MSSV: 19127102

Họ tên: Võ Hoàng Gia Bảo

MSSV: 191271426

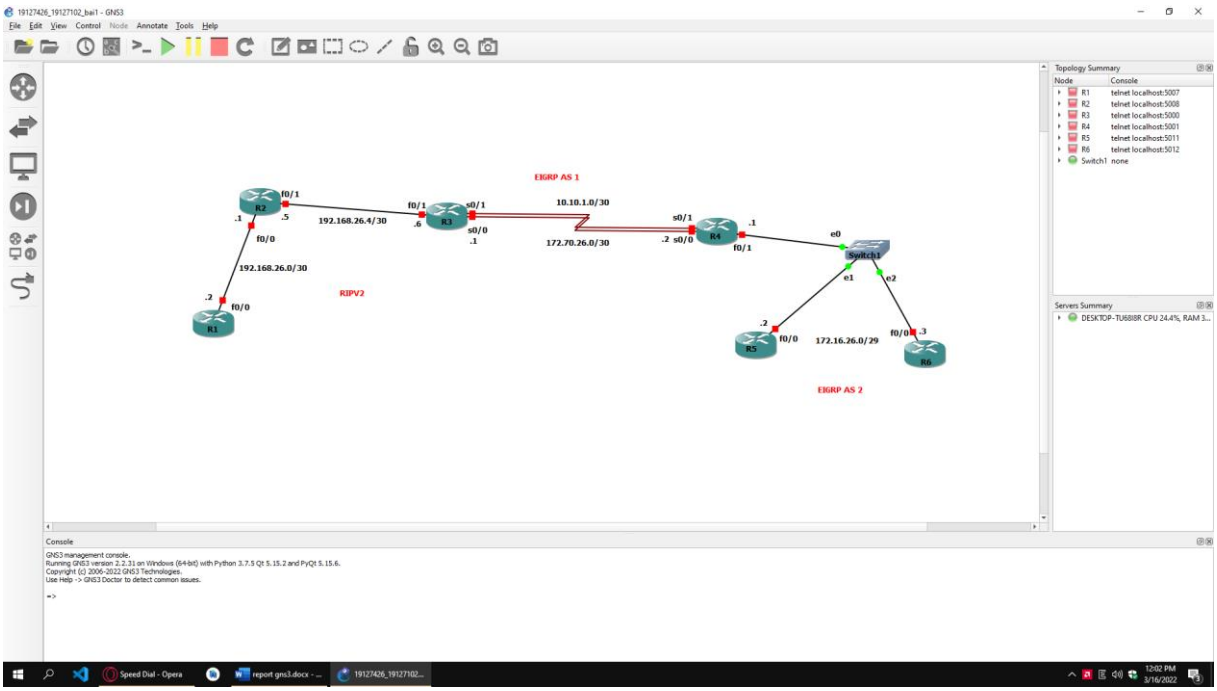
Họ tên: Vũ Đức Quang Huy

IOS: c3660-jk9o3s-mz.124-25d.bin, c3745-advipservicesk9-mz.124-25d.bin

GNS3: 2.2.31

# I. Bài 1

1. Câu 1




2. Câu 2a, 2b, 2c

Router 1

```
interface FastEthernet0/0
 ip address 192.168.26.2 255.255.255.252
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
router rip
 version 2
 network 192.168.26.0
 no auto-summary
!
```

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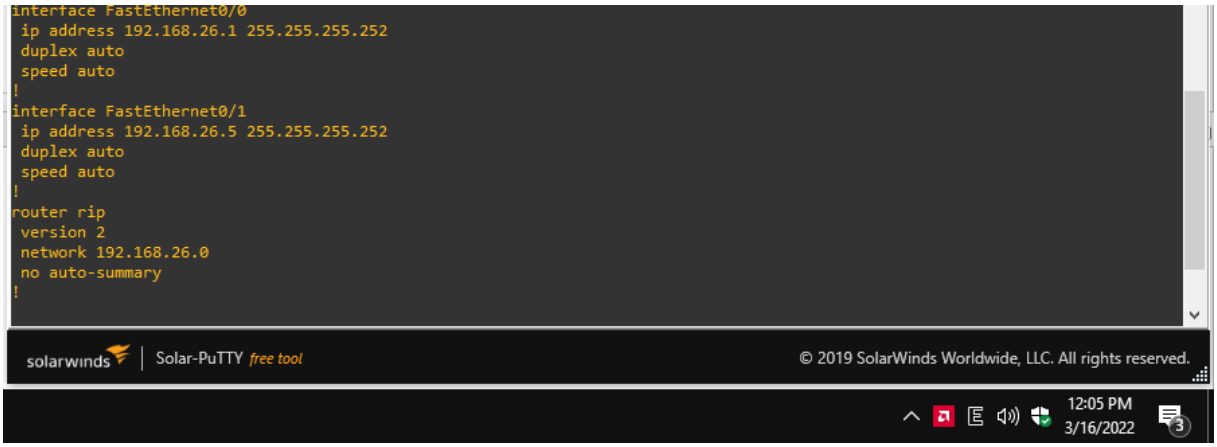
Router 2




Router 3

Router 4

```
interface FastEthernet0/0
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/0
 ip address 172.70.26.2 255.255.255.252
 clock rate 2000000
!
interface FastEthernet0/1
 ip address 172.16.26.1 255.255.255.248
 duplex auto
 speed auto
!
interface Serial0/1
 ip address 10.10.1.2 255.255.255.252
 clock rate 2000000
!
interface Serial0/2
 no ip address
 shutdown
 clock rate 2000000
!
router eigrp 1
 redistribute eigrp 2
 network 10.10.1.0 0.0.0.3
 network 172.70.26.0 0.0.0.3
 no auto-summary
!
router eigrp 2
 redistribute eigrp 1
 network 172.16.26.0 0.0.0.7
 no auto-summary
```

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12:06 PM
3/16/2022

Router 5

```
interface FastEthernet0/0
 ip address 172.16.26.2 255.255.255.248
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
router eigrp 2
 network 172.16.26.0 0.0.0.7
 no auto-summary
```

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12:07 PM
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Router 6

```
interface FastEthernet0/0
 ip address 172.16.26.3 255.255.255.248
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
router eigrp 2
 network 172.16.26.0 0.0.0.7
 no auto-summary
!
```

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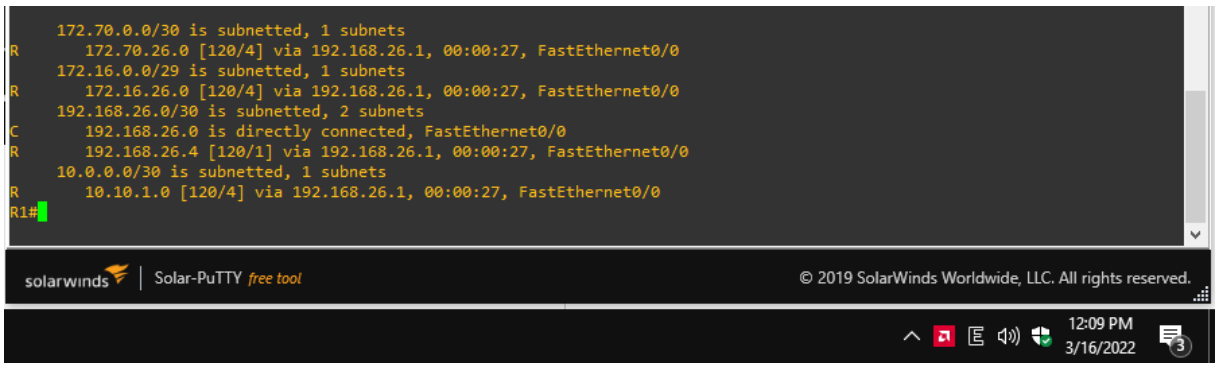
- Giải thích các lệnh:
    - conf ter: vào cấu hình router
    - int f0/0 / f0/1: vào cấu hình interface
        - ip add <địa chỉ ip> <subnet mask>: cấu hình ip cho interface
        - no shut: bật interface
    - router rip: vào cấu hình định tuyến rip
        - ver 2: cấu hình ripv2
        - net <subnet>: chỉ định subnet
        - no auto: tắt tính năng tổng hợp để nhận biết class chính xác
        - redi eigrp <AS> metric 3: redistribute từ eigrp vào rip với metric là 3
    - router eigrp <AS>: vào cấu hình định tuyến eigrp
        - net <subnet> <wildcard mask>: chỉ định subnet
        - no auto: tắt tính năng tổng hợp để nhận biết class chính xác
        - redi rip metric <bandwidth> <delay> <reliable metric> <effective bandwidth metric> <pathMTU>: redistribute rip vào eigrp
        - redi eigrp <AS>: redistribute giữa các eigrp khác AS
- Bảng định tuyến:
    - Router 1




