:4:0:15::/128 [110/1]
via FE80::C804:1DFF:FE20:8, FastEthernet0/0
```

A network engineer applied a filter for LSA traffic on OSPFv3 interarea routes on the area 5 ABR to protect advertising the internal routes of area 5 to the business partner network. All other areas should receive the area 5 internal routes. After the respective route filtering configuration is applied on the ABR, area 5 routes are not visible on any of the areas. How must the filter list be applied on the ABR to resolve this issue?

- A. in the “in” direction for area 5 on router R1
- B. in the “out” direction for area 5 on router R1
- C. in the “in” direction for area 20 on router R2
- D. in the “out” direction for area 20 on router R2

**Answer:** D

#### NEW QUESTION 152

- (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 153

- (Exam Topic 3)

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

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

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

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

A)

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

B)



```

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

```

C)

```

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

```

D)

```

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

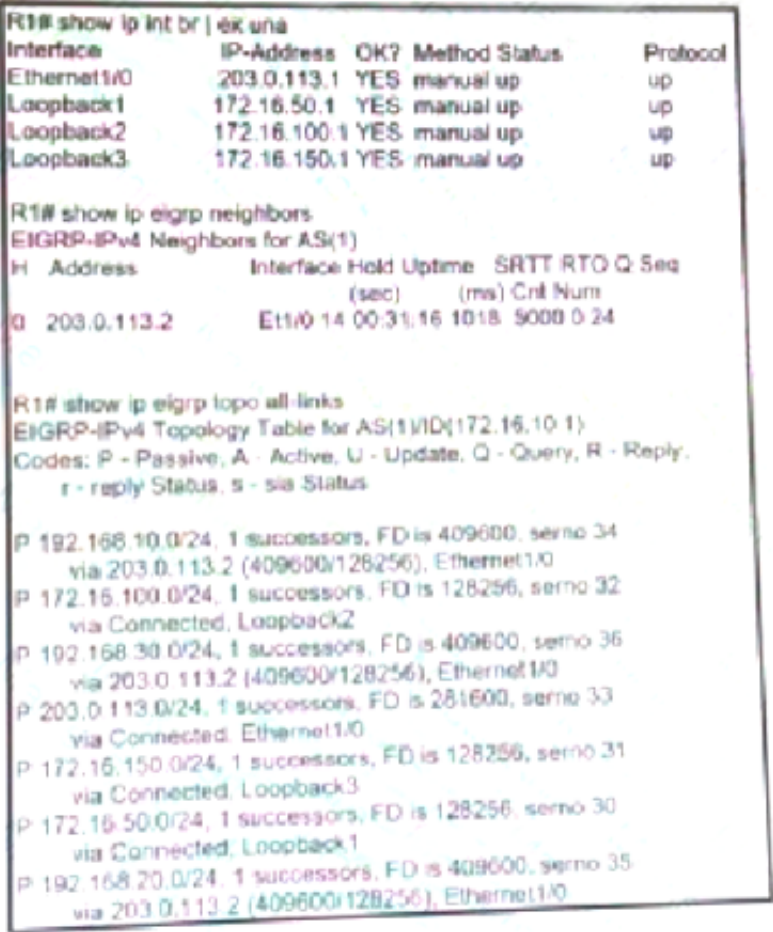
```

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

Answer: C

**NEW QUESTION 157**

- (Exam Topic 3)  
Refer to the exhibit.



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 160**

- (Exam Topic 3)  
Refer to the exhibit.

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

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

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

**Answer:** AE

#### NEW QUESTION 163

- (Exam Topic 3)

What is a function of BFD?

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

**Answer:** D

#### NEW QUESTION 165

- (Exam Topic 3)

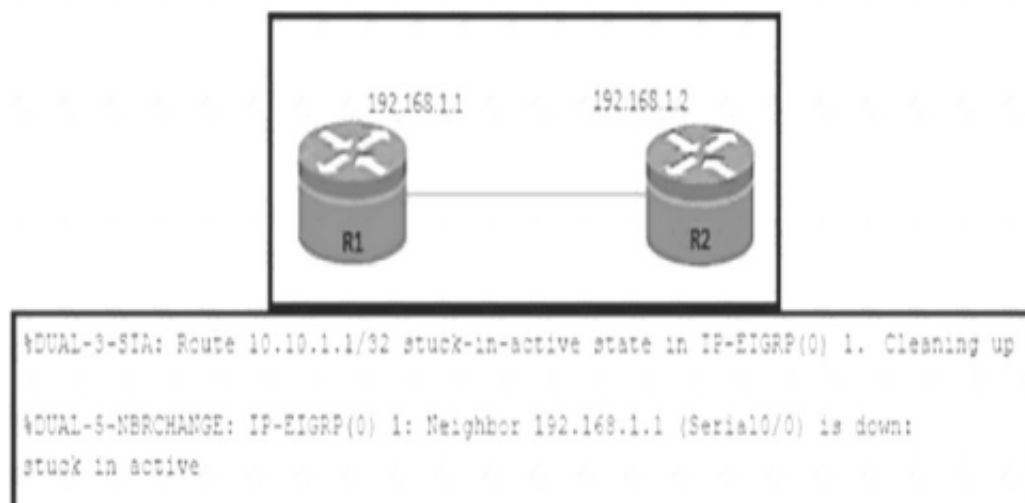
An engineer failed to run diagnostic commands on devices using Cisco DNA Center. Which action in Cisco DNA Center resolves the issue?

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

**Answer:** A

#### NEW QUESTION 170

- (Exam Topic 3)



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

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

**Answer:** B

#### NEW QUESTION 171

- (Exam Topic 3)

Refer to the exhibit.

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

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

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

**Answer: A**

#### NEW QUESTION 176

- (Exam Topic 3)

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

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

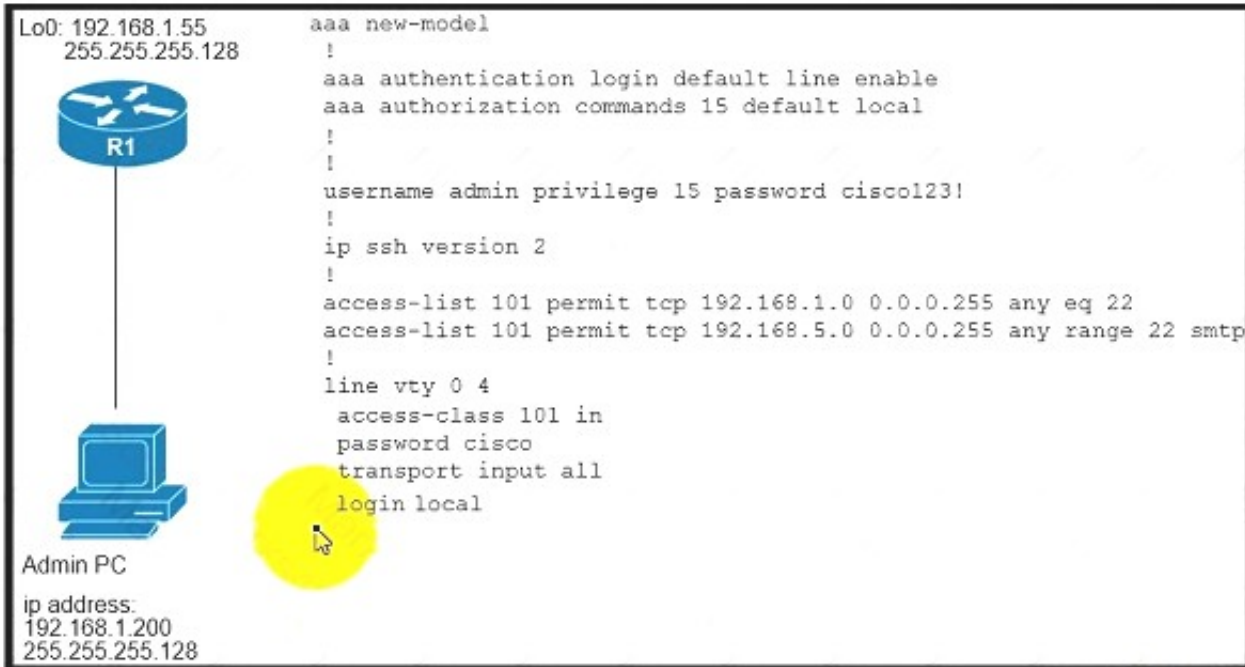
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

#### NEW QUESTION 177

- (Exam Topic 3)





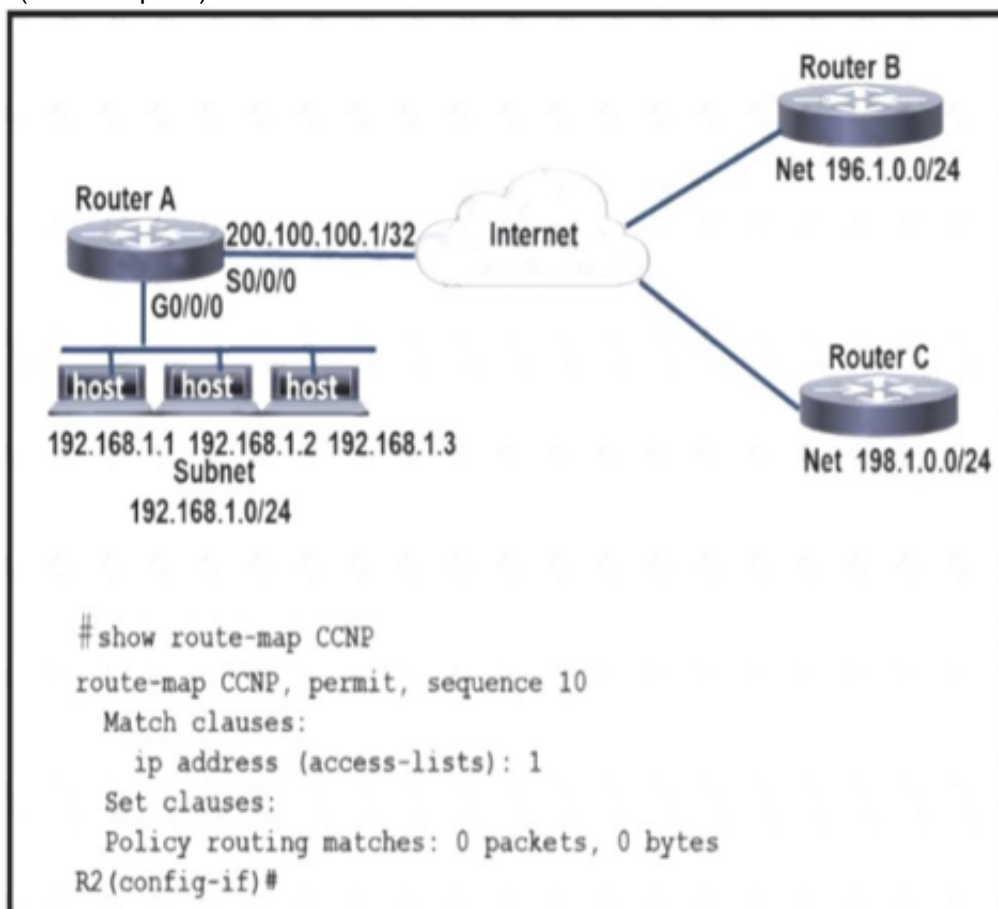
Refer to the exhibit. An engineer configured user login based on authentication database on the router, but no one can log into the router. Which configuration resolves the issue?

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

**Answer: C**

### NEW QUESTION 180

- (Exam Topic 3)



Refer to the exhibit. An engineer configures router A to mark all inside to outside traffic from network 192 168 1 0, except from host 192 168 1 1. with critical IP precedence. The policy did not work as expected Which configuration resolves the issue?

A)

