Passguide.300-135.68q

Number: 300-135
Passing Score: 800
Time Limit: 120 min
File Version: 6.6

VCEplus.com

300-135

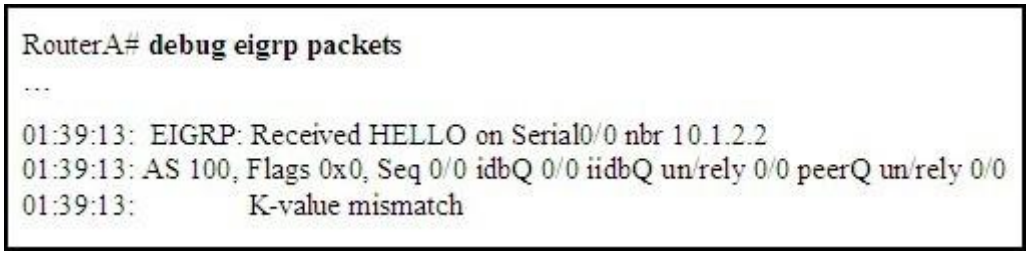
Troubleshooting and Maintaining Cisco IP Networks (TSHOOT)

1. This exam is very much valid today. If you have basic knowledge of all the exam topics and if you understand each question and answer instead of cramming the questions then you can even score 100% marks like I did today.
2. It contains all the tricky questions, which really helpful to succeed.
3. It is accumulated material. I assure you if you prepare from this dump, you will not need to study from any material.
4. Of the Total questions, only 10 came out in the exam. I recommend using the VCE, which contains most of the test questions.
5. Questions are given in case study in which everything is obvious regarding topics as well as number of questions.

Testlet 1

Topic 1

QUESTION 1
Exhibit:



A network administrator is troubleshooting an EIGRP connection between RouterA, IP address 10.1.2.1, and RouterB, IP address 10.1.2.2. Given the debug output on RouterA, which two statements are true? (Choose two.)

A. RouterA received a hello packet with mismatched autonomous system numbers.
B. RouterA received a hello packet with mismatched hello timers.
C. RouterA received a hello packet with mismatched authentication parameters.
D. RouterA received a hello packet with mismatched metric-calculation mechanisms.
E. RouterA will form an adjacency with RouterB.
F. RouterA will not form an adjacency with RouterB.

Correct Answer: DF
Section: [none]
Explanation

Explanation/Reference:
Explanation:

QUESTION 2
When troubleshooting an EIGRP connectivity problem, you notice that two connected EIGRP routers are not becoming EIGRP neighbors. A ping between the two routers was successful. What is the next thing that should be checked?

A. Verify that the EIGRP hello and hold timers match exactly.
B. Verify that EIGRP broadcast packets are not being dropped between the two routers with the show ip EIGRP peer command.
C. Verify that EIGRP broadcast packets are not being dropped between the two routers with the show ip EIGRP traffic command.

D. Verify that EIGRP is enabled for the appropriate networks on the local and neighboring router.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

QUESTION 3
Refer to the exhibit.

```
R1#show 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 212.50.185.126 to network 0.0.0.0

D    212.50.167.0/24 [90/160000] via 212.50.185.82, 00:05:55, Ethernet1/0
     212.50.166.0/24 is variably subnetted, 4 subnets, 2 masks
D       212.50.166.0/24 is a summary, 00:05:55, Null0
C       212.50.166.1/32 is directly connected, Loopback1
C       212.50.166.2/32 is directly connected, Loopback2
C       212.50.166.20/32 is directly connected, Loopback20
     212.50.185.0/27 is subnetted, 3 subnets
C       212.50.185.64 is directly connected, Ethernet1/0
C       212.50.185.96 is directly connected, Ethernet0/0
C       212.50.185.32 is directly connected, Ethernet2/0
D*EX 0.0.0.0/0 [170/2174976] via 212.50.185.126, 00:05:55, Ethernet0/0
               [170/2174976] via 212.50.185.125, 00:05:55, Ethernet0/0
!
```

How would you confirm on R1 that load balancing is actually occurring on the default-network (0.0.0.0)?

A. Use ping and the show ip route command to confirm the timers for each default network resets to 0.
B. Load balancing does not occur over default networks; the second route will only be used for failover.
C. Use an extended ping along with repeated show ip route commands to confirm the gateway of last resort address toggles back and forth.
D. Use the traceroute command to an address that is not explicitly in the routing table.

Correct Answer: D

Section: [none]
Explanation

Explanation/Reference:
Explanation:

QUESTION 4
Which IPsec mode will encrypt a GRE tunnel to provide multiprotocol support and reduced overhead?

A. 3DES
B. multipoint GRE
C. tunnel
D. transport

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

QUESTION 5
Which three features are benefits of using GRE tunnels in conjunction with IPsec for building site-to- site VPNs? (Choose three.)

A. allows dynamic routing over the tunnel
B. supports multi-protocol (non-IP) traffic over the tunnel
C. reduces IPsec headers overhead since tunnel mode is used
D. simplifies the ACL used in the crypto map
E. uses Virtual Tunnel Interface (VTI) to simplify the IPsec VPN configuration

Correct Answer: ABD
Section: [none]
Explanation

Explanation/Reference:
Explanation:

QUESTION 6
Which statement is true about an IPsec/GRE tunnel?

A. The GRE tunnel source and destination addresses are specified within the IPsec transform set.
B. An IPsec/GRE tunnel must use IPsec tunnel mode.
C. GRE encapsulation occurs before the IPsec encryption process.
D. Crypto map ACL is not needed to match which traffic will be protected.

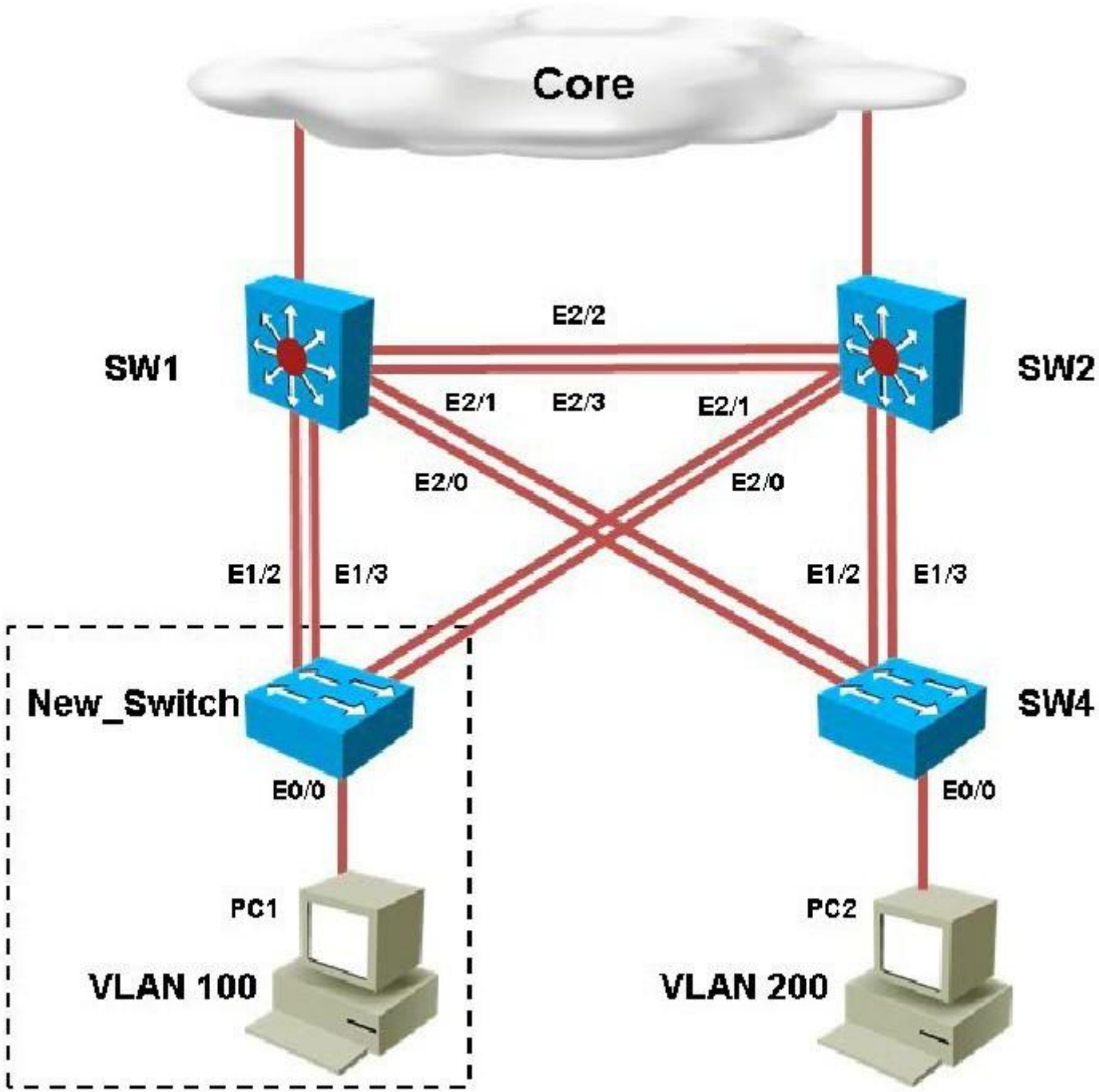
Correct Answer: C
Section: [none]
Explanation

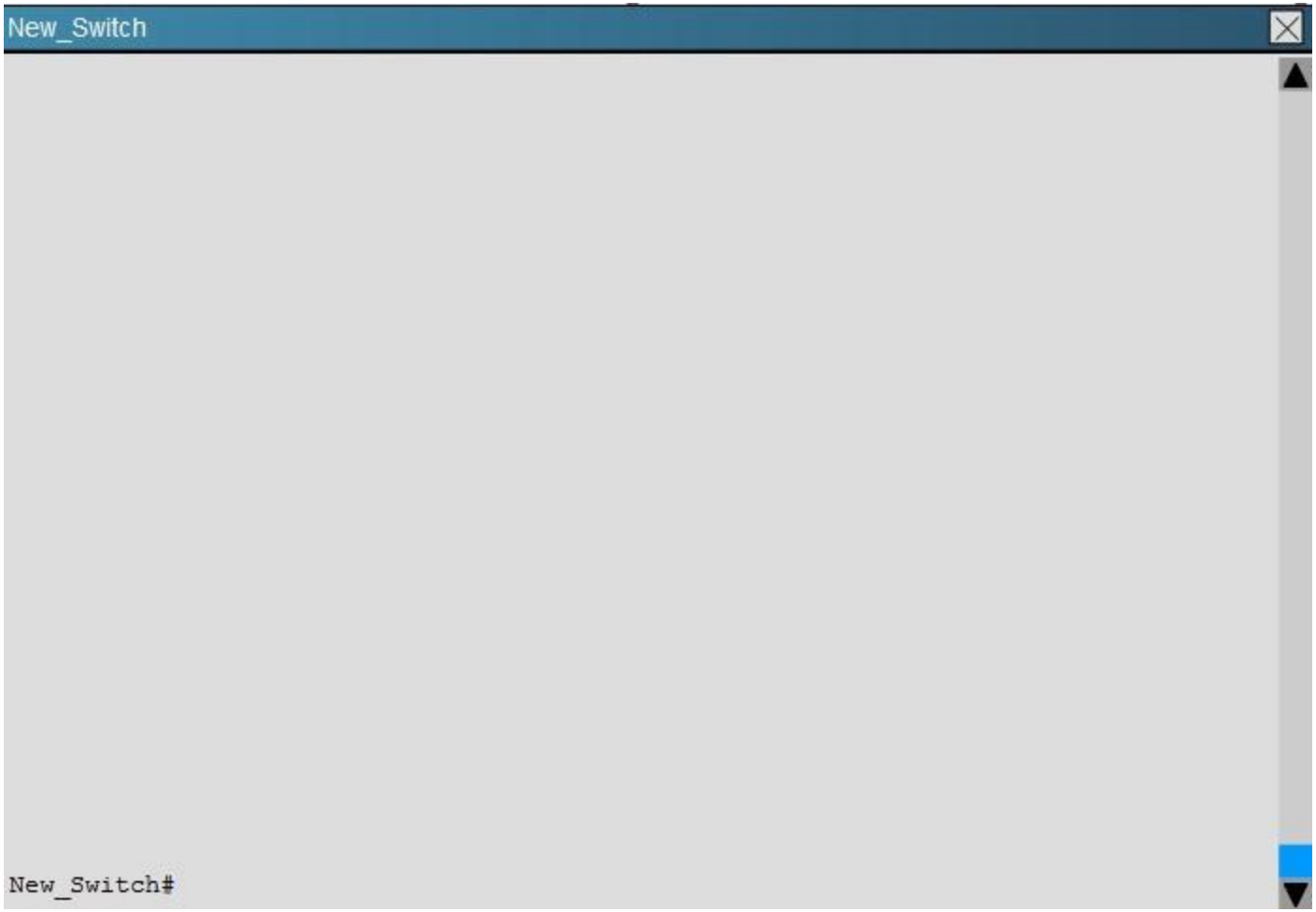
Explanation/Reference:
Explanation:

Testlet 1

Topic 2, Troubleshooting VTP

QUESTION 1
A customer network engineer has made configuration changes that have resulted in some loss of connectivity. You have been called in to evaluate a switch network and suggest resolutions to the problems.


Core
SW1
SW2
E2/2
E2/1
E2/3
E2/1
E2/0
E2/0
E1/2
E1/3
E1/2
E1/3
New_Switch
SW4
E0/0
E0/0
PC1
PC2
VLAN 100
VLAN 200



PC2 in VLAN 200 is unable to ping the gateway address 172.16.200.1; identify the issue.

A. VTP domain name mismatch on SW4
B. VLAN 200 not configured on SW1
C. VLAN 200 not configured on SW2
D. VLAN 200 not configured on SW4

Correct Answer: D
Section: [none]

Explanation

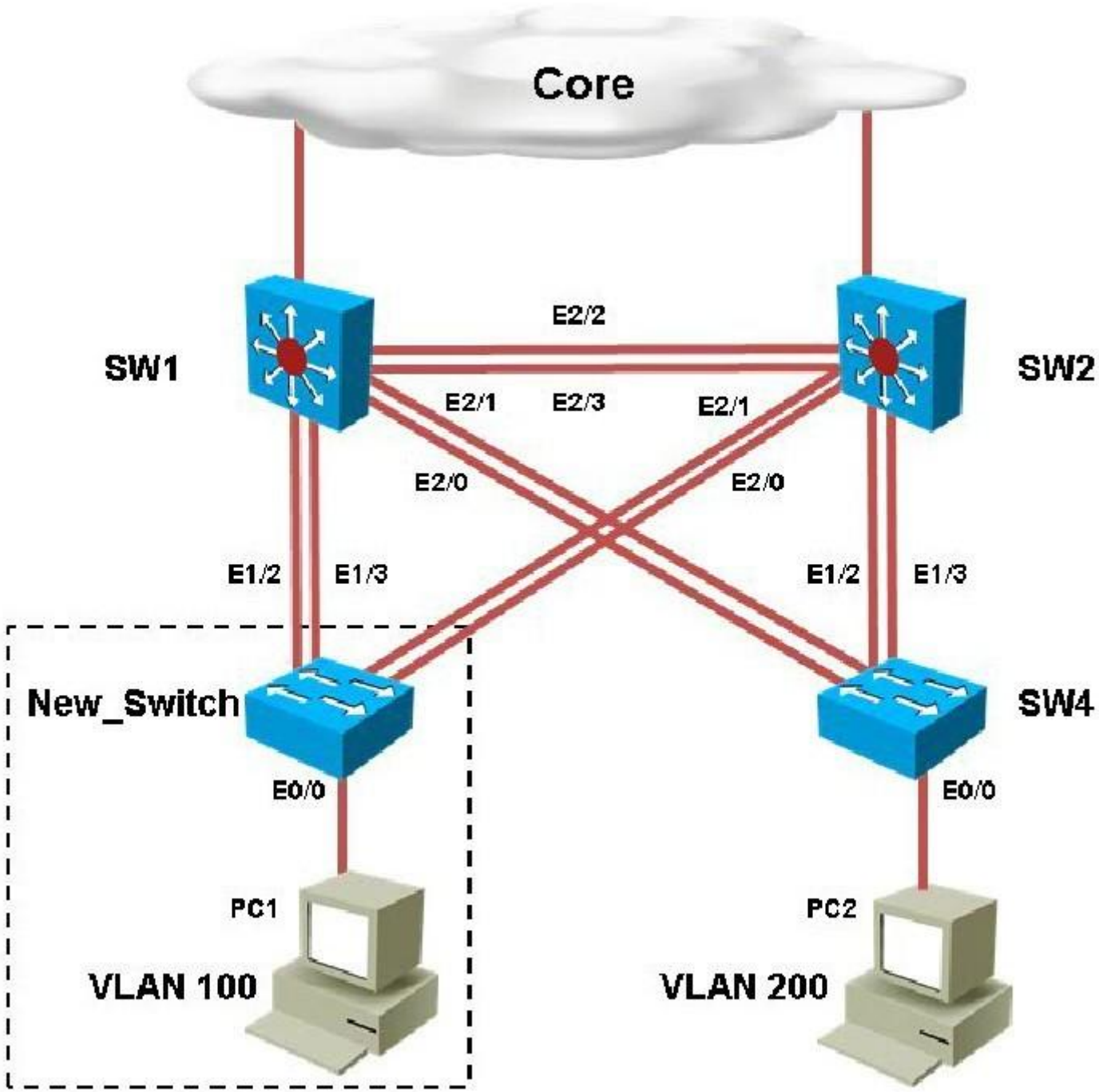
Explanation/Reference:
Explanation:

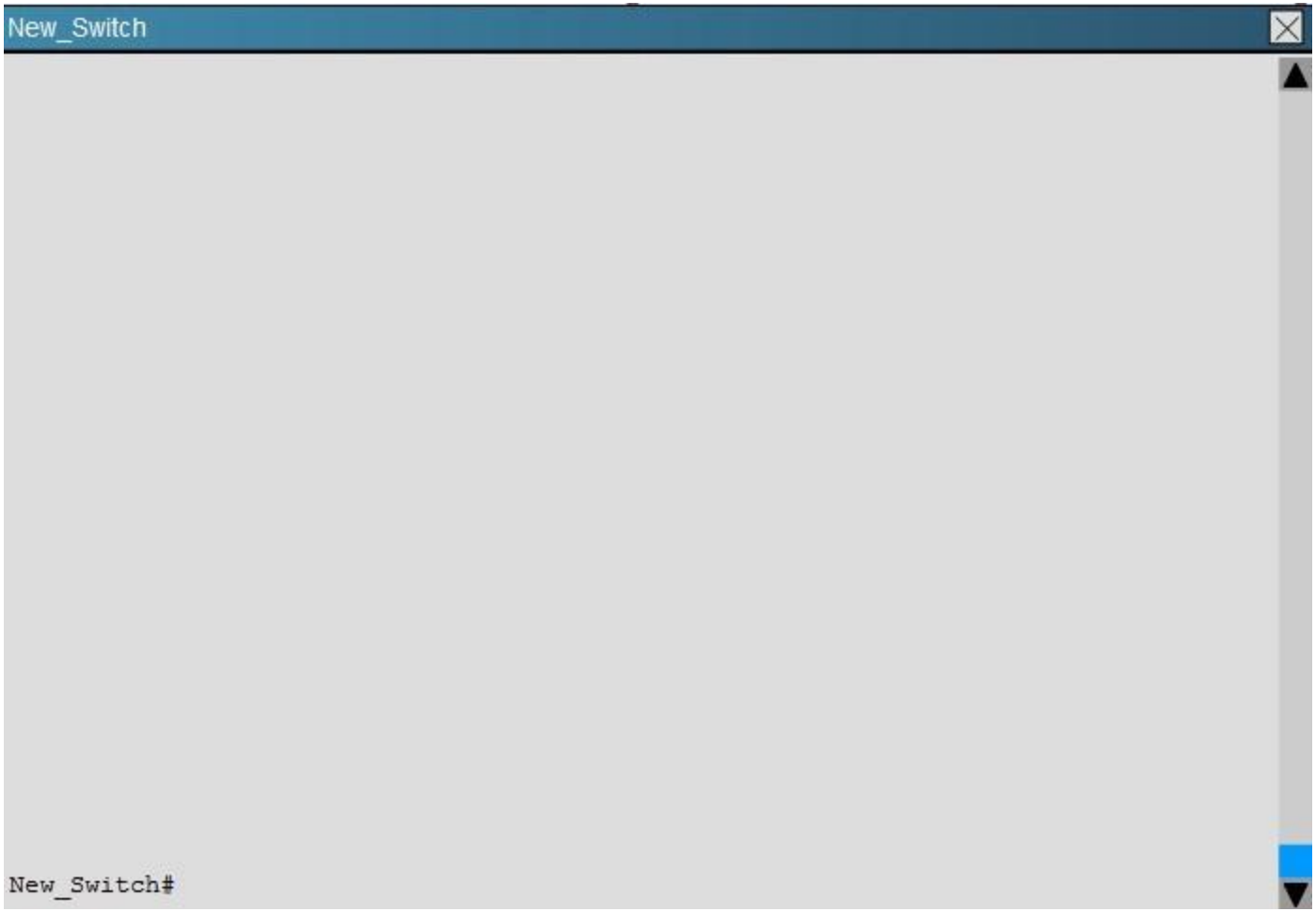
By looking at the configuration for SW2, we see that it is missing VLAN 200, and the "switchport access vlan 200" command is missing under interface eth 0/0:

SW4

```
vlan internal allocation policy ascending
!
vlan 100
!
vlan 300
 name Management_VLAN
!
vlan 400
 name VLAN400
!
!
!
!
!
!
!
!
!
!
!
interface Ethernet0/0
 description Connected to PC2
 switchport mode access
 duplex auto
!
```

QUESTION 2
A customer network engineer has made configuration changes that have resulted in some loss of connectivity. You have been called in to evaluate a switch network and suggest resolutions to the problems.


Core
SW1
SW2
E2/2
E2/1
E2/3
E2/1
E2/0
E2/0
E1/2
E1/3
E1/2
E1/3
New_Switch
SW4
E0/0
E0/0
PC1
PC2
VLAN 100
VLAN 200



Refer to the topology.
SW1 Switch Management IP address is not pingable from SW4. What could be the issue?

A. Management VLAN not allowed in the trunk links between SW1 and SW4
B. Management VLAN not allowed in the trunk links between SW1 and SW2
C. Management VLAN not allowed in the trunk link between SW2 and SW4
D. Management VLAN ip address on SW4 is configured in wrong subnet
E. Management VLAN interface is shutdown on SW4

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

In the network, VLAN 300 is called the Management VLAN. Based on the configurations shown below, SW1 has VLAN 300 configured with the IP address of 192.168.10.1/24, while on SW4 VLAN 300 has an IP address of 192.168.100.4/24, which is not in the same subnet.

SW1

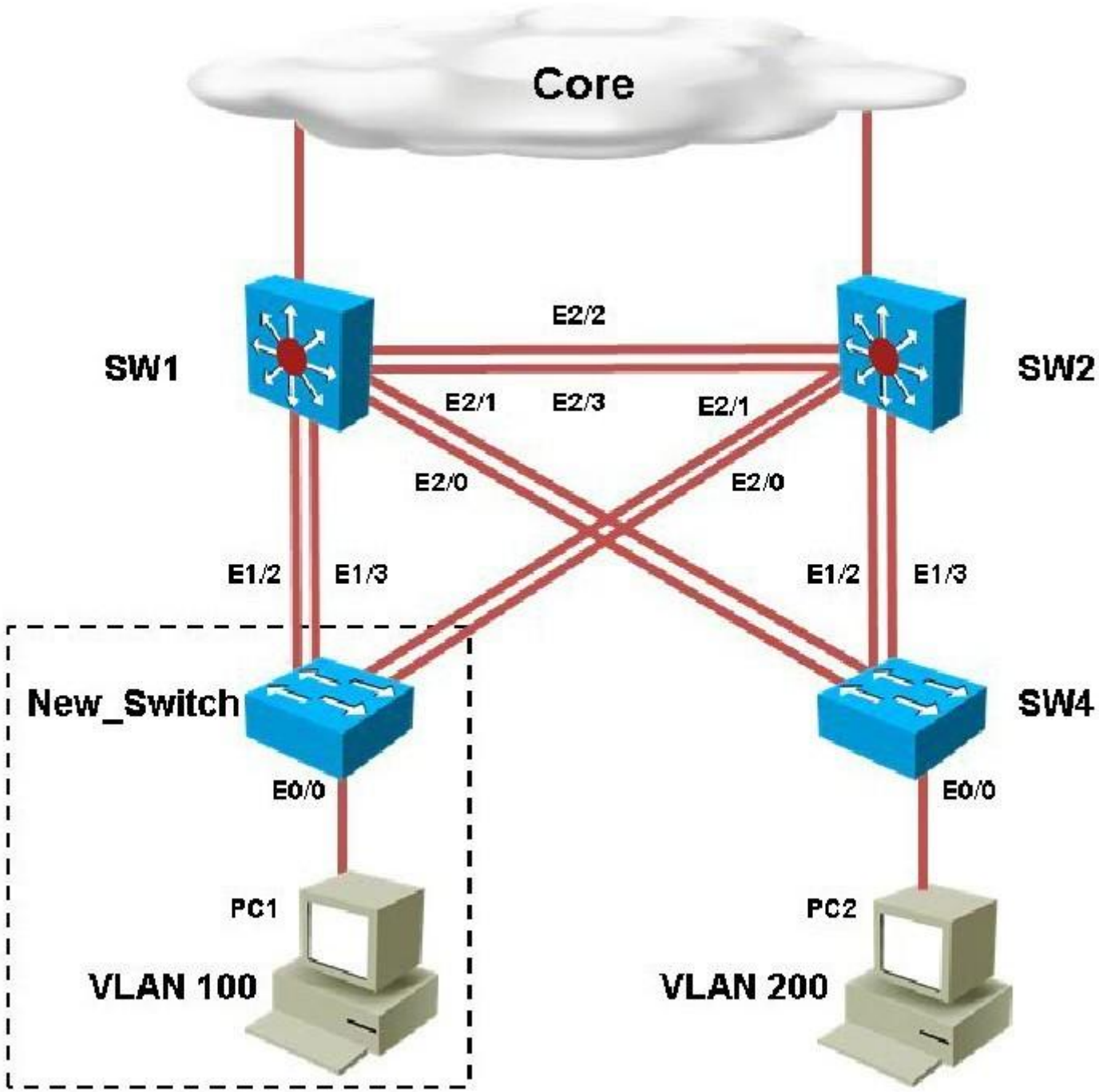
```
!
interface Vlan1
 no ip address
!
interface Vlan100
 ip address 172.16.100.1 255.255.255.0
!
interface Vlan200
 ip address 172.16.200.1 255.255.255.0
!
interface Vlan300
 ip address 192.168.10.1 255.255.255.0
!
```

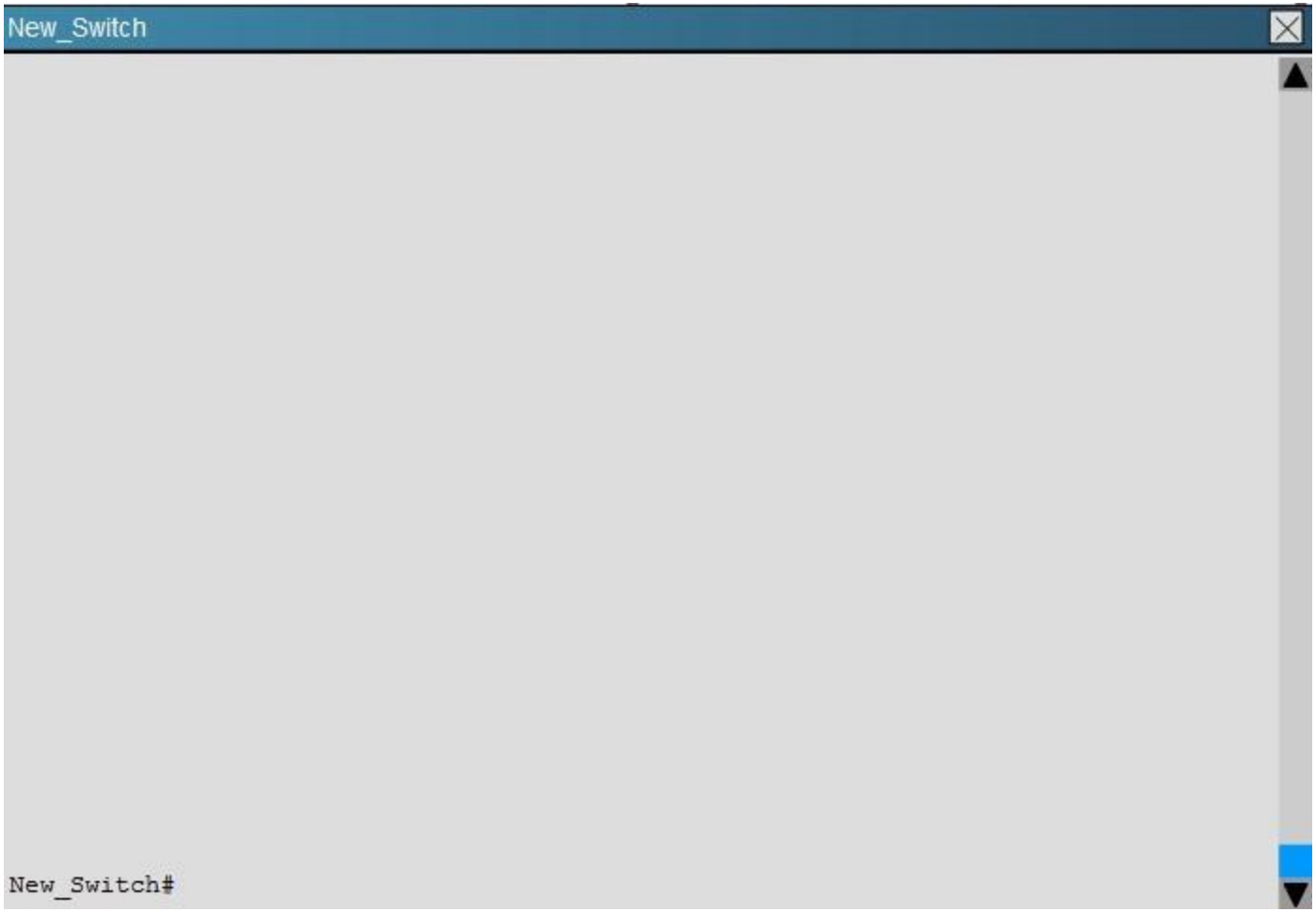
SW4

```
 switchport mode trunk
 duplex auto
!
interface Ethernet2/2
 shutdown
 duplex auto
!
interface Ethernet2/3
 shutdown
 duplex auto
!
interface Vlan1
 no ip address
!
interface Vlan300
 ip address 192.168.100.4 255.255.255.0
!
!
```

Topic 3, Troubleshooting EIGRP

QUESTION 3
A customer network engineer has made configuration changes that have resulted in some loss of connectivity. You have been called in to evaluate a switch network and suggest resolutions to the problems.


Core
SW1
SW2
E2/2
E2/1
E2/3
E2/1
E2/0
E2/0
E1/2
E1/3
E1/2
E1/3
New_Switch
SW4
E0/0
E0/0
PC1
PC2
VLAN 100
VLAN 200



Which of statement is true regarding STP issue identified with switches in the given topology?