    - Router 2

```
     172.70.0.0/30 is subnetted, 1 subnets
R       172.70.26.0 [120/3] via 192.168.26.6, 00:00:24, FastEthernet0/1
     172.16.0.0/29 is subnetted, 1 subnets
R       172.16.26.0 [120/3] via 192.168.26.6, 00:00:24, FastEthernet0/1
     192.168.26.0/30 is subnetted, 2 subnets
C       192.168.26.0 is directly connected, FastEthernet0/0
C       192.168.26.4 is directly connected, FastEthernet0/1
     10.0.0.0/30 is subnetted, 1 subnets
R       10.10.1.0 [120/3] via 192.168.26.6, 00:00:24, FastEthernet0/1
R2#
```

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- Router 3

```
     172.70.0.0/30 is subnetted, 1 subnets
C       172.70.26.0 is directly connected, Serial0/0
     172.16.0.0/29 is subnetted, 1 subnets
D EX    172.16.26.0 [170/2195456] via 172.70.26.2, 00:07:18, Serial0/0
                    [170/2195456] via 10.10.1.2, 00:07:18, Serial0/1
     192.168.26.0/30 is subnetted, 2 subnets
R       192.168.26.0 [120/1] via 192.168.26.5, 00:00:06, FastEthernet0/1
C       192.168.26.4 is directly connected, FastEthernet0/1
     10.0.0.0/30 is subnetted, 1 subnets
C       10.10.1.0 is directly connected, Serial0/1
R3#
```

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12:10 PM 3/16/2022

- Router 4

```
     172.70.0.0/30 is subnetted, 1 subnets
C       172.70.26.0 is directly connected, Serial0/0
     172.16.0.0/29 is subnetted, 1 subnets
C       172.16.26.0 is directly connected, FastEthernet0/1
     192.168.26.0/30 is subnetted, 2 subnets
D EX    192.168.26.0 [170/2195456] via 172.70.26.1, 00:07:29, Serial0/0
                     [170/2195456] via 10.10.1.1, 00:07:29, Serial0/1
D EX    192.168.26.4 [170/2195456] via 172.70.26.1, 00:07:49, Serial0/0
                     [170/2195456] via 10.10.1.1, 00:07:49, Serial0/1
     10.0.0.0/30 is subnetted, 1 subnets
C       10.10.1.0 is directly connected, Serial0/1
R4#
```

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12:10 PM 3/16/2022

- Router 5

```
     172.70.0.0/30 is subnetted, 1 subnets
D EX    172.70.26.0 [170/2172416] via 172.16.26.1, 00:07:53, FastEthernet0/0
     172.16.0.0/29 is subnetted, 1 subnets
C       172.16.26.0 is directly connected, FastEthernet0/0
     192.168.26.0/30 is subnetted, 2 subnets
D EX    192.168.26.0 [170/2198016] via 172.16.26.1, 00:07:35, FastEthernet0/0
D EX    192.168.26.4 [170/2198016] via 172.16.26.1, 00:07:54, FastEthernet0/0
     10.0.0.0/30 is subnetted, 1 subnets
D EX    10.10.1.0 [170/2172416] via 172.16.26.1, 00:07:58, FastEthernet0/0
R5#
```

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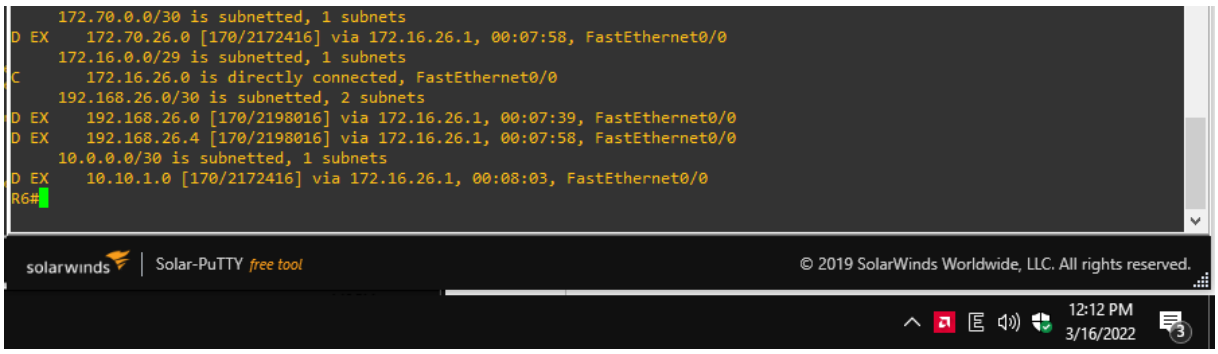
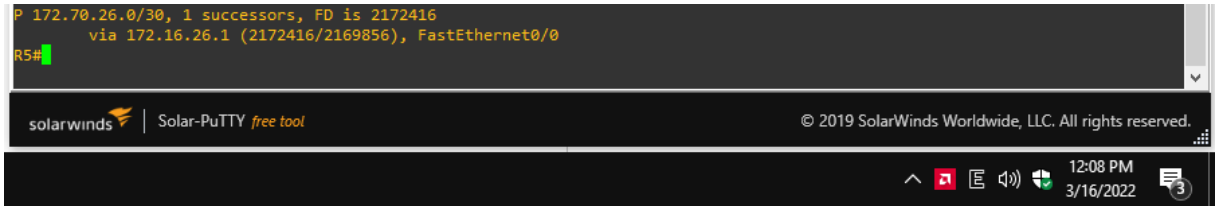
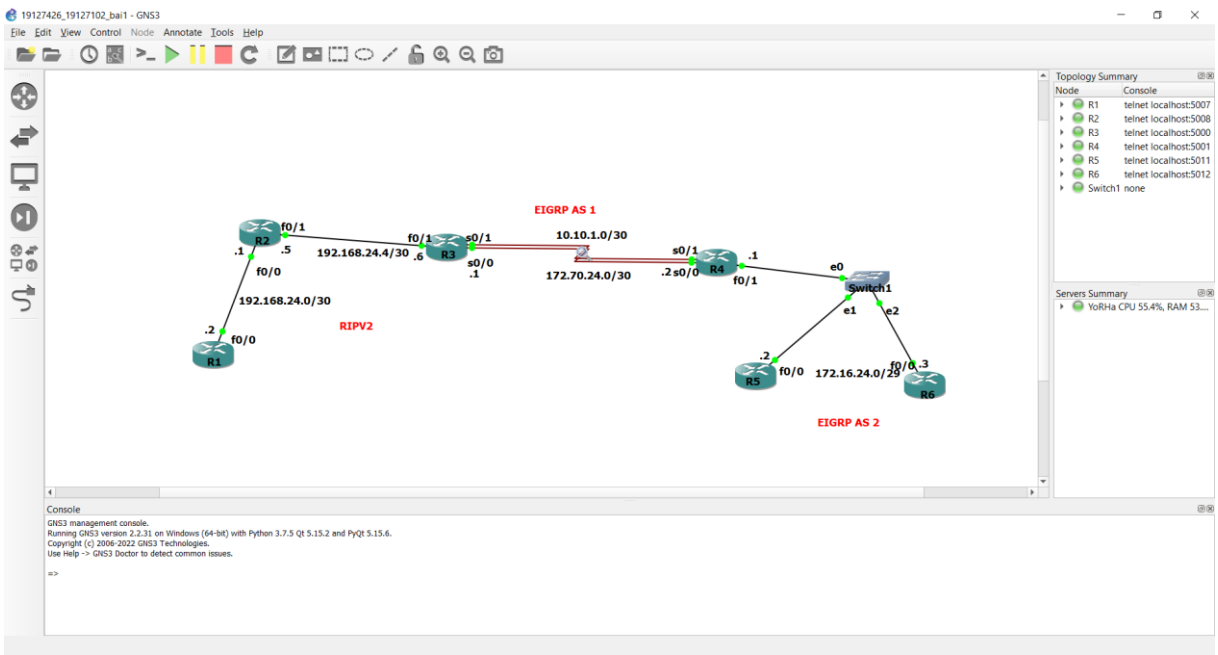
- Router 6




3. Câu 2d
    a. Successor: 172.16.26.1
    b. Feasible successor: Không có
    c. Feasible distance: 2172416
    d. Reported distance: (2172416/2169856)




2e.