```

RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP

```

B)

```

RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP deny 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP

```



C)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)#set ip precedence critical
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

D)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

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

Answer: A

NEW QUESTION 185

- (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 186

- (Exam Topic 3)

Refer to the exhibit.

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

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

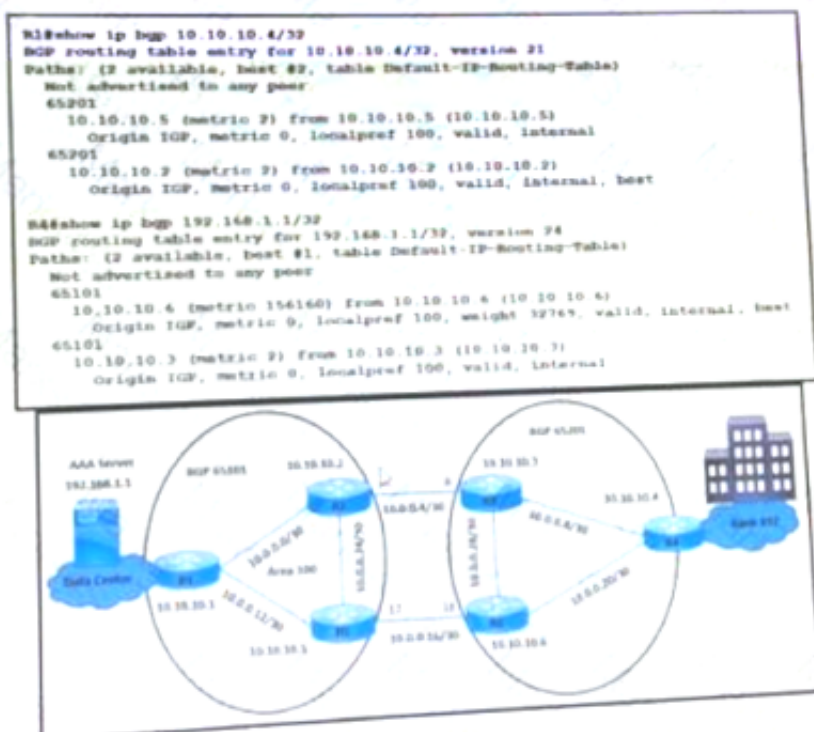
- A. Option A  
 B. Option B  
 C. Option C  
 D. Option D

**Answer: A**

### NEW QUESTION 189

- (Exam Topic 3)

Refer to the exhibit.



A customer reports that user traffic of bank XYZ to the AAA server is not using the primary path via the R3-R2 link. The network team observes: No fiber is cut on links R2 and R3. As101 and AS201 routers established BGP peering. Which configuration resolves the issue?

A)

```
R2(config)#route-map BGP-Path permit 10
R2(config-route-map)# set metric 200
R2(config)#router bgp 65101
R2(config-router)# neighbor 10.10.10.3 route-map BGP-Path out
```

B)

```
R6(config)#router bgp 65201
R6(config-router)#no neighbor 10.10.10.5 weight 32769
```

C)

```
R4(config)#router bgp 65201
R4(config-router)#no neighbor 10.10.10.6 weight 32769
```

D)

```
R1(config)#route-map BGP-Path permit 10
R1(config-route-map)# set local-preference 200
R1(config)#router bgp 65101
R1(config-router)# neighbor 10.10.10.2 route-map BGP-Path out
```

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

**Answer:** A

#### NEW QUESTION 190

- (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 194

- (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 DHP 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 198

- (Exam Topic 3)





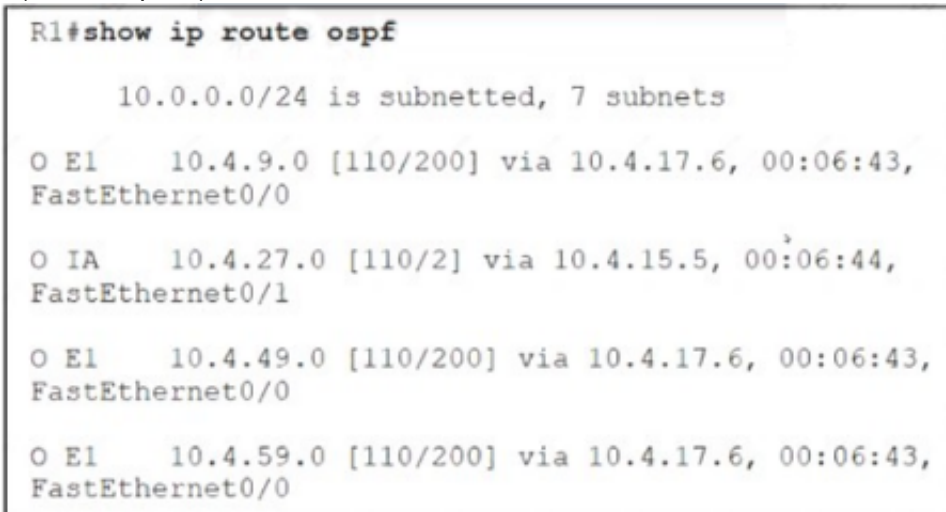
Refer to the exhibit. An engineer is investigating an OSPF issue reported by the Cisco DNA Assurance Center. Which action resolves the issue?

- 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 200

- (Exam Topic 3)



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

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

**Answer: D**

#### NEW QUESTION 204

- (Exam Topic 3)

An engineer is implementing a coordinated change with a server team. As part of the change, the engineer must configure interface GigabitEthernet2 in an existing VRF "RED" then move the interface to an existing VRF "BLUE" when the server team is ready. The engineer configured interface GigabitEthernet2 in VRF "RED"

```

interface GigabitEthernet2
description Migration ID: B410A60D0806G06
vrf forwarding RED
ip address 10.0.0.0 255.255.255.254
negotiation auto

```

Which configuration completes the change?

- A. interface GigabitEthernet2 no ip addressvrf forwarding BLUE
- B. interface GigabitEthernet2no vrf forwarding RED vrf forwarding BLUEip address 10.0.0.0 255.255.255.254
- C. interface GigabitEthernet2 no vrf forwarding RED vrf forwarding BLUE
- D. interface GigabitEthernet2 no ip addressip address 10.0.0.0 255.255.255.254vrf forwarding BLUE

**Answer: B**

#### Explanation:

When assigning an interface to a VRF, the IP address will be removed so we have to reassign the IP address to that interface.

#### NEW QUESTION 207

- (Exam Topic 3)





### NEW QUESTION 213

- (Exam Topic 3)

Refer to the exhibit.

```
R1# show ip ospf database self-originate
OSPF Router with ID (10.255.255.1) (Process ID 1)
Router Link States (Area 0)
Link ID ADV Router Age Seq# Checksum
Link count
10.255.255.1 10.255.255.1 4 0x8000003BD 0x001AD9
3
Summary Net Link States (Area 0)
Link ID ADV Router Age Seq# Checksum
10.0.34.0 10.255.255.1 3604 0x800000380 0x00275C
10.255.255.4 10.255.255.1 3604 0x800000380 0x00762B
Type-5 AS External Link States
Link ID ADV Router Age Seq# Checksum
Tag
0.0.0.0 10.255.255.1 3604 0x8000001D0 0x001CBC
0
*Feb 22 22:50:39.523: %OSPF-4-FLD_WAR: Process 1 flushes LSA
ID 0.0.0.0 type-5 adv-rtr 10.255.255.1 in area 0
```

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

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

**Answer: B**

### NEW QUESTION 214

- (Exam Topic 3)

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

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

**Answer: D**

### NEW QUESTION 216

- (Exam Topic 3)

```
Router# show logging

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

No Active Message Discriminator.
No Inactive Message Discriminator.

