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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.

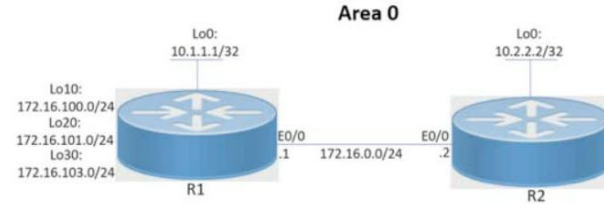
Submit feedback about this item.

R1 R2

R1>

Guidelines Topology Tasks

**OSPF Process ID 10  
Area 0**



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?

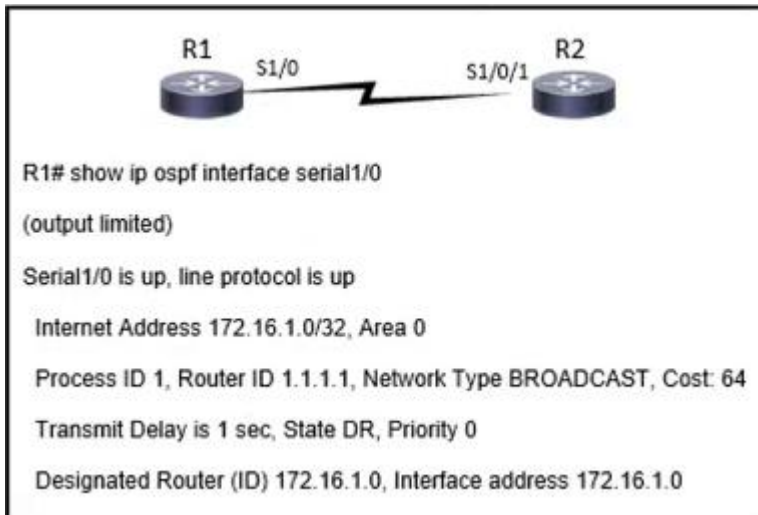
- A. Segment routing must first be enabled under then routing process and then globally
- B. Segment routing must first be enabled globally and then under the routing process
- C. Segment routing can be enabled only under the routing process
- D. Segment routing can be enabled only globally

**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**

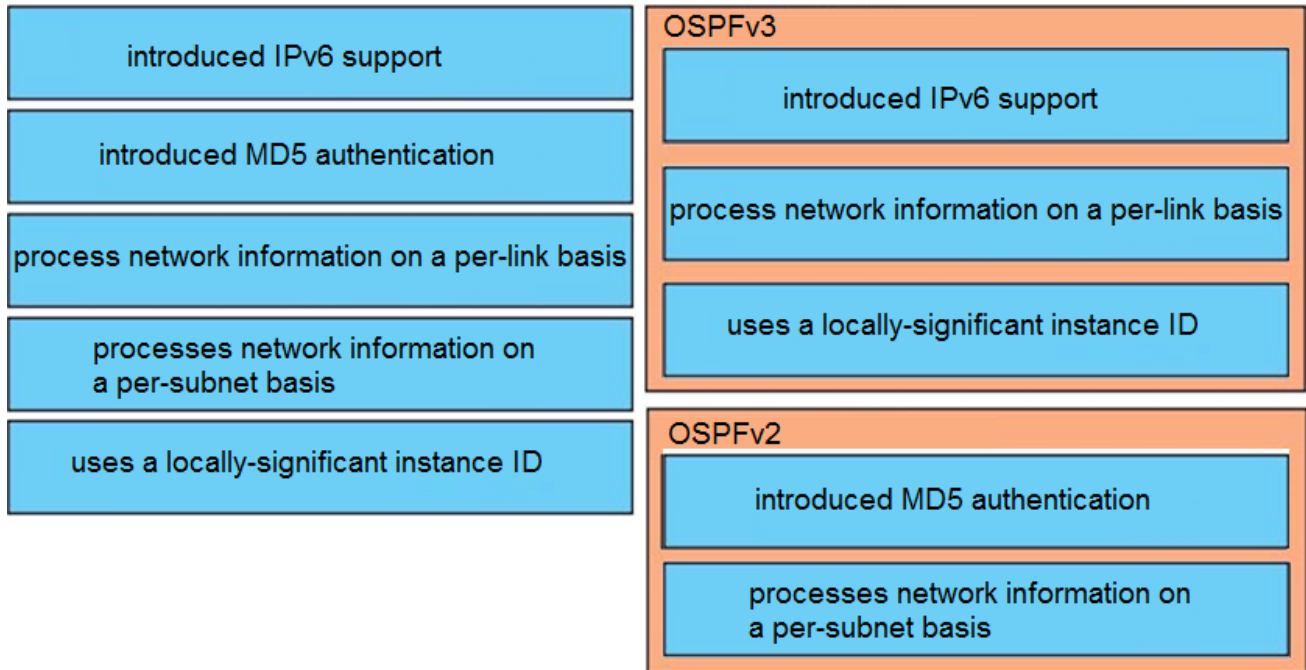
#### 4.DRAG DROP

Compare different features between OSPFv2 and OSPFv3.

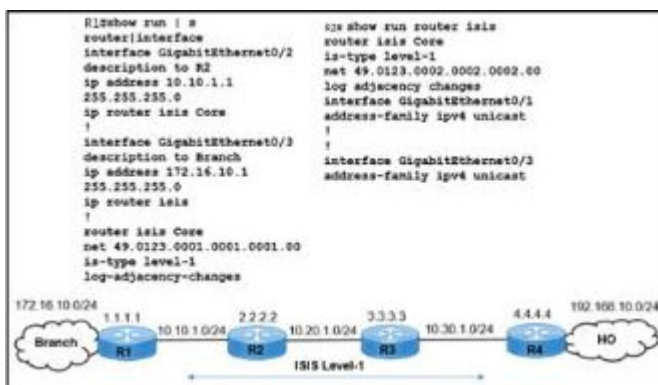
Drag and drop the descriptions of OSPF from the left onto the correct OSPF versions on the right.

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

**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**