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QUESTION & ANSWER



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**Exam : 300-510**

**Title :** Implementing Cisco Service  
Provider Advanced Routing  
Solutions (SPRI)

**Version : DEMO**

## 1.CORRECT TEXT

Guidelines
Topology
Tasks

Configure and verify an OSPF neighbor adjacency between R1 and R2 in OSPF area 0 according to the topology to achieve these goals:

1. R1 pings the Loopback0 interface of R2. Use interface-level configuration to complete this task.
2. R2 pings the Loopback0 interface of R1. Use interface-level configuration to complete this task.
3. R2 receives a single summary route 172.16.100.0/22 for networks 172.16.100.0/24, 172.16.101.0/24, and 172.16.103.0/24.

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R1
R2

```
R1>
```

Guidelines
Topology
Tasks

**OSPF Process ID 10  
Area 0**

Lo0: 10.1.1.1/32

Lo10: 172.16.100.0/24

Lo20: 172.16.101.0/24

Lo30: 172.16.103.0/24

R1

E0/0 .1 172.16.0.0/24 E0/0 .2

R2

Lo0: 10.2.2.2/32

R1
R2

```
R1>
```

R1 R2

```
R1>en
R1#sh run
Building configuration...

Current configuration : 1302 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
--More-- █
```

```
!  
interface Loopback0  
  ip address 10.1.1.1 255.255.255.255  
!  
interface Loopback10  
  ip address 172.16.100.1 255.255.255.0  
  ip ospf 10 area 1  
!  
interface Loopback20  
  ip address 172.16.101.1 255.255.255.0  
  ip ospf 10 area 1  
!  
interface Loopback30  
  ip address 172.16.103.1 255.255.255.0  
  ip ospf 10 area 1  
!
```



```
interface Loopback10
  ip address 172.16.100.1 255.255.255.0
  ip ospf 10 area 1
!
interface Loopback20
  ip address 172.16.101.1 255.255.255.0
  ip ospf 10 area 1
!
interface Loopback30
  ip address 172.16.103.1 255.255.255.0
  ip ospf 10 area 1
!
interface Ethernet0/0
  ip address 172.16.0.1 255.255.255.0
  ip ospf 10 area 0
  duplex auto
!
interface Ethernet0/1
  no ip address
  shutdown
  duplex auto
!
interface Ethernet0/2
  no ip address
  shutdown
  duplex auto
!
interface Ethernet0/3
  no ip address
  shutdown
  duplex auto
!
router ospf 10
  router-id 10.1.1.1
!
```