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

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

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

Exception Logging: size (8192 bytes)

Count and timestamp logging messages: disabled

Persistent logging: disabled
```

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

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

**Answer: D**

#### NEW QUESTION 217

- (Exam Topic 3)

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

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

**Answer: C**

#### NEW QUESTION 221

- (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 Loopback0ip address 10.1.1.1 255.255.255.0
- C. interface Loopback0ip address 10.1.1.1 255.255.255.0 vrf forwarding CCNP
- D. interface Loopback0ip address 10.1.1.1 255.255.255.0ip 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 222

- (Exam Topic 3)

What is the purpose of the DHCPv6 Guard?

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

**Answer: A**

#### Explanation:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xr-16/ipv6xe-16-book/ip6-dhcpv6-guard.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xr-16/ipv6xe-16-book/ip6-dhcpv6-guard.html)

#### NEW QUESTION 223

- (Exam Topic 3)

Refer to the exhibit.

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

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

**Answer: A**

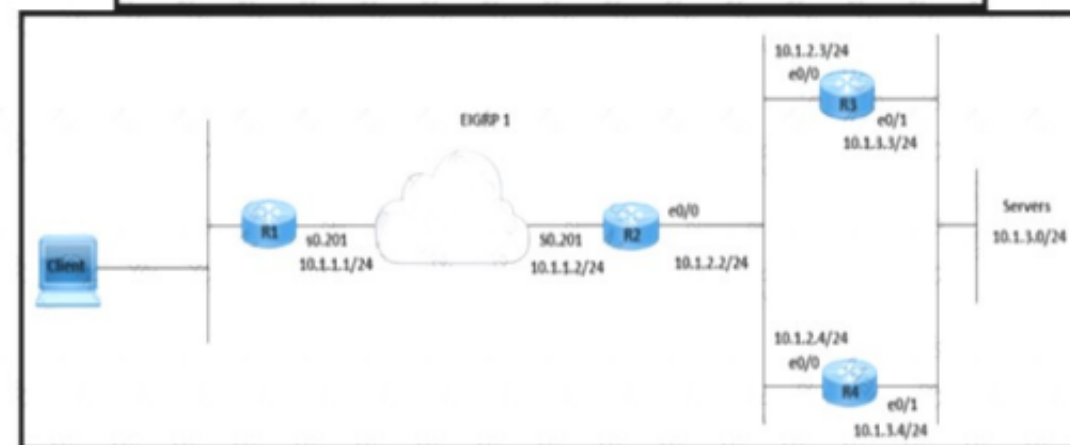
#### NEW QUESTION 225

- (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?

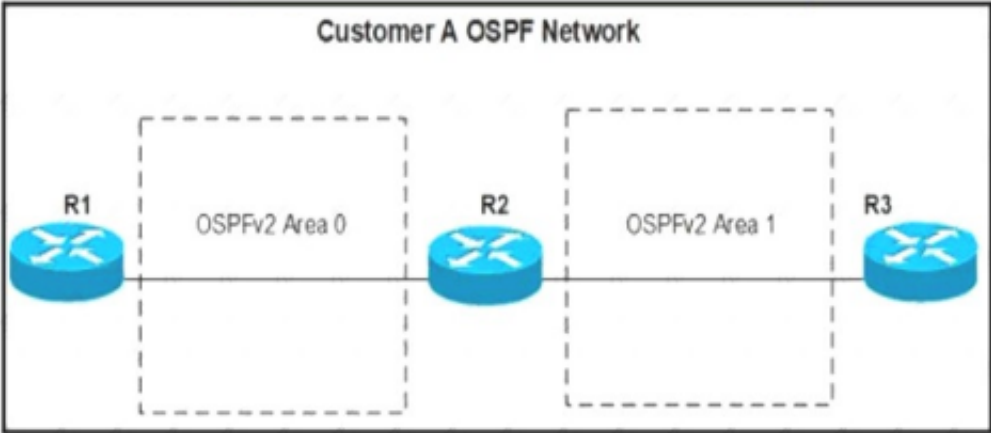
- A. 208 on R3 E0/0
- B. 120 on R4 E0/1
- C. 120 on R3 E0/1
- D. 2200 on R4 E0/1

**Answer: C**

#### NEW QUESTION 226

- (Exam Topic 3)



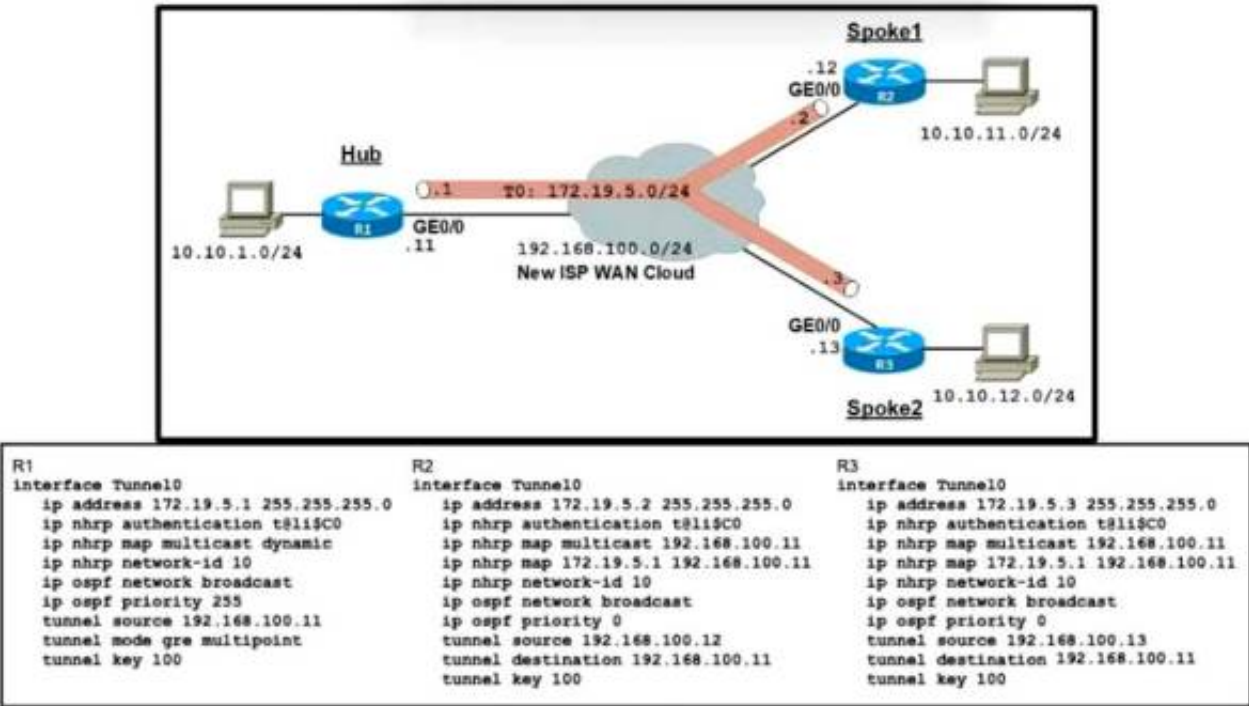


Refer to the exhibit  
An engineer must ensure that R3 sees only type 1 and 2 LSAs in area 1.  
Which command must the engineer apply on R2?

- A. Area 1 stub nssa
- B. Area 1nssa no-summary
- C. Area a stub no-summary
- D. Area 1 stub

Answer: C

NEW QUESTION 229  
- (Exam Topic 3)



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

- A)
- ```
interface Tunnel0
no tunnel destination 192.168.100.11
tunnel mode mpls traffic-eng
```
- B)
- ```
interface Tunnel0
ip ospf priority 1
ip ospf network non-broadcast
```
- C)
- ```
interface Tunnel0
no tunnel destination 192.168.100.11
tunnel mode gre multipoint
```
- D)
- ```
interface Tunnel0
ip ospf priority 253
ip ospf network point-to-multipoint
```

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

Answer: C

**NEW QUESTION 232**

- (Exam Topic 3)

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

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

**Answer: C**

**Explanation:**

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

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

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

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

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

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

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

**NEW QUESTION 234**

- (Exam Topic 3)

How is VPN routing information distributed in an MPLS network?

- A. The top level of the customer data packet directs it to the correct CE device
- B. It is established using VPN IPsec peers.
- C. It is controlled using of VPN target communities.
- D. It is controlled through the use of RD.

**Answer: C**

**Explanation:**

The distribution of virtual private network (VPN) routing information is controlled through the use of VPN route target communities, implemented by Border Gateway Protocol (BGP) extended communities.

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_l3\\_vpns/configuration/15-mt/mp-l3-vpns-15-mt-book/m](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_l3_vpns/configuration/15-mt/mp-l3-vpns-15-mt-book/m)

**NEW QUESTION 235**

- (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 237**

- (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 238

- (Exam Topic 2)

Refer to the exhibit.

```
login block-for 15 attempts 10 within 120
login on-failure log
login on-success log
archive
log config
logging enable
logging size 300
notify syslog
```

```
snmp-server enable traps syslog
snmp-server host 172.16.17.1 public syslog
```

The administrator can see the traps for the failed login attempts, but cannot see the traps of successful login attempts. What command is needed to resolve the issue?

- A. Configure logging history 2
- B. Configure logging history 3
- C. Configure logging history 4
- D. Configure logging history 5

**Answer:** D

**Explanation:**

By default, the maximum severity sent as a syslog trap is warning. That is why you see syslog traps for login failures. Since a login success is severity 5 (notifications), those syslog messages will not be converted to traps. To fix this, configure:

**logging history 5**

Syslog levels are listed below

| Level | Keyword       | Description                               |
|-------|---------------|-------------------------------------------|
| 0     | emergencies   | System is unusable                        |
| 1     | alerts        | Immediate action is needed                |
| 2     | critical      | Critical conditions exist                 |
| 3     | errors        | Error conditions exist                    |
| 4     | warnings      | Warning conditions exist                  |
| 5     | notification  | Normal, but significant, conditions exist |
| 6     | informational | Informational messages                    |
| 7     | debugging     | Debugging messages                        |

Note:

The syntax of login block is:

login block-for seconds attempts tries within seconds

#### NEW QUESTION 241

- (Exam Topic 2)

Refer to the exhibit.