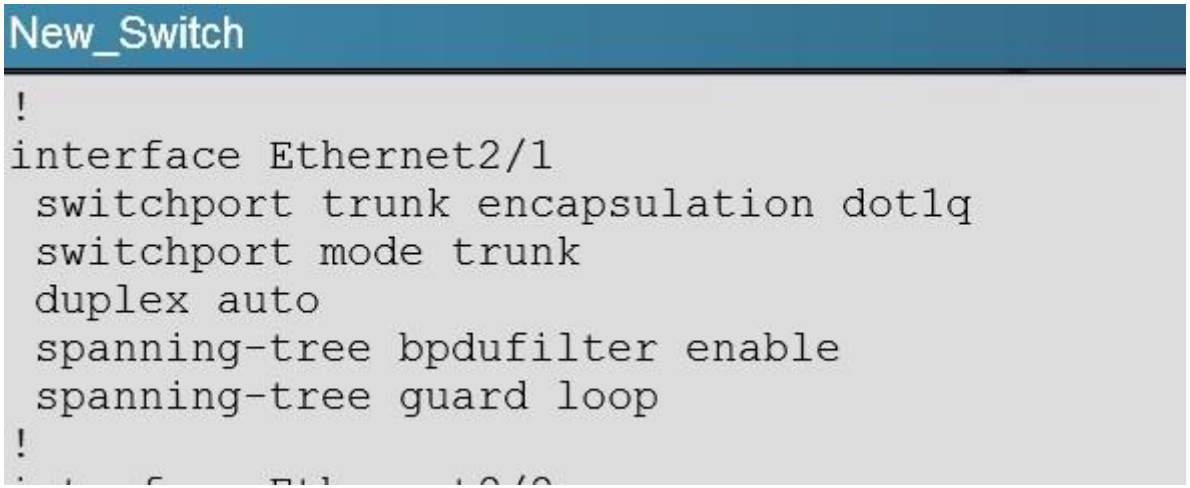
A. Loopguard configured on the New_Switch places the ports in loop inconsistent state
B. Rootguard configured on SW1 places the ports in root inconsistent state
C. Bpduguard configured on the New_Switch places the access ports in error-disable
D. Rootguard configured on SW2 places the ports in root inconsistent state

Correct Answer: A
Section: [none]

Explanation

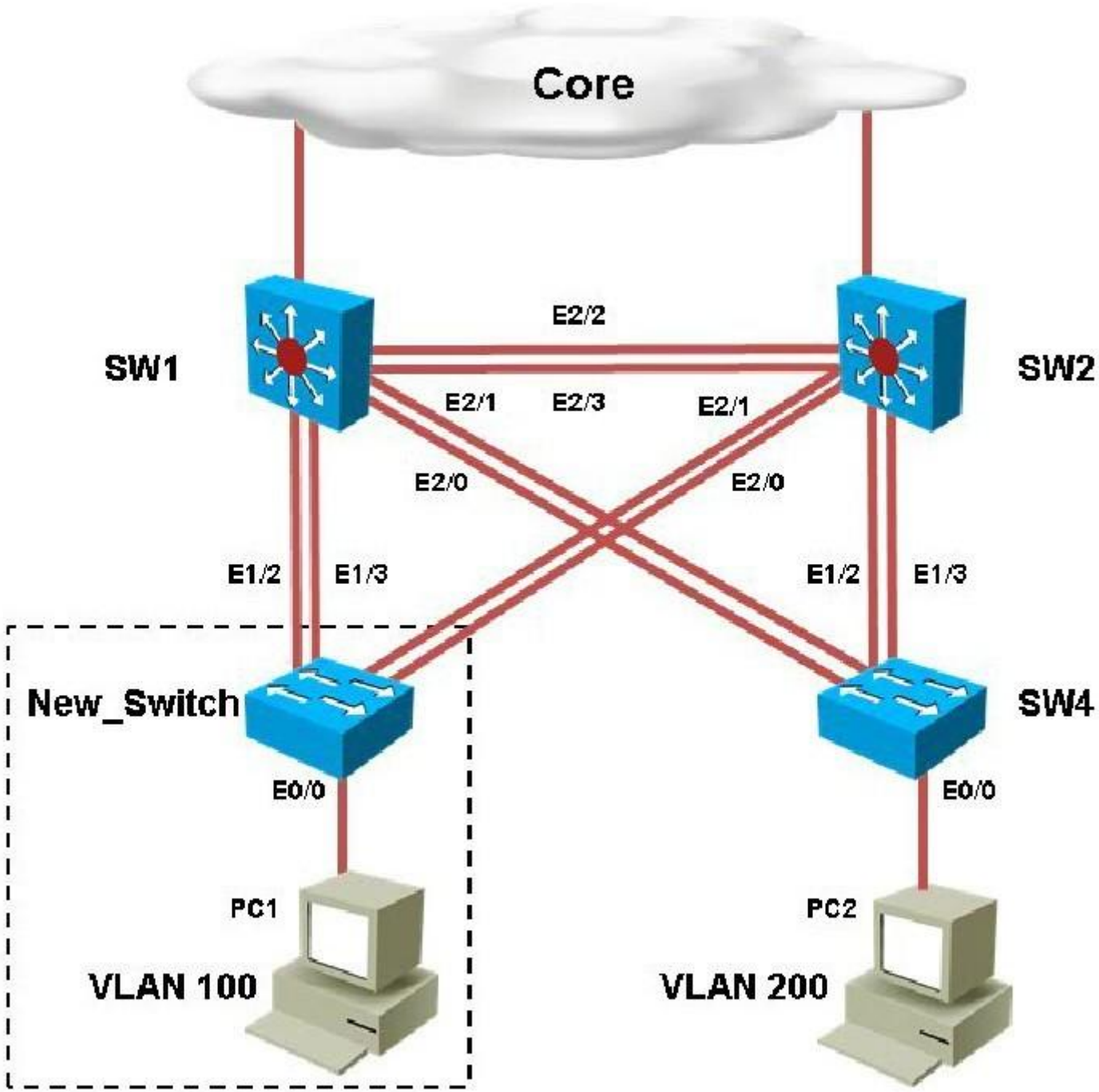
Explanation/Reference:
Explanation:

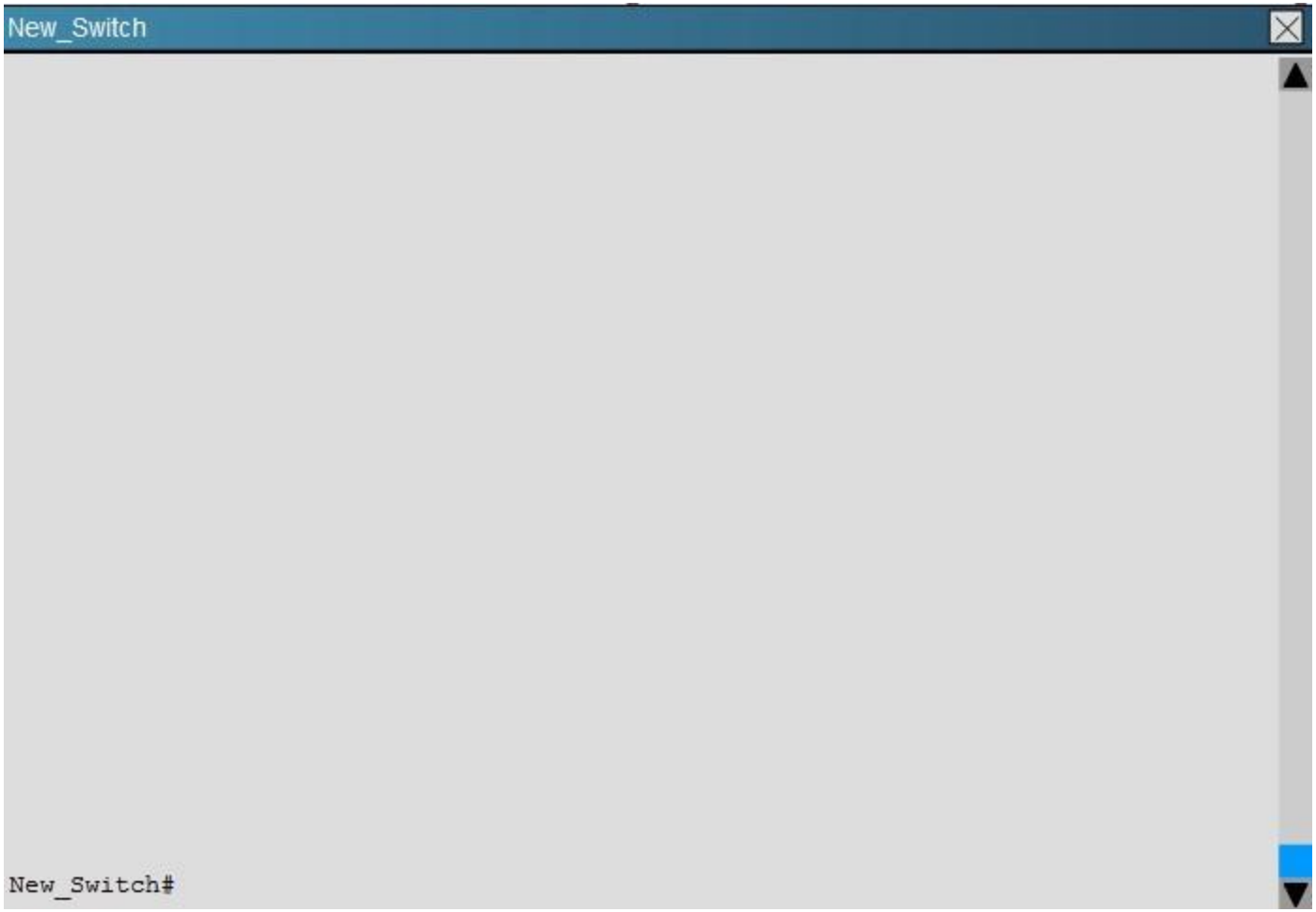
On the new switch, we see that loopguard has been configured with the "spanning-tree guard loop" command.



The loop guard feature makes additional checks. If BPDUs are not received on a non-designated port, and loop guard is enabled, that port is moved into the STP loop-inconsistent blocking state, instead of the listening / learning / forwarding state. Without the loop guard feature, the port assumes the designated port role. The port moves to the STP forwarding state and creates a loop.

QUESTION 4
A customer network engineer has made configuration changes that have resulted in some loss of connectivity. You have been called in to evaluate a switch network and suggest resolutions to the problems.


Core
SW1
SW2
E2/2
E2/1
E2/3
E2/1
E2/0
E2/0
E1/2
E1/3
E1/2
E1/3
New_Switch
SW4
E0/0
E0/0
PC1
PC2
VLAN 100
VLAN 200



You have configured PVST+ load balancing between SW1 and the New_Switch in such a way that both the links E2/2 and E2/3 are utilized for traffic flow, which component of the configuration is preventing PVST+ load balancing between SW1 and SW2 links

A. Port priority configuration on SW1
B. Port priority configuration on the New_Switch
C. Path cost configuration on SW1
D. Path cost configuration on the New_Switch

Correct Answer: D

Section: [none]
Explanation

Explanation/Reference:
Explanation:

Here is the configuration found on the New_Switch:

New_Switch

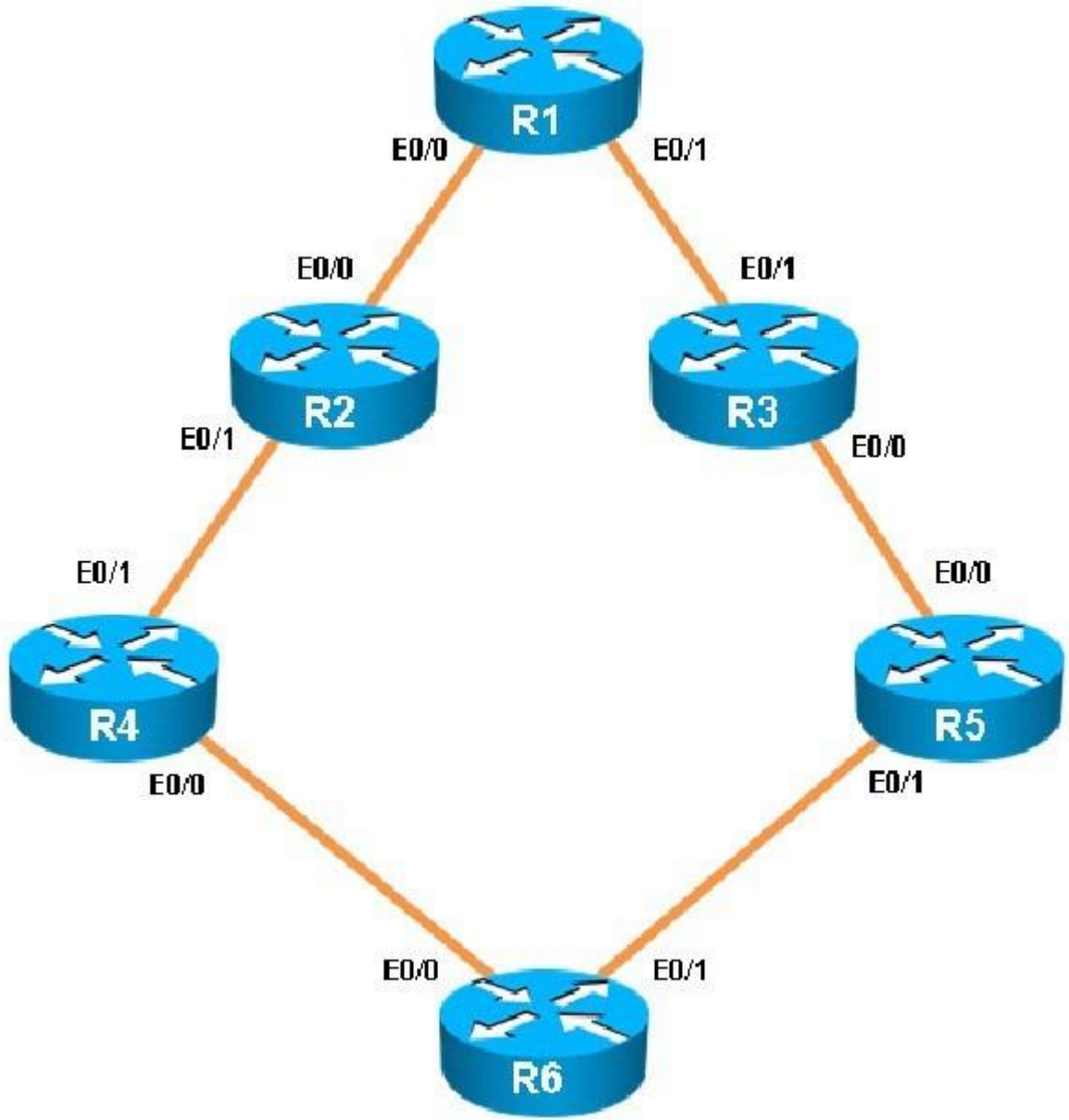
```
!
interface Ethernet1/2
 switchport trunk encapsulation dot1q
 switchport mode trunk
 duplex auto
!
interface Ethernet1/3
 switchport trunk encapsulation dot1q
 switchport mode trunk
 duplex auto
 spanning-tree cost 250
!
```

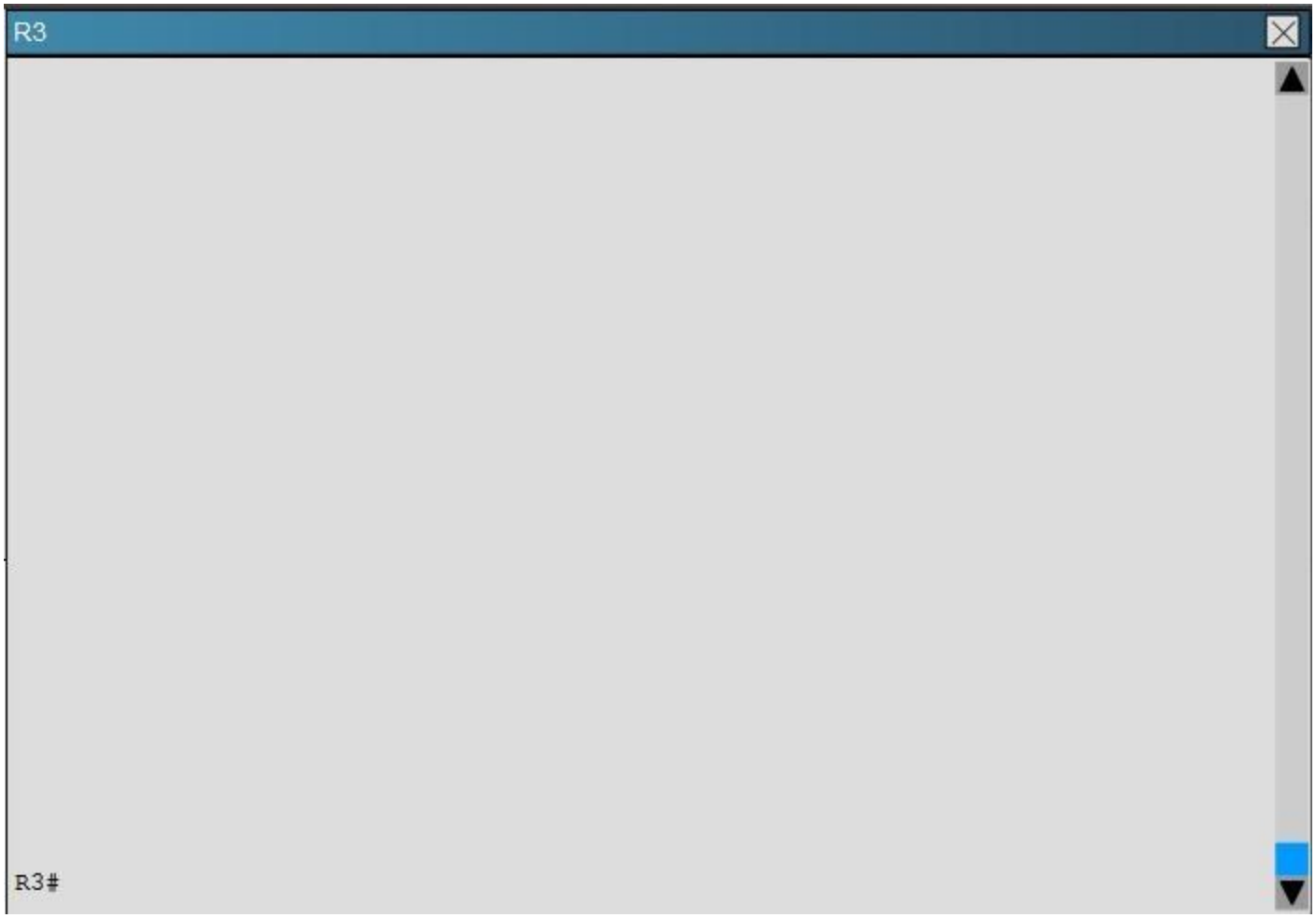
This causes the port cost for link eth 1/3 to increase the path cost to 250 for all VLANs, making that link less preferred so that only eth 1/2 will be used.

Testlet 1

.Topic 3, Troubleshooting EIGRP

QUESTION 1
You have been brought in to troubleshoot an EIGRP network. A network engineer has made configuration changes to the network rendering some locations unreachable. You are to locate the problem and suggest solution to resolve the issue.





R5 has become partially isolated from the remainder of the network. R5 can reach devices on directly connected networks but nothing else. What is causing the problem?

A. An outbound distribute list in R3
B. Inbound distribute lists in R5
C. An outbound distribute list in R6
D. Incorrect EIGRP routing process ID in R5

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Here we see that distribute list 3 has been applied to EIGRP on router R%, but access-list 3 contains only deny statements so this will effectively block all routing advertisements from its two EIGRP neighbors, thus isolating R5 from the rest of the EIGRP network:

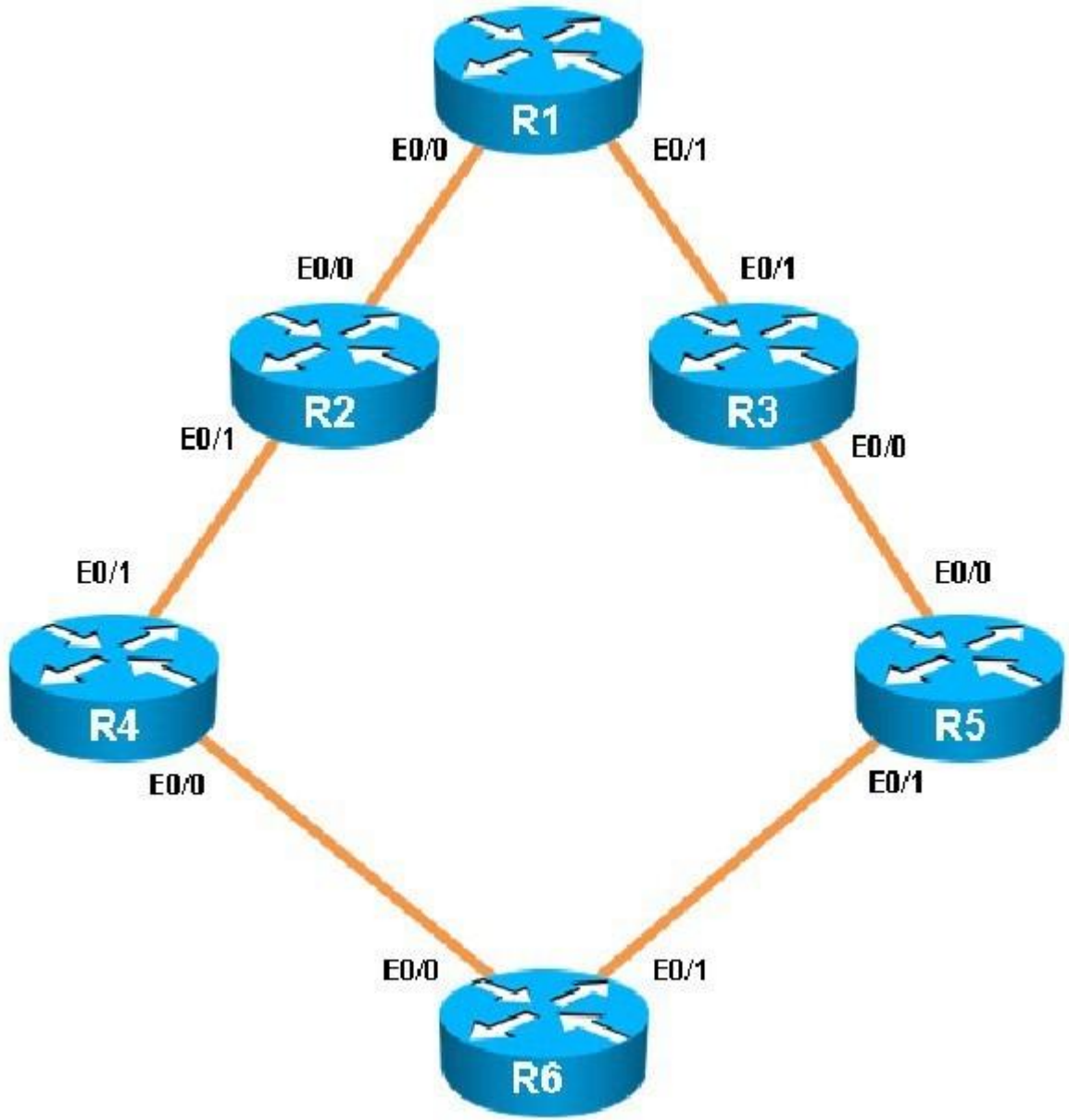
R5

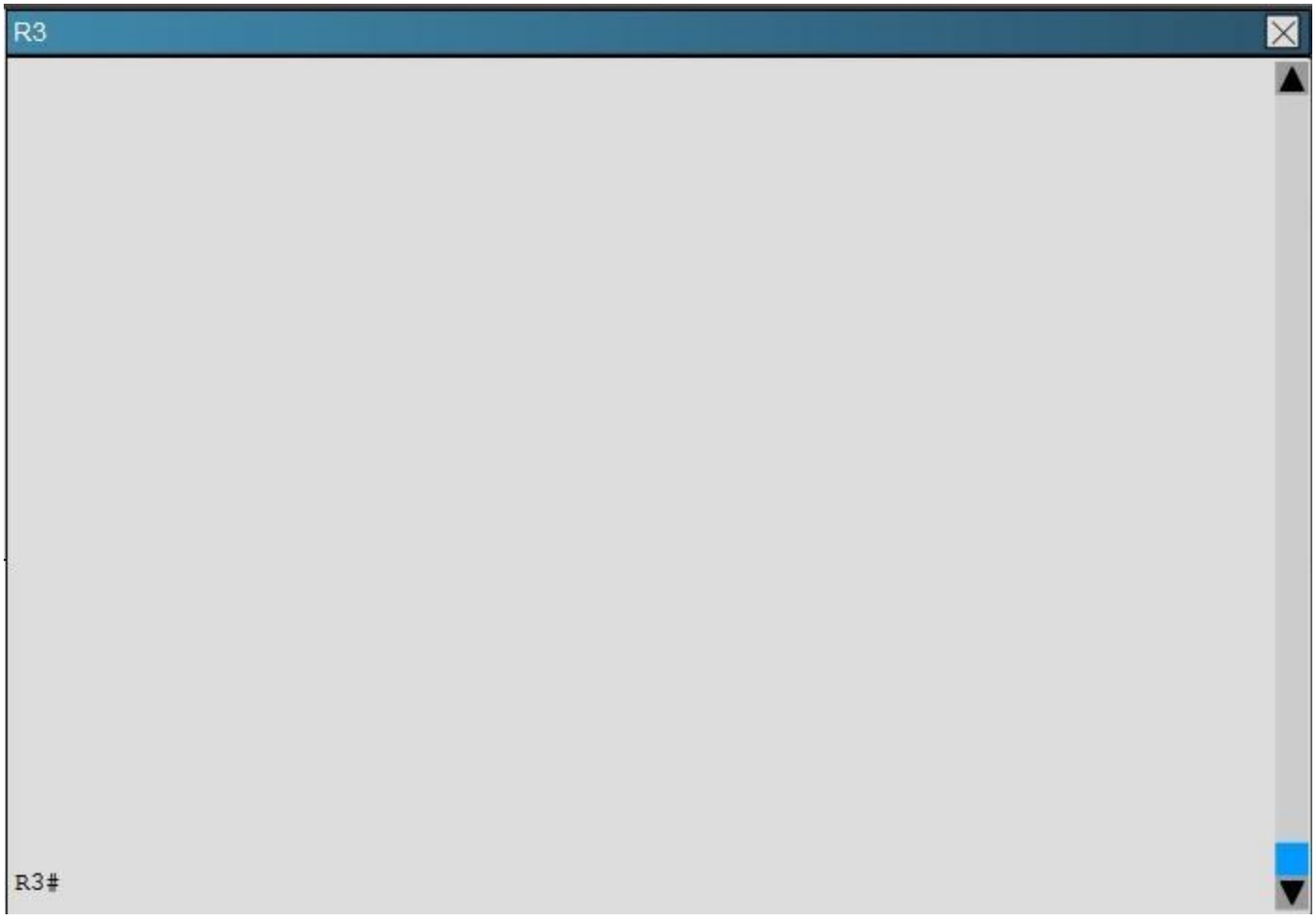
```
!
router eigrp 1
 distribute-list 3 in Ethernet0/0
 distribute-list 3 in Ethernet0/1
 network 192.168.35.0
 network 192.168.56.0
!
!
```

R5

```
!
access-list 1 permit 192.168.1.15
access-list 1 permit 192.168.1.24
access-list 1 permit 192.168.1.17
access-list 1 permit 192.168.1.20
access-list 2 permit 192.168.47.1
access-list 2 permit 192.168.13.1
access-list 2 permit 192.168.12.1
access-list 2 deny   150.1.1.1
access-list 3 deny   192.168.46.0 0.0.0.255
access-list 3 deny   192.168.24.0 0.0.0.255
access-list 3 deny   192.168.12.0 0.0.0.255
access-list 3 deny   192.168.13.0 0.0.0.255
access-list 3 deny   192.168.56.0 0.0.0.255
R5#
R5#
```

QUESTION 2
Scenario:
You have been brought in to troubleshoot an EIGRP network. You have resolved the initial issue between routers R2 and R4, but another issue remains.
You are to locate the problem and suggest solution to resolve the issue.
The customer has disabled access to the show running-config command.





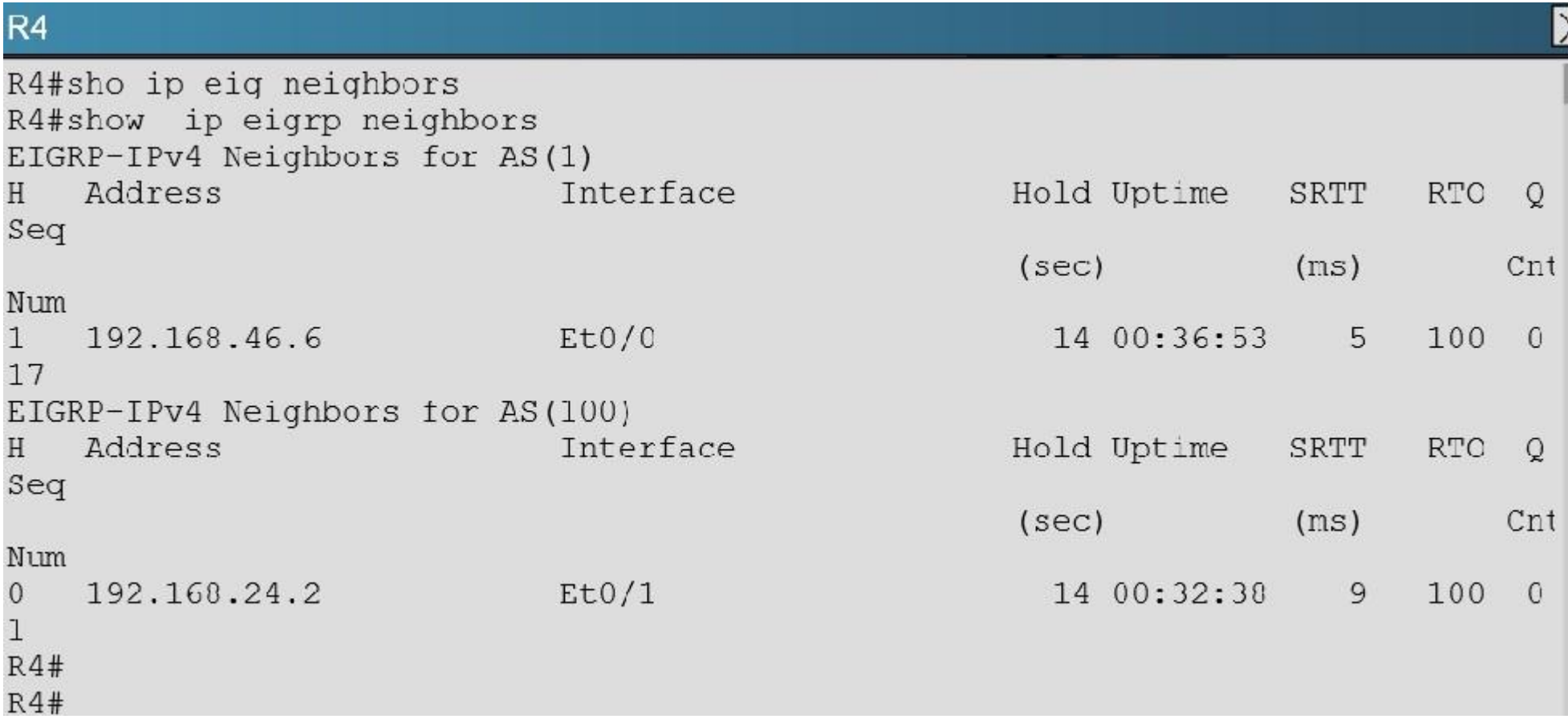
The network segment between R2 and R4 has become disconnected from the remainder of the network.
How should this issue be resolved?