R2

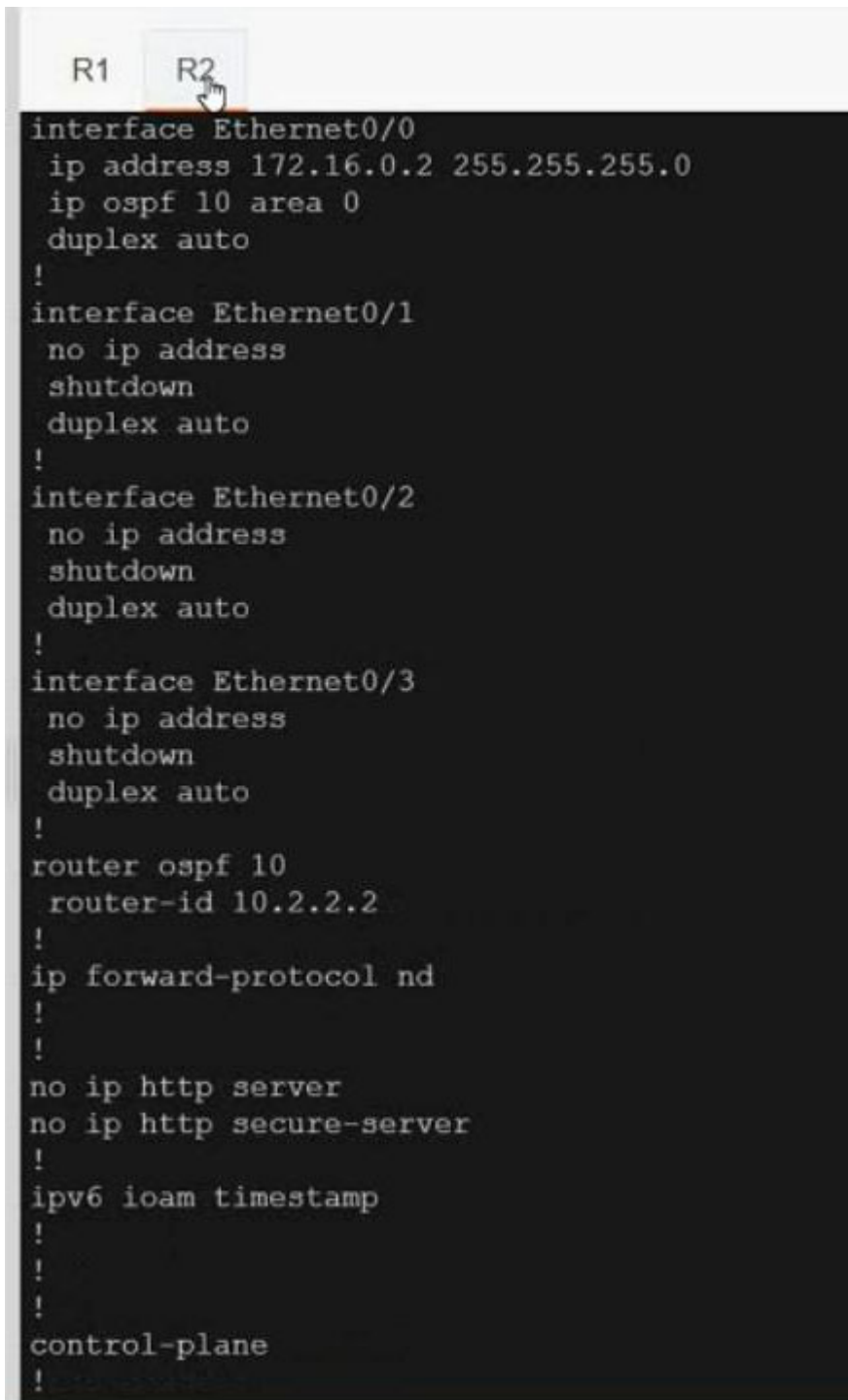


```
R1 R2
R2>
R2>
R2>
R2>
R2>en
R2#sh run
Building configuration...

Current configuration : 1059 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
--More--
```

```
!  
!  
!  
!  
!  
interface Loopback0  
  ip address 10.2.2.2 255.255.255.255  
!  
interface Ethernet0/0  
  ip address 172.16.0.2 255.255.255.0  
  ip ospf 10 area 0  
  duplex auto  
!  
interface Ethernet0/1  
  no ip address  
  shutdown  
  duplex auto  
!  
interface Ethernet0/2  
  no ip address
```





```
interface Ethernet0/0
 ip address 172.16.0.2 255.255.255.0
 ip ospf 10 area 0
 duplex auto
!
interface Ethernet0/1
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
router ospf 10
 router-id 10.2.2.2
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!
!
!
control-plane
!
```

**Answer:**

Solution: -

R1

Int loopback0

Ip ospf 10 area 0

Int loopback10

Ip ospf network point-to-point

Int loopback20

Ip ospf network point-to-point

Int loopback30  
 Ip ospf network point-to-point  
 Router ospf 10  
 Area 1 range 172.16.100.0 255.255.252.0  
 Copy run start  
 Verification: -

```

R2#
R2#sh ip route ospf
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BG
P
        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 lev
el-2
        ia - IS-IS inter area, * - candidate default, U - per-user static
route
        o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
        a - application route
        + - replicated route, % - next hop override, p - overrides from P
fR
Gateway of last resort is not set

    10.0.0.0/32 is subnetted, 2 subnets
O       10.1.1.1 [110/11] via 172.16.0.1, 00:02:25, Ethernet0/0
    172.16.0.0/16 is variably subnetted, 3 subnets, 3 masks
O IA    172.16.100.0/22 [110/11] via 172.16.0.1, 00:00:50, Ethernet0/0
R2#
  