```

Debug output:
username: USER55
password:
Aug 26 12:39:23.813: TPLUS: Queuing AAA Authentication request 4950 for processing
Aug 26 12:39:23.813: TPLUS(00001356) login timer started 1020 sec timeout
Aug 26 12:39:23.813: TPLUS: processing authentication continue request id 4950
Aug 26 12:39:23.813: TPLUS: Authentication continue packet generated for 4950
Aug 26 12:39:23.813: TPLUS(00001356)/0/WRITE/3A72C8D0: Started 5 sec timeout
!
!---- output omitted ----!
!
Aug 26 12:40:01.241: TAC+: using previously set server 192.168.1.3 from group tacacs+
Aug 26 12:40:01.241: TAC+: Opening TCP/IP to 192.168.1.3/49 timeout=5
Aug 26 12:40:01.249: TAC+: Opened TCP/IP handle 0x3BE31D1C to 192.168.1.3/49
Aug 26 12:40:01.249: TAC+: Opened 192.168.1.3 index=1
Aug 26 12:40:01.250: TAC+: 192.168.1.3 (3653537180) AUTHOR/START queued
Aug 26 12:40:01.449: TAC+: (3653537180) AUTHOR/START processed
Aug 26 12:40:01.449: TAC+: (-641430116): received author response status = FAIL
Aug 26 12:40:01.450: TAC+: Closing TCP/IP 0x3BE31D1C connection to 192.168.1.3/49

```

A network administrator logs into the router using TACACS+ username and password credentials, but the administrator cannot run any privileged commands. Which action resolves the issue?

- A. Configure TACACS+ synchronization with the Active Directory admin group
- B. Configure the username from a local database
- C. Configure full access for the username from TACACS+ server
- D. Configure an authorized IP address for this user to access this router

**Answer: C**

#### NEW QUESTION 246

- (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/x3s/isw-cef-x3s-book/isw-cef](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipswitch_cef/configuration/x3s/isw-cef-x3s-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 249

- (Exam Topic 2)

What are two purposes of using IPv4 and VPNv4 address-family configurations in a Layer 3 MPLS VPN? (Choose two.)

- A. The VPNv4 address is used to advertise the MPLS VPN label.
- B. RD is prepended to the IPv4 route to make it unique.
- C. MP-BGP is used to allow overlapping IPv4 addresses between customers to advertise through the network.
- D. The IPv4 address is needed to tag the MPLS label.
- E. The VPNv4 address consists of a 64-bit route distinguisher that is prepended to the IPv4 prefix.

**Answer: BE**

#### Explanation:

VPNv4 address consists of 64-bit Route Distinguisher (RD) prepended to IPv4 prefix. This is to make routes unique that are in different VRFs.

#### NEW QUESTION 253

- (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 257**

- (Exam Topic 2)

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

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

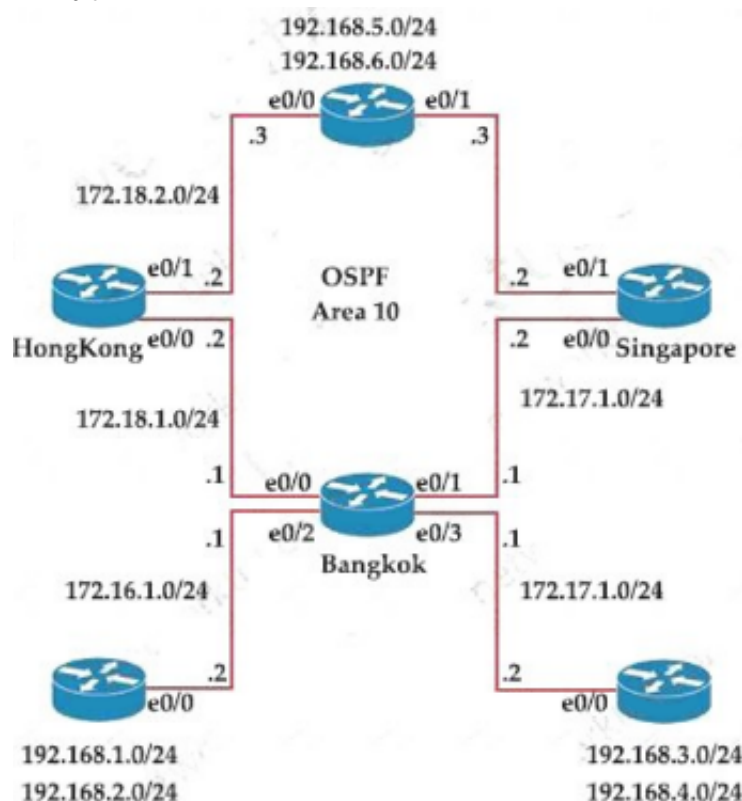
- A. ipv6 access-list inbound permit tcp any any syn deny ipv6 any any log!interface gi0/0ipv6 traffic-filter inbound out
- B. ipv6 access-list inbound permit tcp any any syn deny ipv6 any any log!interface gi0/0ipv6 traffic-filter inbound in
- C. ipv6 access-list inbound permit tcp any any established deny ipv6 any any log!interface gi0/0ipv6 traffic-filter inbound in
- D. ipv6 access-list inbound permit tcp any any established deny ipv6 any any log!interface gi0/0ipv6 traffic-filter inbound out

**Answer:** C

**NEW QUESTION 258**

- (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 0.0.0.255access-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 101set ip next-hop 172.18.1.2 interface Ethernet0/3ip 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 23access-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 101set ip next-hop 172.18.1.2 interface Ethernet0/1ip 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 23access-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 101set ip next-hop 172.18.1.2!interface Ethernet0/3ip policy route-map PBR1
- D. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255access-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 101set ip next-hop 172.18.1.2!interface Ethernet0/1ip 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 262**

- (Exam Topic 2)

Which two protocols work in the control plane of P routers across the MPLS cloud? (choose two)

- A. LSP

- B. RSVP
- C. ECMP
- D. LDP
- E. MPLS OAM

**Answer:** BD

#### NEW QUESTION 267

- (Exam Topic 2)

Refer to the exhibit.

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

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

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

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

**Answer:** B

#### NEW QUESTION 269

- (Exam Topic 2)

Refer to the exhibit.

```
router ospf 1
 redistribute eigrp 1 subnets route-map EIGRP->OSPF
!
router eigrp 1
 network 10.0.106.0 0.0.0.255
!
route-map EIGRP->OSPF permit 10
 match ip address WAN_PREFIXES
route-map EIGRP->OSPF permit 20
 match ip address LOCAL_PREFIXES
route-map EIGRP->OSPF permit 30
 match ip address VPN_PREFIXES
!
ip prefix-list LOCAL_PREFIXES seq 5 permit 172.16.0.0/12 le 24
ip prefix-list VPN_PREFIXES seq 5 permit 192.168.0.0/16 le 24
ip prefix-list WAN_PREFIXES seq 5 permit 10.0.0.0/8 le 24
!
```

The network administrator configured redistribution on an ASBR to reach all WAN networks but failed. Which action resolves the issue?

- A. The route map must have the keyword prefix-list to evaluate the prefix list entries.
- B. The OSPF process must have a metric when redistributing prefixes from EIGRP.
- C. The route map EIGRP->OSPF must have the 10.0.106.0/24 entry to exist in one of the three prefix lists to pass.
- D. EIGRP must redistribute the 10.0.106.0/24 route instead of using the network statement.

**Answer:** A

#### Explanation:

In order to use a prefix-list in a route-map, we must use the keyword "prefix-list" in the "match" statement. . For example:

```
match ip address prefix-list WAN_PREFIXES
```

Without this keyword, the router will try to find an access-list with the same name instead.

#### NEW QUESTION 270

- (Exam Topic 2)

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

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



**Answer:** A

**Explanation:**

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

**NEW QUESTION 274**

- (Exam Topic 2)

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

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

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

**Answer:** B

**Explanation:**

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

**NEW QUESTION 278**

- (Exam Topic 2)

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

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

**Answer:** DE

**Explanation:**

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

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

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

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

**NEW QUESTION 282**

- (Exam Topic 2)

What is the minimum time gap required by the local system before putting a BFD control packet on the wire?

- A. Detect Mult
- B. Required Min Echo RX Interval

- C. Desired Min TX Interval
- D. Required Min RX Interval

**Answer:** C

**Explanation:**

Desired Min TX Interval: This is the minimum interval, in microseconds, that the local system would like to use when transmitting BFD Control packets, less any jitter applied. The value zero is reserved.

Required Min Echo RX Interval: This is the minimum interval, in microseconds, between received BFD Echo packets that this system is capable of supporting, less any jitter applied by the sender. If this value is zero, the transmitting system does not support the receipt of BFD Echo packets.

Reference: <https://tools.ietf.org/html/rfc5880>

**NEW QUESTION 283**

- (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.

```
NVbos2811-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
NVbos2811-1(config)#^Z
NVbos2811-1#sh
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 286**

- (Exam Topic 2)

How are MPLS Layer 3 VPN services deployed?

- A. The RD and RT values must match under the VRR
- B. The RD and RT values under a VRF must match on the remote PE router
- C. The import and export RT values under a VRF must always be the same.
- D. The label switch path must be available between the local and remote PE routers.