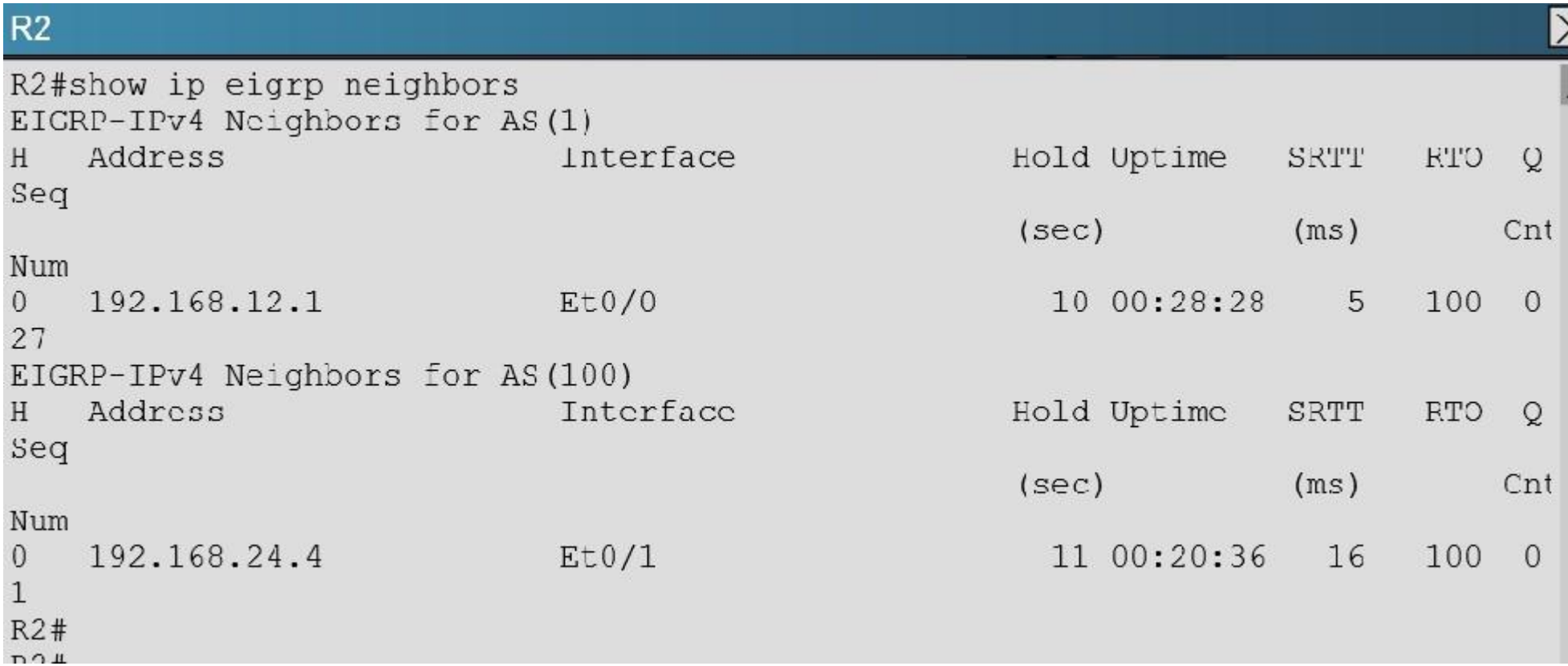
A. Change the autonomous system number in the remainder of the network to be consistent with R2 and R4.
B. Move the 192.168.24.0 network to the EIGRP 1 routing process in R2 and R4.
C. Enable the R2 and R4 router interfaces connected to the 192.168.24.0 network.
D. Remove the distribute-list command from the EIGRP 200 routing process in R2.
E. Remove the distribute-list command from the EIGRP 100 routing process in R2.

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

When issuing the "show ip eigrp neighbor" command (which is about the only command that it lets you do in this question) you will see that all other routers are configured for EIGRP AS 1. However, the 192.16824.0 network between R2 and R4 is incorrectly configured for EIGRP AS 100:

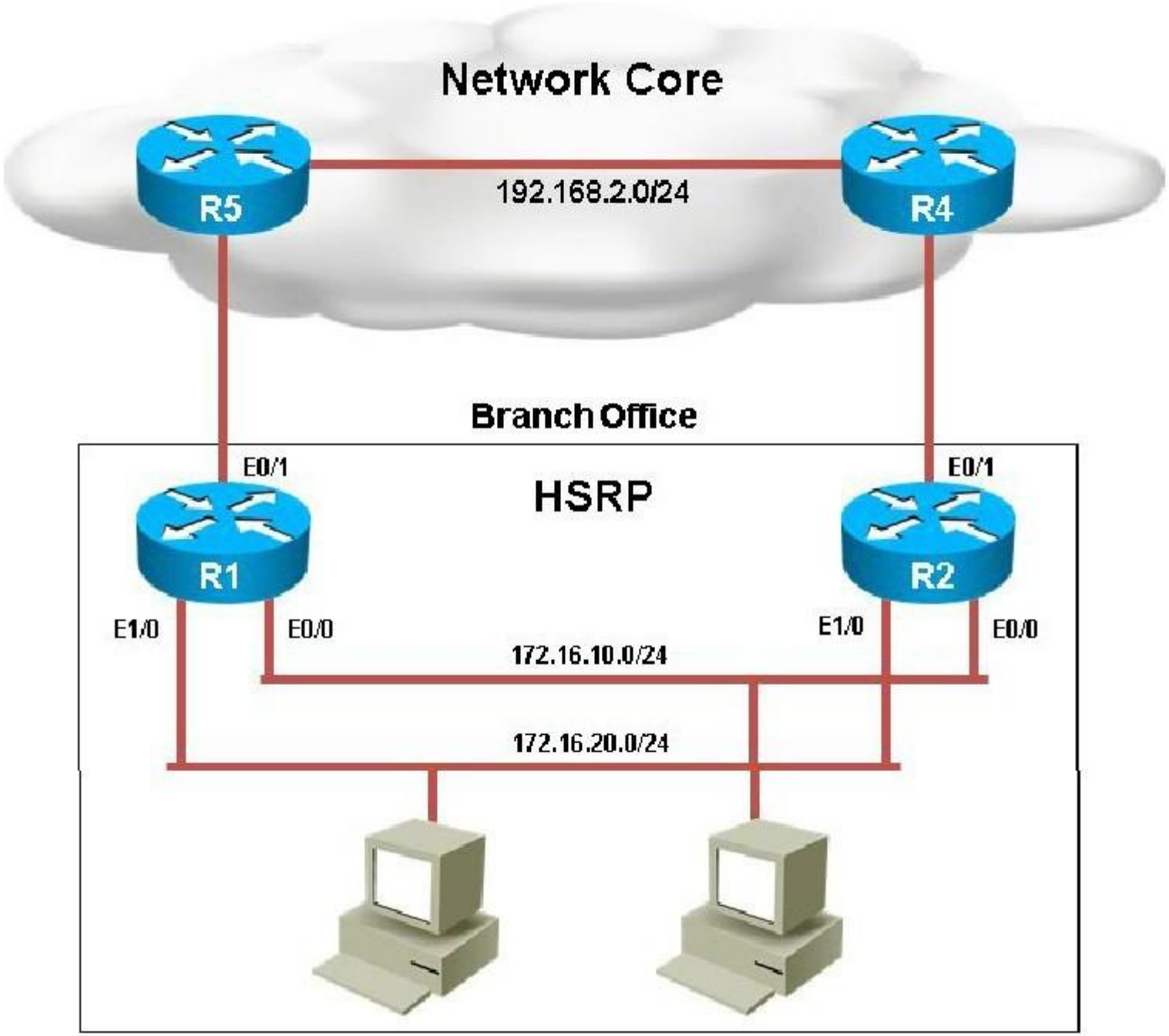




Testlet 1

Topic 4, Troubleshooting HSRP

QUESTION 1
Scenario:
You have been asked by your customer to help resolve issues in their routed network. Their network engineer has deployed HSRP. On closer inspection HSRP doesn't appear to be operating properly and it appears there are other network problems as well. You are to provide solutions to all the network problems.


Network Core
R5
192.168.2.0/24
R4
Branch Office
E0/1
HSRP
E0/1
R1
R2
E1/0
E0/0
E1/0
E0/0
172.16.10.0/24
172.16.20.0/24

Examine the configuration on R4. The routing table shows no entries for 172.16.10.0/24 and 172.16.20.0/24. Identify which of the following is the issue preventing route entries being installed on R4 routing table?

A. HSRP issue between R4 and R2
B. This is an OSPF issue between R4 and R2
C. This is a DHCP issue between R4 and R2
D. The distribute-list configured on R4 is blocking route entries
E. The ACL configured on R4 is blocking inbound traffic on the interface connected to R2

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

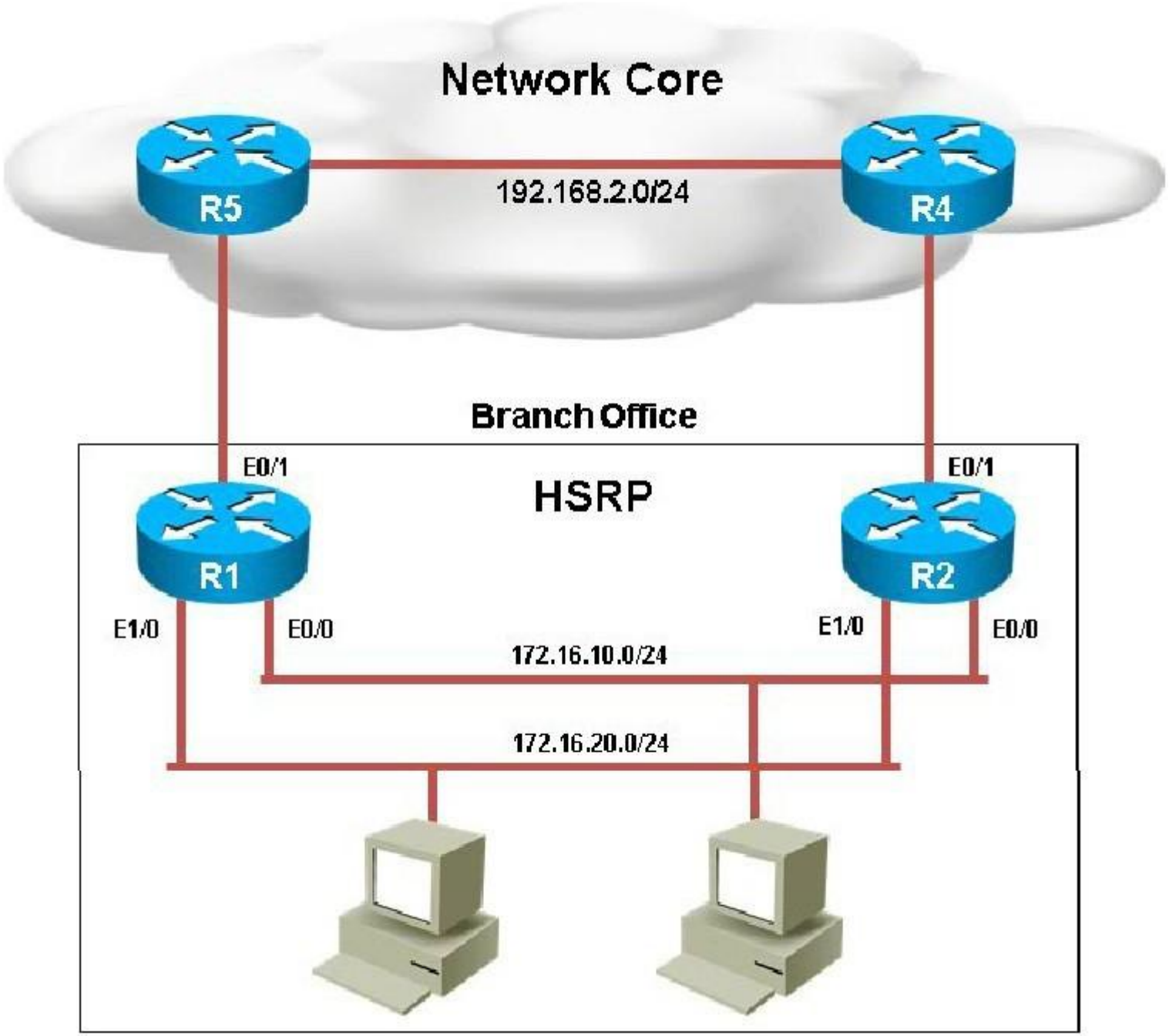
If we look at the configuration on R4 we see that there is a distribute list applied to OSPF, which blocks the 172.16.20.0/24 and 172.16.10.0/24 networks.

R4

```
!
router ospf 10
 network 0.0.0.0 255.255.255.255 area 0
 distribute-list 1 in
!
!
!
no ip http server
!
access-list 1 permit 172.18.30.0
access-list 1 deny   172.16.20.0
access-list 1 permit 172.18.20.0
access-list 1 permit 172.18.10.0
access-list 1 deny   172.16.10.0
access-list 1 permit any
!
!
```

QUESTION 2
Scenario:
You have been asked by your customer to help resolve issues in their routed network. Their network engineer has deployed HSRP. On closer inspection HSRP doesn't appear to be operating properly and it appears there are other network problems as well. You are to provide solutions to all the network

problems.


Network Core
R5
192.168.2.0/24
R4
Branch Office
E0/1
HSRP
E0/1
R1
R2
E1/0
E0/0
E1/0
E0/0
172.16.10.0/24
172.16.20.0/24

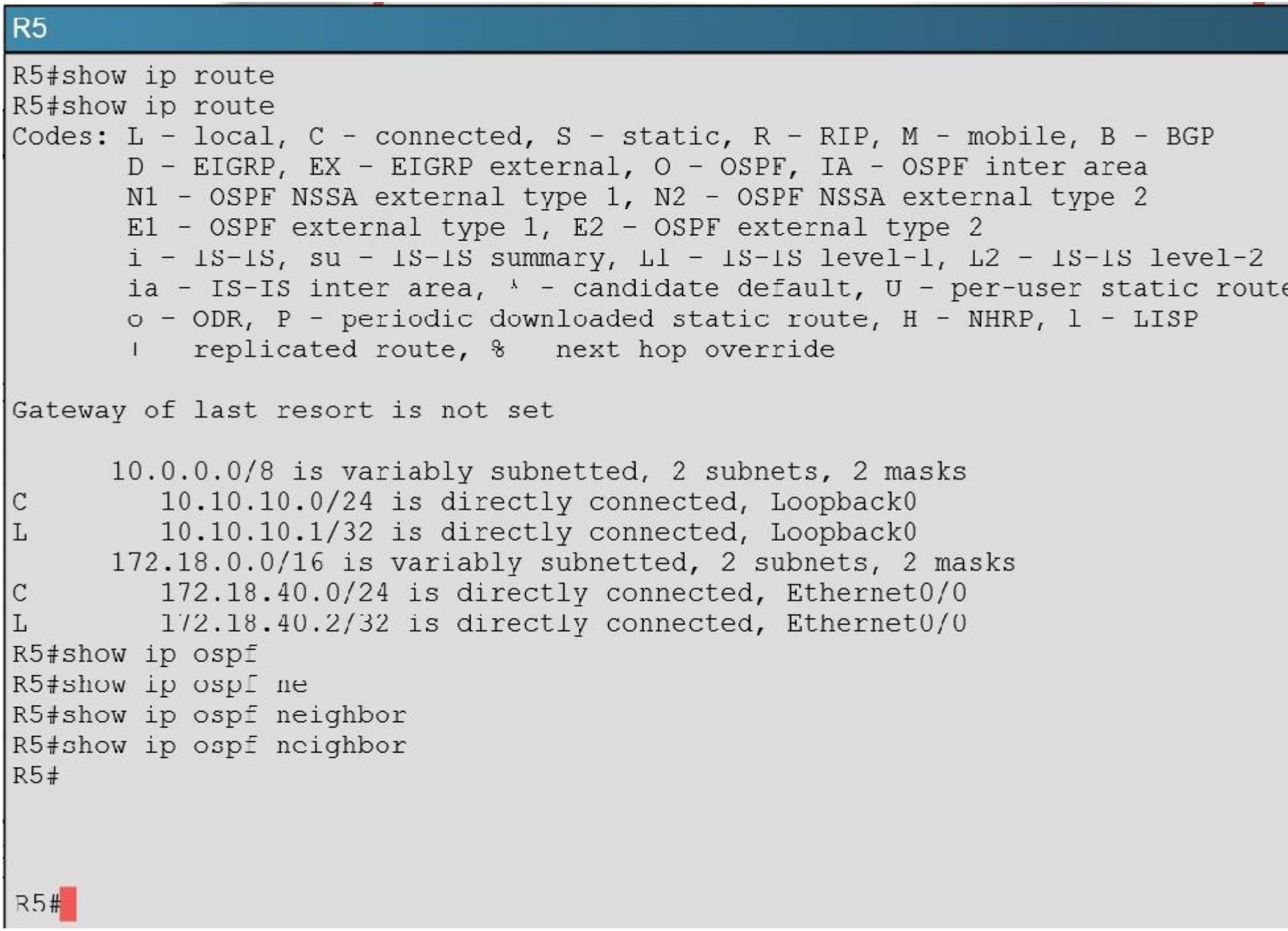
Examine the configuration on R5. Router R5 do not see any route entries learned from R4; what could be the issue?

A. HSRP issue between R5 and R4
B. There is an OSPF issue between R5and R4
C. There is a DHCP issue between R5 and R4
D. The distribute-list configured on R5 is blocking route entries
E. The ACL configured on R5 is blocking traffic for the subnets advertised from R4.

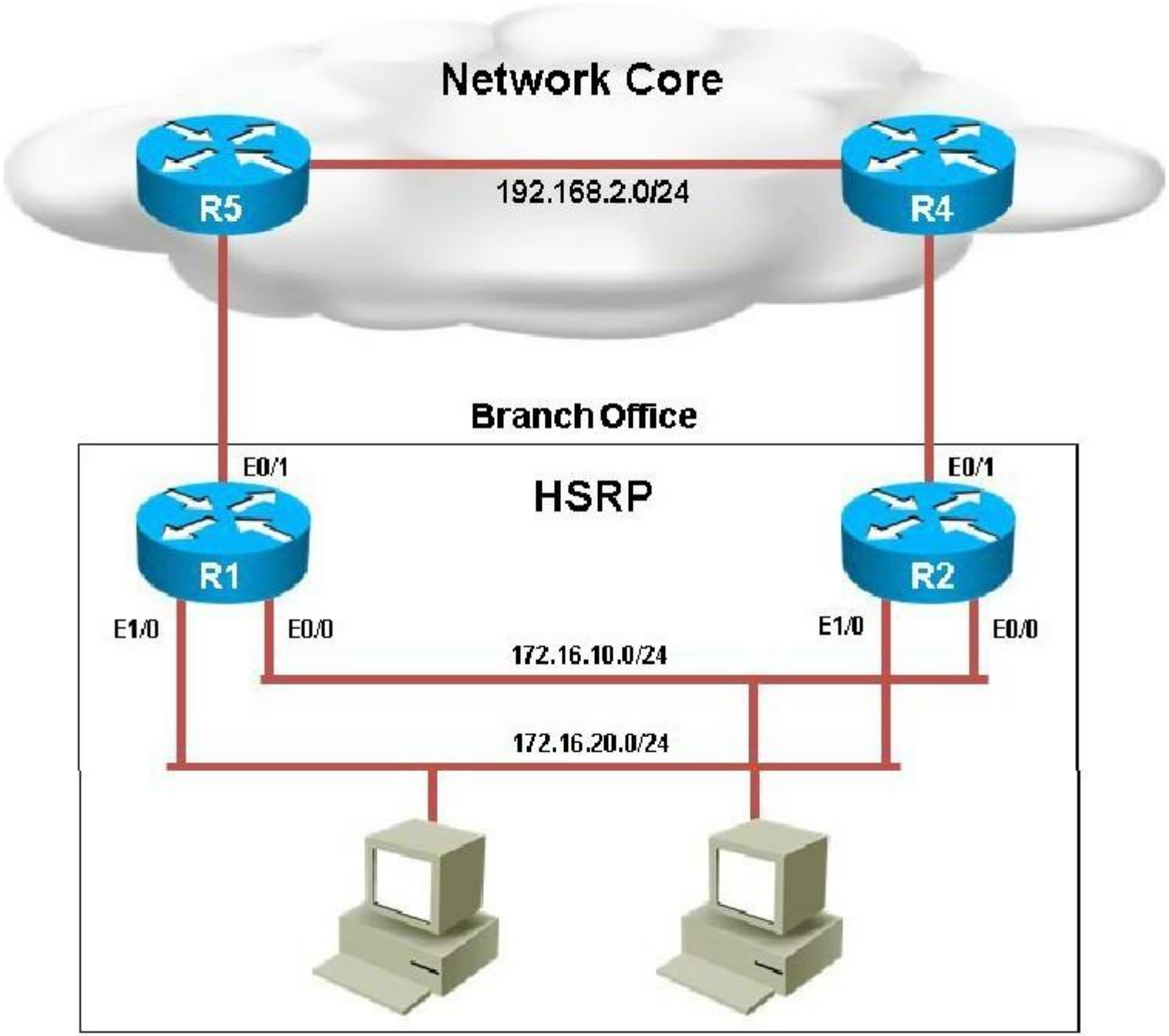
Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

If we issue the "show ip route" and "show ip ospf neighbor" commands on R5, we see that there are no learned OSPF routes and he has no OSPF neighbors.


R5
R5#show ip route
R5#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ replicated route, % next hop override
Gateway of last resort is not set
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.10.10.0/24 is directly connected, Loopback0
L 10.10.10.1/32 is directly connected, Loopback0
172.18.0.0/16 is variably subnetted, 2 subnets, 2 masks
C 172.18.40.0/24 is directly connected, Ethernet0/0
L 172.18.40.2/32 is directly connected, Ethernet0/0
R5#show ip ospf
R5#show ip ospf ne
R5#show ip ospf neighbor
R5#show ip ospf neighbor
R5#
R5#

QUESTION 3
Scenario:
You have been asked by your customer to help resolve issues in their routed network. Their network engineer has deployed HSRP. On closer inspection HSRP doesn't appear to be operating properly and it appears there are other network problems as well. You are to provide solutions to all the network problems.


Network Core
R5
192.168.2.0/24
R4
Branch Office
E0/1
HSRP
E0/1
R1
R2
E1/0
E0/0
E1/0
E0/0
172.16.10.0/24
172.16.20.0/24

You have received notification from network monitoring system that link between R1 and R5 is down and you noticed that the active router for HSRP group 1 has not failed over to the standby router for group 1. You are required to troubleshoot and identify the issue.

A. There is an HSRP group track command misconfiguration
B. There is an HSRP group priority misconfiguration
C. There is an HSRP authentication misconfiguration
D. There is an HSRP group number mismatch
E. This is not an HSRP issue; this is routing issue.

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

When looking at the HSRP configuration of R1, we see that tracking has been enabled, but that it is not tracking the link to R5, only the link to R2:

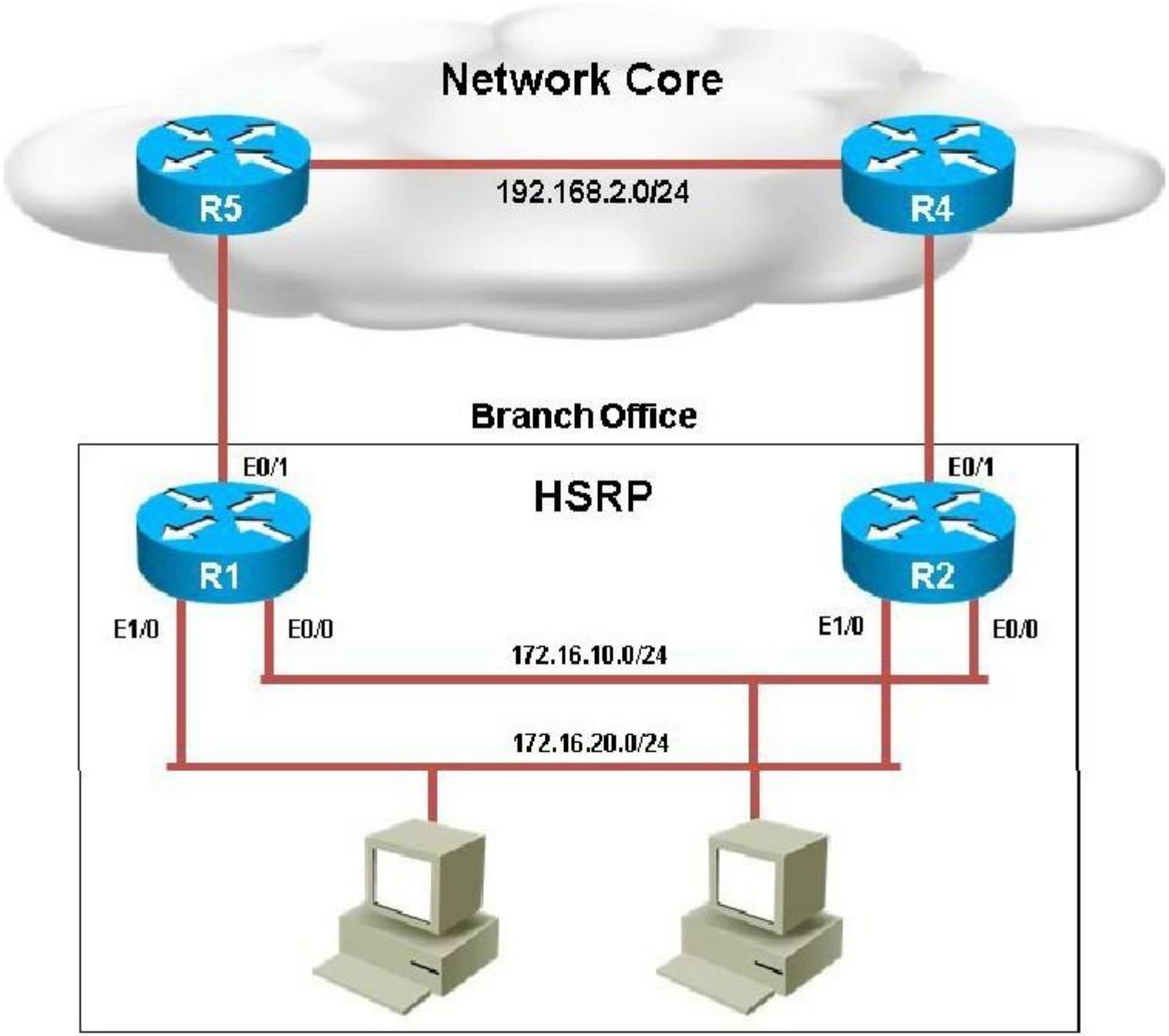
R1

```
!
track 1 interface Ethernet0/0 line-protocol
!
!
!
!
interface Ethernet0/0
 description connection to 172.16.10.0/24 network
 ip address 172.16.10.2 255.255.255.0
 standby 1 ip 172.16.10.254
 standby 1 priority 130
 standby 1 preempt delay reload 180
 standby 1 mac-address 4000.0000.0010
 standby 1 track 1 decrement 40
!
interface Ethernet0/1
```

R1 should be tracking the Eth 0/1 link, not 0/0 to achieve the desired affect/

QUESTION 4
Scenario:
You have been asked by your customer to help resolve issues in their routed network. Their network engineer has deployed HSRP. On closer inspection

HSRP doesn’t appear to be operating properly and it appears there are other network problems as well. You are to provide solutions to all the network problems.