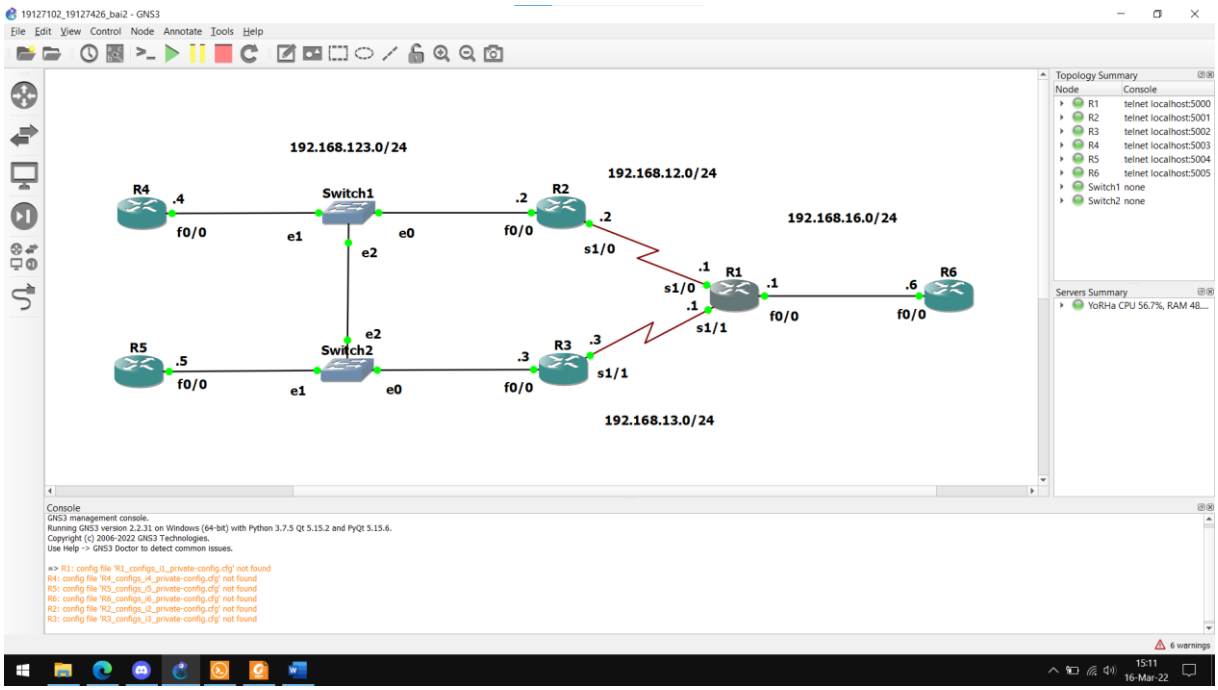

R3 có nhận được gói update

## II. Bài 2

*** Do các file configs của router bị đặt sai tên nên phải đặt tên lại theo cú pháp:** [device name]_configs_i[x]_startup-config.cfg

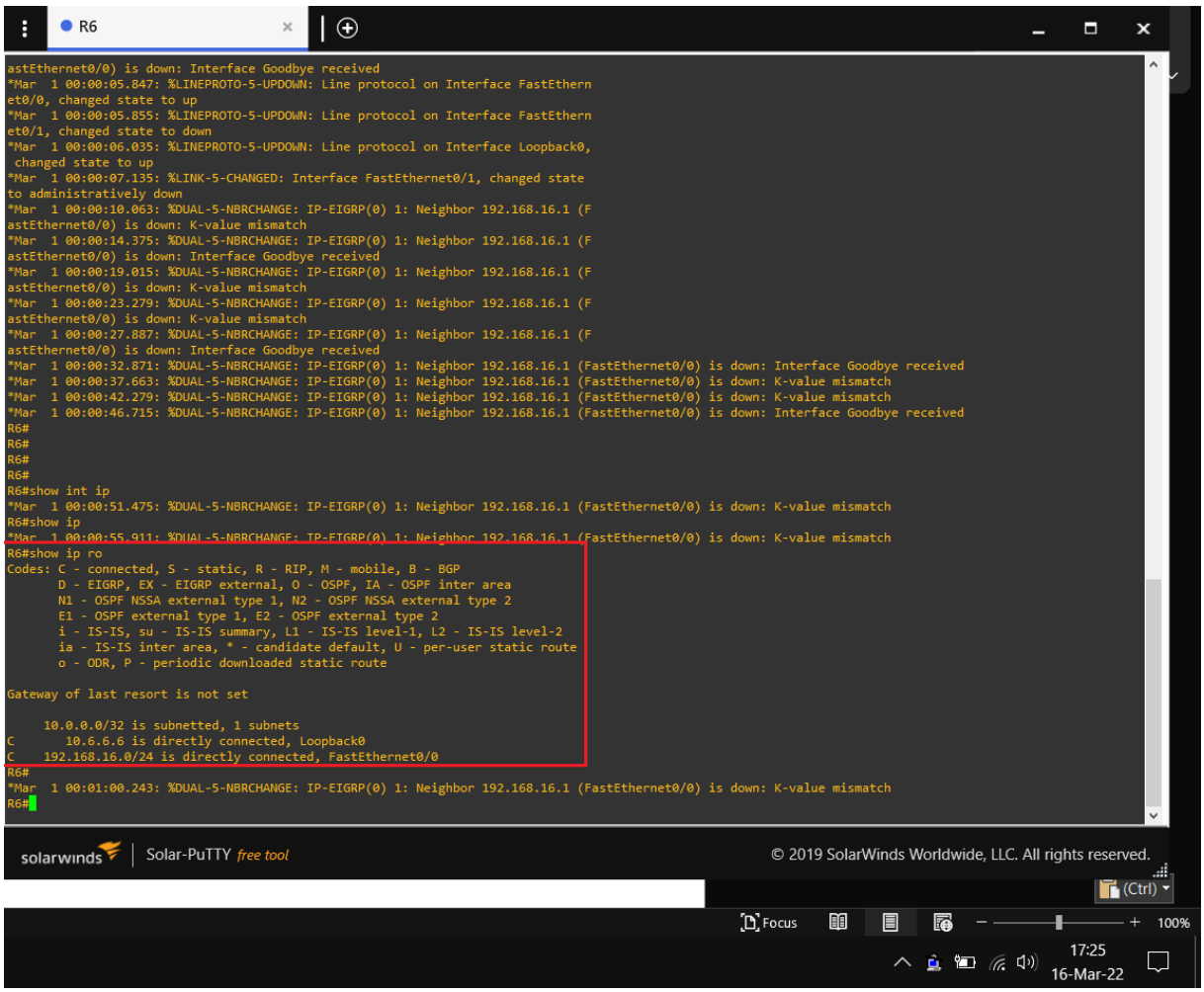
VD: R1_configs_i1_startup-config.cfg

1.




2.