**Answer:** D

**Explanation:**

<https://www.cisco.com/c/en/us/td/docs/iosxr/ncs5500/vpn/65x/b-l3vpn-cg-ncs5500-65x/b-l3vpn-cg-ncs5500-65> The ingress PE router must be able to reach the egress PE router for a packet to be relayed to its destination.

**NEW QUESTION 289**

- (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 294**

- (Exam Topic 2)

Which IGPs are supported by the MPLS LDP autoconfiguration feature?

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

**Answer: C**

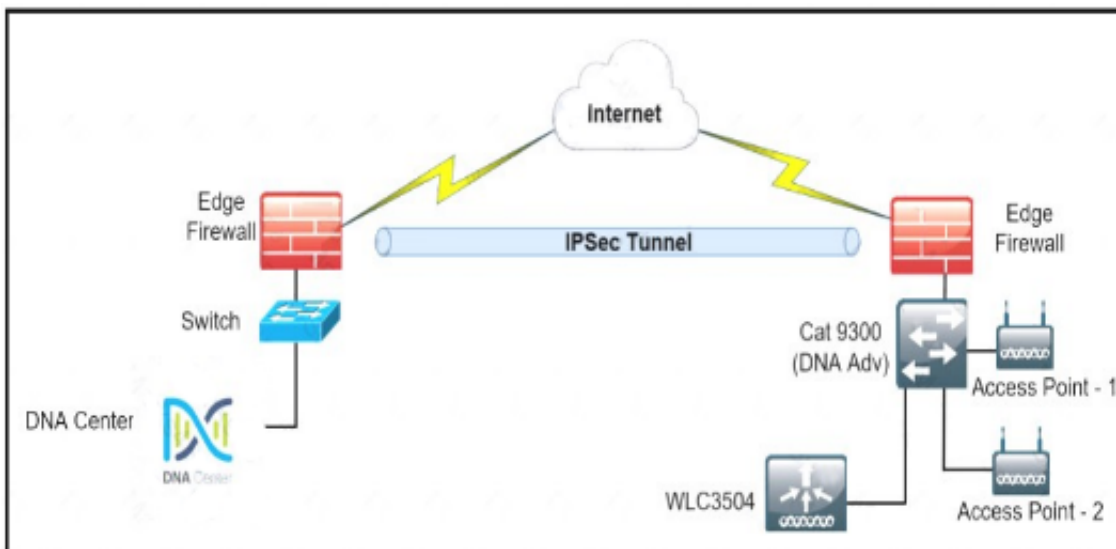
**Explanation:**

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

#### NEW QUESTION 296

- (Exam Topic 2)

Refer to the exhibit.



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

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

**Answer: D**

**Explanation:**

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

#### NEW QUESTION 298

- (Exam Topic 2)

Exhibit:

```
11:27:07.532: AAA/BIND (00000055): Bind i/
11:27:07.532: AAA/AUTHEN/LOGIN (00000055): Pick method list 'default'
11:27:07.532: TPLUS: Queuing AAA Authentication request 85 for processing
11:27:07.532: TPLUS (00000055) login timer started 1020 sec timeout
11:27:07.532: TPLUS: processing authentication start request id 85
11:27:07.532: TPLUS: Authentication start packet created for 85()
11:27:07.532: TPLUS: Using server 10.106.60.182
11:27:07.532: TPLUS (00000055)/0/NB_WAIT/225FE2DC: Started 5 sec timeout
11:27:07.532: TPLUS (00000055)/0/NB_WAIT: socket event 2
11:27:07.532: TPLUS (00000055)/0/NB_WAIT: wrote entire 38 bytes request
11:27:07.532: TPLUS (00000055)/0/READ: socket event 1
11:27:07.532: TPLUS (00000055)/0/READ: Would block while reading
11:27:07.532: TPLUS (00000055)/0/READ: socket event 1
11:27:07.532: TPLUS (00000055)/0/READ: read entire 12 header bytes (expect 6 bytes data)
13:27:07.532: TPLUS (00000055)/0/READ: socket event 1
11:27:07.532: TPLUS (00000055)/0/READ: read entire 18 bytes response
11:27:07.532: TPLUS (00000055)/0/225FE2DC: Processing the reply packet
11:27:07.532: TPLUS: received bad AUTHEN packet: length = 6, expected 43974
11:27:07.532: TPLUS: Invalid AUTHEN packet (check keys).
```

Which action resolves the authentication problem?

- A. Configure the user name on the TACACS+ server
- B. Configure the UDP port 1812 to be allowed on the TACACS+ server
- C. Configure the TCP port 49 to be reachable by the router
- D. Configure the same password between the TACACS+ server and router.

**Answer: D**



### Explanation:

From the last line of the output, we notice that the result was “Invalid AUTHEN packet”. Therefore something went wrong with the username or password.

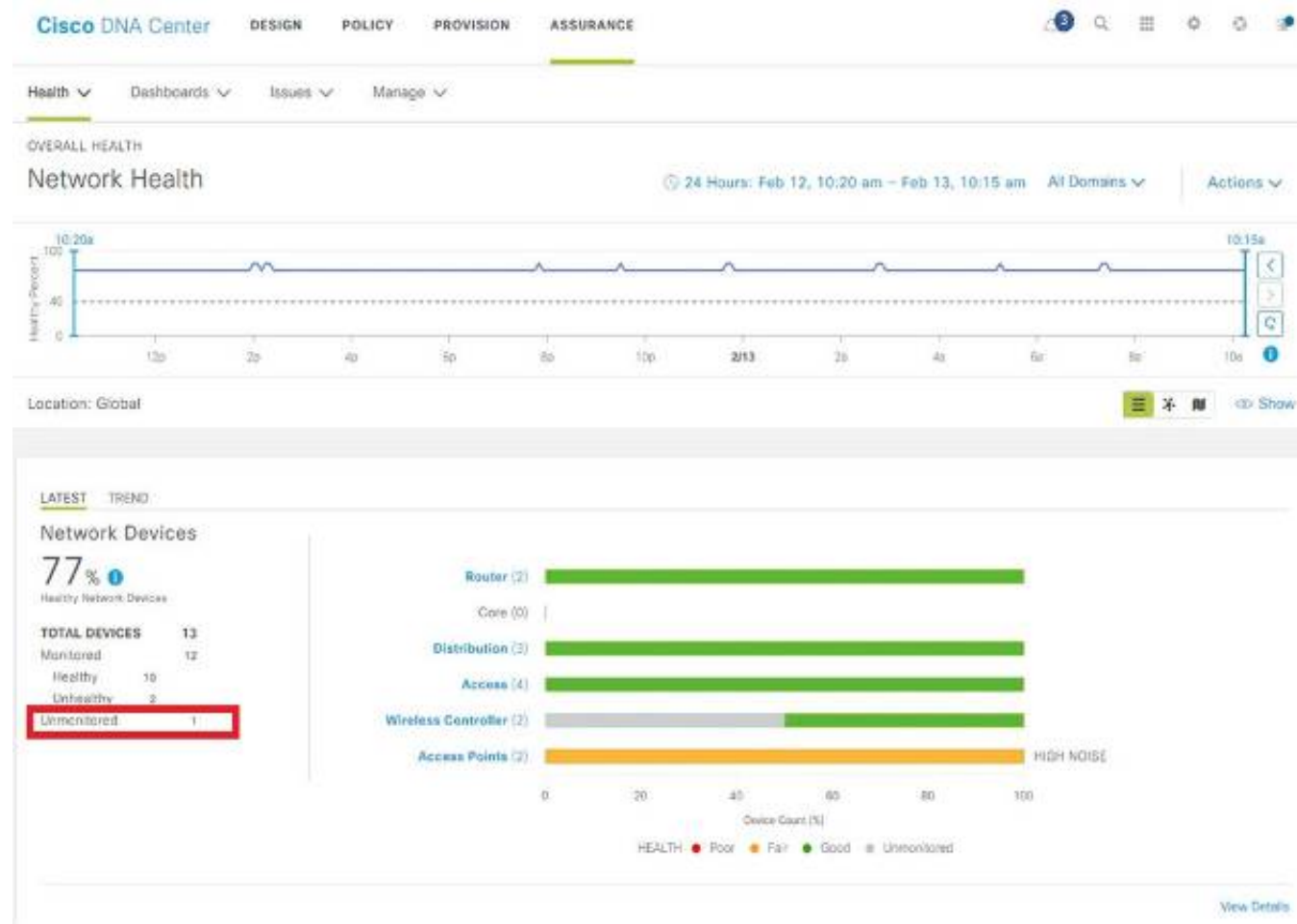
Reference:

<https://www.cisco.com/c/en/us/support/docs/security-vpn/terminal-access-controller-access-control-system-taca>

### NEW QUESTION 302

- (Exam Topic 2)

Refer to Exhibit.



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

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

**Answer: B**

### Explanation:

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

### NEW QUESTION 305

- (Exam Topic 1)

Which protocol is used in a DMVPN network to map physical IP addresses to logical IP addresses?

- A. BGP
- B. LLDP
- C. EIGRP
- D. NHRP

**Answer: D**

### NEW QUESTION 310

- (Exam Topic 1)

Refer to the exhibit.

```
Global RADIUS shared secret:*****
retransmission count:5
timeout value:10
following RADIUS servers are configured:
 myradius.cisco.users.com:
 available for authentication on port:1814
 available for accounting on port:1813
 10.1.1.1:
 available for authentication on port:1814
 available for accounting on port:1813
 RADIUS shared secret:*****
 10.2.2.3:
 available for authentication on port:1814
 available for accounting on port:1813
 RADIUS shared secret:*****
```

AAA server 10.1.1.1 is configured with the default authentication and accounting settings, but the switch cannot communicate with the server Which action resolves this issue?