Network Core
R5
192.168.2.0/24
R4
Branch Office
E0/1
HSRP
E0/1
R1
R2
E1/0
E0/0
E1/0
E0/0
172.16.10.0/24
172.16.20.0/24

The following debug messages are noticed for HSRP group 2. But still neither R1 nor R2 has identified one of them as standby router. Identify the reason causing the issue.
Note: only show commands can be used to troubleshoot the ticket.
R1#
'Mar 26 11:17:39.234: HSRP: Et1/0 Grp 2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254
'Mar 26 11:17:40.034: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active prj 130 vIP 172.16.10.254
R1#
'Mar 26 11:17:40.364: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254
R1#
'Mar 26 11:17:41.969: HSRP: Et1/0 Grp 2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254

'Mar 26 11:17:42.719: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active prj 130 vIP 172.16.10.254
'Mar 26 11:17:42.918: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254
R1#
'Mar 26 11:17:44.869: HSRP: Et1/0 Grp 2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254
'Mar 26 11:17:45.485: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active prj 130 vIP 172.16.10.254
'Mar 26 11:17:45.718: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254
R1#
'Mar 26 11:17:47.439: HSRP: Et1/0 Grp 2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254
'Mar 26 11:17:48.252: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254
'Mar 26 11:17:48.322: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active prj 130 vIP 172.16.10.254
R1#
'Mar 26 11:17:50.389: HSRP: Et1/0 Grp 2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254
'Mar 26 11:17:50.735: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254
'Mar 26 11:17:50.921: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active prj 130 vIP 172.16.10.254
R1#
'Mar 26 11:17:53.089: HSRP: Et1/0 Grp2 Hello out 172.16.20.2 Active pri 100 vIP 172.16.20.254
'Mar 26 11:17:53.338: HSRP: EtO/0 Grp 1 Hello out 172.16.10.2 Active pri130vlP 172.16.10.254
'Mar 26 11:17:53.633: HSRP: EtO/0 Grp 1 Hello in 172.16.10.1 Standby pri 100 vIP 172.16.10.254

A. HSRP group priority misconfiguration
B. There is an HSRP authentication misconfiguration
C. There is an HSRP group number mismatch
D. This is not an HSRP issue: this is DHCP issue.
E. The ACL applied to interface is blocking HSRP hello packet exchange

Correct Answer: E
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 we see that access list 102 has been applied to the Ethernet 1/0 interface:

R1

```
interface Ethernet1/0
 description connection to 172.16.20.0/24 network
 ip address 172.16.20.2 255.255.255.0
 ip access-group 102 in
 standby version 2
 standby 2 ip 172.16.20.254
 standby 2 authentication cisco123
!
```

R1

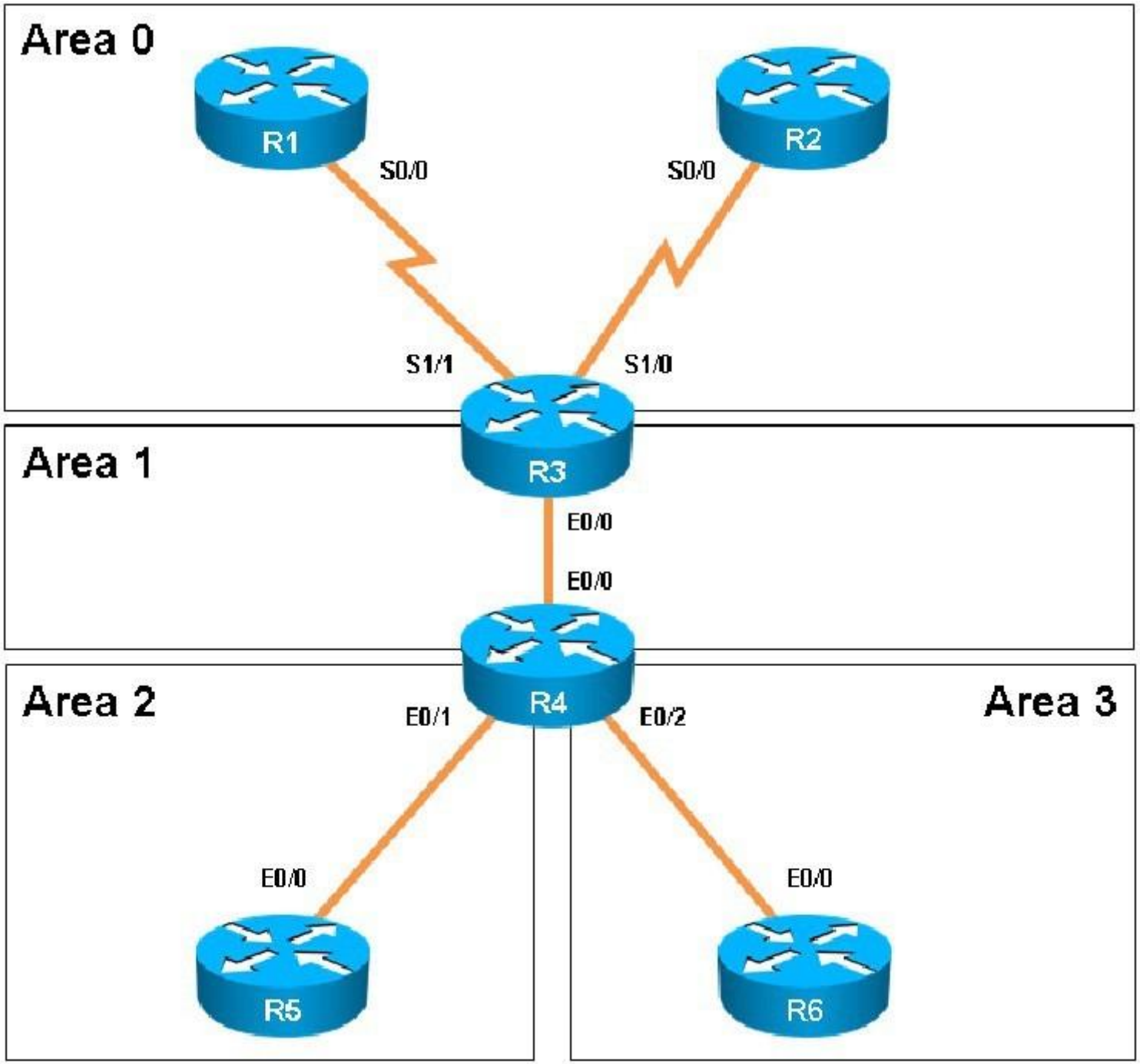
```
no ip http server
!
access-list 102 deny   ip any host 224.0.0.102
access-list 102 permit ip any any
!
!
```

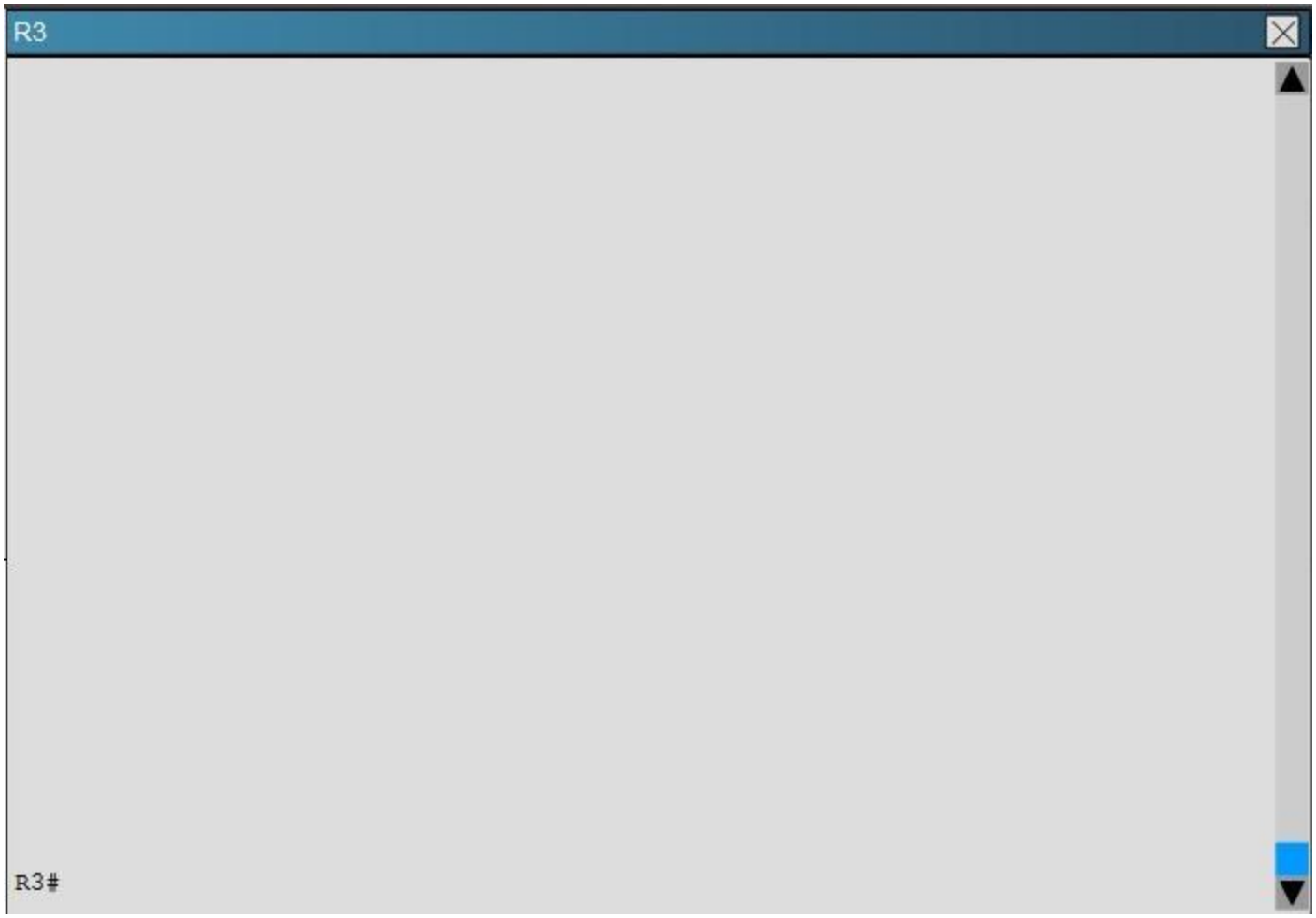
This access list is blocking all traffic to the 224.0.0.102 IP address, which is the multicast address used by HSRP.

Testlet 1

Topic 5, Troubleshooting OSPF

QUESTION 1
Scenario:
A customer network engineer has edited their OSPF network configuration and now your customer is experiencing network issues. They have contacted you to resolve the issues and return the network to full functionality.


Area 0
R1
R2
S0/0
S0/0
S1/1
S1/0
R3
Area 1
E0/0
E0/0
R4
Area 2
Area 3
E0/1
E0/2
E0/0
E0/0
R5
R6



After resolving the issues between R3 and R4. Area 2 is still experiencing routing issues. Based on the current router configurations, what needs to be resolved for routes to the networks behind R5 to be seen in the company intranet?

A. Configure R4 and R5 to use MD5 authentication on the Ethernet interfaces that connect to the common subnet.
B. Configure Area 1 in both R4 and R5 to use MD5 authentication.
C. Add ip ospf authentication-key 7 BEST to the R4 Ethernet interface that connects to R5 and ip ospf authentication-key 7 BEST to R5 Ethernet interface that connects to R4.
D. Add ip ospf authentication-key CISCO to R4 Ethernet 0/1 and add area 2 authentication to the R4 OSPF routing process.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Here, we see from the running configuration of R5 that OSPF authentication has been configured on the link to R4:

R5

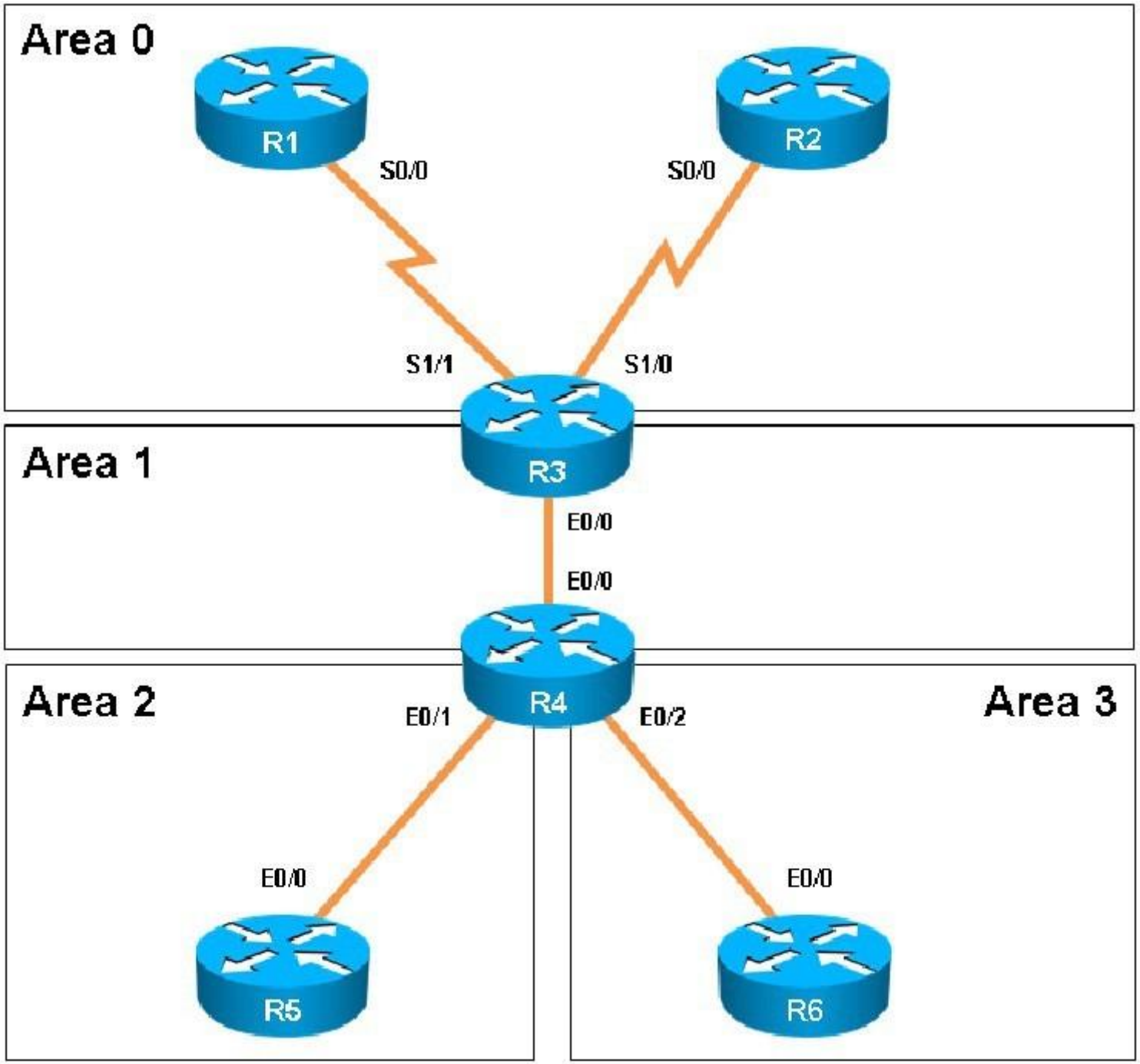
```
interface Ethernet0/0
 ip address 192.168.45.5 255.255.255.0
 ip ospf authentication-key CISCO
!
interface Ethernet0/1
 no ip address
 shutdown
!
interface Ethernet0/2
 no ip address
 shutdown
!
interface Ethernet0/3
 no ip address
 shutdown
!
router ospf 100
 router-id 5.5.5.5
 auto-cost reference-bandwidth 3000
 area 2 authentication
 area 2 nssa
 area 2 range 5.5.0.0 255.255.252.0
 network 192.168.45.5 0.0.0.0 area 2
 distribute-list 45 in Ethernet0/1
```

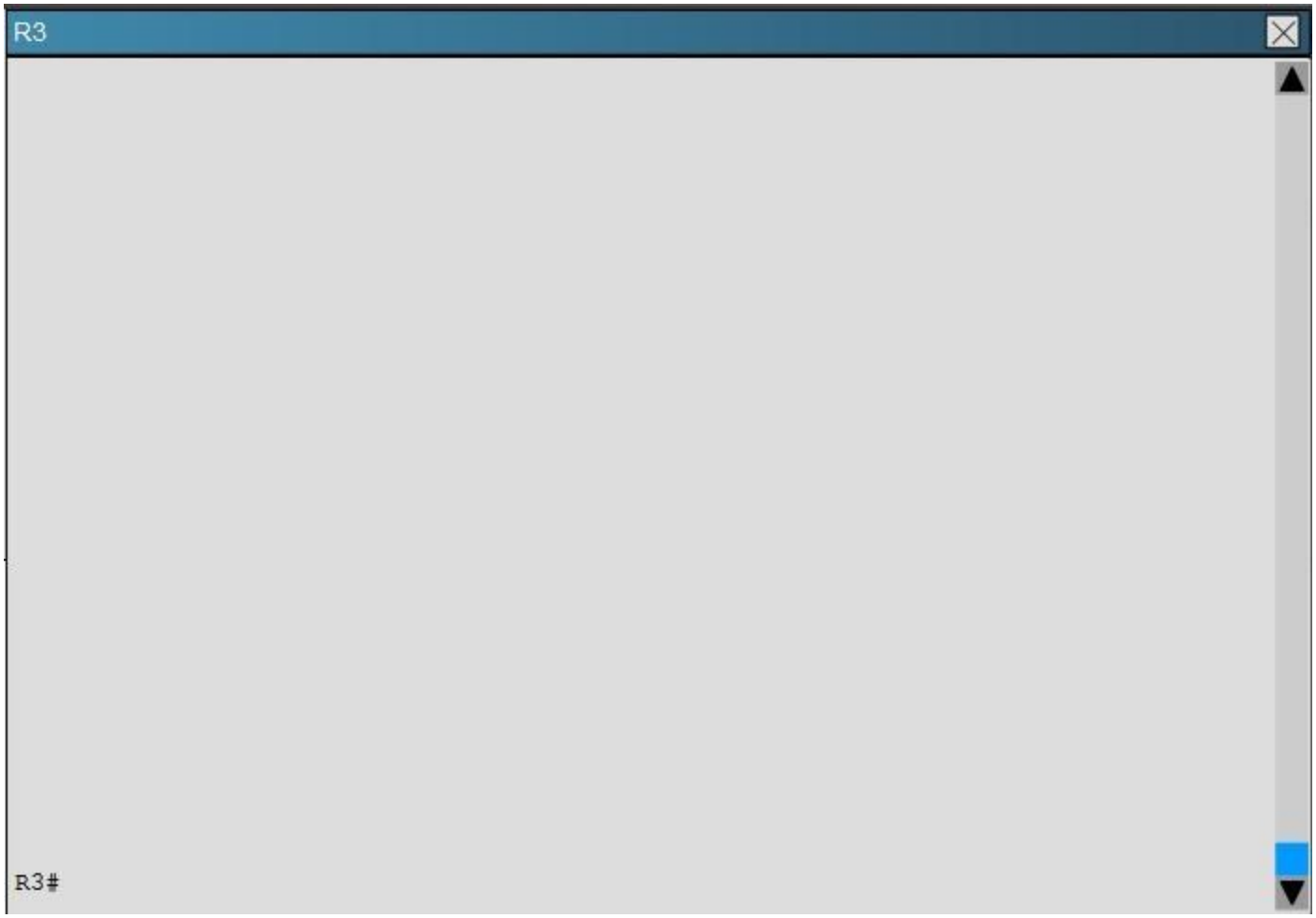
However, this has not been done on the link to R5 on R4:

R4

```
interface Ethernet0/1
 ip address 192.168.45.4 255.255.255.0
!
interface Ethernet0/2
 ip address 192.168.46.4 255.255.255.0
!
interface Ethernet0/3
 no ip address
 shutdown
!
router ospf 100
 router-id 4.4.4.4
 auto-cost reference-bandwidth 3000
 area 1 virtual-link 3.3.3.3
 area 2 nssa
 area 2 range 5.5.0.0 255.255.252.0
 area 3 stub no-summary
 network 4.4.4.4 0.0.0.0 area 1
 network 192.168.34.0 0.0.0.255 area 1
 network 192.168.45.0 0.0.0.255 area 2
 network 192.168.46.0 0.0.0.255 area 3
 distribute-list 1 in Ethernet0/0
 distribute-list 1 in Ethernet0/1
!
```

QUESTION 2
Scenario:
A customer network engineer has edited their OSPF network configuration and now your customer is experiencing network issues. They have contacted you to resolve the issues and return the network to full functionality.


Area 0
R1
R2
S0/0
S0/0
S1/1
S1/0
R3
Area 1
E0/0
E0/0
R4
Area 2
Area 3
E0/1
E0/2
E0/0
E0/0
R5
R6



The 6.6.0.0 subnets are not reachable from R4. how should the problem be resolved?

A. Edit access-list 46 in R6 to permit all the 6.6.0.0 subnets
B. Apply access-list 46 in R6 to a different interface
C. Apply access-list 1 as a distribute-list out under router ospf 100 in R4
D. Remove distribute-list 64 out on R6
E. Remove distribute-list 1 in ethernet 0/1 in R4
F. Remove distribute-list 1 in ethernet 0/0 in R4

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Here we see from the running configuration of R6 that distribute list 64 is being used in the outbound direction to all OSPF neighbors.

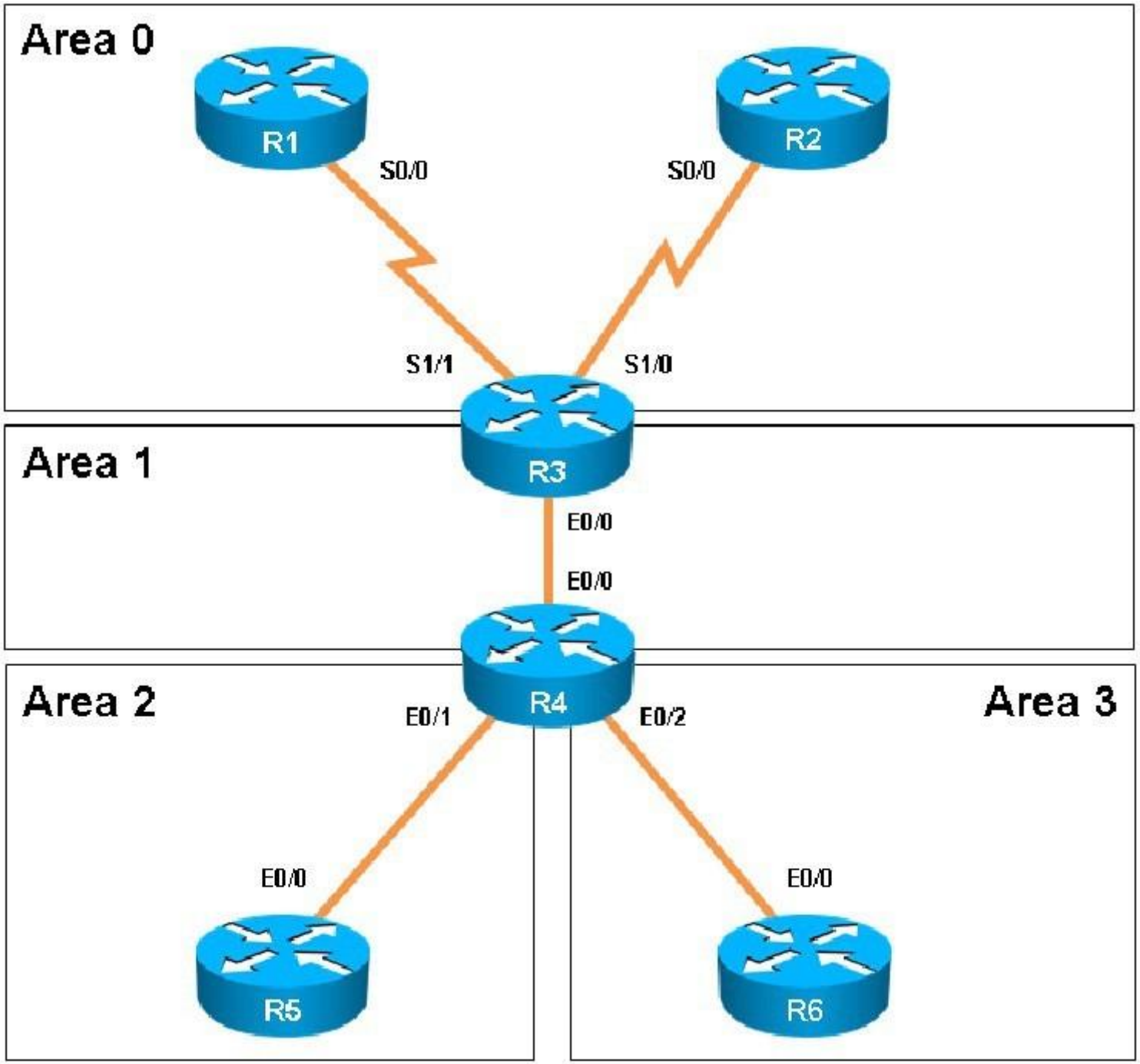
R6

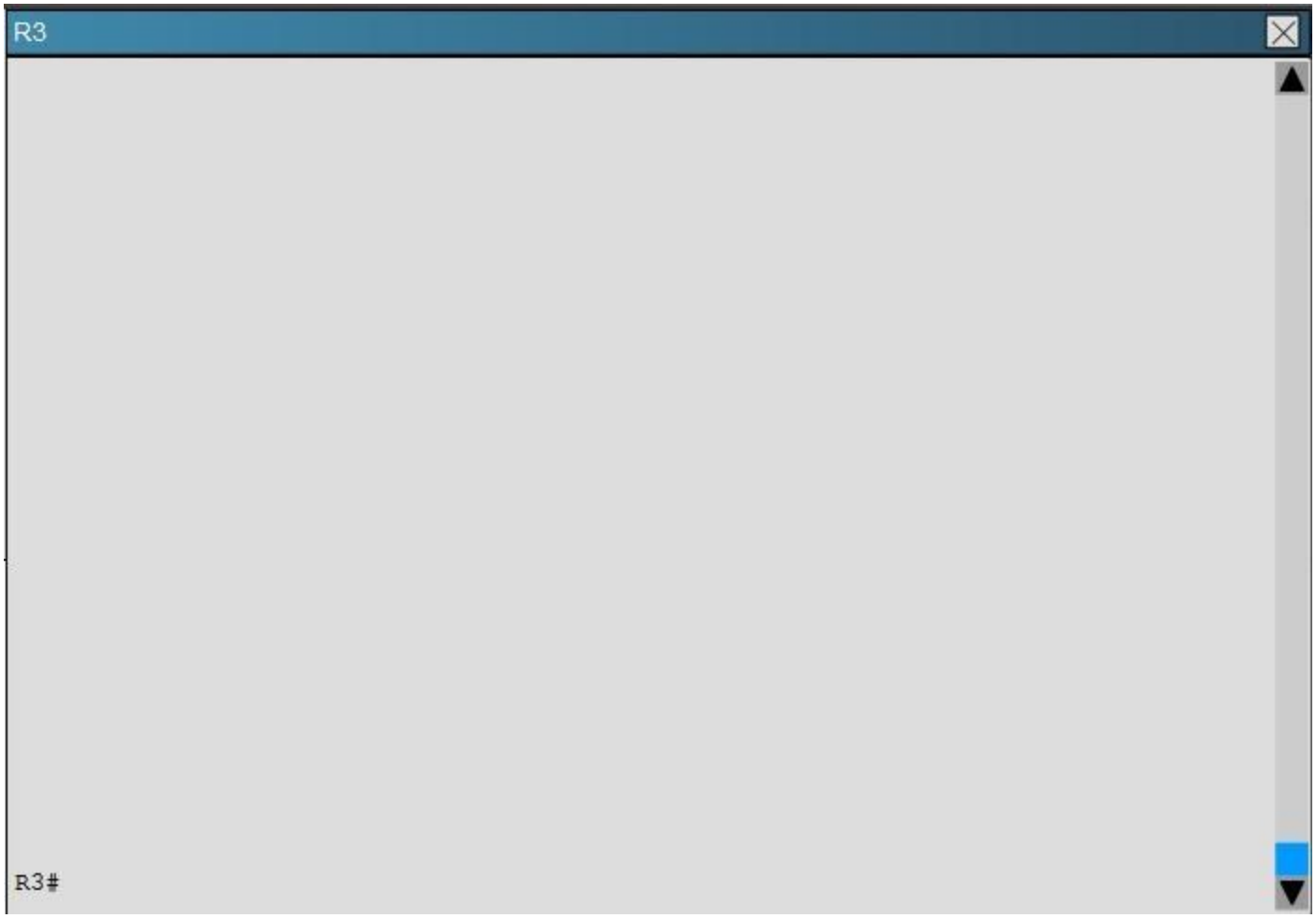
```
!
router ospf 100
 router-id 6.6.6.6
 auto-cost reference-bandwidth 3000
 area 3 stub no-summary
 redistribute connected
 network 192.168.46.0 0.0.0.255 area 3
 distribute-list 64 in Ethernet0/1
 distribute-list 46 in Loopback0
 distribute-list 64 out
!
!
!
no ip http server
!
access-list 46 deny   6.6.0.0 0.0.255.255
access-list 46 permit 6.0.0.0 0.255.255.255
access-list 64 deny   6.0.0.0 0.255.255.255
access-list 64 permit 6.6.0.0 0.0.255.255
!
!
!
```

However, no packets will match the 6.6.0.0 in this access list because the first line blocks all 6.0.0.0 networks, and since the 6.6.0.0 networks will also match the first line of this ACL, these OSPF networks will not be advertised because they are first denied in the first line of the ACL.

QUESTION 3

Scenario:
A customer network engineer has edited their OSPF network configuration and now your customer is experiencing network issues. They have contacted you to resolve the issues and return the network to full functionality.


Area 0
R1
R2
S0/0
S0/0
S1/1
S1/0
R3
Area 1
E0/0
E0/0
R4
Area 2
Area 3
E0/1
E0/2
E0/0
E0/0
R5
R6



The OSPF neighbour relationship has been lost between R1 and R3. What is causing this problem?

A. The serial interface in R1 should be taken out of the shutdown state.
B. A neighbor statement needs to be configured in R1 and R3 pointing at each other.
C. The R1 network type should be changed to point-to-multipoint non-broadcast.
D. The hello, dead and wait timers on R1 need to be reconfigured to match the values on R3.

Correct Answer: C

Section: [none]
Explanation

Explanation/Reference:
Explanation:

In order for two OSPF routers to become neighbors, they must have matching network types across the links. In this case, we see that R1 has been configured as non-broadcast and R3 is using point to point non-broadcast.

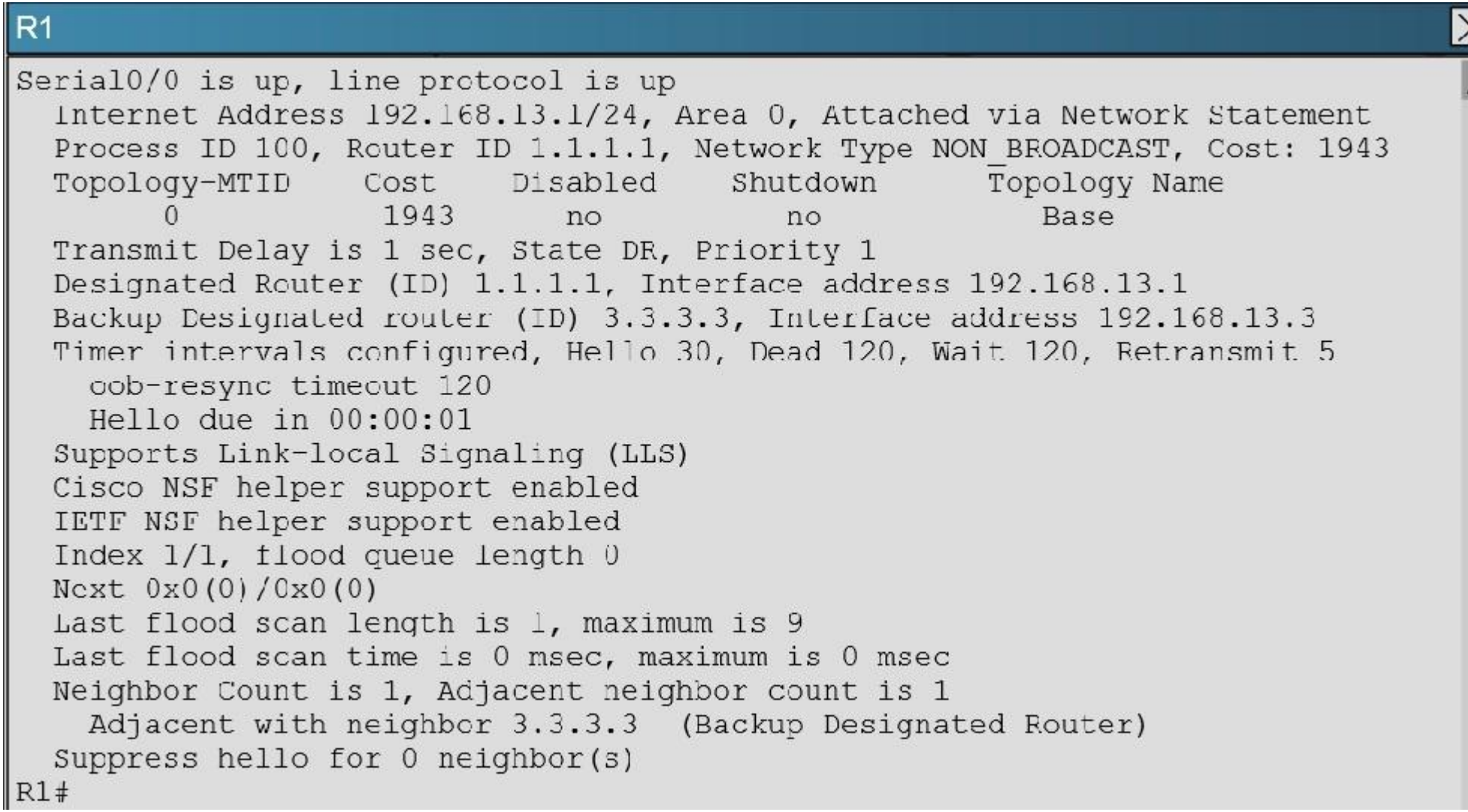
R1

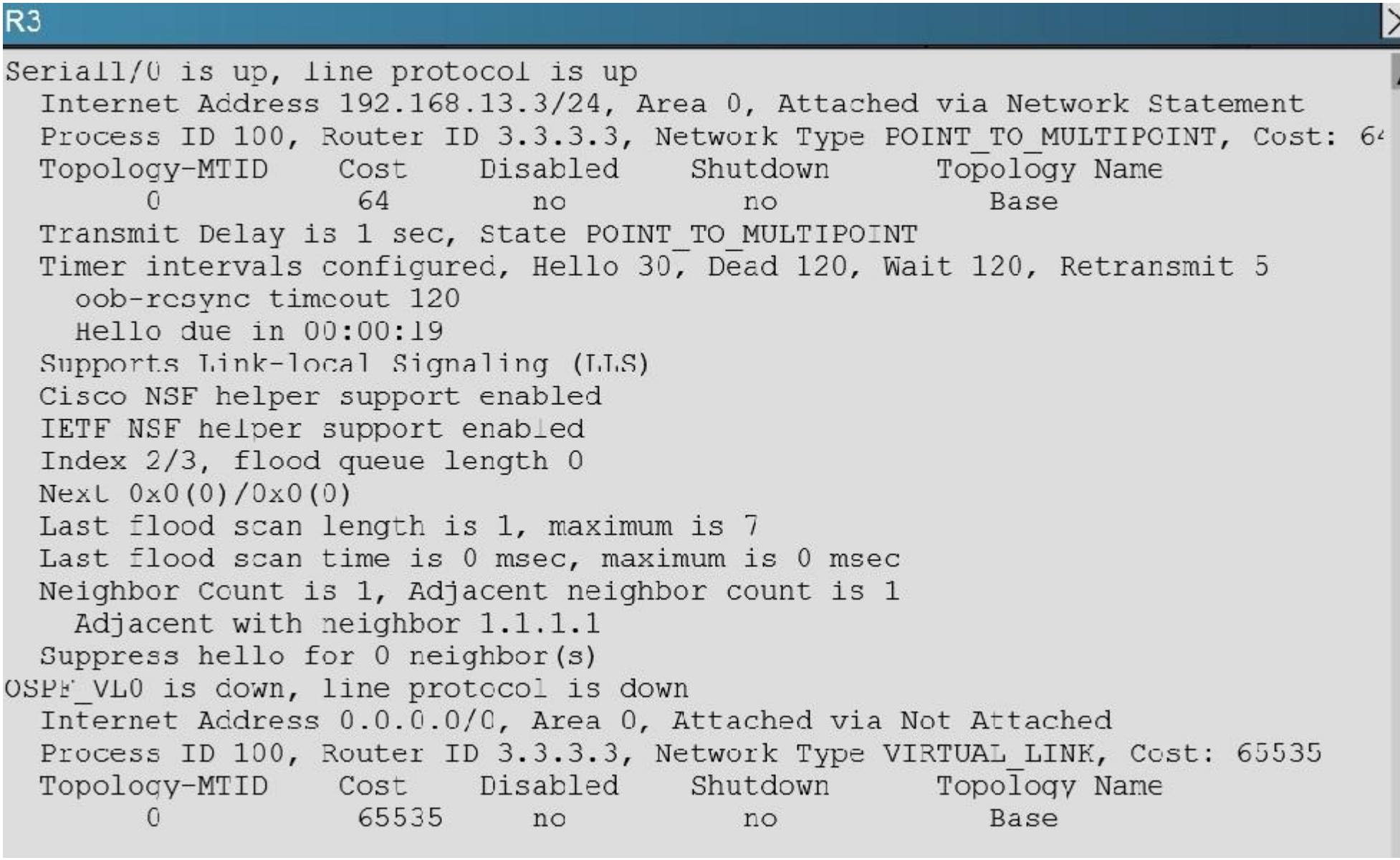
```
interface Loopback0
 ip address 1.1.1.1 255.255.255.255
!
interface Serial0/0
 ip address 192.168.13.1 255.255.255.0
 ip ospf network non-broadcast
 no fair-queue
 serial restart-delay 0
!
```