```

Text

Description automatically generated

2.Which statement about enabling segment routing for IGP is true?

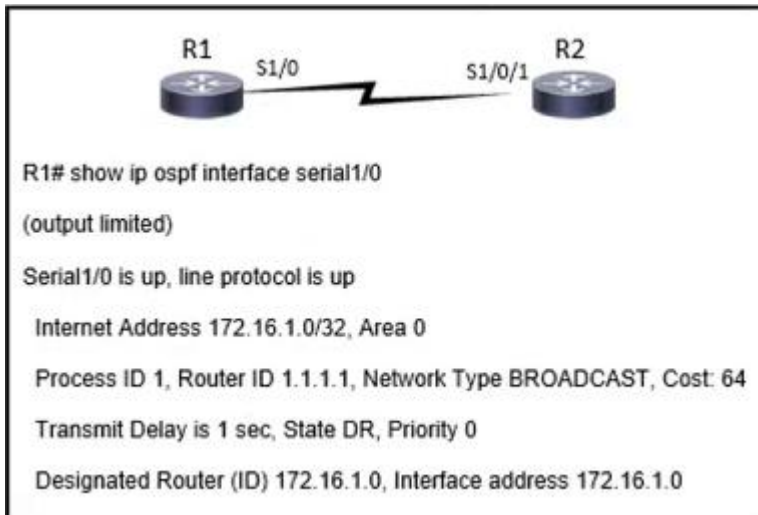
- A. Segment routing must first be enabled under then routing process and then globally
- B. Segment routing must first be enabled globally and then under the routing process
- C. Segment routing can be enabled only under the routing process
- D. Segment routing can be enabled only globally

**Answer: B**

**Explanation:**

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/seg\\_routing/configuration/xr-16-6/segrrt-xr-16-6-book/sr-ospfv2-node-sid.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/seg_routing/configuration/xr-16-6/segrrt-xr-16-6-book/sr-ospfv2-node-sid.html)

3.Refer to the exhibit.



While configuring router 2 with all the default values, a network engineer cannot see any route received in router 1.

How should the engineer solve the issue?

- A. Set up a priority different than 0 in the interface.
- B. Modify the router ID to be the interface IP on the serial.
- C. Modify the IP address or mask of the interface to a valid one.
- D. Set the network type in S1/0 to point-to-point.