- A. Match the authentication port
- B. Match the accounting port
- C. Correct the timeout value.
- D. Correct the shared secret.

**Answer:** A

**Explanation:**

Command Default Accounting port: 1813

Authentication port: 1812 Accounting: enabled Authentication: enabled Retransmission count: 1

Idle-time: 0

Server monitoring: disabled Timeout: 5 seconds

Test username: test Test password: test Reference:

[https://www.cisco.com/c/m/en\\_us/techdoc/dc/reference/cli/n5k/commands/radius-server-host.html](https://www.cisco.com/c/m/en_us/techdoc/dc/reference/cli/n5k/commands/radius-server-host.html) By default, RADIUS uses UDP port 1812 for authentication and port 1813 for accounting. In the exhibit above we see port 1814 is being used for authentication to AAA server at 10.1.1.1 which is not the default port so we must adjust the authentication port to the default value 1812.

**NEW QUESTION 312**

- (Exam Topic 1)

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

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

**Answer:** A

**NEW QUESTION 315**

- (Exam Topic 1)

What is a role of route distinguishers in an MPLS network?

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

**Answer:** D

**NEW QUESTION 319**

- (Exam Topic 1)

Drag and drop the OSPF adjacency states from the left onto the correct descriptions on the right.

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

- A. Mastered  
 B. Not Mastered

**Answer: A**

**Explanation:**

Table Description automatically generated

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

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

Down

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

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

Attempt

This state is only valid for manually configured neighbors in an NBMA environment. In Attempt state, the router sends unicast hello packets every poll interval to the neighbor, from which hellos have not been received within the dead interval.

Init

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

2-Way

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

Bi-directional means that each router has seen the other's hello packet. This state is attained when the router receiving the hello packet sees its own Router ID within the received hello packet's neighbor field. At this state, a router decides whether to become adjacent with this neighbor. On broadcast media and non-broadcast multiaccess networks, a router becomes full only with the designated router (DR) and the backup designated router (BDR); it stays in the 2-way state with all other neighbors. On Point-to-point and Point-to-multipoint networks, a router becomes full with all connected routers.

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

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

Exstart

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

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

Exchange

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

Loading

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

Full

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

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

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

FULL/DROTHER when you enter the show ip ospf neighbor

command on either a DR or BDR. This simply

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

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



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

#### NEW QUESTION 320

- (Exam Topic 1)

What is the output of the following command:

show ip vrf

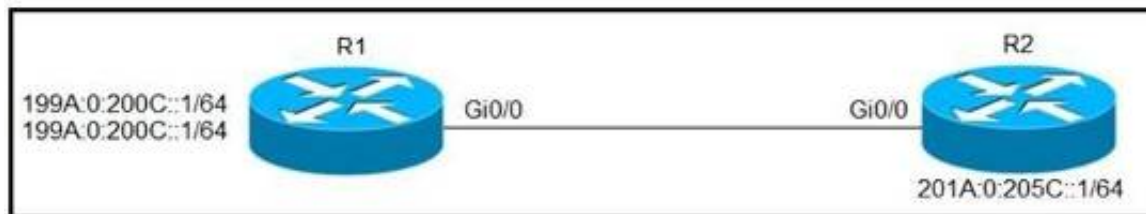
- A. Show's default RD values
- B. Displays IP routing table information associated with a VRF
- C. Show's routing protocol information associated with a VRF.
- D. Displays the ARP table (static and dynamic entries) in the specified VRF

**Answer: A**

#### NEW QUESTION 325

- (Exam Topic 1)

Refer to the exhibit.



Which configuration denies Telnet traffic to router 2 from 198A:0:200C::1/64?

- A)  

```
ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host 201A:0:205C::1/64 eq telnet
!
```

```
int Gi0/0
 ipv6 traffic-filter Deny_Telnet in
!
```
- B)  

```
ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host 201A:0:205C::1/64 eq telnet
!
```

```
int Gi0/0
 ipv6 access-map Deny_Telnet in
!
```
- C)  

```
ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host 201A:0:205C::1/64
!
```

```
int Gi0/0
 ipv6 access-map Deny_Telnet in
!
```
- D)  

```
ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host 201A:0:205C::1/64
!
```

```
int Gi0/0
 ipv6 traffic-filter Deny_Telnet in
!
```

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

**Answer: A**

#### NEW QUESTION 328

- (Exam Topic 1)

Users were moved from the local DHCP server to the remote corporate DHCP server. After the move, none of the users were able to use the network.

Which two issues will prevent this setup from working properly? (Choose two)

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

E. The route to the new DHCP server is missing

**Answer:** BE

#### NEW QUESTION 333

- (Exam Topic 1)

Refer to the exhibit.

```
R200#show ip bgp summary
BGP router identifier 10.1.1.1, local AS number 65000
BGP table version is 26, main routing table version 26
1 network entries using 132 bytes of memory
1 path entries using 52 bytes of memory
2/1 BGP path/bestpath attribute entries using 296 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
Bitfield cache entries: current 1 (at peak 2) using 28 bytes of memory
BGP using 508 total bytes of memory
BGP activity 24/23 prefixes, 24/23 paths, scan interval 60 secs
Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd
192.0.2.2 4 65100 20335 20329 0 0 0 00:02:04 Idle (PfxCt)
R200#
```

In which circumstance does the BGP neighbor remain in the idle condition?

- A. if prefixes are not received from the BGP peer
- B. if prefixes reach the maximum limit
- C. if a prefix list is applied on the inbound direction
- D. if prefixes exceed the maximum limit

**Answer:** D

#### Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/25160-bgp-maximum-prefix.html#>

#### NEW QUESTION 335

- (Exam Topic 1)

Refer to the exhibit.

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

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

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

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

**Answer:** D

#### Explanation:

Reference:

Note: By default Static Router AD value-1 hence ip route 0.0.0.0. 0.0.0.0. 1.1.1.1 track 1 means AD-1 which must be less than of back up route AD.

Define the backup route to use when the tracked object is unavailable. !--- The administrative distance of the backup route must be greater than !--- the administrative distance of the tracked route.!--- If the primary gateway is unreachable, that route is removed!--- and the backup route is installed in the routing table!--- instead of the tracked route.

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

<https://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/118962-config>

#### NEW QUESTION 336

- (Exam Topic 1)

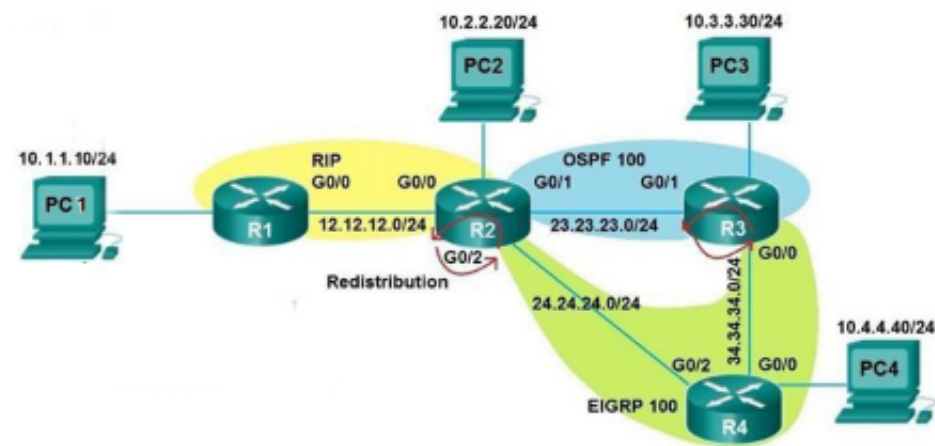
Which command is used to check IP SLA when an interface is suspected to receive lots of traffic with options?

- A. show track
- B. show threshold
- C. show timer
- D. show delay

**Answer:** A

#### NEW QUESTION 337

- (Exam Topic 1)  
Refer to the exhibit.



Redistribution is enabled between the routing protocols, and now PC2, PC3, and PC4 cannot reach PC1. What are the two solutions to fix the problem? (Choose two.)

- A. Filter RIP routes back into RIP when redistributing into RIP in R2
- B. Filter OSPF routes into RIP FROM EIGRP when redistributing into RIP in R2.
- C. Filter all routes except RIP routes when redistributing into EIGRP in R2.
- D. Filter RIP AND OSPF routes back into OSPF from EIGRP when redistributing into OSPF in R2
- E. Filter all routes except EIGRP routes when redistributing into OSPF in R3.

Answer: AC

**Explanation:**  
Even PC2 cannot reach PC1 so there is something wrong with RIP redistribution in R2. Because RIP has higher Administrative Distance (AD) value than OSPF and EIGRP so it will be looped when doing mutual redistribution.

NEW QUESTION 341

- (Exam Topic 1)  
Which is statement about IPv6 inspection is true?

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

Answer: D

NEW QUESTION 343

- (Exam Topic 1)  
Drag and drop the MPLS terms from the left onto the correct definitions on the right.

|     |                                                |
|-----|------------------------------------------------|
| PE  | device that forwards traffic based on labels   |
| P   | path that the labeled packet takes             |
| CE  | device that is unaware of MPLS labeling        |
| LSP | device that removes and adds the MPLS labeling |

- A. Mastered
- B. Not Mastered

Answer: A

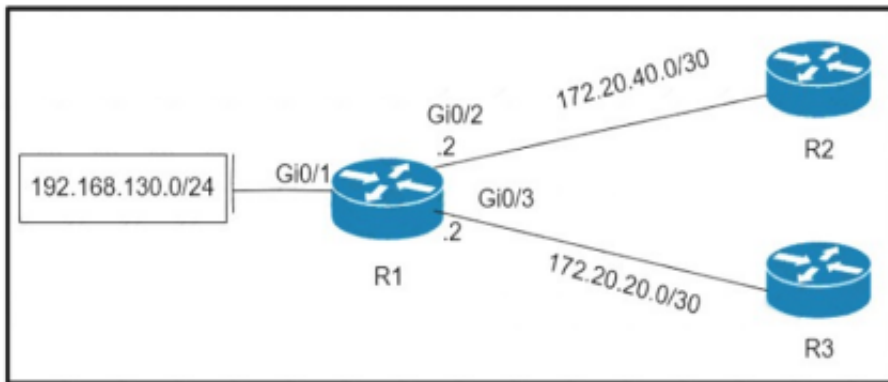
**Explanation:**

|     |     |
|-----|-----|
| PE  | P   |
| P   | LSP |
| CE  | CE  |
| LSP | PE  |

NEW QUESTION 348



- (Exam Topic 1)  
Refer to the exhibit.