R3

```
!
interface Serial1/0
 ip address 192.168.13.3 255.255.255.0
 ip ospf network point-to-multipoint non-broadcast
 no fair-queue
 serial restart-delay 0
!
```

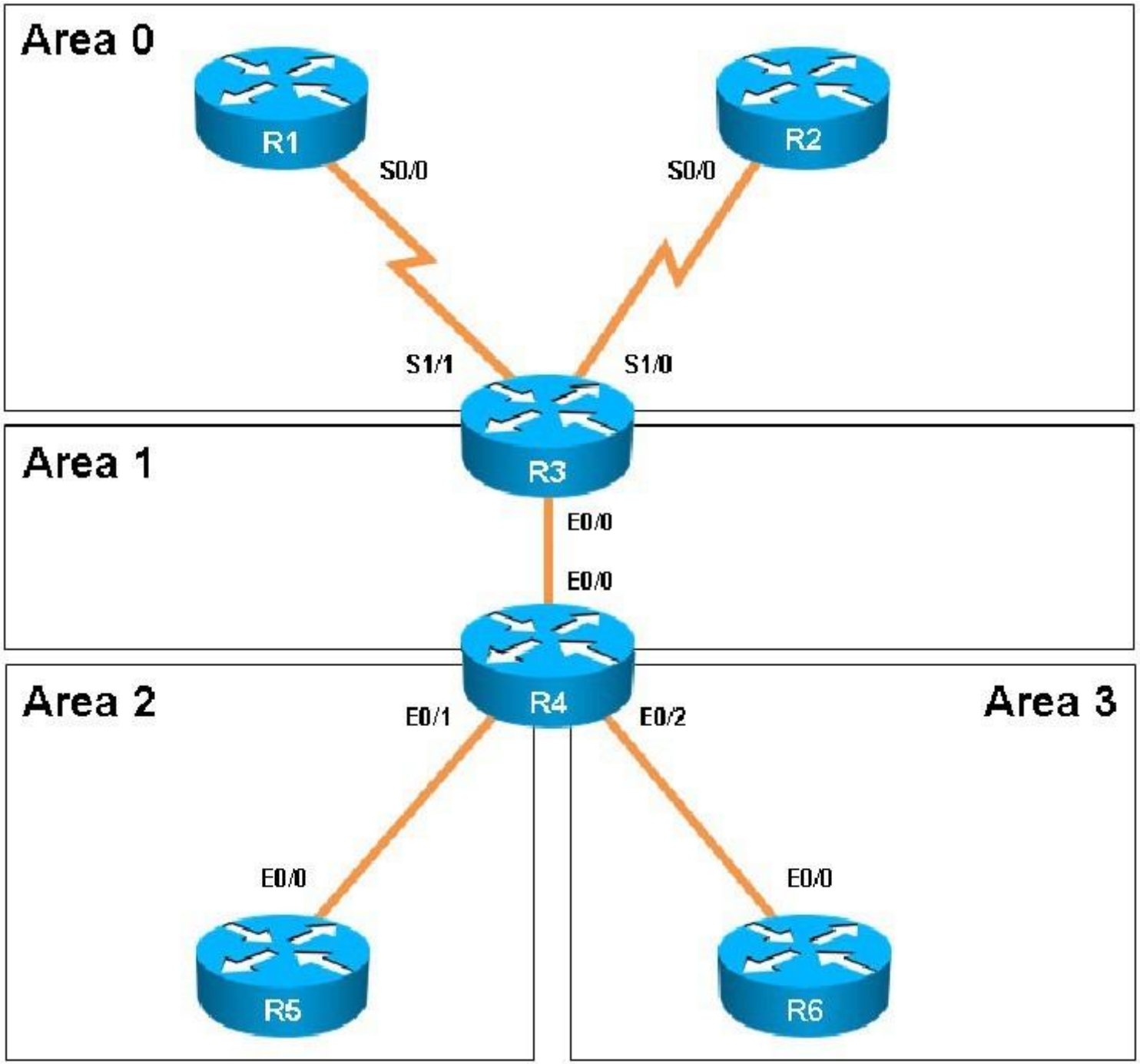
This can be seen by issuing the "show running-config" command on each router, or the "show ip ospf interface" command:

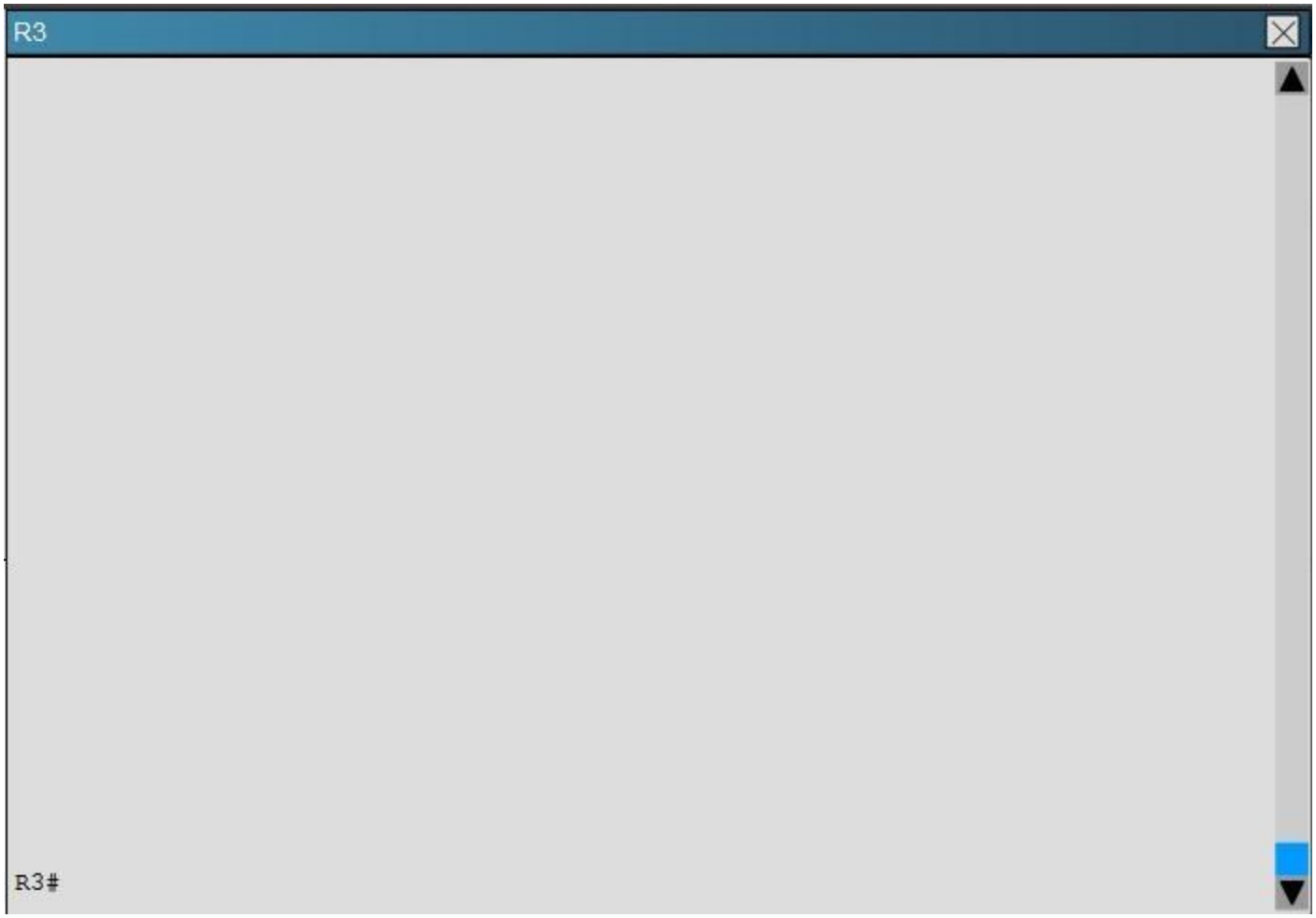




QUESTION 4
Scenario:

A customer network engineer has edited their OSPF network configuration and now your customer is experiencing network issues. They have contacted you to resolve the issues and return the network to full functionality.


Area 0
R1
R2
S0/0
S0/0
S1/1
S1/0
R3
Area 1
E0/0
E0/0
R4
Area 2
Area 3
E0/1
E0/2
E0/0
E0/0
R5
R6



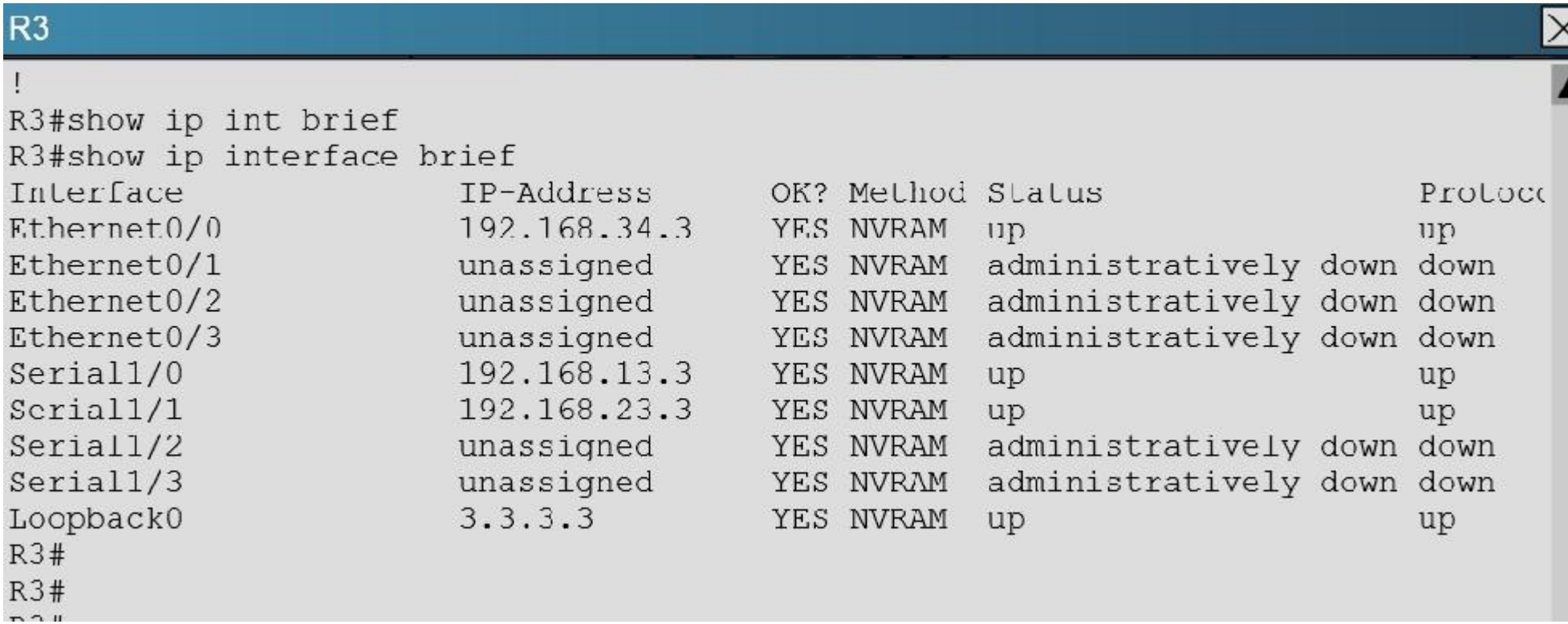
Connectivity from R3 to R4, R5 and R6 has been lost. How should connectivity be reestablished?

A. Configure R4 with a virtual link to 192.168.13.2
B. Change the R3 and R4 hello-interval and retransmit-interface timers to zero so the link won't go down.
C. Add an OSPF network statement for 4.4.4.4 0.0.0.0 area 1 in R3
D. Add an OSPF network statement for 192.168.34.3 0.0.0.255 area 2 in R3
E. Add an OSPF network statement for 192.168.34.0 0.0.0.255 area 1 in R3

Correct Answer: E
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Based on the network diagram, we know that a virtual link will need to be configured to logically connect area 2 to the back area 0. However, this is not the problem as we can see that R3 has been correctly configured to do this. It is, however, missing the network statement for the link to R4. Here, we see that the link to R4 is using the 192.168.34.0 network, but that this network has not been added to OSPF



R3

```
!
router ospf 100
 router-id 3.3.3.3
 area 1 virtual-link 4.4.4.4
 network 3.3.3.3 0.0.0.0 area 1
 network 192.168.13.0 0.0.0.255 area 0
 network 192.168.23.0 0.0.0.255 area 0
 neighbor 192.168.13.1
!
!
```

Based on the network diagram, this link should be added to Area 1, not Area 2.

Testlet 1

Topic 6, Ticket 1: Switch Port Trunk

overview

Topology Overview (Actual Troubleshooting lab design is for below network design)

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

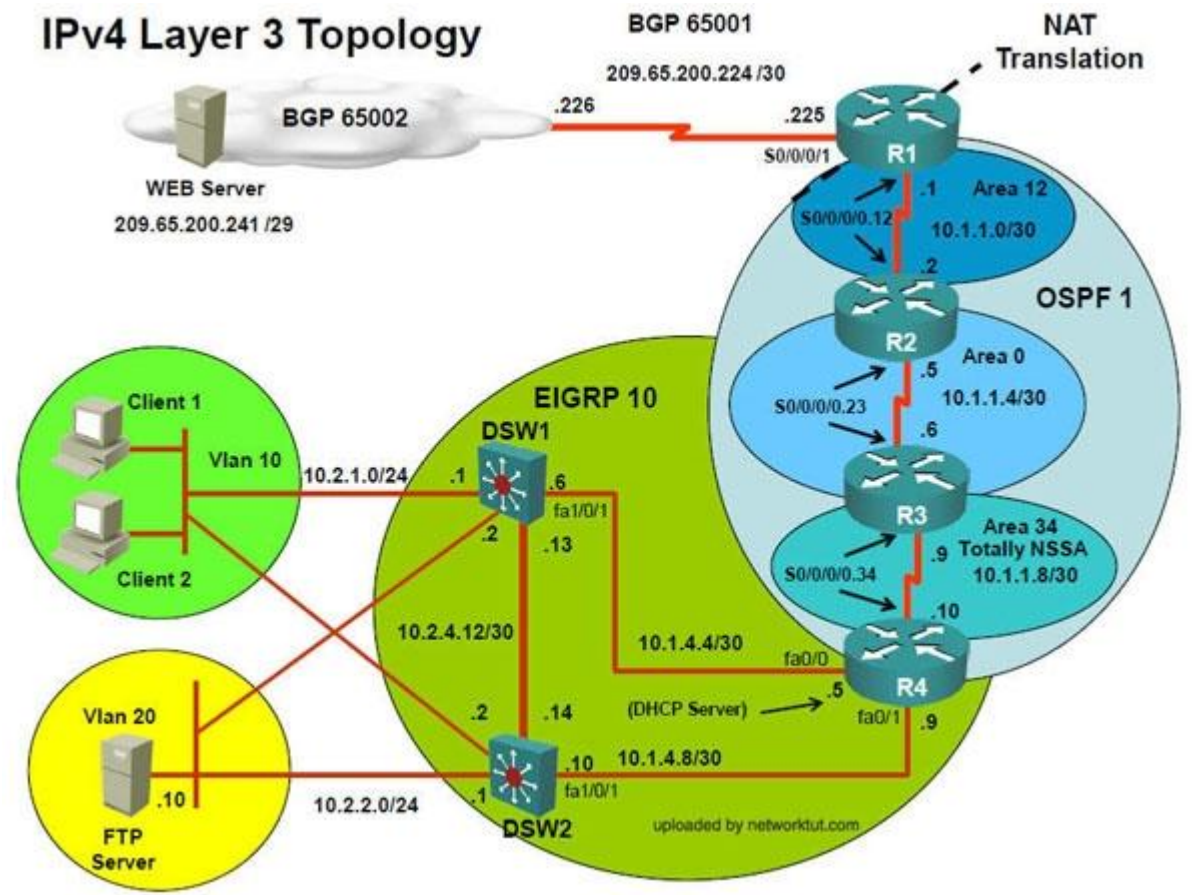
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

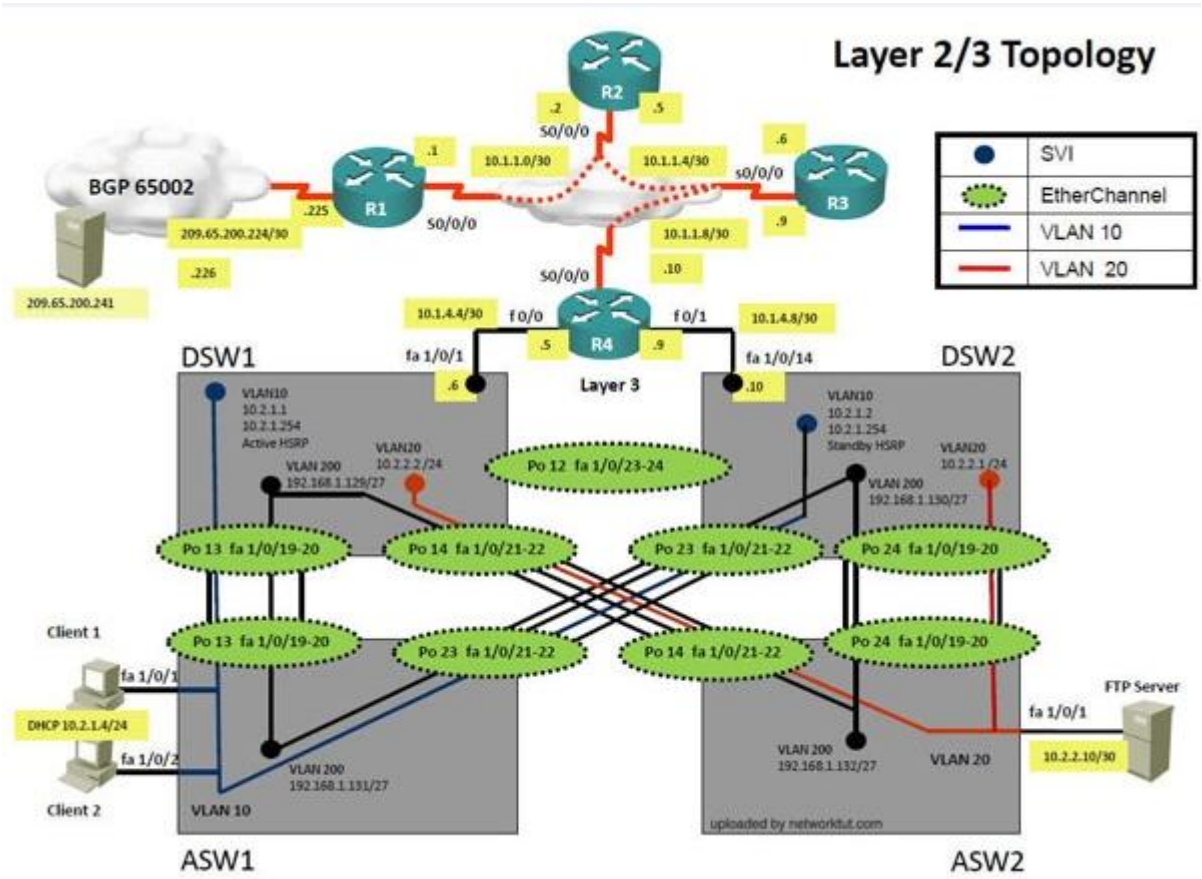
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

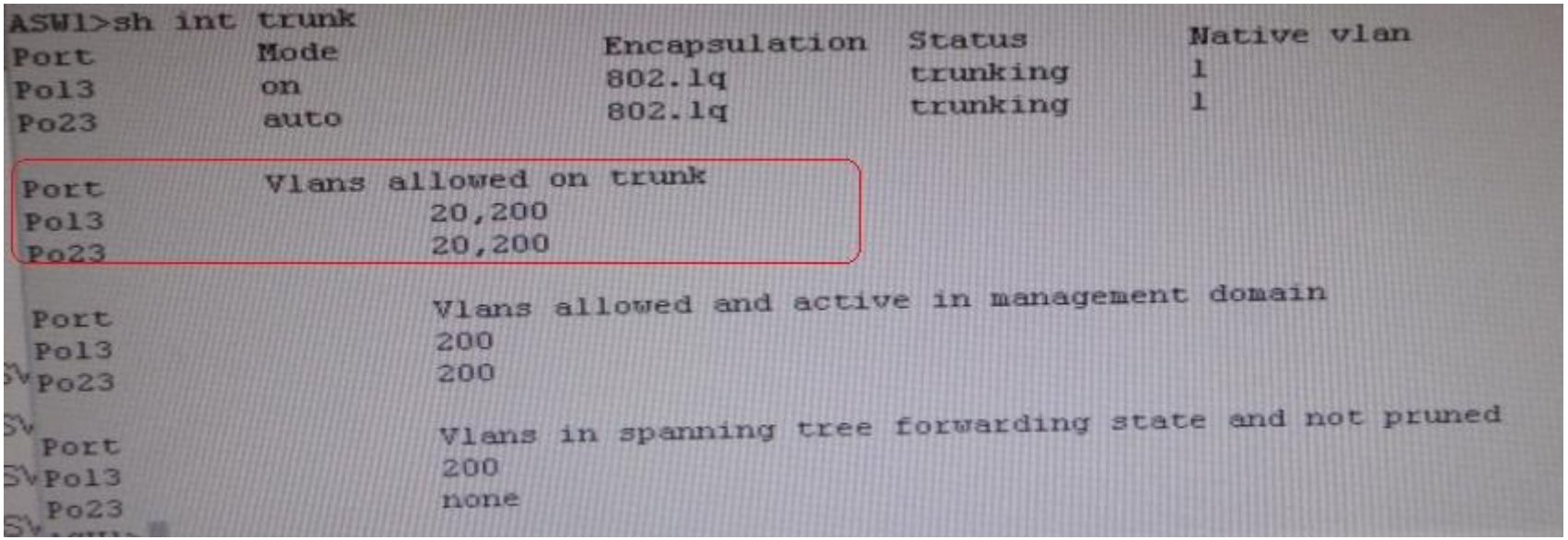
Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution





Client is unable to ping IP 209.65.200.241
Solution
Steps need to follow as below:-
Ipconfig ----- Client will be getting 169.X.X.X

Sh run ------- & check for running config of int fa1/0/1 & fa1/0/2
==========
interface FastEthernet1/0/1switchport mode accessswitchport access vlan 10interface FastEthernet1/0/2switchport mode accessswitchport access vlan 10
==========



int range portchannel13,portchannel23 switchport trunk allowed vlan none switchport trunk allowed vlan 10,200

QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, and FHRP services, a trouble ticket has been operated indicating that Client 1 cannot ping the 209.65.200.241 address. Use the supported commands to Isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: G
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Since the Clients are getting an APIPA we know that DHCP is not working. However, upon closer examination of the ASW1 configuration we can see that the problem is not with DHCP, but the fact that the trunks on the port channels are only allowing VLANs 1-9, when the clients belong to VLAN 10. VLAN 10 is not traversing the trunk on ASW1, so the problem is with the trunk configuration on ASW1.

QUESTION 2
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, and FHRP services, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address. Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. Switch-to-Switch Connectivity
C. Access Vlans
D. Port Security
E. VLAN ACL / Port ACL
F. Switch Virtual Interface

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Since the Clients are getting an APIPA we know that DHCP is not working. However, upon closer examination of the ASW1 configuration we can see that the problem is not with DHCP, but the fact that the trunks on the port channels are only allowing VLANs 1-9, when the clients belong to VLAN 10. VLAN 10 is not traversing the trunk on ASW1, so the problem is with switch to switch connectivity, specifically the trunk configuration on ASW1.

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, and FHRP services, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address. Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. In Configuration mode, using the interface port-channel 13 command, then configure switchport trunk allowed vlan none followed by switchport trunk allowed vlan 20,200 commands.

B. In Configuration mode, using the interface port-channel 13, port-channel 23, then configure switchport trunk none allowed vlan none followed by switchport trunk allowed vlan 10,200 commands.
C. In Configuration mode, using the interface port-channel 23 command, then configure switchport trunk allowed vlan none followed by switchport trunk allowed vlan 20,200 commands.
D. In Configuration mode, using the interface port-channel 23, port-channel, then configure switchport trunk allowed vlan none followed by switchport trunk allowed vlan 10,20,200 commands.

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

We need to allow VLANs 10 and 200 on the trunks to restore full connectivity. This can be accomplished by issuing the "switchport trunk allowed vlan 10,200" command on the port channels used as trunks in DSW1.

Testlet 1

Topic 7, Ticket 2 : ACCESS VLAN

overview

Topology Overview (Actual Troubleshooting lab design is for below network design)

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

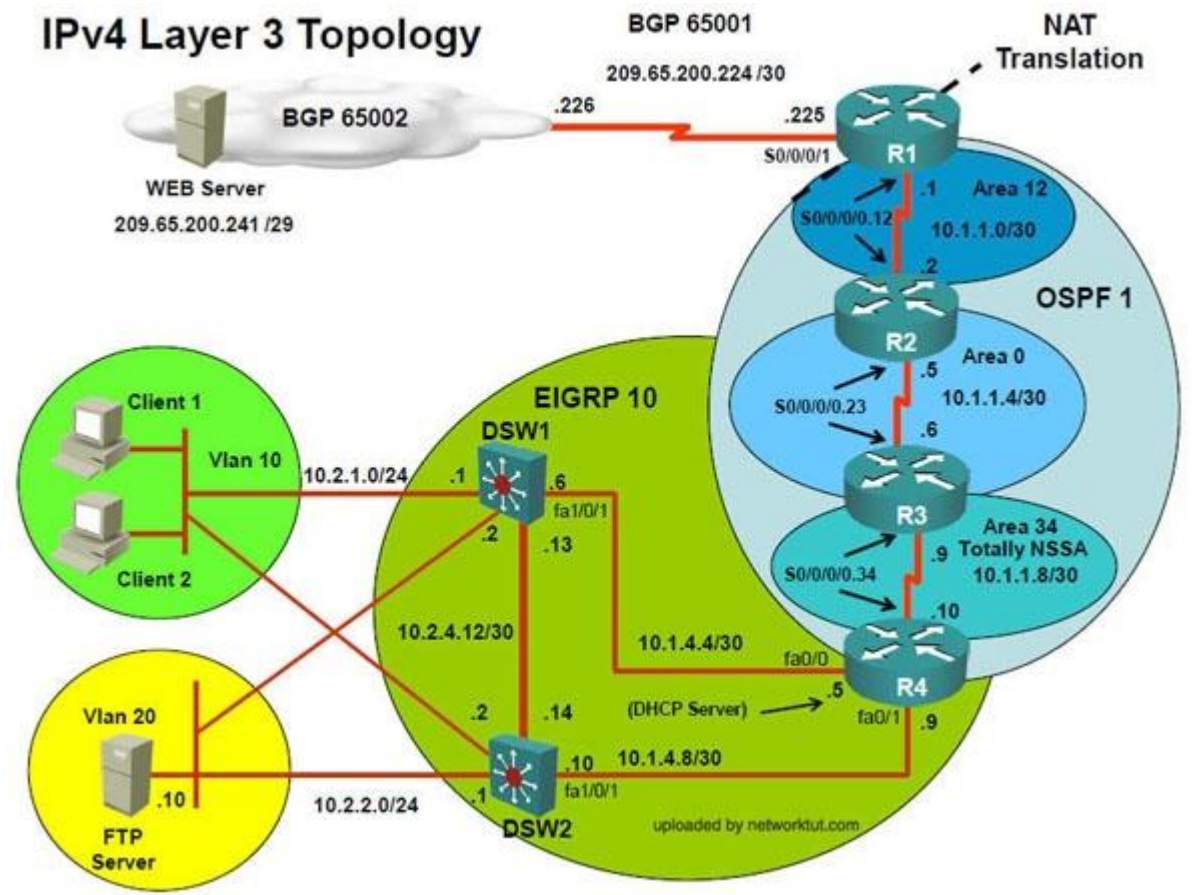
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

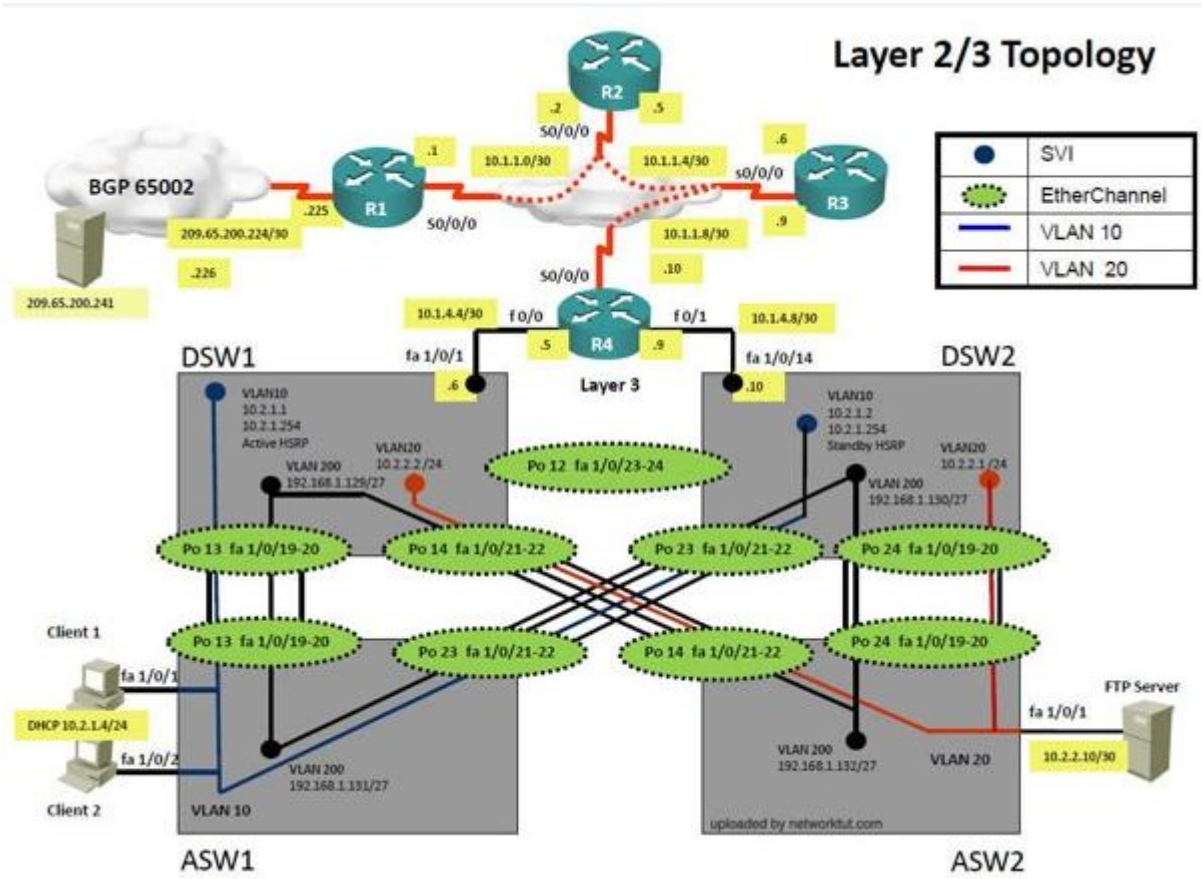
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution

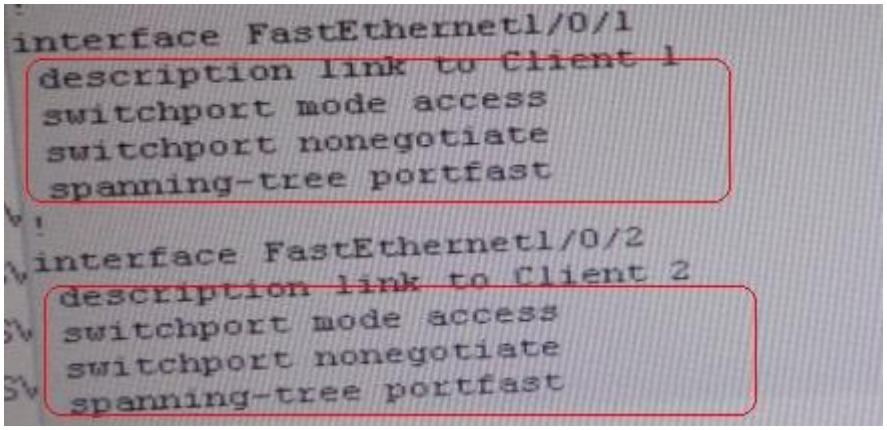




Client is unable to ping IP 209.65.200.241

Solution
Steps need to follow as below:-
Ipconfig ----- Client will be getting 169.X.X.X

Sh run ------- & check for running config of int fa1/0/1 & fa1/0/2
==========



QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: G
Section: [none]
Explanation

Explanation/Reference:
Explanation:

The problem here is that VLAN 10 is not configured on the proper interfaces on switch ASW1.