R6:


R6
astEthernet0/0) is down: Interface Goodbye received
*Mar 1 00:00:05.847: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/0, changed state to up
*Mar 1 00:00:05.855: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/1, changed state to down
*Mar 1 00:00:06.035: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up
*Mar 1 00:00:07.135: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state
to administratively down
*Mar 1 00:00:10.063: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (F
astEthernet0/0) is down: K-value mismatch
*Mar 1 00:00:14.375: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (F
astEthernet0/0) is down: Interface Goodbye received
*Mar 1 00:00:19.015: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (F
astEthernet0/0) is down: K-value mismatch
*Mar 1 00:00:23.279: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (F
astEthernet0/0) is down: K-value mismatch
*Mar 1 00:00:27.887: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (F
astEthernet0/0) is down: Interface Goodbye received
*Mar 1 00:00:32.871: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: Interface Goodbye received
*Mar 1 00:00:37.663: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: K-value mismatch
*Mar 1 00:00:42.279: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: K-value mismatch
*Mar 1 00:00:46.715: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: Interface Goodbye received
R6#
R6#
R6#
R6#
R6#show int ip
*Mar 1 00:00:51.475: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: K-value mismatch
R6#show ip
*Mar 1 00:00:55.911: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: K-value mismatch
R6#show ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
10.0.0.0/32 is subnetted, 1 subnets
C 10.6.6.6 is directly connected, Loopback0
C 192.168.16.0/24 is directly connected, FastEthernet0/0
R6#
*Mar 1 00:01:00.243: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.16.1 (FastEthernet0/0) is down: K-value mismatch
R6#
solarwinds
Solar-PuTTY free tool
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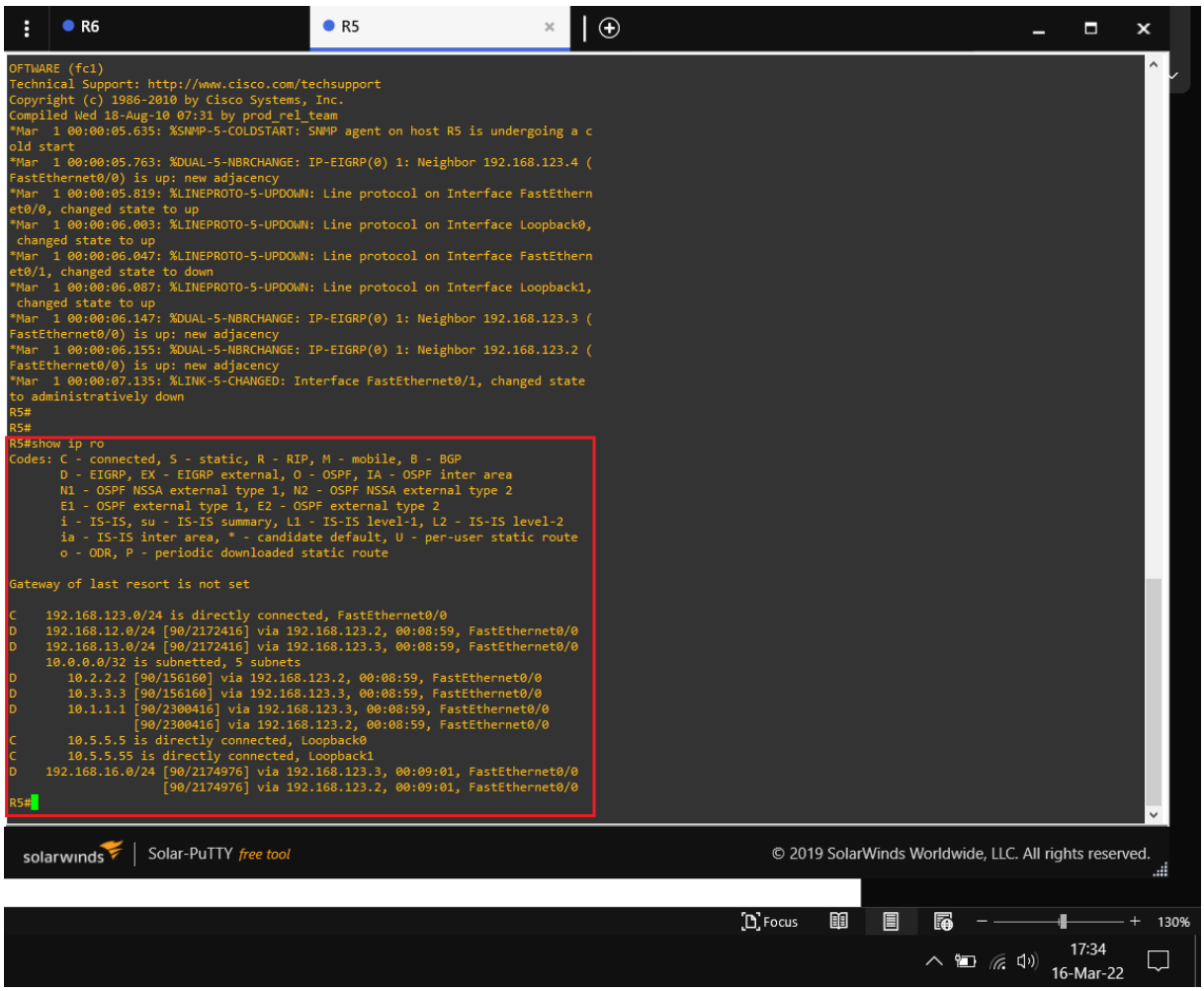
(Ctrl)
Focus
100%
17:25
16-Mar-22

R5:


R6
R5
OFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2010 by Cisco Systems, Inc.
Compiled Wed 18-Aug-10 07:31 by prod_rel_team
*Mar 1 00:00:05.635: %SNMP-5-COLDSTART: SNMP agent on host R5 is undergoing a c
old start
*Mar 1 00:00:05.763: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.4 (
FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:05.819: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/0, changed state to up
*Mar 1 00:00:06.003: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up
*Mar 1 00:00:06.047: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/1, changed state to down
*Mar 1 00:00:06.087: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1,
changed state to up
*Mar 1 00:00:06.147: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.3 (
FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:06.155: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.2 (
FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:07.135: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state
to administratively down
R5#
R5#
R5#show ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
D 192.168.12.0/24 [90/2172416] via 192.168.123.2, 00:08:59, FastEthernet0/0
D 192.168.13.0/24 [90/2172416] via 192.168.123.3, 00:08:59, FastEthernet0/0
10.0.0.0/32 is subnetted, 5 subnets
D 10.2.2.2 [90/156160] via 192.168.123.2, 00:08:59, FastEthernet0/0
D 10.3.3.3 [90/156160] via 192.168.123.3, 00:08:59, FastEthernet0/0
D 10.1.1.1 [90/2300416] via 192.168.123.3, 00:08:59, FastEthernet0/0
[90/2300416] via 192.168.123.2, 00:08:59, FastEthernet0/0
C 10.5.5.5 is directly connected, Loopback0
C 10.5.5.55 is directly connected, Loopback1
D 192.168.16.0/24 [90/2174976] via 192.168.123.3, 00:09:01, FastEthernet0/0
[90/2174976] via 192.168.123.2, 00:09:01, FastEthernet0/0
R5#
solarwinds
Solar-PuTTY free tool
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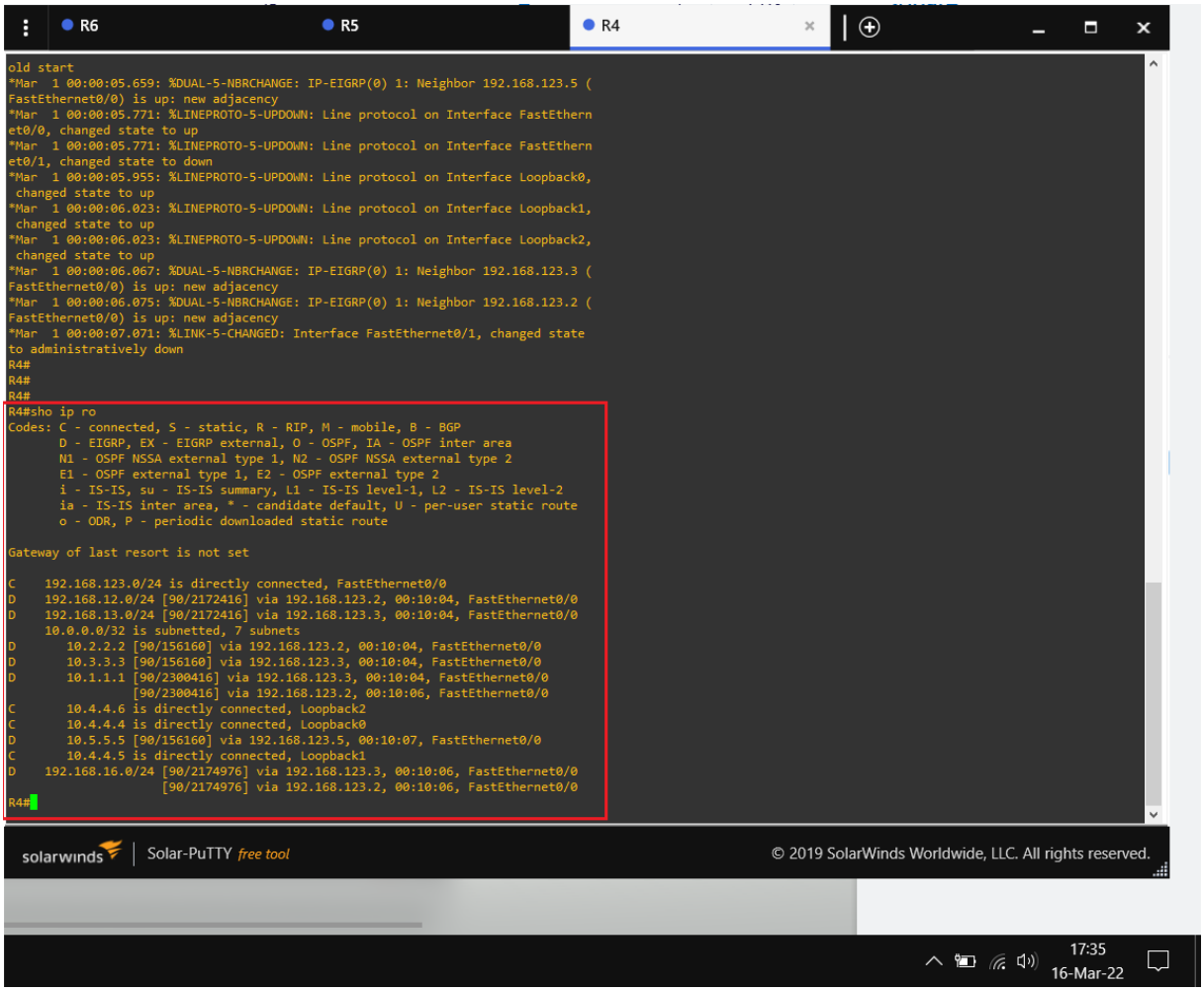
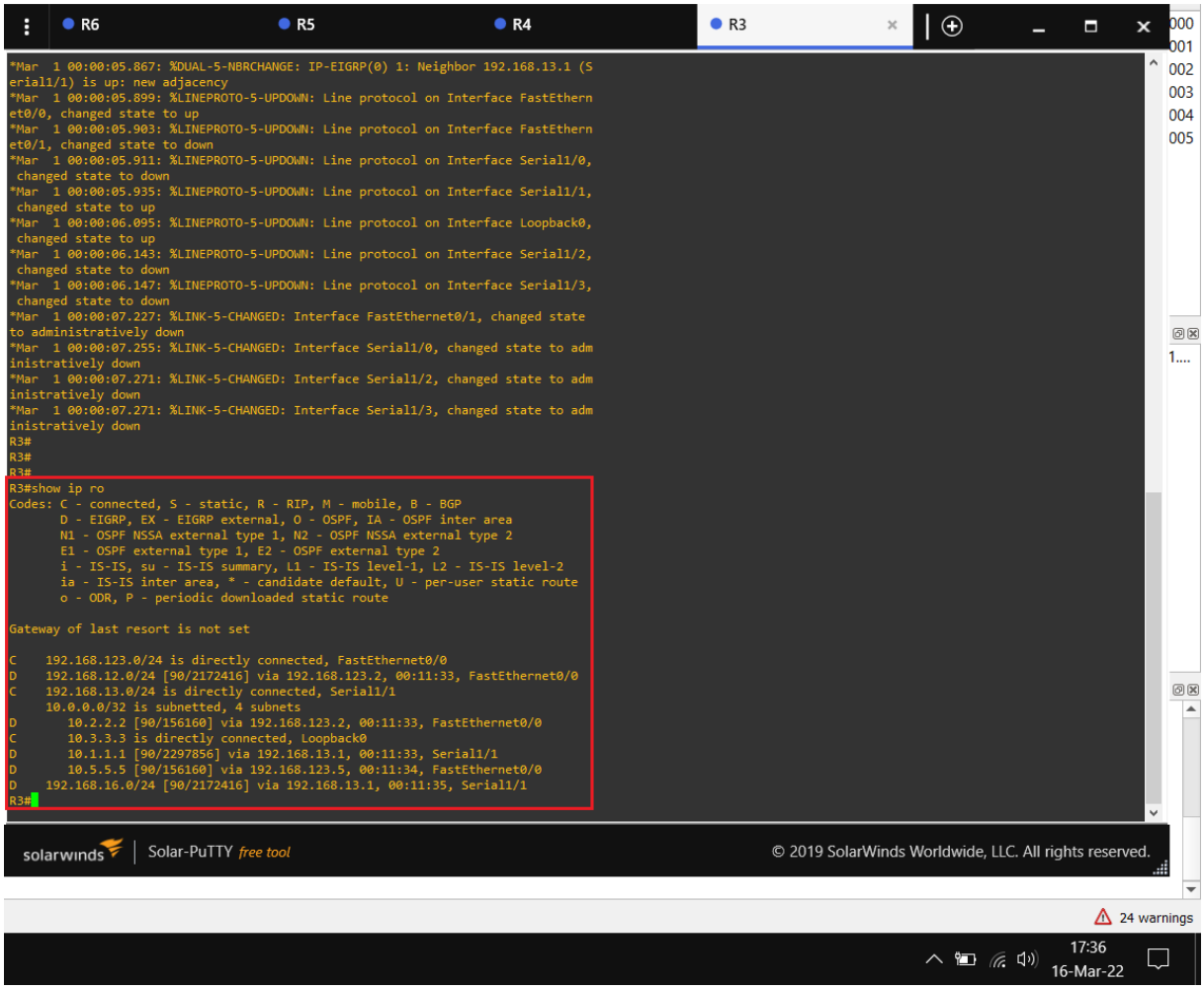
Focus
130%
17:34
16-Mar-22

R4:


R6
R5
R4
old start
*Mar 1 00:00:05.659: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.5 (FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:05.771: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
*Mar 1 00:00:05.771: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
*Mar 1 00:00:05.955: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
*Mar 1 00:00:06.023: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed state to up
*Mar 1 00:00:06.023: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed state to up
*Mar 1 00:00:06.067: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.3 (FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:06.075: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.123.2 (FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:07.071: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
R4#
R4#
R4#
R4#sho ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
D 192.168.12.0/24 [90/2172416] via 192.168.123.2, 00:10:04, FastEthernet0/0
D 192.168.13.0/24 [90/2172416] via 192.168.123.3, 00:10:04, FastEthernet0/0
10.0.0.0/32 is subnetted, 7 subnets
D 10.2.2.2 [90/156160] via 192.168.123.2, 00:10:04, FastEthernet0/0
D 10.3.3.3 [90/156160] via 192.168.123.3, 00:10:04, FastEthernet0/0
D 10.1.1.1 [90/2300416] via 192.168.123.3, 00:10:04, FastEthernet0/0
[90/2300416] via 192.168.123.2, 00:10:06, FastEthernet0/0
C 10.4.4.6 is directly connected, Loopback2
C 10.4.4.4 is directly connected, Loopback0
D 10.5.5.5 [90/156160] via 192.168.123.5, 00:10:07, FastEthernet0/0
C 10.4.4.5 is directly connected, Loopback1
D 192.168.16.0/24 [90/2174976] via 192.168.123.3, 00:10:06, FastEthernet0/0
[90/2174976] via 192.168.123.2, 00:10:06, FastEthernet0/0
R4#
solarwinds
Solar-PuTTY free tool
© 2019 SolarWinds Worldwide, LLC. All rights reserved.
17:35
16-Mar-22