**Answer: C**

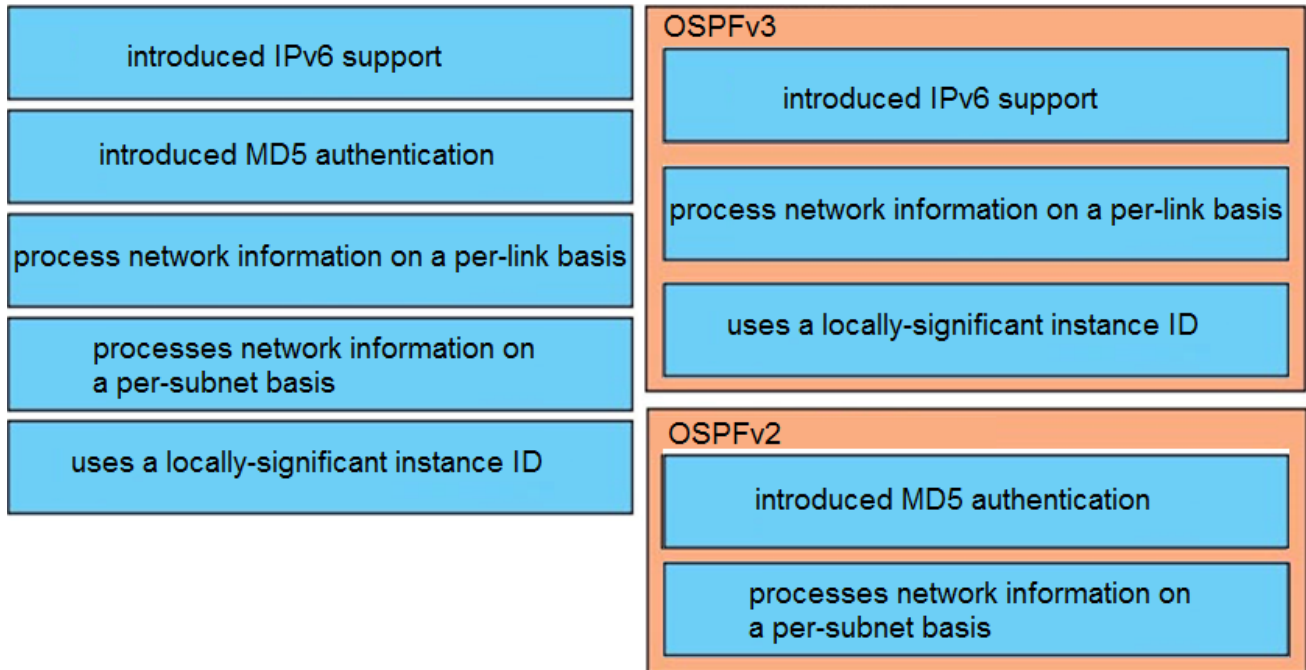
#### 4.DRAG DROP

Compare different features between OSPFv2 and OSPFv3.

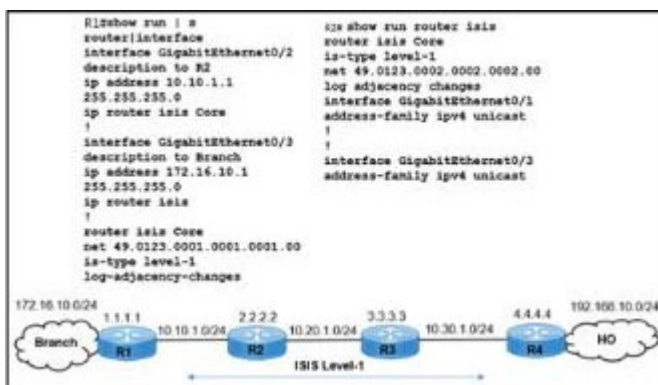
Drag and drop the descriptions of OSPF from the left onto the correct OSPF versions on the right.

introduced IPv6 support	OSPFv3
introduced MD5 authentication	
process network information on a per-link basis	
processes network information on a per-subnet basis	
uses a locally-significant instance ID	OSPFv2

**Answer:**



5.Refer to the exhibit.



Users at the branch office on R1 reported issue with an application at the home office on R4.

While troubleshooting the issue, a network engineer determined that

- ⇒ The branch-office users can connect to the home office.
- ⇒ The IS-IS adjacencies between R1 and R2 and R1 and the branch office are up.
- ⇒ Traffic from R1 to the R2 10.20.1.0/24 network is moving normally.
- ⇒ The application at the home office is experiencing packet drops on the connection to the Branch, and R3 cannot reach the R1 172.16.10.0/24 network.

Which action resolves the issues?

- A. Redistribute static connected routes in IS-IS on router R1.
- B. Configure the IS-IS core instance on the R1 GigabitEthernet0/3 interface.
- C. Redistribute static connected routes in IS-IS on router R4.
- D. Configure the IS-IS core instance on the R2 GigabitEthernet0/1 interface.

**Answer: B**