QUESTION 2

The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to switch technology?

A. NTP
B. Switch-to-Switch Connectivity
C. Loop Prevention
D. Access Vlans
E. VLAN ACL Port ACL
F. Switch Virtual Interface
G. Port Security

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

The problem here is that VLAN 10 is not configured on the proper interfaces on switch ASW1.

QUESTION 3
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. In Configuration mode, using the interface range Fastethernet 1/0/1 2, then switchport mode access vlan 10 command.
B. In Configuration mode, using the interface range Fastethernet 1/0/1 2, then switchport access mode vlan 10 command.
C. In Configuration mode, using the interface range Fastethernet 1/0/1 2, then switchport vlan 10 access command.
D. In Configuration mode, using the interface range Fastethernet 1/0/1 2, then switchport access vlan 10 command.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

Explanation:

The problem here is that VLAN 10 is not configured on the proper interfaces on switch ASW1.

Testlet 1

Topic 8, Ticket 3 : OSPF Authentication

overview

Topology Overview (Actual Troubleshooting lab design is for below network design)

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

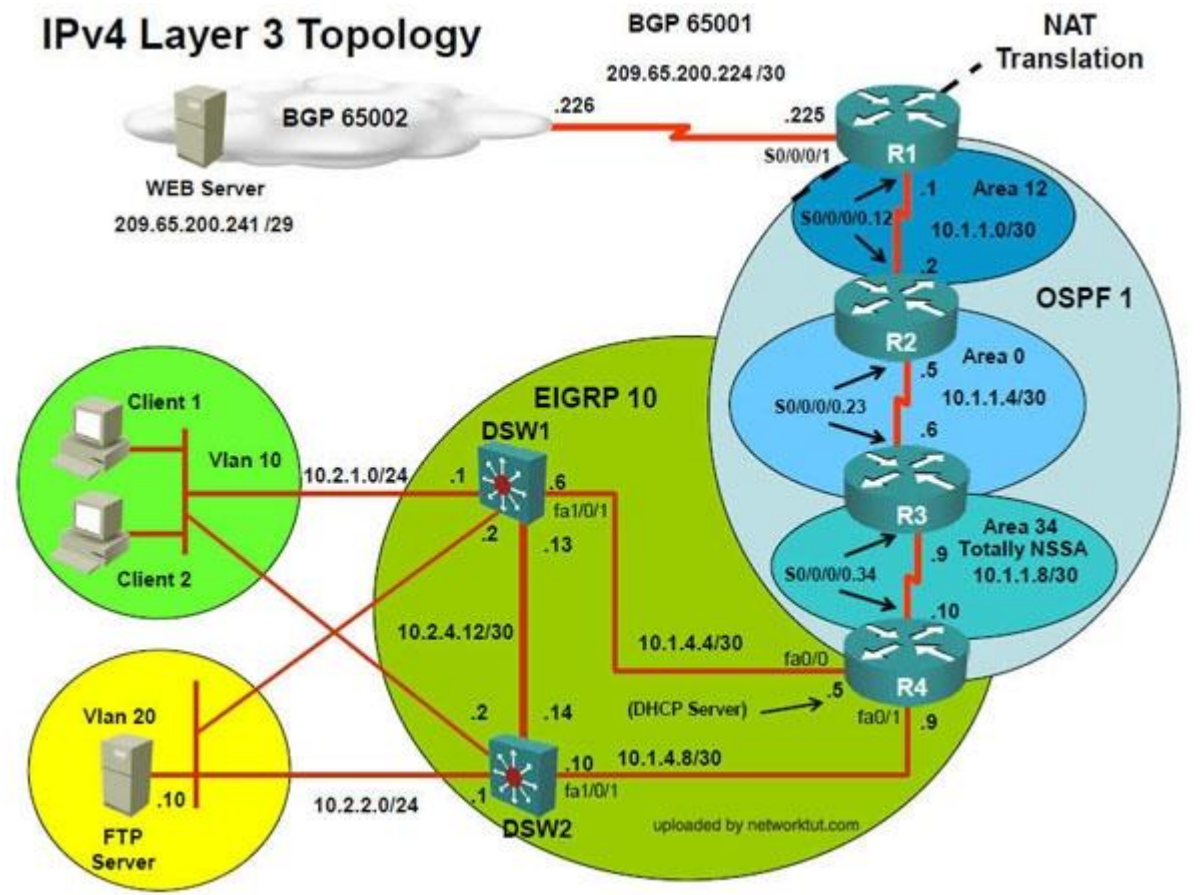
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

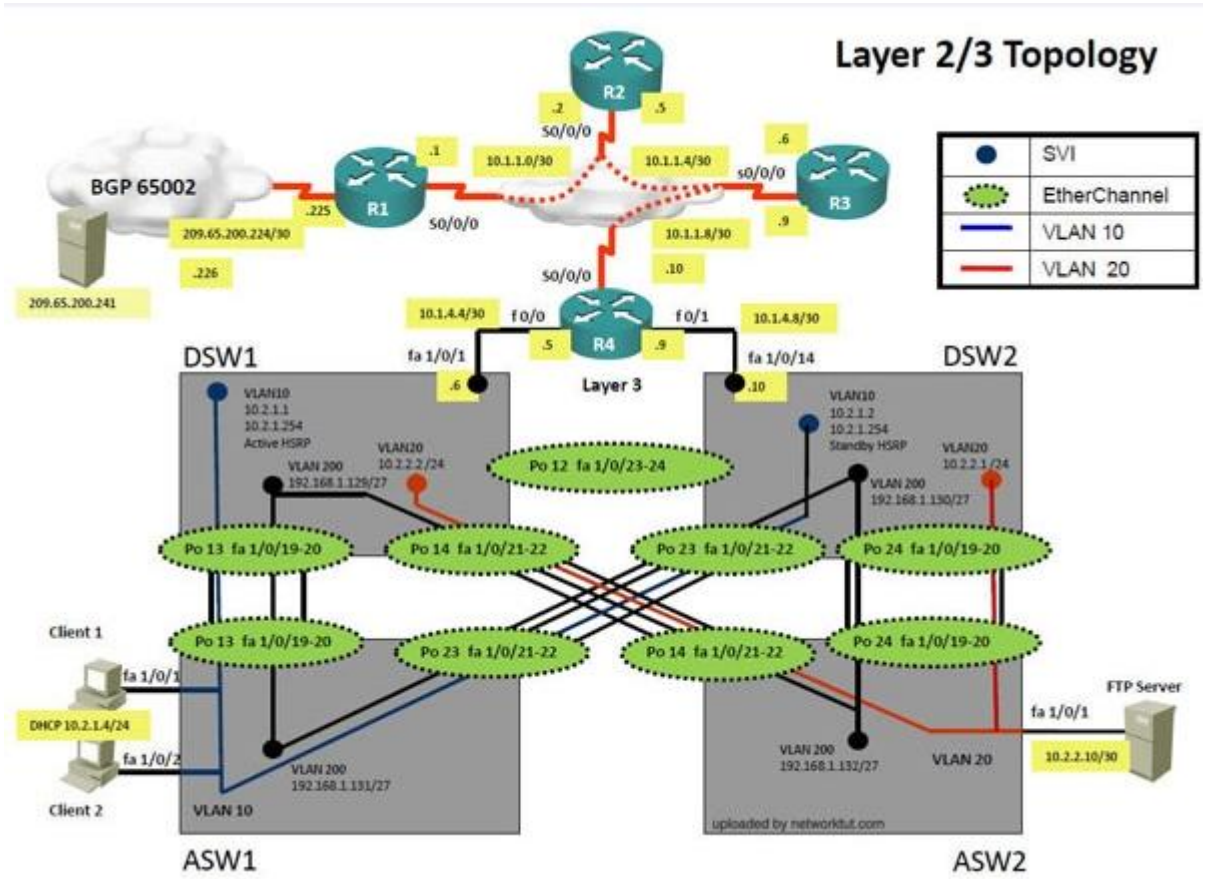
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

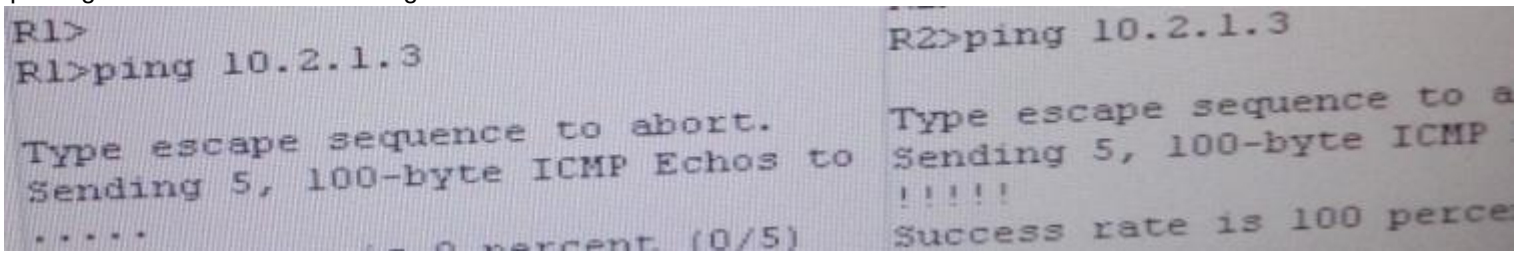
Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution
==========



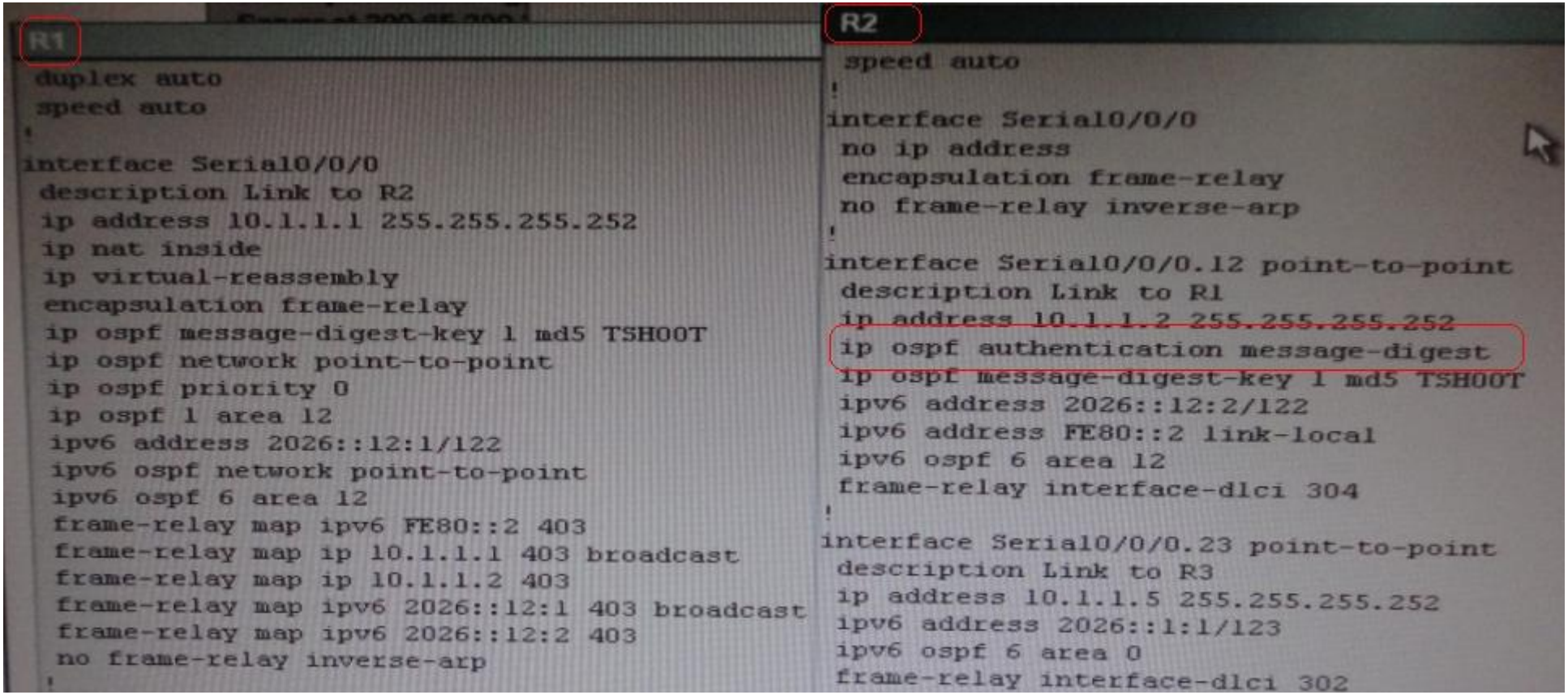


Client is unable to ping IP 209.65.200.241
Solution
Steps need to follow as below:-
Ipconfig ----- Client will be receiving IP address 10.2.1.3



sh ip ospf nei ----- Only one neighborship is forming with R2 & i.e. with R3
Since R2 is connected to R1 & R3 with routing protocol ospf than there should be 2 neighbors seen but only one is seen

Sh run ---------- Interface Serial0/0/0/0.12 on R2



Sh run ---------- Interface Serial0/0/0/0 on R1

QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3

D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, for IPV4 authentication of OSPF the command is missing and required to configure------ ip ospf authentication message-digest

QUESTION 2
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. BGP
B. NTP
C. IP NAT
D. IPv4 OSPF Routing
E. IPv4 OSPF Redistribution
F. IPv6 OSPF Routing
G. IPv4 layer 3 security

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, for IPV4 authentication of OSPF the command is missing and required to configure------ ip ospf authentication message-digest

QUESTION 3

The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. Enable OSPF authentication on the s0/0/0 interface using the ip ospf authentication message-digest command
B. Enable OSPF routing on the s0/0/0 interface using the network 10.1.1.0 0.0.0.255 area 12 command.
C. Enable OSPF routing on the s0/0/0 interface using the network 209.65.200.0 0.0.0.255 area 12 command.
D. Redistribute the BGP route into OSPF using the redistribute BGP 65001 subnet command.

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, for IPV4 authentication of OSPF the command is missing and required to configure------ ip ospf authentication message-digest

Testlet 1

Topic 9.

overview

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

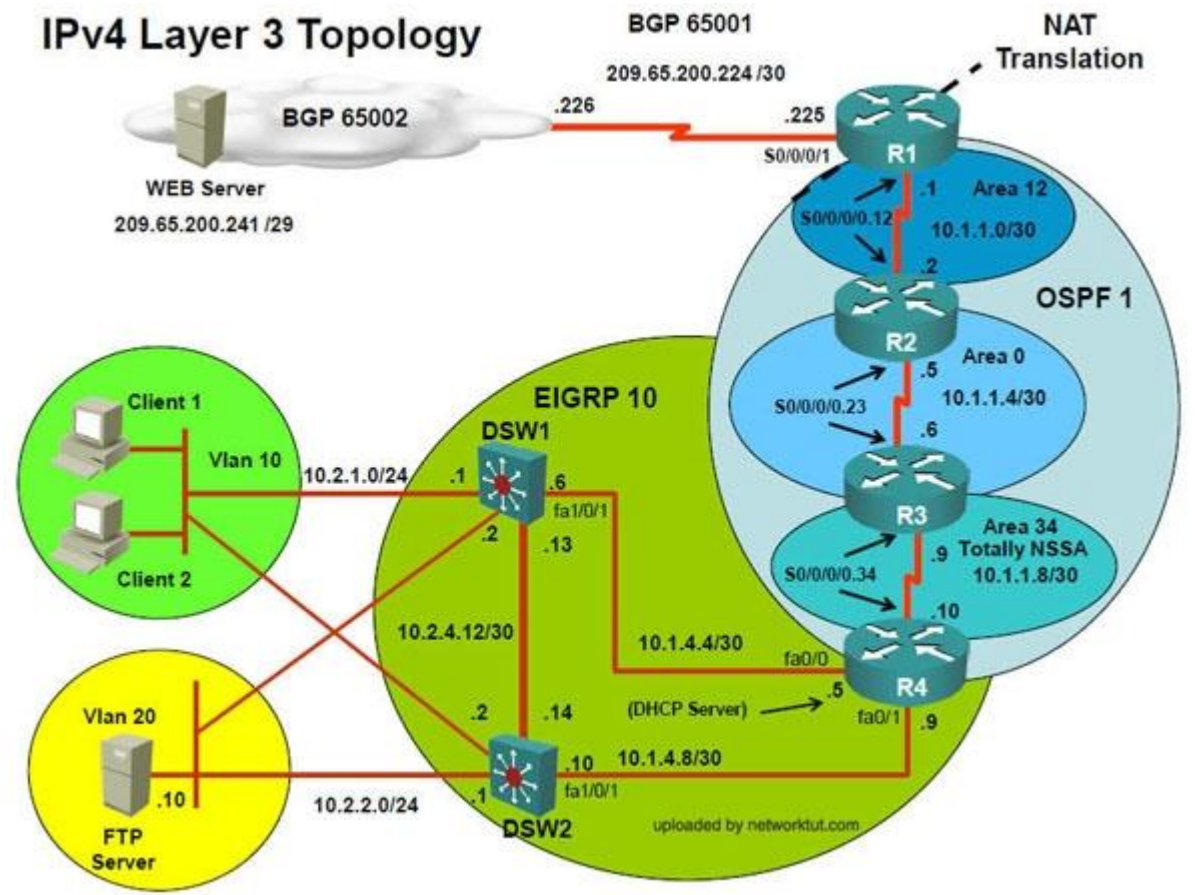
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

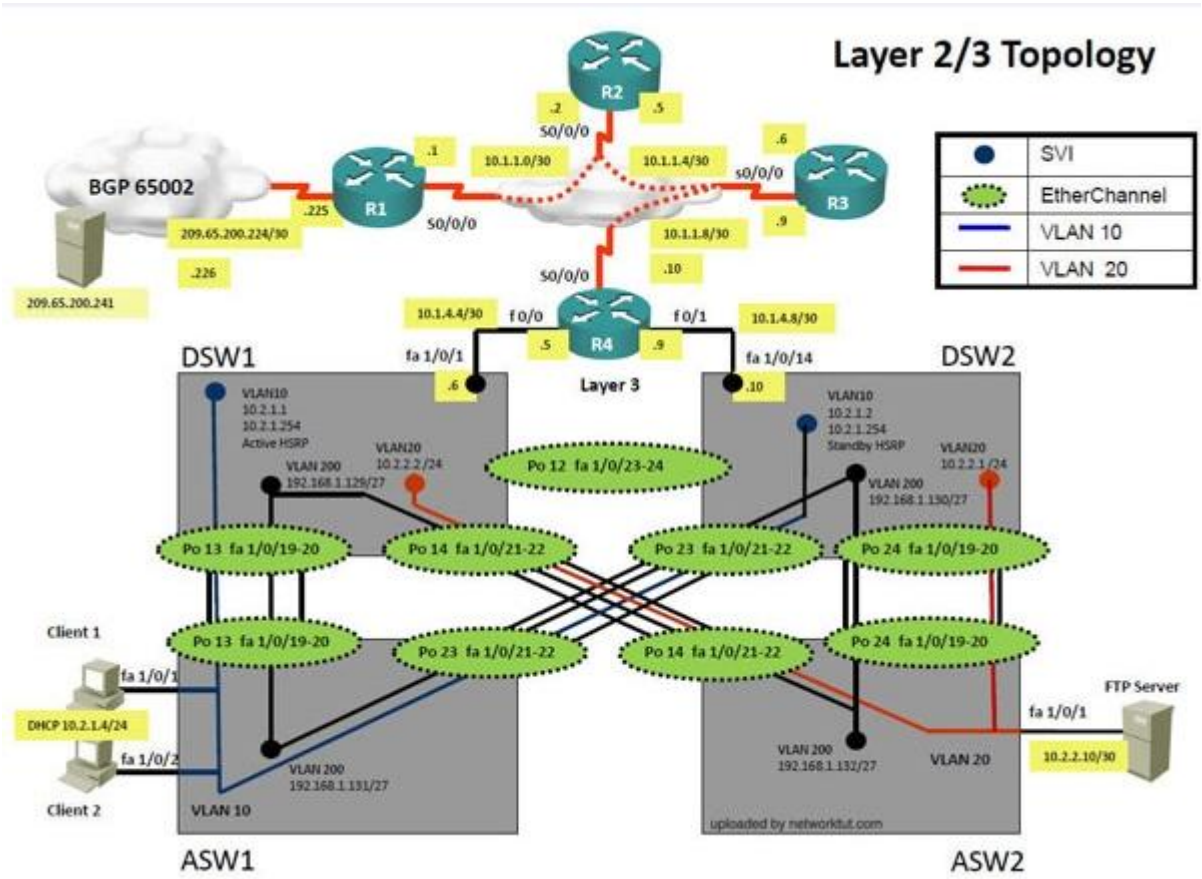
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution

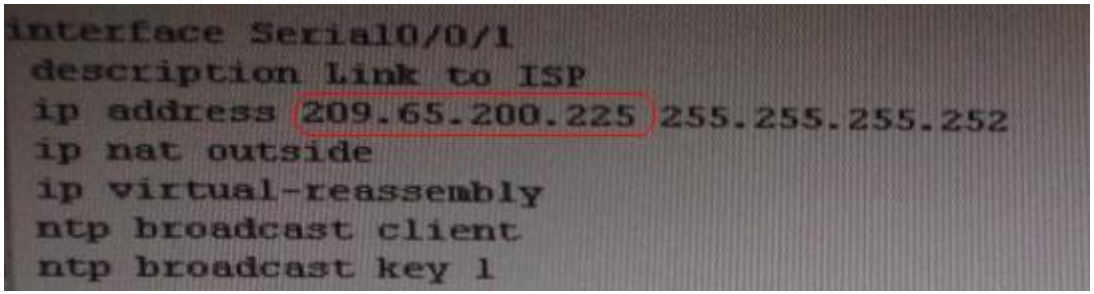


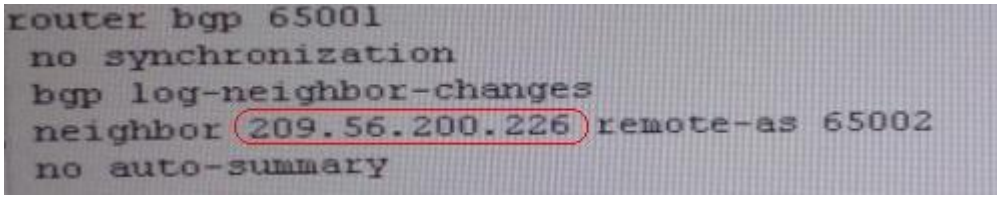


Client is unable to ping IP 209.65.200.241

Solution
Steps need to follow as below:-
ipconfig ----- Client will be receiving IP address 10.2.1.3

Sh ip bgp summary ----- No O/P will be seen





QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

The BGP neighbor statement is wrong on R1.

QUESTION 2
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. BGP
B. NTP
C. IP NAT
D. IPv4 OSPF Routing
E. IPv4 OSPF Redistribution
F. IPv6 OSPF Routing
G. IPv4 layer 3 security

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 under router the BGP process Change neighbor 209.56.200.226 remote-as 65002 statement to neighbor 209.65.200.226 remote-as 65002

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. Under the BGP process, enter the bgp redistribute-internal command.
B. Under the BGP process, bgp confederation identifier 65001command.
C. Deleted the current BGP process and reenter all of the command using 65002 as the AS number.
D. Under the BGP process, delete the neighbor 209.56.200.226 remote-as 65002 command and enter the neighbor 209.65.200.226 remote-as 65002 command.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 under router BGP change neighbor 209.56.200.226 remote-as 65002 statement to neighbor 209.65.200.226 remote-as 65002

Testlet 1

Topic 10, Ticket 5 : NAT ACL

overview

Topology Overview (Actual Troubleshooting lab design is for below network design)

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

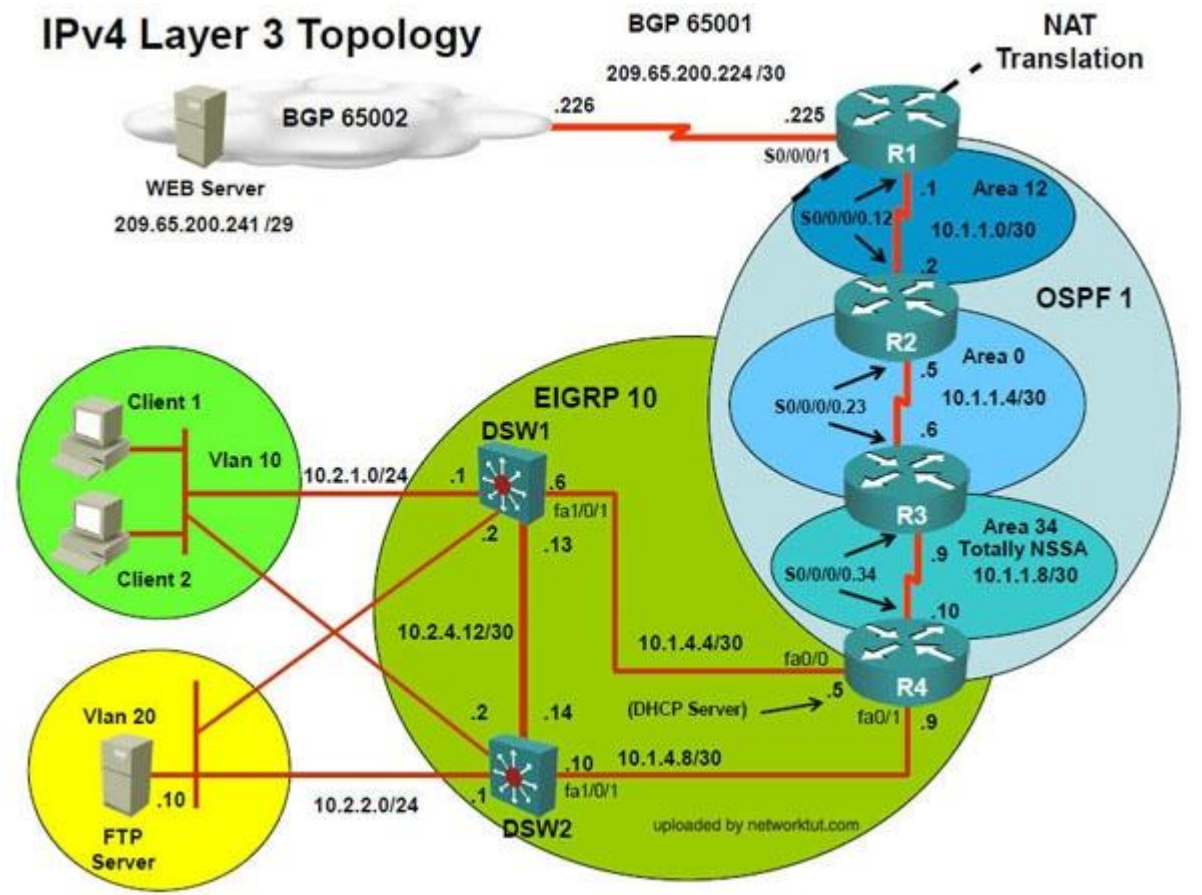
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