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

- A. 

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

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

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

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

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

**Answer: D**

#### NEW QUESTION 351

- (Exam Topic 1)  
Drag and drop the DHCP messages from the left onto the correct uses on the right.

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

- A. Mastered
- B. Not Mastered

**Answer: A**

#### Explanation:

DHCPACK

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

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

DHCPNAK

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

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

Reference:

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

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

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

DHCPACK: After the DHCP server receives the DHCPREQUEST, it acknowledges the request with a

DHCPACK message, thus completing the initialization process.

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

Reference:

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

### NEW QUESTION 353

- (Exam Topic 1)

Refer to the exhibit.

```
aaa new-model
aaa authentication login default none
aaa authentication login telnet local
!
username cisco password 0 ocsic
!
line vty 0
password LetMeIn
login authentication telnet
transport input telnet
line vty 1
password LetMeIn
transport input telnet
```

Drag and drop the credentials from the left onto the remote login information on the right to resolve a failed login attempt to vtys. Not all credentials are used.

|             |                               |
|-------------|-------------------------------|
| no password | vty 0<br>username<br>password |
| ocsic       |                               |
| no username | vty 1<br>username<br>password |
| LetMeIn     |                               |
| cisco       |                               |
| LetMeIn     |                               |

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

vty 0:

+ cisco

+ 0csic vty 1:

+ no username

+ no password

The command “aaa authentication login default none” means no authentication is required when access to the device via Console/VTY/AUX so if one interface does not specify another login authentication method (via the “login authentication ...” command), it will allow to access without requiring username or password. In this case VTY 1 does not specify another authentication login method so it will use the default method (which is “none” in this case).

**NEW QUESTION 356**

- (Exam Topic 1)

Which list defines the contents of an MPLS label?

- A. 20-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL
- B. 32-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL
- C. 20-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit
- D. 32-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit

**Answer:** A

**Explanation:**

The first 20 bits constitute a label, which can have  $2^{20}$  values. Next comes 3 bit value called Traffic Class. It was formerly called as experimental (EXP) field. Now it has been renamed to Traffic Class (TC). This field is used for QoS related functions. Ingress router can classify the packet according to some criterion and assign a 3 bit value to this field. If an incoming packet is marked with some IP Precedence or DSCP value and the ingress router may use such a field to assign an FEC to the packet. Next bit is Stack bit which is called bottom-of-stack bit. This field is used when more than one label is assigned to a packet, as in the case of MPLS VPNs or MPLS TE. Next byte is MPLS TTL field which serves the same purpose as that of IP TTL byte in the IP header

Reference: <https://tools.ietf.org/html/rfc5462>

**NEW QUESTION 360**

- (Exam Topic 1)

Refer to the exhibit.

```
Router#show access-lists
Standard IP access list 1
 10 permit 192.168.2.2 (1 match)
Router#
Router#show route-map
route-map RM-OSPF-DL, permit, sequence 10
 Match clauses:
 ip address (access-lists): 1
 Set clauses:
 Policy routing matches: 0 packets, 0 bytes
Router#
Router#show running-config | section ospf
router ospf 1
 network 192.168.1.1 0.0.0.0 area 0
 network 192.168.12.0 0.0.0.255 area 0
 distribute-list route-map RM-OSPF-DL in
Router#
```

An engineer is trying to block the route to 192.168.2.2 from the routing table by using the configuration that is shown. The route is still present in the routing table as an OSPF route. Which action blocks the route?

- A. Use an extended access list instead of a standard access list.
- B. Change sequence 10 in the route-map command from permit to deny.
- C. Use a prefix list instead of an access list in the route map.
- D. Add this statement to the route map: route-map RM-OSPF-DL deny 20.

**Answer:** B

**NEW QUESTION 365**

- (Exam Topic 1)

Refer to the exhibit.

```
!
 neighbor 10.222.1.1 route-map SET-WEIGHT in
 neighbor 10.222.1.1 remote-as 1
!
 ip as-path access-list 200 permit ^690$
 ip as-path access-list 200 permit ^1800
!
 route-map SET-WEIGHT permit 10
 match as-path 200
 set local-preference 250
 set weight 200
```

A router receiving BGP routing updates from multiple neighbors for routers in AS 690. What is the reason that the router still sends traffic that is destined to AS 690 to a neighbor other than 10.222.1.1?

- A. The local preference value in another neighbor statement is higher than 250.
- B. The local preference value should be set to the same value as the weight in the route map.
- C. The route map is applied in the wrong direction.



D. The weight value in another neighbor statement is higher than 200.

**Answer: C**

#### NEW QUESTION 366

- (Exam Topic 1)

Refer to the following output:

Router#show ip nhrp detail 10.1.1.2 /8 via 10.2.1.2, Tunnel1 created 00:00:12, expire 01:59:47 TypeE. dynamic, Flags: authoritative unique nat registered used NBMA address: 10.12.1.2

What does the authoritative flag mean in regards to the NHRP information?

- A. It was obtained directly from the next-hop server.
- B. Data packets are process switches for this mapping entry.
- C. NHRP mapping is for networks that are local to this router.
- D. The mapping entry was created in response to an NHRP registration request.
- E. The NHRP mapping entry cannot be overwritten.

**Answer: A**

#### NEW QUESTION 370

- (Exam Topic 1)

Which two statements about VRF-Lite configurations are true? (Choose two.)

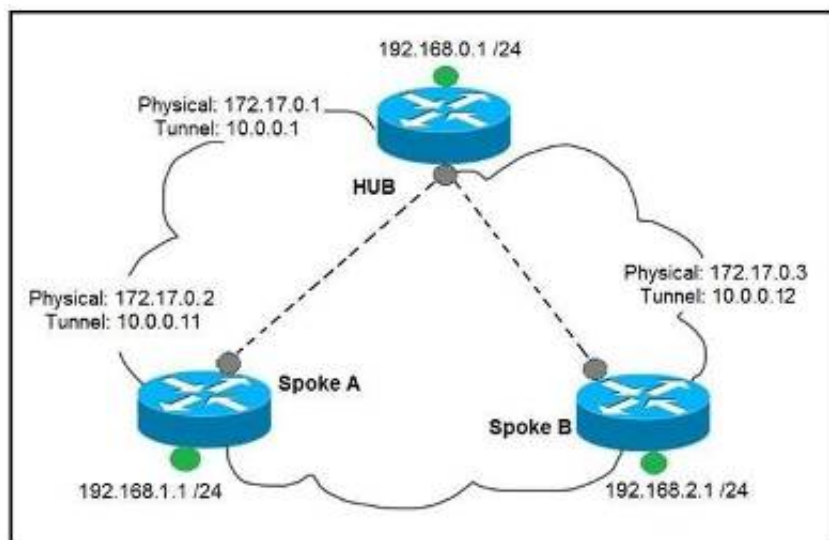
- A. They support the exchange of MPLS labels
- B. Different customers can have overlapping IP addresses on different VPNs
- C. They support a maximum of 512,000 routes
- D. Each customer has its own dedicated TCAM resources
- E. Each customer has its own private routing table.
- F. They support IS-IS

**Answer: BE**

#### NEW QUESTION 375

- (Exam Topic 1)

Refer to the exhibit.



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

- A. 

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

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

- C. `interface Tunnel0`  
`ip address 10.1.0.11 255.255.255.0`  
`ip nhrp network-id 1`  
`tunnel source 1.1.1.10`  
`ip nhrp map 10.0.0.11 172.17.0.2`  
`tunnel mode gre`
- D. `interface Tunnel0`  
`ip address 10.0.0.11 255.255.255.0`  
`ip nhrp map multicast static`  
`ip nhrp network-id 1`  
`tunnel source 10.0.0.1`  
`tunnel mode gre multipoint`

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

**Answer: B**

#### NEW QUESTION 379

- (Exam Topic 1)

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

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

**Answer: BF**

#### NEW QUESTION 383

- (Exam Topic 1)

Refer to the exhibit.

```
service timestamps debug datetime msec
service timestamps log datetime
clock timezone MST -7 0
clock summer-time MST recurring
ntp authentication-key 1 md5 00101A0B0152181206224747071E 7
ntp server 10.10.10.10

R1#show clock
*06:13:44.045 MST Sun Dec 30 2018

R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config) #logging host 10.10.10.20
R1(config) #end
R1#
*Dec 30 13:15:28: %SYS-5-CONFIG_I: Configured from console by console
R1#
*Dec 30 13:15:28: %SYS-6-LOGGINGHOST_STARTSTOP: Logging to host 10.10.10.20 port 514
started - CLI initiated
```

An administrator noticed that after a change was made on R1, the timestamps on the system logs did not match the clock. What is the reason for this error?

- A. An authentication error with the NTP server results in an incorrect timestamp.  
B. The keyword localtime is not defined on the timestamp service command.  
C. The NTP server is in a different time zone.  
D. The system clock is set incorrectly to summer-time hours.