R3:


R6
R5
R4
R3
*Mar 1 00:00:05.867: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.13.1 (Serial1/1) is up: new adjacency
*Mar 1 00:00:05.899: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
*Mar 1 00:00:05.903: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
*Mar 1 00:00:05.911: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to down
*Mar 1 00:00:05.935: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
*Mar 1 00:00:06.095: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
*Mar 1 00:00:06.143: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to down
*Mar 1 00:00:06.147: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to down
*Mar 1 00:00:07.227: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
*Mar 1 00:00:07.255: %LINK-5-CHANGED: Interface Serial1/0, changed state to administratively down
*Mar 1 00:00:07.271: %LINK-5-CHANGED: Interface Serial1/2, changed state to administratively down
*Mar 1 00:00:07.271: %LINK-5-CHANGED: Interface Serial1/3, changed state to administratively down
R3#
R3#
R3#
R3#show ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
D 192.168.12.0/24 [90/2172416] via 192.168.123.2, 00:11:33, FastEthernet0/0
C 192.168.13.0/24 is directly connected, Serial1/1
10.0.0.0/32 is subnetted, 4 subnets
D 10.2.2.2 [90/156160] via 192.168.123.2, 00:11:33, FastEthernet0/0
C 10.3.3.3 is directly connected, Loopback0
D 10.1.1.1 [90/2297856] via 192.168.13.1, 00:11:33, Serial1/1
D 10.5.5.5 [90/156160] via 192.168.123.5, 00:11:34, FastEthernet0/0
D 192.168.16.0/24 [90/2172416] via 192.168.13.1, 00:11:35, Serial1/1
R3#
solarwinds
Solar-PuTTY free tool
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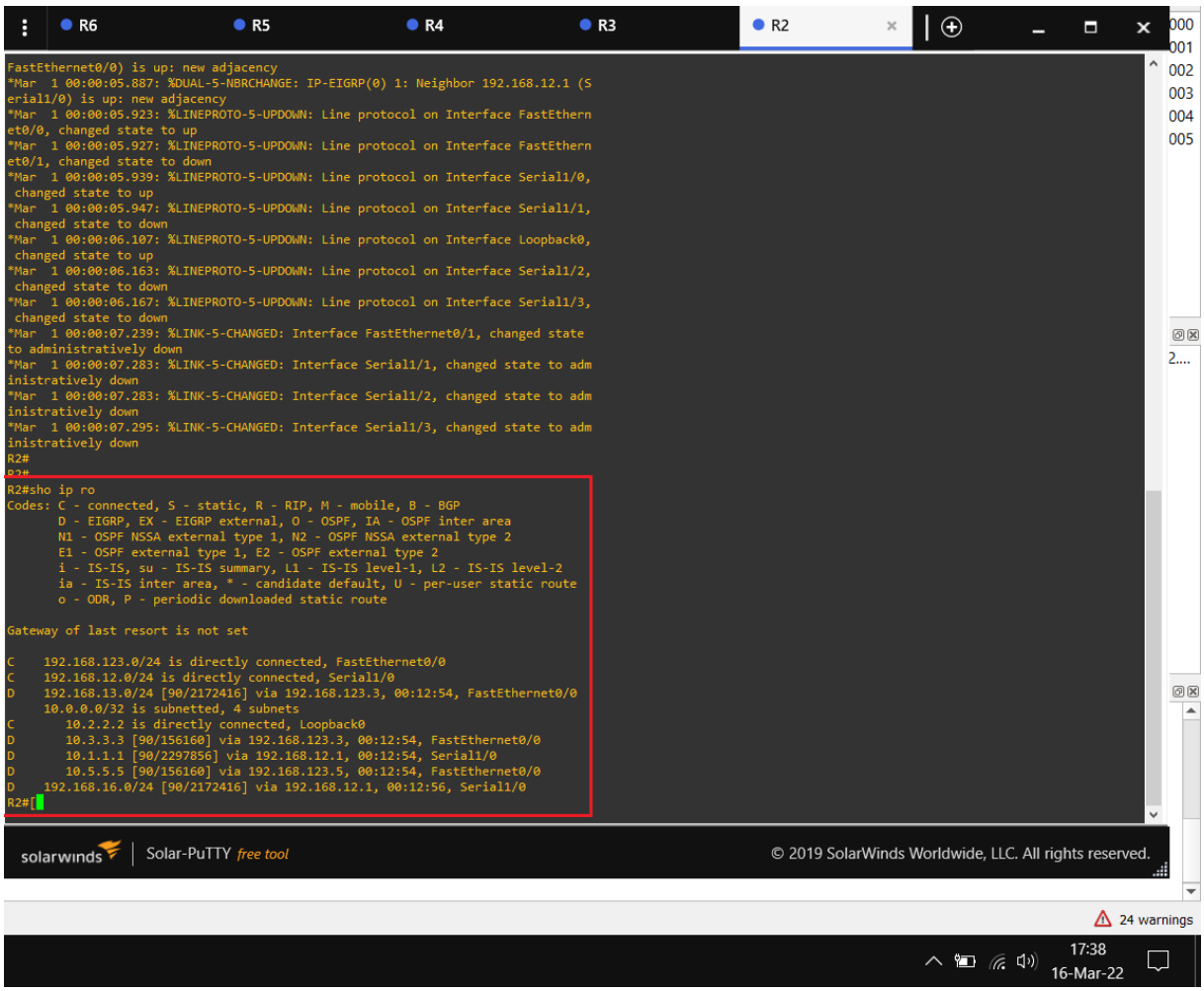
24 warnings
17:36
16-Mar-22

R2:


R6
R5
R4
R3
R2
FastEthernet0/0) is up: new adjacency
*Mar 1 00:00:05.887: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 1: Neighbor 192.168.12.1 (Serial1/0) is up: new adjacency
*Mar 1 00:00:05.923: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
*Mar 1 00:00:05.927: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
*Mar 1 00:00:05.939: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
*Mar 1 00:00:05.947: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to down
*Mar 1 00:00:06.107: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
*Mar 1 00:00:06.163: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to down
*Mar 1 00:00:06.167: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to down
*Mar 1 00:00:07.239: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
*Mar 1 00:00:07.283: %LINK-5-CHANGED: Interface Serial1/1, changed state to administratively down
*Mar 1 00:00:07.283: %LINK-5-CHANGED: Interface Serial1/2, changed state to administratively down
*Mar 1 00:00:07.295: %LINK-5-CHANGED: Interface Serial1/3, changed state to administratively down
R2#
R2#sho ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
C 192.168.12.0/24 is directly connected, Serial1/0
D 192.168.13.0/24 [90/2172416] via 192.168.123.3, 00:12:54, FastEthernet0/0
10.0.0.0/32 is subnetted, 4 subnets
C 10.2.2.2 is directly connected, Loopback0
D 10.3.3.3 [90/156160] via 192.168.123.3, 00:12:54, FastEthernet0/0
D 10.1.1.1 [90/2297856] via 192.168.12.1, 00:12:54, Serial1/0
D 10.5.5.5 [90/156160] via 192.168.123.5, 00:12:54, FastEthernet0/0
D 192.168.16.0/24 [90/2172416] via 192.168.12.1, 00:12:56, Serial1/0
R2#
solarwinds
Solar-PuTTY free tool
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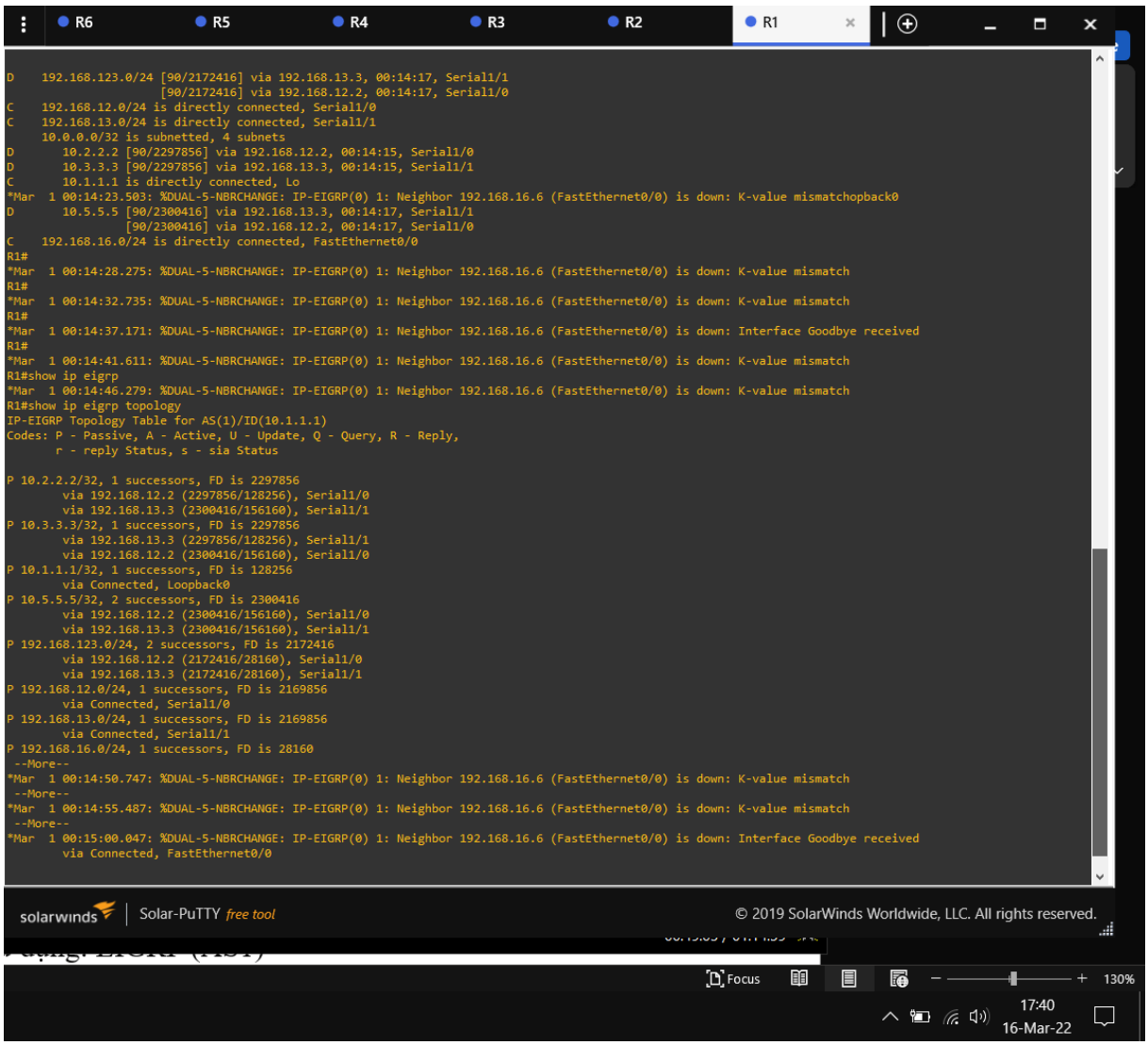
24 warnings
17:38
16-Mar-22

R1:

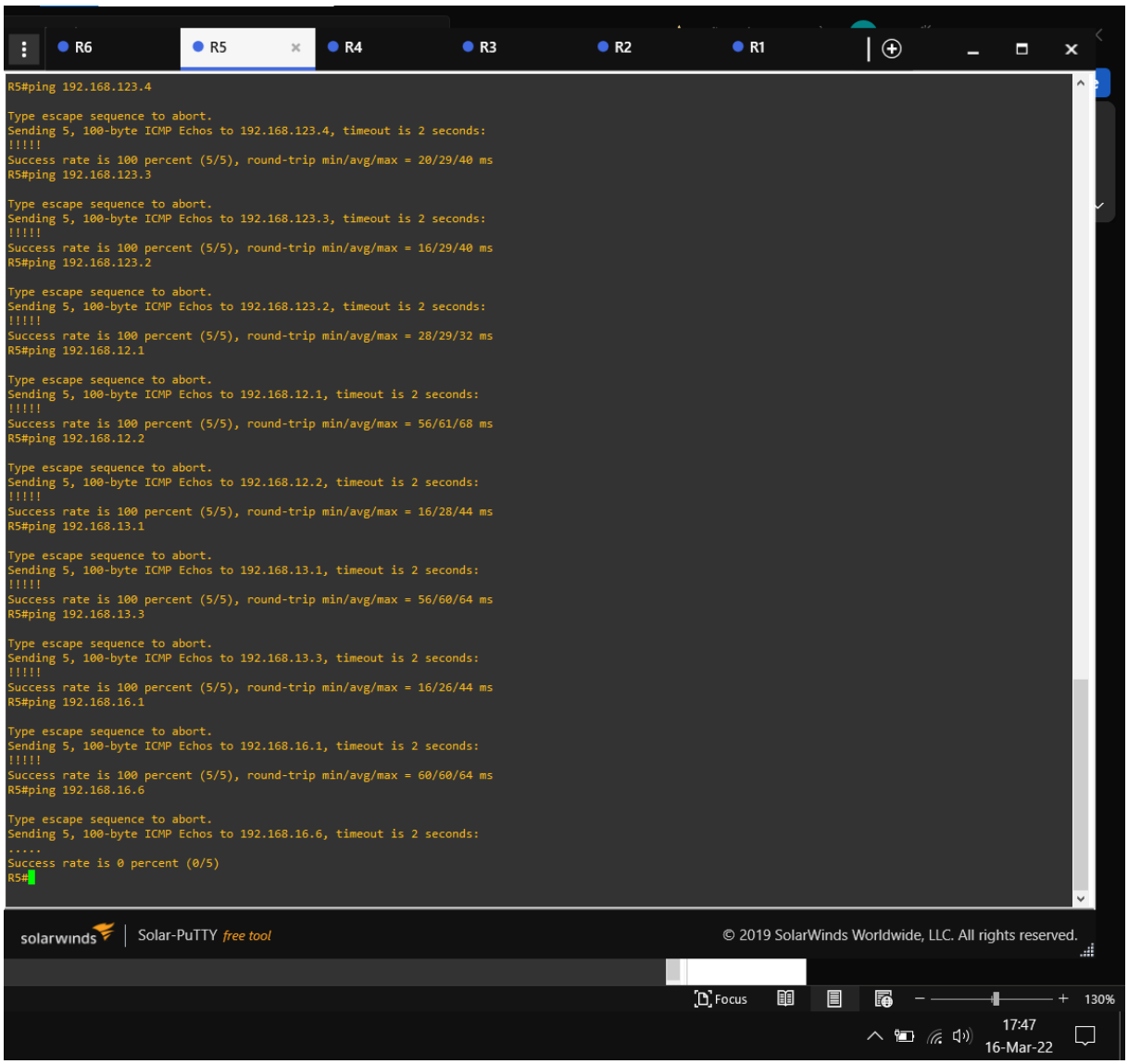



Giao thức định tuyến sử dụng: **EIGRP (AS1)**

3.