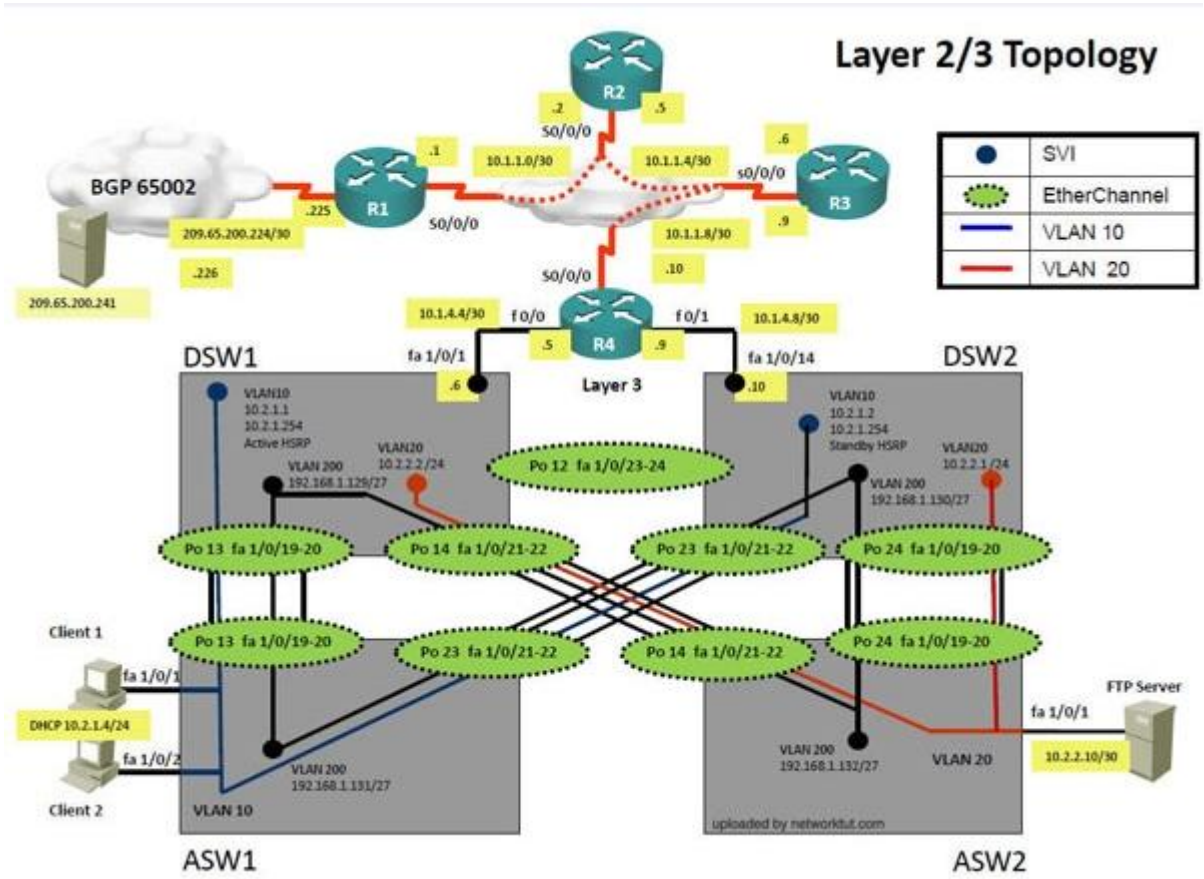
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

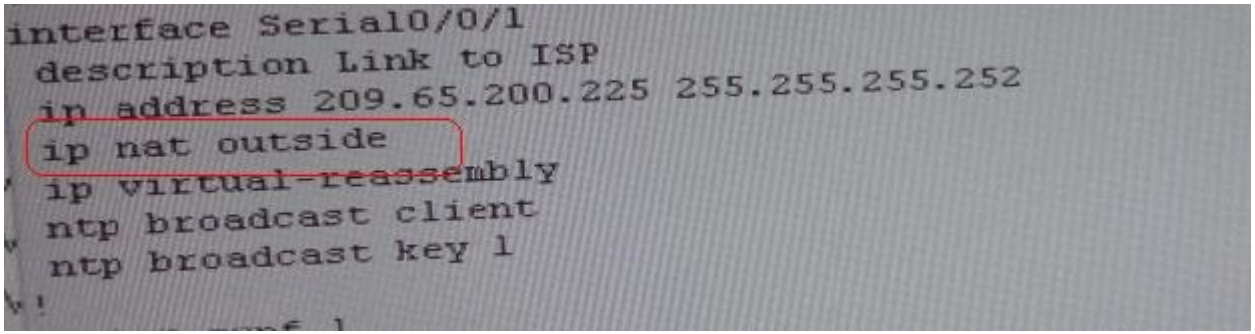
Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution

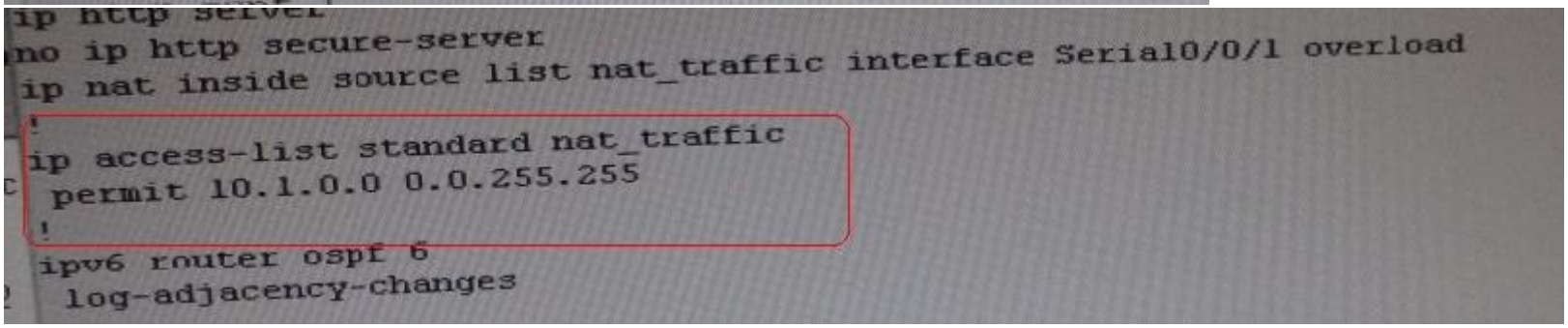




Client is unable to ping IP 209.65.200.241
Solution
Steps need to follow as below:-
Ipconfig ----- Client will be receiving IP address 10.2.1.3

Sh ip bgp summary ----- State of BGP will be in established state & will be able to receive I prefix (209.65.200.241)





!
From above snapshot we are able to see that IP needs to be PAT to serial 0/0/1 to reach web server IP (209.65.200.241). But in access-list of NAT IP allowed IP is 10.1.0.0/16 is allowed & need 10.2.0.0 /16 to

QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1

Correct Answer: A

Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 we need to add the client IP address for reachability to server to the access list that is used to specify which hosts get NATed.

QUESTION 2
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. BGP
B. NTP
C. IP NAT
D. IPv4 OSPF Routing
E. IPv4 OSPF Redistribution
F. IPv6 OSPF Routing
G. IPv4 layer 3 security

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 we need to add the client IP address for reachability to server to the access list that is used to specify which hosts get NATed.

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. Under the interface Serial0/0/0 configuration enter the ip nat inside command.
B. Under the interface Serial0/0/0 configuration enter the ip nat outside command.

C. Under the ip access-list standard nat_trafic configuration enter the permit 10.2.0.0 0.0.255.255 command.
D. Under the ip access-list standard nat_trafic configuration enter the permit 209.65.200.0 0.0.0.255 command.

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1 we need to add the client IP address for reachability to server to the access list that is used to specify which hosts get NATed.

Topic 11, Ticket 6 : R1 ACLTopology Overview (Actual Troubleshooting lab design is for below network design)

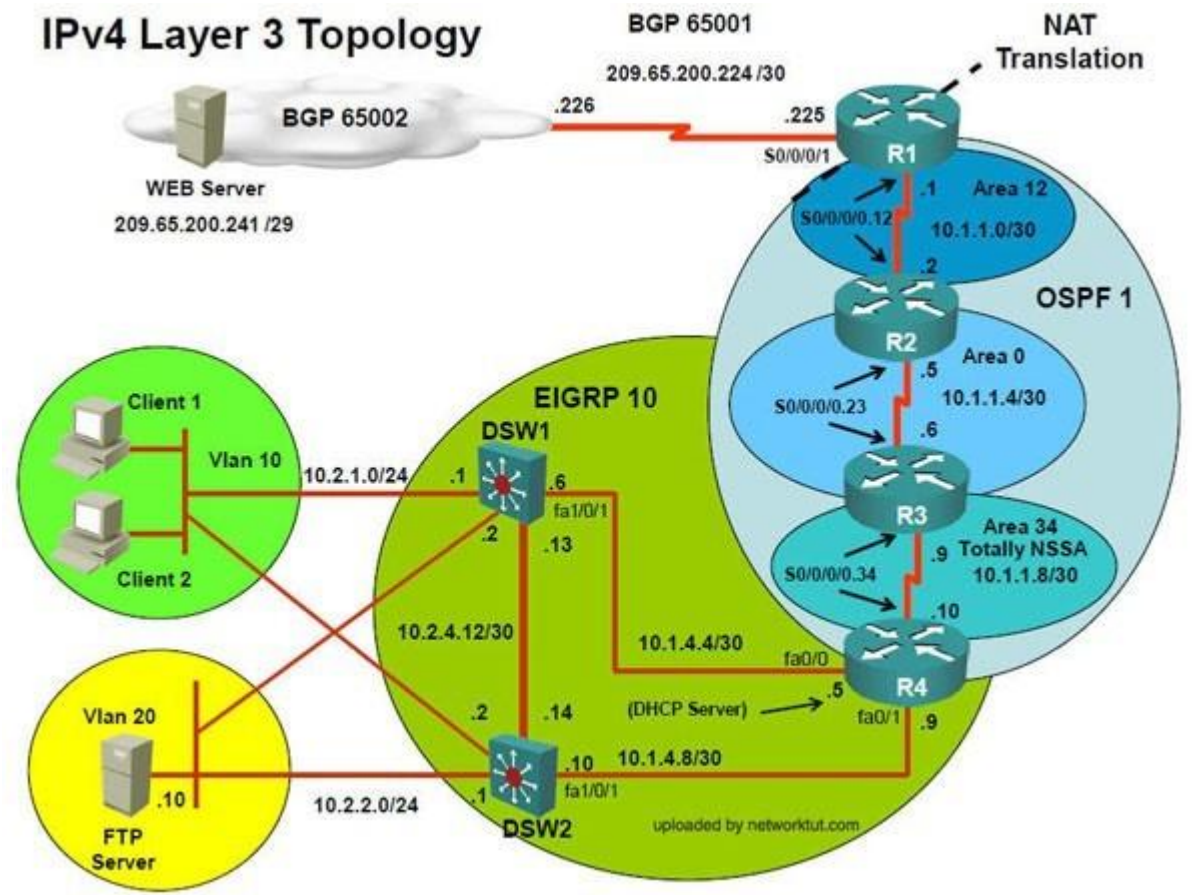
The company has created the test bed shown in the layer 2 and layer 3 topology exhibits. This network consists of four routers, two layer 3 switches and two layer 2 switches.

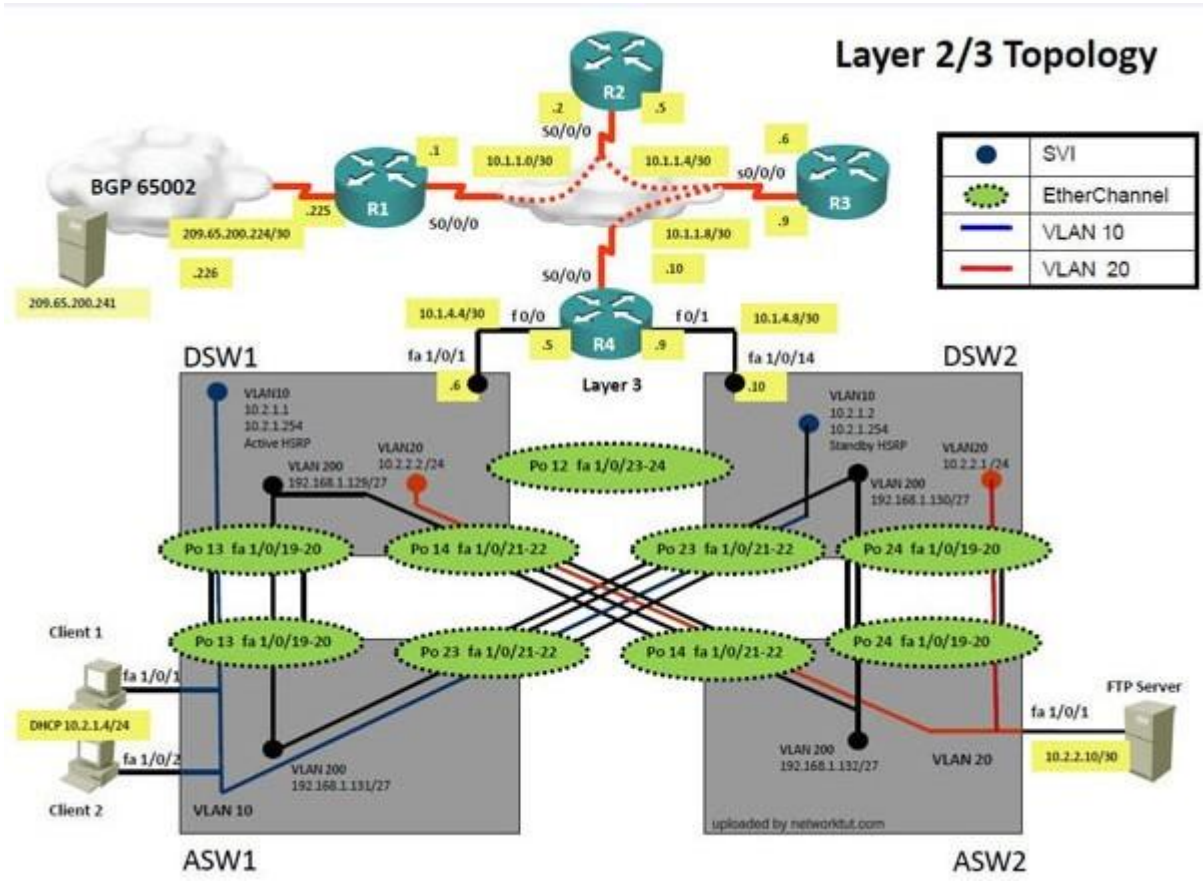
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1. DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range. R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source. The client workstations receive their IP address and default gateway via R4's DHCP server. The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6. DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE. The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistribution is enabled where necessary.

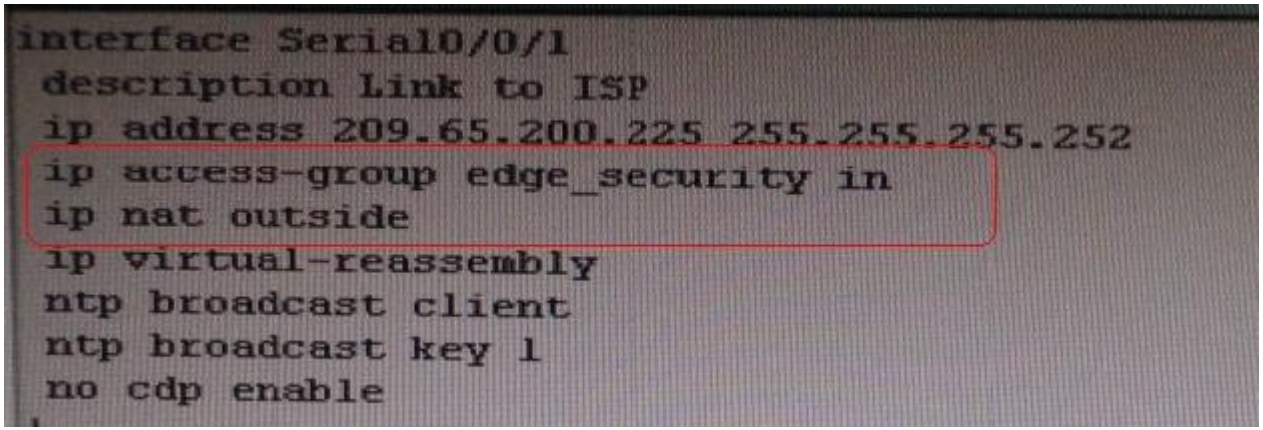
Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations. Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

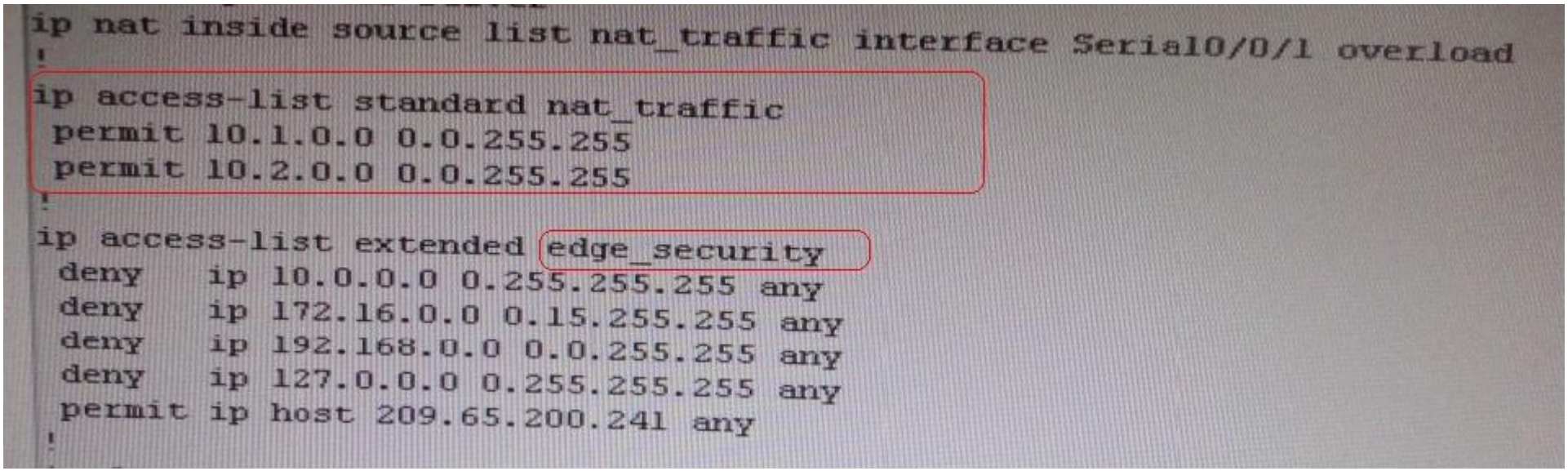
Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution


IPv4 Layer 3 Topology
BGP 65001
209.65.200.224 /30
NAT
Translation
BGP 65002
.226
.225
S0/0/0/1
R1
WEB Server
209.65.200.241 /29
.1
Area 12
S0/0/0/0.12
10.1.1.0/30
.2
OSPF 1
R2
Area 0
.5
10.1.1.4/30
S0/0/0/0.23
.6
R3
Client 1
Vlan 10
10.2.1.0/24
.1
.6
fa1/0/1
EIGRP 10
DSW1
.2
.13
Area 34
Totally NSSA
10.1.1.8/30
.9
S0/0/0/0.34
.10
Client 2
10.2.4.12/30
10.1.4.4/30
fa0/0
R4
.5
Vlan 20
.2
.14
(DHCP Server)
fa0/1
.9
.10
10.1.4.8/30
.10
fa1/0/1
.1
10.2.2.0/24
FTP
Server
DSW2
uploaded by networktut.com



Client is unable to ping IP 209.65.200.241...
Solution
Steps need to follow as below:-





QUESTION 4
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1

B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, we need to permit IP 209.65.200.222/30 under the access list.

Testlet 1

Topic 11,

overview

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistribution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
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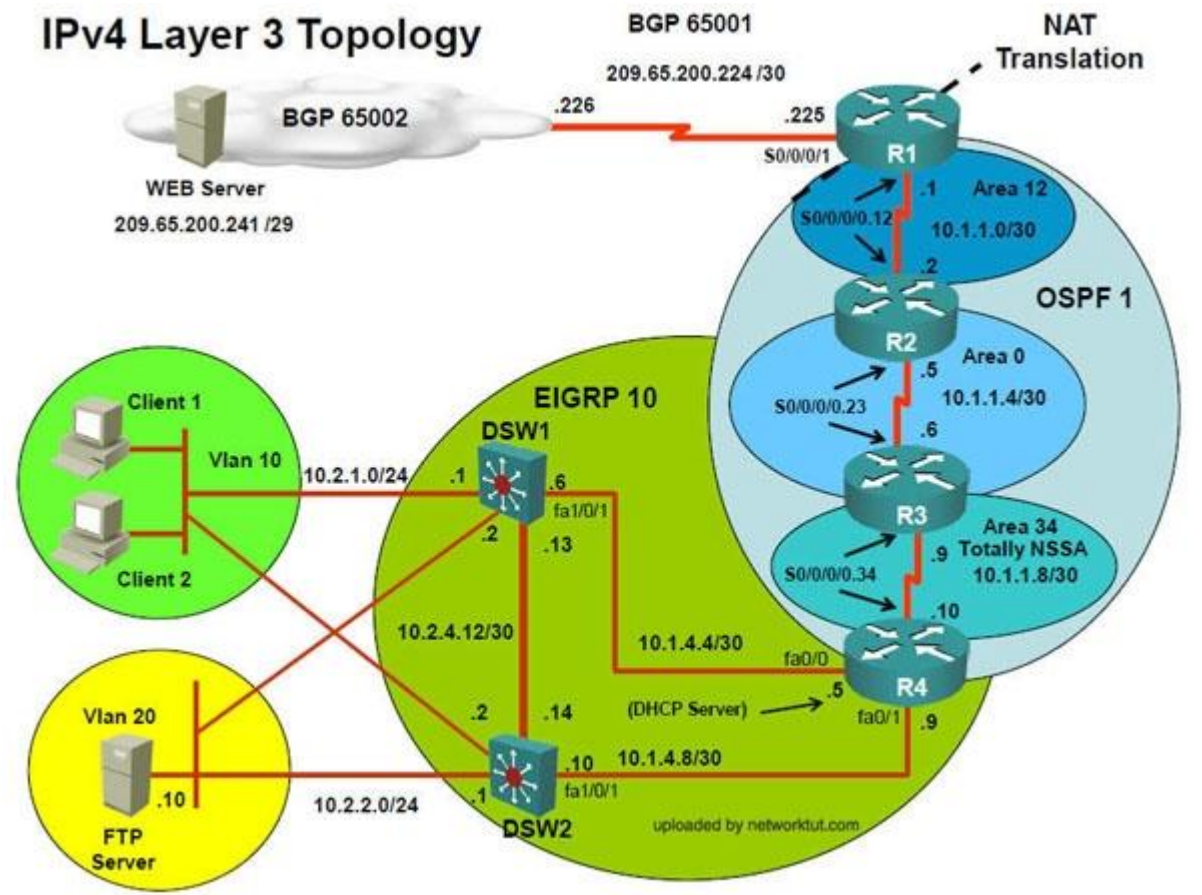
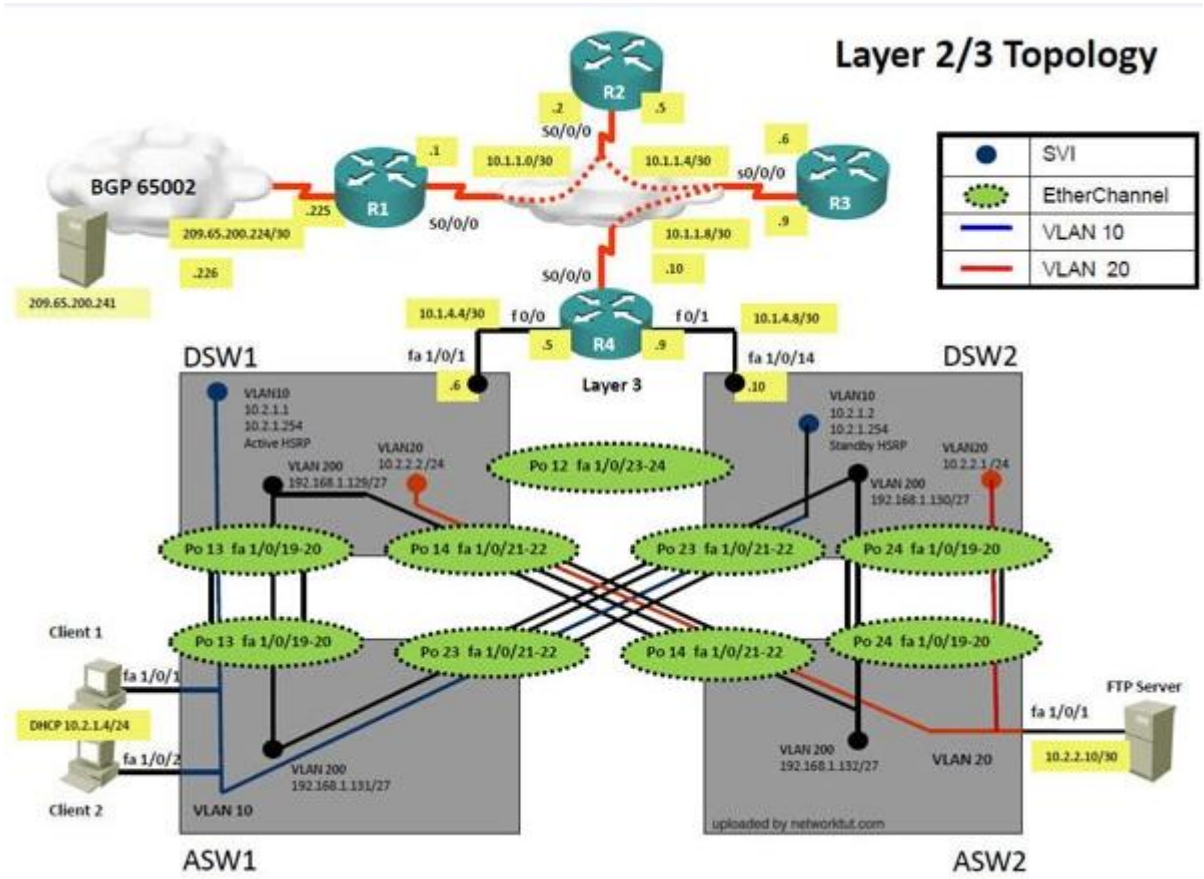
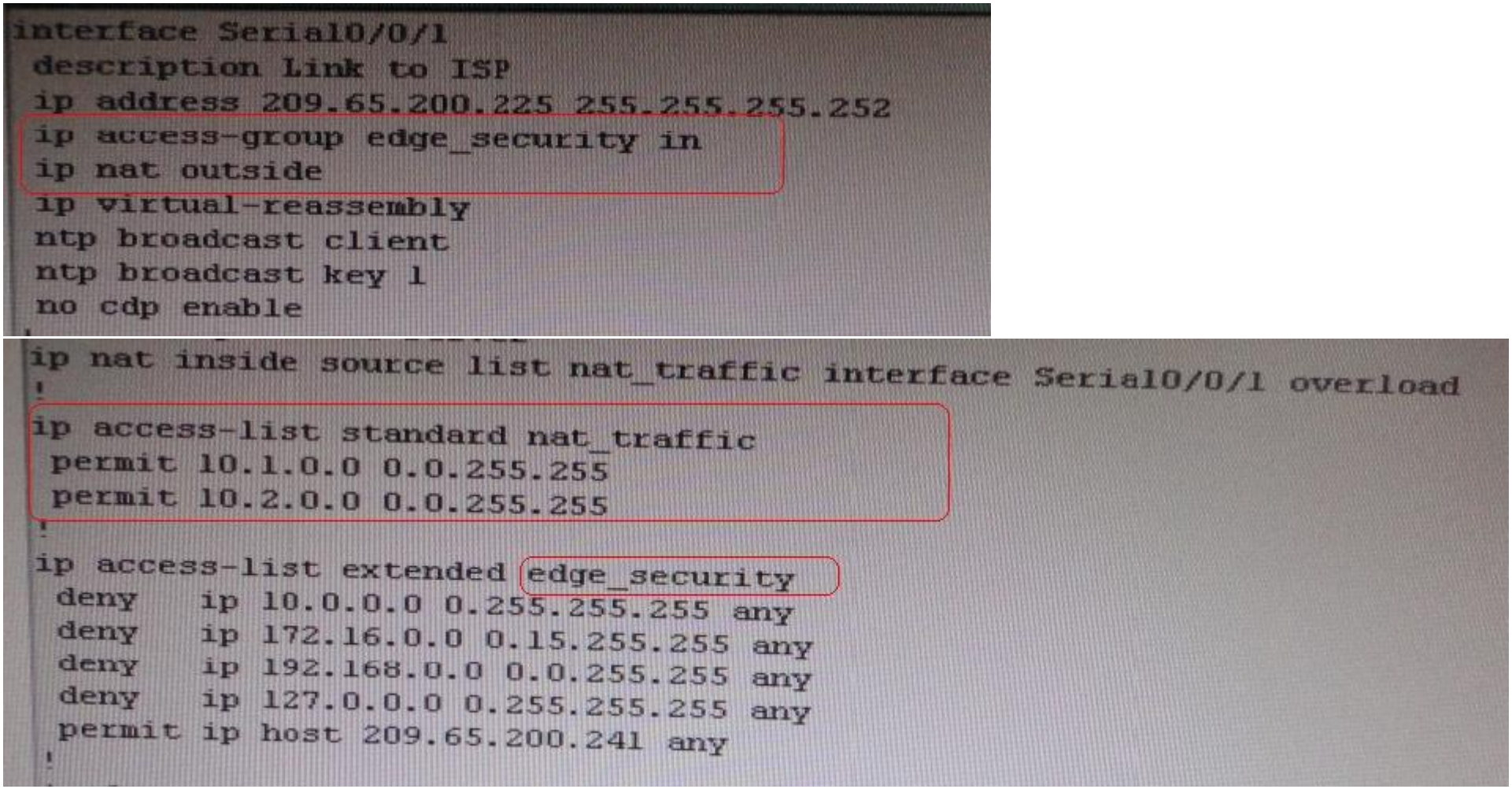
Question-3 What exact problem is seen & what needs to be done for solution





Client is unable to ping IP 209.65.200.241…
Solution
Steps need to follow as below:-



QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. BGP

B. NTP
C. IP NAT
D. IPv4 OSPF Routing
E. IPv4 OSPF Redistribution
F. IPv6 OSPF Routing
G. IPv4 layer 3 security

Correct Answer: G
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, we need to permit IP 209.65.200.222/30 under the access list.

QUESTION 2
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. Under the interface Serial0/0/1 enter the ip access-group edge_security out command.
B. Under the ip access-list extended edge_security configuration add the permit ip 209.65.200.224 0.0.0.3 any command.
C. Under the ip access-list extended edge_security configuration delete the deny ip 10.0.0.0.0 0.255.255.255 any command.
D. Under the interface Serial0/0/0 configuration delete the ip access-group edge_security in command and enter the ip access-group edge_security out command.

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R1, we need to permit IP 209.65.200.222/30 under the access list.

Testlet 1

Topic 12, Ticket 7 : Port Security

overview

Topology Overview (Actual Troubleshooting lab design is for below network design)

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits.
This network consists of four routers, two layer 3 switches and two layer 2 switches.