**Answer: B**

#### NEW QUESTION 385

- (Exam Topic 1)

Refer the exhibit.

```
R3#show policy-map control-plane
Control Plane

Service-policy output: R3_CoPP

Class-map: mgmt (match-all)
 361 packets, 73858 bytes
 5 minute offered rate 0 bps, drop rate 0 bps
 Match: access-group 120
 police:
 cir 8000 bps, bc 1500 bytes, be 1500 bytes
 conformed 8 packets, 1506 bytes; actions:
 transmit
 exceeded 353 packets, 72352 bytes; actions:
 drop
 violated 0 packets, 0 bytes; actions:
 drop
 conformed 0 bps, exceed 0 bps, violate 0 bps

Class-map: class-default (match-any)
 124 packets, 10635 bytes
 5 minute offered rate 0 bps, drop rate 0 bps
 Match: any
R3#show access-lists 120
Extended IP access list 120
 10 permit udp any any eq snmptrap (361 matches)
```

Which action resolves intermittent connectivity observed with the SNMP trap packets?

- A. Decrease the committed burst Size of the mgmt class map
- B. Increase the CIR of the mgmt class map
- C. Add a new class map to match TCP traffic
- D. Add one new entry in the ACL 120 to permit the UDP port 161

**Answer: B**

#### NEW QUESTION 387

- (Exam Topic 1)

Refer to the exhibit.

```
Router#sh ip route ospf
<output omitted>
Gateway is last resort is not set

 10.0.0.0/24 is subnetted, 1 subnets
 o E2 10.0.0.0 [110/20] via 192.168.12.2, 00:00:10, Ethernet0/0
 o 192.168.3.0/24 [110/20] via 192.168.12.2, 00:00:50, Ethernet0/0
Router#

Router#show ip bgp
<output omitted>
 Network Next Hop Metric LocPrf Weight Path
>* 192.168.1.1/32 0.0.0.0 0 32768 ?
>* 192.168.3.0 192.168.12.2 20 32768 ?
>* 192.168.12.0 0.0.0.0 0 32768 ?
Router#show running-config | section router bgp
router bgp 65000
 bgp log-neighbor-changes
 redistribute ospf 1
Router#
```

An engineer is trying to redistribute OSPF to BGP, but not all of the routes are redistributed. What is the reason for this issue?

- A. By default, only internal routes and external type 1 routes are redistributed into BGP
- B. Only classful networks are redistributed from OSPF to BGP
- C. BGP convergence is slow, so the route will eventually be present in the BGP table
- D. By default, only internal OSPF routes are redistributed into BGP

**Answer: D**

#### Explanation:

If you configure the redistribution of OSPF into BGP without keywords, only OSPF intra-area and inter-area routes are redistributed into BGP, by default.

You can redistribute both internal and external (type-1 & type-2) OSPF routes via this command: Router(config-router)#redistribute ospf 1 match internal external 1 external 2

Reference:

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

#### NEW QUESTION 390

- (Exam Topic 1)

What is a function of IPv6 ND inspection?

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

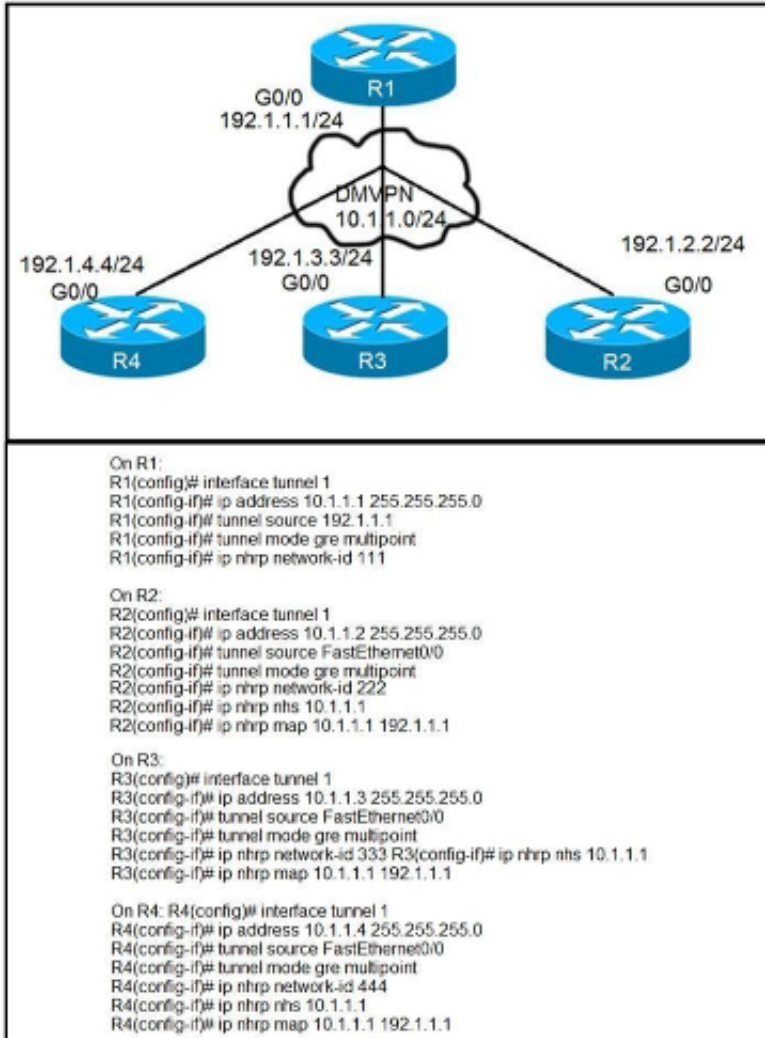
**Answer: B**



### NEW QUESTION 391

- (Exam Topic 1)

Refer to the exhibits.



Phase-3 tunnels cannot be established between spoke-to-spoke in DMVPN. Which two commands are missing? (Choose two.)

- A. The ip nhrp redirect command is missing on the spoke routers.
- B. The ip nhrp shortcut command is missing on the spoke routers.
- C. The ip nhrp redirect commands is missing on the hub router.
- D. The ip nhrp shortcut commands is missing on the hub router.
- E. The ip nhrp map command is missing on the hub router.

**Answer: BC**

### NEW QUESTION 394

- (Exam Topic 1)

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

```

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

```

- A. Configure access-list 1 permit 10.1.1.0.0.0.0.3.
- B. Configure access-list 1 permit 10.1.1.1.0.0.0.252.
- C. Configure access-list 1 and match under route-map Leak-Route.
- D. Configure route-map Leak-Route permit 10 and match access-list 1.
- E. Configure route-map Leak-Route permit 20.

**Answer: AD**

#### Explanation:

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

```

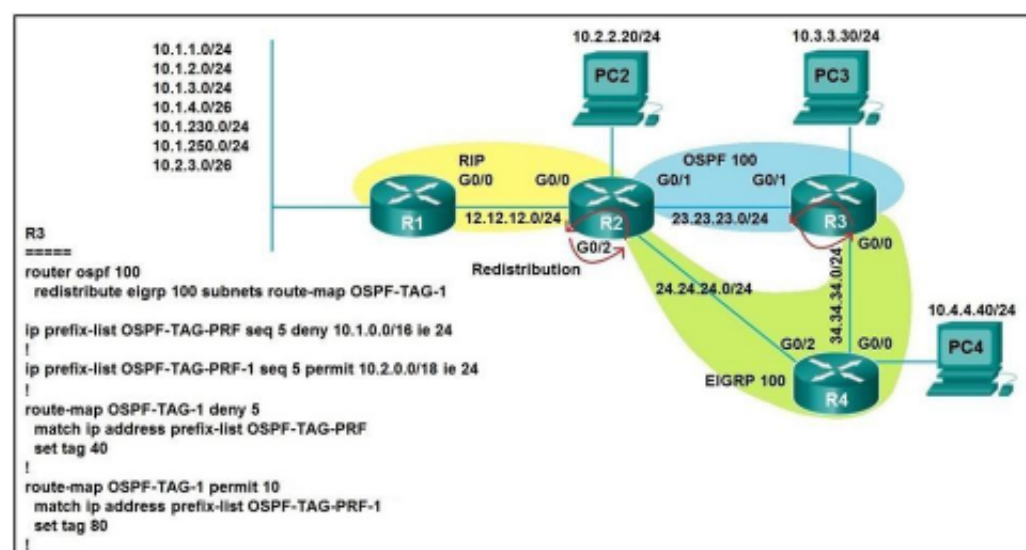
R1(config)#access-list 1 permit 10.1.1.0 0.0.0.3
R1(config)#route-map Leak-Route permit 10 // this command will also remove the "route_map Leak-Route deny 10" command.
R1(config-route-map)#match ip address 1

```

### NEW QUESTION 398

- (Exam Topic 1)

Refer to the exhibit.



Which subnet is redistributed from EIGRP to OSPF routing protocols?

- A. 10.2.2.0/24
- B. 10.1.4.0/26
- C. 10.1.2.0/24
- D. 10.2.3.0/26

**Answer:** A

### NEW QUESTION 399

- (Exam Topic 1)

Which protocol does MPLS use to support traffic engineering?

- A. Tag Distribution Protocol (TDP)
- B. Resource Reservation Protocol (RSVP)
- C. Border Gateway Protocol (BGP)
- D. Label Distribution Protocol (LDP)

**Answer:** B

### Explanation:

MPLS TE provides a way to integrate TE capabilities (such as those used on Layer 2 protocols like ATM) into Layer 3 protocols (IP). MPLS TE uses an extension to existing protocols (Intermediate System-to-Intermediate System (IS-IS), Resource Reservation Protocol (RSVP), OSPF) to calculate and establish unidirectional tunnels that are set according to the network constraint. Traffic flows are mapped on the different tunnels depending on their destination.

### NEW QUESTION 403

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