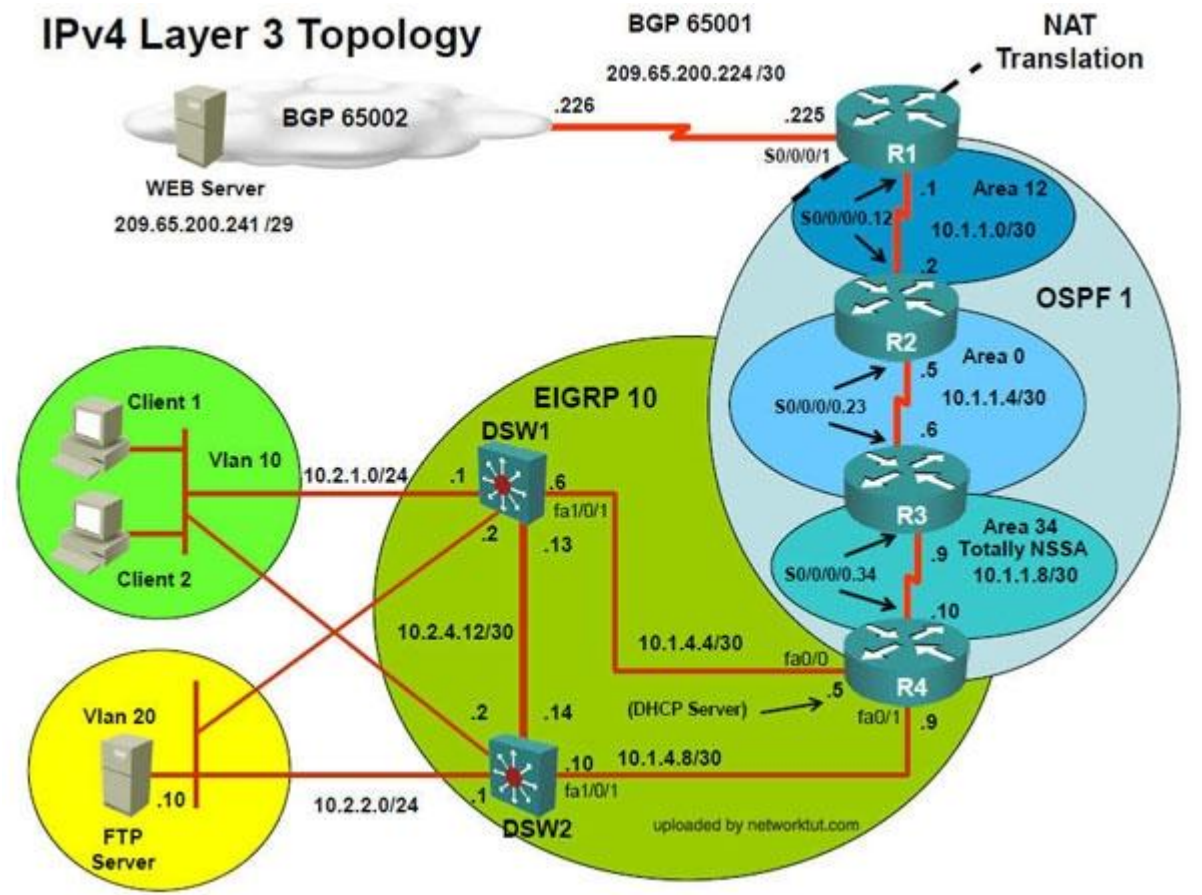
In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.
DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.
R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISP's network. Because the company's address space is in the private range.
R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.
ASW1 and ASW2 are layer 2 switches.
NTP is enabled on all devices with 209.65.200.226 serving as the master clock source.
The client workstations receive their IP address and default gateway via R4's DHCP server.
The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

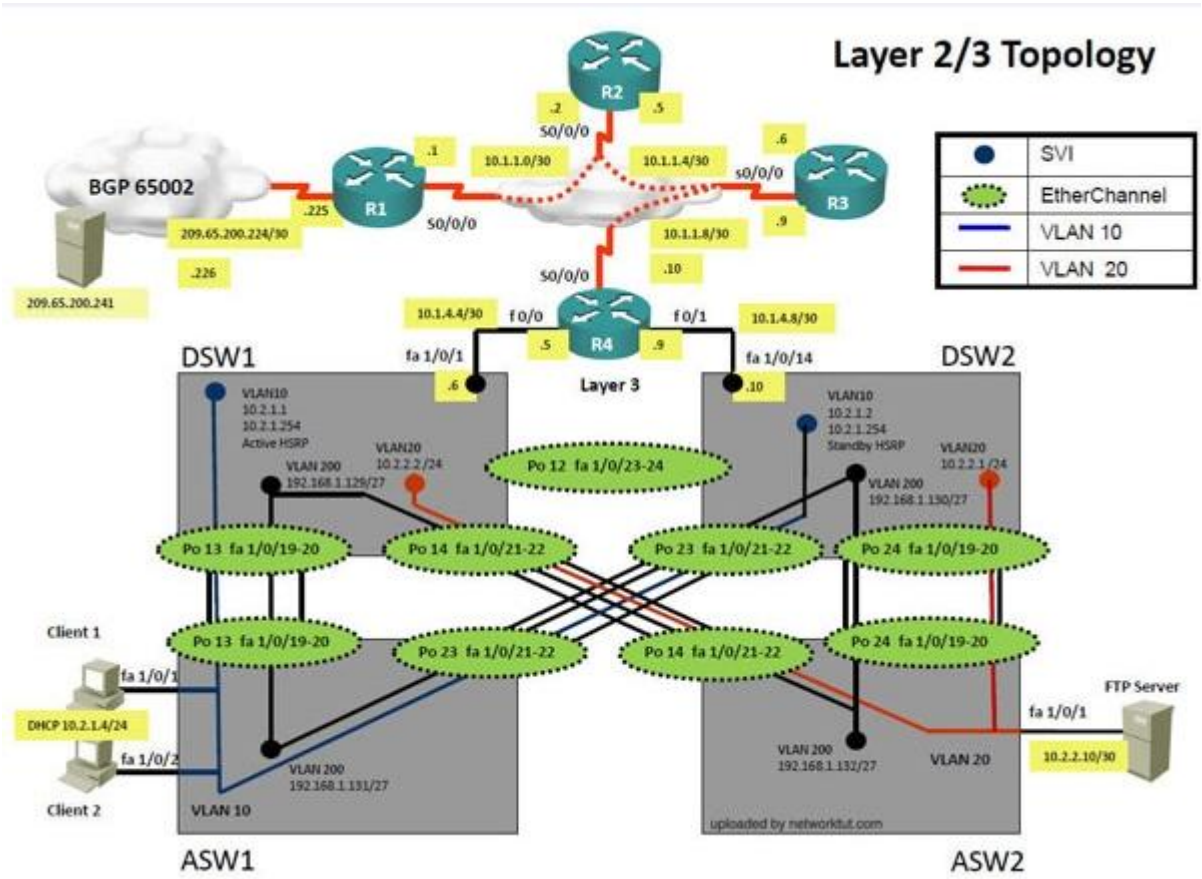
In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.
DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.
The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistrution is enabled where necessary.

Recently the implementation group has been using the test bed to do a 'proof-of-concept' on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

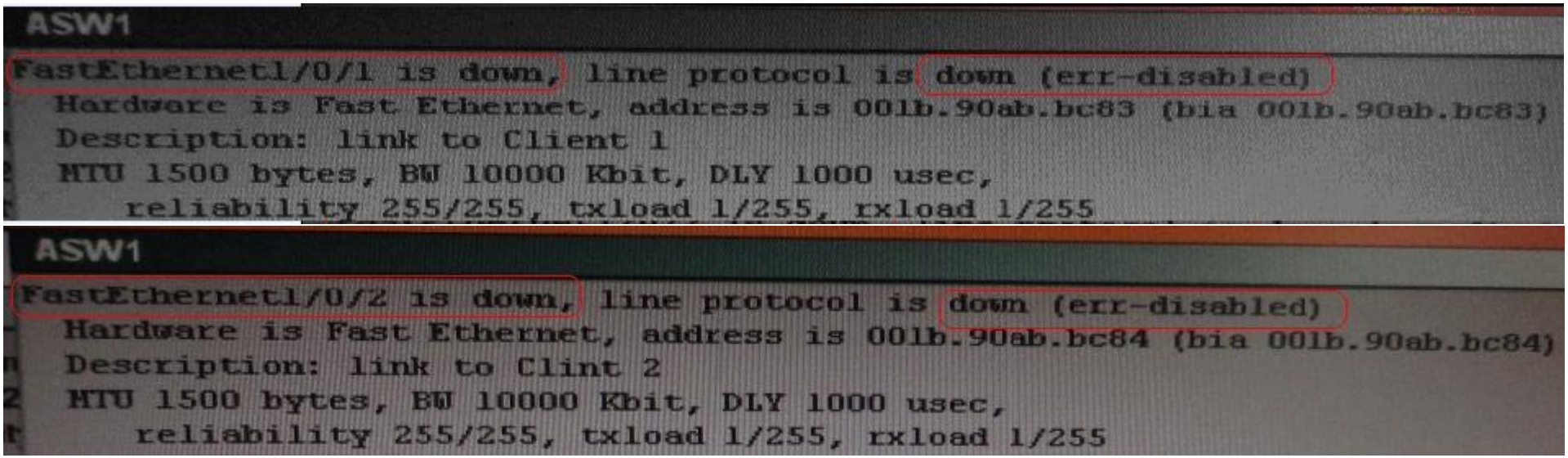
Each ticket has 3 sub questions that need to be answered & topology remains same.
Question-1 Fault is found on which device,
Question-2 Fault condition is related to,
Question-3 What exact problem is seen & what needs to be done for solution
==========





Client is unable to ping IP 209.65.200.241
Solution
Steps need to follow as below:-
ipconfig ----- Client will be getting 169.X.X.X

Sh run ------- check for running config of int fa1/0/1 & fa1/0/2 (switchport access Vlan 10 will be there with switch port security command). Now check as below
Sh int fa1/0/1 & sh int fa1/0/2



QUESTION 1
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: G
Section: [none]
Explanation

Explanation/Reference:
Explanation:

port security needs is configured on ASW1.

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. Switch-to-Switch Connectivity
C. Access Vlans
D. Port Security
E. VLAN ACL / Port ACL
F. Switch Virtual Interface

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:
Port security is causing the connectivity issues. On ASW1, we need to remove port-security under interface fa1/0/1 & fa1/0/2.

QUESTION 3
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. In Configuration mode, using the interface range Fa 1/0/1 2, then no switchport port-security interface configuration commands. Then in exec mode clear errdisable interface fa 1/01 2 vlan 10 command
B. In Configuration mode, using the interface range Fa 1/0/1 2, then no switchport port-security, followed by shutdown, no shutdown interface configuration commands.
C. In Configuration mode, using the interface range Fa 1/0/1 2, then no switchport port-security interface configuration commands.
D. In Configuration mode, using the interface range Fa 1/0/1 2, then no switchport port-security interface configuration commands. Then in exec mode clear errdisable interface fa 1/0/1, then clear errdisable interface fa 1/0/2 commands.

Correct Answer: B

Section: [none]
Explanation

Explanation/Reference:
Explanation:

On ASW1, we need to remove port-security under interface fa1/0/1 & fa1/0/2.

Testlet 1

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4, in the redistribution of EIGRP routing protocol, we need to change name of route-map to resolve the issue. It references route-map OSPF_to_EIGRP but the actual route map is called OSPF- >EIGRP.

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. IP DHCP Server
C. IPv4 OSPF Routing

D. IPv4 EIGRP Routing
E. IPv4 Route Redistribution
F. IPv6 RIP Routing
G. IPv6 OSPF Routing
H. IPv4 and IPv6 Interoperability
I. IPv4 layer 3 security

Correct Answer: E
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4, in the redistribution of EIGRP routing protocol, we need to change name of route-map to resolve the issue. It references route-map OSPF_to_EIGRP but the actual route map is called OSPF- >EIGRP.

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.

Which is the solution to the fault condition?

A. Under the EIGRP process, delete the redistribute ospf 1 route-map OSPF_ to_ EIGRP command and enter the redistribute ospf 1 route-map OSPF - > EIGRP command.
B. Under the EIGRP process, delete the redistribute ospf 1 route-map OSPF_ to_ EIGRP command and enter the redistribute ospf 6 metric route-map OSPF - > EIGRP command.
C. Under the OSPF process, delete the redistribute eigrp10 subnets route-map EIGPR ->OSPF command and enter the redistribute eigrp10 subnets route-map OSPF - > EIGRP command.
D. Under the OSPF process, delete the redistribute eigrp10 subnets route-map EIGPR ->OSPF command and enter the redistribute eigrp10 subnets route-map EIGPR - > OSPF command.
E. Under the EIGRP process, delete the redistribute ospf 1 route-map OSPF _to_ EIGRP command and enter redistribute ospf 1 metric 100000 100 100 1 15000 route_ map OSPF _to _EIGRP command

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

Explanation:

On R4, in the redistribution of EIGRP routing protocol, we need to change name of route-map to resolve the issue. It references route-map OSPF_to_EIGRP but the actual route map is called OSPF- >EIGRP.
========== ======

Testlet 1

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

The EIGRP AS number configured on R4 is wrong.

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. IP DHCP Server
C. IPv4 OSPF Routing
D. IPv4 EIGRP Routing

E. IPv4 Route Redistribution
F. IPv6 RIP Routing
G. IPv6 OSPF Routing
H. IPv4 and IPv6 Interoperability
I. IPv4 layer 3 security

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4, IPV4 EIGRP Routing, need to change the EIGRP AS number from 1 to 10 since DSW1 & DSW2 is configured to be in EIGRP AS number 10.

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.

What is the solution to the fault condition?

A. Disable auto summary on the EIGRP process
B. Enable EIGRP on the FastEthernet0/0 and FastEthernet0/1 interface using the no passive-interface command.
C. Change the AS number on the EIGRP routing process from 1 to 10 to much the AS number used on DSW1 and DSW2.
D. Under the EIGRP process, delete the network 10.1.4.0 0.0.0.255 command and enter the network 10.1.4.4 0.0.0.252 and 10.1.4.8 0.0.0.252 commands.

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4, IPV4 EIGRP Routing, need to change the EIGRP AS number from 1 to 10 since DSW1 & DSW2 is configured to be in EIGRP AS number 10.
========== ======

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: E
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On DSW1, VALN ACL, Need to delete the VLAN access-map test1 whose action is to drop access-list 10; specifically 10.2.1.3

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services,

and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. IP DHCP Helper
C. IPv4 EIGRP Routing
D. IPv6 RIP Routing
E. IPv4 layer 3 security
F. Switch-to-Switch Connectivity
G. Loop Prevention
H. Access Vlans
I. Port Security
J. VLAN ACL / Port ACL
K. Switch Virtual Interface

Correct Answer: J
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On DSW1, VALN ACL, Need to delete the VLAN access-map test1 whose action is to drop access-list 10; specifically 10.2.1.3

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. Under the global configuration mode enter no access-list 10 command.
B. Under the global configuration mode enter no access-map vlan 10 command.
C. Under the global configuration mode enter no vlan access-map test1 10 command.
D. Under the global configuration mode enter no vlan filter test1 vlan-list 10 command.

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On DSW1, VALN ACL, Need to delete the VLAN access-map test1 whose action is to drop access-list 10; specifically 10.2.1.3

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’. After several changes to the network addressing, routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

R2 is missing the needed IPV6 OSPF for interface s0/0/0.23

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’. After several changes to the network addressing, routing schemes, a

trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. IPv4 OSPF Routing
C. IPv6 OSPF Routing
D. IPv4 layer 3 security

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R2, IPV6 OSPF routing, configuration is required to add ipv6 ospf 6 area 0 under interface serial 0/0/0.23

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept'. After several changes to the network addressing, routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to fault condition?

A. Under the interface Serial 0/0/0.23 configuration enter the ipv6 ospf 6 area 0 command.
B. Under the interface Serial0/0/0.12 configuration enter the ipv6 ospf 6 area 12 command.
C. Under ipv6 router ospf 6 configuration enter the network 2026::1:/122 area 0 command.
D. Under ipv6 router ospf 6 configuration enter no passive-interface default command.

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R2, IPV6 OSPF routing, configuration is required to add ipv6 ospf 6 area 0 under interface serial 0/0/0.23

========== ======

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened DSW1 will not become the active router for HSRP group 10.
Use the supported commands to isolated the cause of this fault and answer the following questions.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: E
Section: [none]
Explanation

Explanation/Reference:
Explanation:

DSW references the wrong track ID number.

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services,

and device security, a trouble ticket has been opened DSW1 will not become the active router for HSRP group 10.
Use the supported commands to isolated the cause of this fault and answer the following questions.
The fault condition is related to which technology?

A. NTP
B. HSRP
C. IP DHCP Helper
D. IPv4 EIGRP Routing
E. IPv6 RIP Routing
F. IPv4 layer 3 security
G. Switch-to-Switch Connectivity
H. Loop Prevention
I. Access Vlans
J. Port Security
K. VLAN ACL/Port ACL
L. Switch Virtual Interface

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On DSW1, related to HSRP, under VLAN 10 change the given track 1 command to instead use the track 10 command.

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened DSW1 will not become the active router for HSRP group 10.
Use the supported commands to isolated the cause of this fault and answer the following questions.
What is the solution to the fault condition?

A. Under the interface vlan 10 configuration enter standby 10 preempt command.
B. Under the track 1 object configuration delete the threshold metric up 1 down 2 command and enter the threshold metric up 61 down 62 command.
C. Under the track 10 object configuration delete the threshold metric up 61 down 62 command and enter the threshold metric up 1 down 2 command.
D. Under the interface vlan 10 configuration delete the standby 10 track1 decrement 60 command and enter the standby 10 track 10 decrement 60 command.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On DSW1, related to HSRP, under VLAN 10 change the given track 1 command to instead use the track 10 command.

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolate the cause of this fault and answer the following question.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4 the DHCP IP address is not allowed for network 10.2.1.0/24 which clearly shows the problem lies on R4 & the problem is with DHCP

QUESTION 2
The implementations group has been using the test bed to do a ‘proof-of-concept’ that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services,

and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolate the cause of this fault and answer the following question.

The fault condition is related to which technology?

A. NTP
B. IP DHCP Server
C. Ipv4 OSPF Routing
D. Ipv4 EIGRP Routing.
E. Ipv4 Route Redistribution.
F. Ipv6 RIP Routing
G. Ipv6 OSPF Routing
H. Ipv4 and Ipv6 Interoperability
I. Ipv4 layer 3 security.

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4 the DHCP IP address is not allowed for network 10.2.1.0/24 which clearly shows the problem lies on R4 & the problem is with DHCP

QUESTION 3
The implementations group has been using the test bed to do a 'proof-of-concept' that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing schemes, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.
Use the supported commands to isolate the cause of this fault and answer the following question.

What is the solution to the fault condition?

A. Under the global configuration, delete the no ip dhcp use vrf connected command.
B. Under the IP DHCP pool configuration, delete the default -router 10.2.1.254 command and enter the default-router 10.1.4.5 command.
C. Under the IP DHCP pool configuration, delete the network 10.2.1.0 255.255.255.0 command and enter the network 10.1.4.0 255.255.255.0 command.
D. Under the IP DHCP pool configuration, issue the no ip dhcp excluded-address 10.2.1.1 10.2.1.253 command and enter the ip dhcp excluded-address 10.2.1.1 10.2.1.2 command.

Correct Answer: D

Section: [none]
Explanation

Explanation/Reference:
Explanation:

On R4 the DHCP IP address is not allowed for network 10.2.1.0/24 which clearly shows the problem lies on R4 & the problem is with DHCP

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).
Use the supported commands to isolate the cause of this fault and answer the following question.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Start to troubleshoot this by pinging the loopback IPv6 address of DSW2 (2026::102:1). This can be pinged from DSW1, R4, and R3, which leads us to believe that the issue is with R2. Going further, we can see that R2 only has an IPV6 OSPF neighbor of R1, not R3:

```
R2>show ipv6 ospf neighbor

Neighbor ID     Pri   State           Dead Time   Interface ID    Interface
10.1.10.1         1   FULL/  -        00:00:32    6               Serial0/0/0.12


R2>
```

We can then see that OSPFv3 has not been enabled on the interface to R3:

```
!
interface Serial0/0/0.12 point-to-point
 description Link to R1
 ip address 10.1.1.2 255.255.255.252
 ip ospf authentication message-digest
 ip ospf message-digest-key 1 md5 TSHOOT
 ipv6 address 2026::12:2/122
 ipv6 address FE80::2 link-local
 ipv6 ospf 6 area 12
 frame-relay interface-dlci 304
!
interface Serial0/0/0.23 point-to-point
 description Link to R3
 ip address 10.1.1.5 255.255.255.252
 ipv6 address 2026::1:1/123
 frame-relay interface-dlci 302
!
interface Serial0/0/1
```

So the problem is with R2, related to IPV6 Routing, and the fix is to enable the "ipv6 ospf 6 area 0"command under the serial 0/0/0.23 interface.

QUESTION 2
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).
Use the supported commands to isolate the cause of this fault and answer the following question.
The fault condition is related to which technology?

A. NTP
B. IPv4 OSPF Routing
C. IPv6 OSPF Routing
D. IPv4 layer 3 security

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Since we are unable to ping the IPv6 address, the problem is with IPv6 OSPF Routing.

QUESTION 3
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).
Use the supported commands to isolate the cause of this fault and answer the following question.

What is the solution to the fault condition?

A. Under the interface SerialO/0/0.23 configuration enter the ipv6 ospf 6 area 0 command.
B. Under the interface SerialO/0/0.12 configuration enter the ipv6 ospf 6 area 12 command.
C. Under ipv6 router ospf 6 configuration enter the network 2026::1:/122 area 0 command.
D. Under ipv6 router ospf 6 configuration enter the no passive-interface default command

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:

As explained in question one of this ticket, we can then see that OSPFv3 has not been enabled on the interface to R3:

```
!
interface Serial0/0/0.12 point-to-point
 description Link to R1
 ip address 10.1.1.2 255.255.255.252
 ip ospf authentication message-digest
 ip ospf message-digest-key 1 md5 TSHOOT
 ipv6 address 2026::12:2/122
 ipv6 address FE80::2 link-local
 ipv6 ospf 6 area 12
 frame-relay interface-dlci 304
!
interface Serial0/0/0.23 point-to-point
 description Link to R3
 ip address 10.1.1.5 255.255.255.252
 ipv6 address 2026::1:1/123
 frame-relay interface-dlci 302
!
interface Serial0/0/1
```

So the problem is with R2, related to IPV6 Routing, and the fix is to enable the "ipv6 ospf 6 area 0"command under the serial 0/0/0.23 interface. We need to enable this interface for area 0 according to the topology diagram.

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).
Use the supported commands to isolate the cause of this fault and answer the following question.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: D
Section: [none]
Explanation

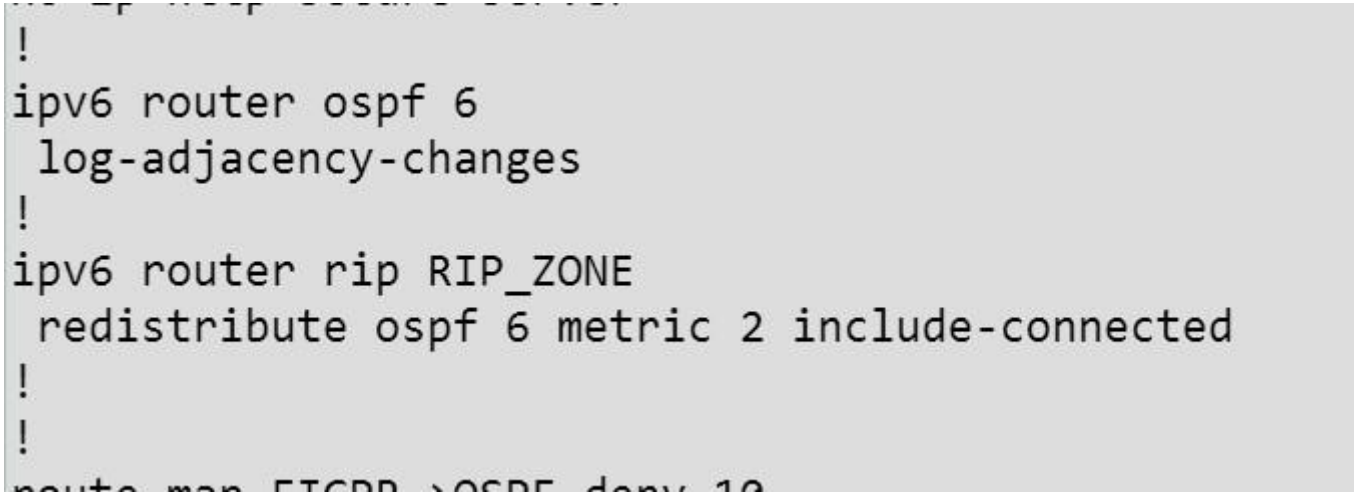
Explanation/Reference:
Explanation:

Start to troubleshoot this by pinging the loopback IPv6 address of DSW2 (2026::102:1). This can be pinged from DSW1, and R4, but not R3 or any other devices past that point. If we look at the diagram, we see that R4 is redistributing the OSPF and RIP IPV6 routes. However, looking at the routing table we see that R4 has the 2026::102 network in the routing table known via RIP, but that R3 does not have the route:

```
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
OI  2026::1:0/122 [110/11175]
     via FE80::21B:2AFF:FE48:A130, Tunnel34
OI  2026::1:0/123 [110/11239]
     via FE80::21B:2AFF:FE48:A130, Tunnel34
C   2026::2:0/122 [0/0]
     via ::, FastEthernet0/0
L   2026::2:1/128 [0/0]
     via ::, FastEthernet0/0
R   2026::3:0/122 [120/2]
     via FE80::21B:8FFF:FEB8:2A41, FastEthernet0/0
OI  2026::12:0/122 [110/11239]
     via FE80::21B:2AFF:FE48:A130, Tunnel34
C   2026::34:0/122 [0/0]
     via ::, Tunnel34
L   2026::34:2/128 [0/0]
     via ::, Tunnel34
R   2026::101:0/122 [120/2]
     via FE80::21B:8FFF:FEB8:2A41, FastEthernet0/0
R   2026::102:0/122 [120/3]
     via FE80::21B:8FFF:FEB8:2A41, FastEthernet0/0
OI  2026::111:0/122 [110/11240]
```

```
R3>show ipv6 route
IPv6 Routing Table - 13 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
C   2026::1:0/122 [0/0]
     via ::, Serial0/0/0.23
O   2026::1:0/123 [110/128]
     via FE80::21B:2AFF:FE48:A0A0, Serial0/0/0.23
L   2026::1:2/128 [0/0]
     via ::, Serial0/0/0.23
OI  2026::12:0/122 [110/128]
     via FE80::21B:2AFF:FE48:A0A0, Serial0/0/0.23
C   2026::34:0/122 [0/0]
     via ::, Tunnel34
L   2026::34:1/128 [0/0]
     via ::, Tunnel34
OI  2026::111:0/122 [110/129]
     via FE80::21B:2AFF:FE48:A0A0, Serial0/0/0.23
OI  2026::222:0/122 [110/65]
     via FE80::21B:2AFF:FE48:A0A0, Serial0/0/0.23
C   2026::333:0/122 [0/0]
```

When we look more closely at the configuration of R4, we see that it is redistributing OSPF routes into RIP for IPv6, but the RIP routes are not being redistributed into OSPF. That is why R3 sees R4 as an IPV6 OSPF neighbor, but does not get the 2026::102 network installed.



So, problem is with route redistribution on R4.

QUESTION 2
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

The fault condition is related to which technology?

A. NTP
B. IP DHCP Server
C. IPv4 OSPF Routing
D. IPv4 EIGRP Routing
E. IPv4 Route Redistribution
F. IPv6 RIP Routing
G. IPv6 OSPF Routing
H. IPV4 and IPV6 Interoperability
I. IPv4 layer 3 security

Correct Answer: G

Section: [none]
Explanation

Explanation/Reference:
Explanation:

As explained earlier, the problem is with route redistribution on R4 of not redistributing RIP routes into OSPF for IPV6.

QUESTION 3
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

Use the supported commands to isolate the cause of this fault and answer the following question.
What is the solution to the fault condition?

A. Under the interface Tunnel34 configuration enter the ipv6 ospf 6 area 34 command.
B. Under the interface Loopback6 configuration enter the ipv6 ospf 6 area 34 command.
C. Under the interface Serial0/0/0.34 configuration enter the ipv6 ospf 6 area 34 command.
D. Under ipv6 router ospf 6 configuration enter the redistribute rip RIP_ZONE include-connected command.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:
As explained earlier, the problem is with route redistribution on R4 of not redistributing RIP routes into OSPF for IPV6.

Testlet 1

TESTLET OVERVIEW

Title: **Case Study**

The following testlet will present a Case Study followed by [count] multiple choice question(s), [count] create a tree question(s), [count] build list and reorder question(s) and [count] drop and connect question(s).

You will have [count] minutes to complete the testlet.

For help on how to answer the questions, click the **Instuctions** button on the question screen.

QUESTION 1
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).
Use the supported commands to isolate the cause of this fault and answer the following question.
On which device is the fault condition located?

A. R1
B. R2
C. R3
D. R4
E. DSW1
F. DSW2
G. ASW1
H. ASW2

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation:

Start to troubleshoot this by pinging the loopback IPv6 address of DSW2 (2026::102:1). This can be pinged from DSW1, and R4, but not R3 or any other devices past that point. If we look at the routing table of R3, we see that there is no OSPF neighbor to R4:

```
R3>ping 2026::102:1

Translating "2026::102:1"

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2026::102:1, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
R3>show ipv6 ospf ne
R3>show ipv6 ospf neighbor

Neighbor ID     Pri   State           Dead Time   Interface ID    Interface
10.1.10.2         1   FULL/  -        00:00:30    16              Serial0/0/0.23


R3>
```

This is due to mismatched tunnel modes between R3 and R4:

R3

```
!
!
!
interface Loopback0
 ip address 10.1.10.3 255.255.255.255
!
interface Loopback1
 ip address 10.1.2.65 255.255.255.224
 ip ospf network point-to-point
!
interface Loopback6
 no ip address
 ipv6 address 2026::333:1/122
 ipv6 ospf network point-to-point
 ipv6 ospf 6 area 0
!
interface Tunnel34
 no ip address
 ipv6 address 2026::34:1/122
 ipv6 ospf 6 area 34
 tunnel mode ipv6
 tunnel source Serial0/0/0.34
 tunnel destination 10.1.1.10
!
```

R4

```
!
!
!
!
interface Loopback0
 ip address 10.1.10.4 255.255.255.255
!
interface Loopback1
 ip address 10.1.21.129 255.255.255.224
 ip ospf network point-to-point
!
interface Loopback6
 no ip address
 ipv6 address 2026::444:1/122
 ipv6 rip RIP_ZONE enable
 ipv6 ospf 6 area 34
!
interface Tunnel34
 no ip address
 ipv6 address 2026::34:2/122
 ipv6 ospf 6 area 34
 tunnel source Serial0/0/0.34
 tunnel destination 10.1.1.9
!
```

Problem is with R3, and to resolve the issue we should delete the "tunnel mode ipv6" under interface Tunnel 34.

QUESTION 2
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

The fault condition is related to which technology?

A. NTP
B. IPv4 OSPF Routing
C. IPv6 OSPF Routing
D. IPV4 and IPV6 Interoperability
E. IPv4 layer 3 security

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation:
Answer: D

As explained earlier, the problem is with route misconfigured tunnel modes on R3. R3 is using tunnel mode ipv6, while R4 is using the default of GRE.

QUESTION 3
The implementation group has been using the test bed to do an IPv6 'proof-of-concept1. After several changes to the network addressing and routing schemes, a trouble ticket has been opened indicating that the loopback address on R1 (2026::111:1) is not able to ping the loopback address on DSW2 (2026::102:1).

Use the supported commands to isolate the cause of this fault and answer the following question.

What is the solution to the fault condition?

A. Under the interface Tunnel34 configuration delete the tunnel mode ipv6 command.
B. Under the interface Serial0/0/0.34 configuration enter the ipv6 address 2026::34:1/122 command.
C. Under the interface Tunnel34 configuration enter the ip address unnumbered Serial0/0/0.34 command.
D. Under the interface Tunnel34 configuration delete the tunnel source Serial0/0/0.34 command and enter the tunnel source 2026::34:1/122 command.

Correct Answer: A

Section: [none]
Explanation

Explanation/Reference:
Explanation:

As explained earlier, the problem is with route misconfigured tunnel modes on R3. R3 is using tunnel mode ipv6, while R4 is using the default of GRE. We need to remove the "tunnel mode ipv6" command under interface Tunnel34