**Sự cố**: R2, R3, R4, R5 không thể ping đến R6 do R1 không cấu hình định tuyến đến R6 và ngược lại

R5:


R6
R5
R4
R3
R2
R1
R5#ping 192.168.123.4
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.4, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 20/29/40 ms
R5#ping 192.168.123.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 16/29/40 ms
R5#ping 192.168.123.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/29/32 ms
R5#ping 192.168.12.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 56/61/68 ms
R5#ping 192.168.12.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 16/28/44 ms
R5#ping 192.168.13.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.13.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 56/60/64 ms
R5#ping 192.168.13.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.13.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 16/26/44 ms
R5#ping 192.168.16.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 60/60/64 ms
R5#ping 192.168.16.6
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.6, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
R5#
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Solar-PuTTY free tool
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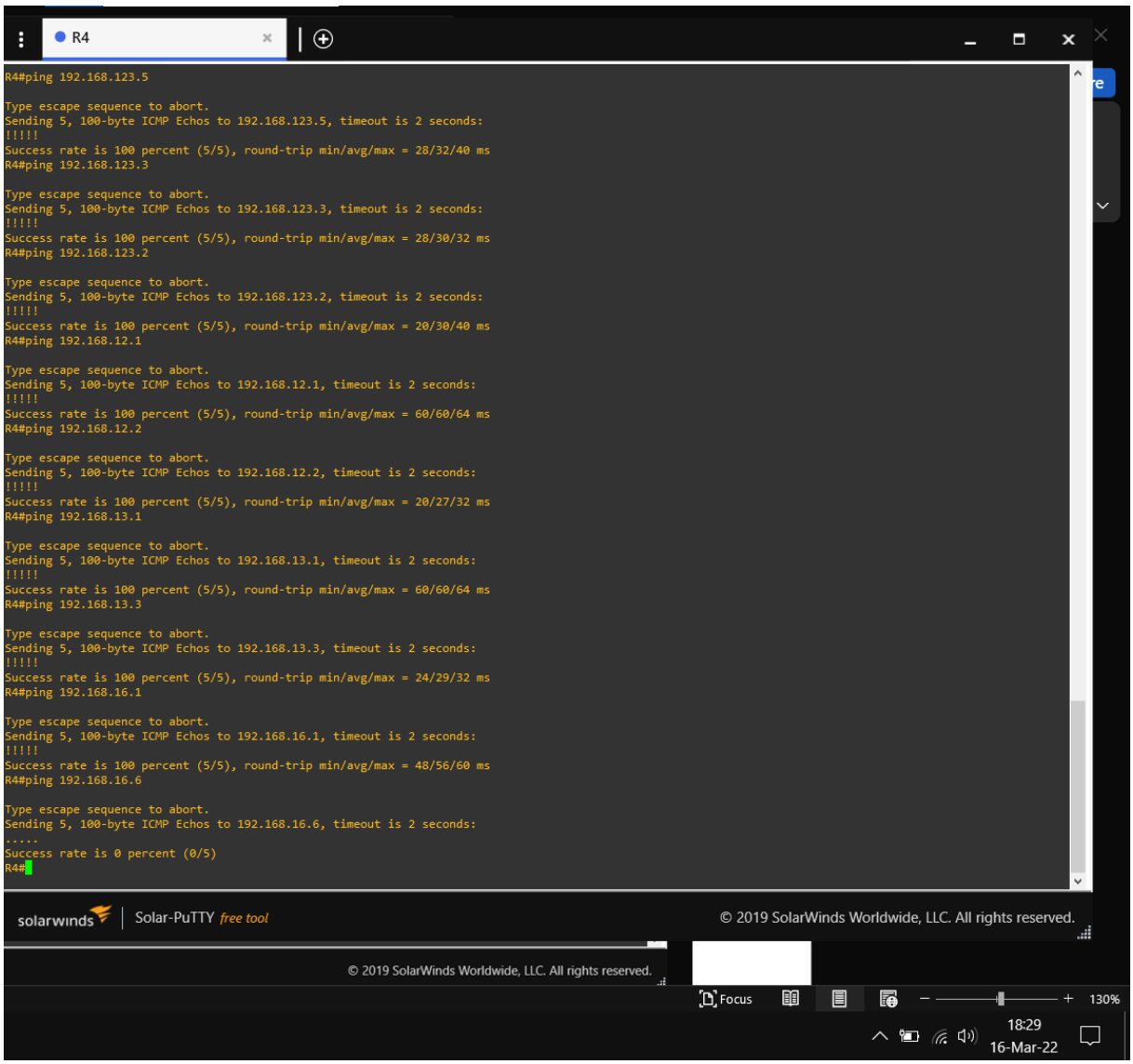
Focus
130%
17:47
16-Mar-22

R4:


R4
R4#ping 192.168.123.5
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/32/40 ms
R4#ping 192.168.123.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/30/32 ms
R4#ping 192.168.123.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.123.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 20/30/40 ms
R4#ping 192.168.12.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 60/60/64 ms
R4#ping 192.168.12.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 20/27/32 ms
R4#ping 192.168.13.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.13.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 60/60/64 ms
R4#ping 192.168.13.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.13.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/29/32 ms
R4#ping 192.168.16.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 48/56/60 ms
R4#ping 192.168.16.6
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.6, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
R4#
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Focus
130%
18:29
16-Mar-22

R3:

R6
R5
R4
R3
R2
R1
R3#
R3#
R3#ping 192.168.12.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 40/52/68 ms
R3#ping 192.168.12.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/33/40 ms
R3#ping 192.168.16.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/31/40 ms
R3#ping 192.168.16.6
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.6, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
R3#
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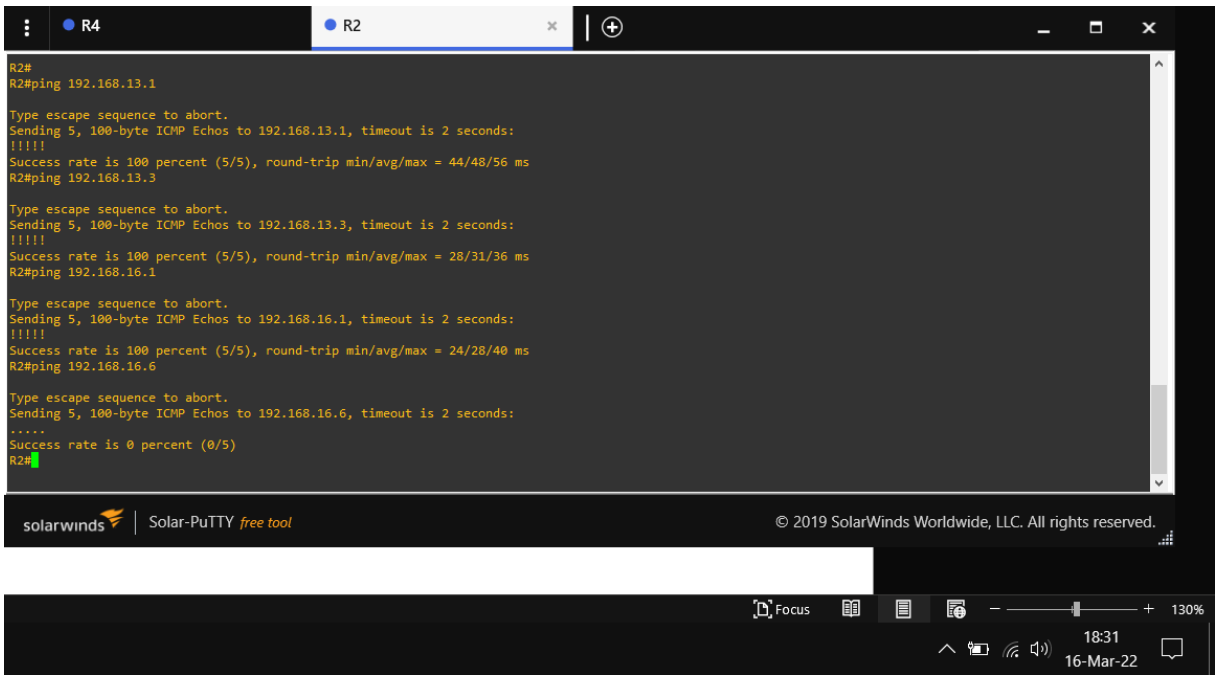
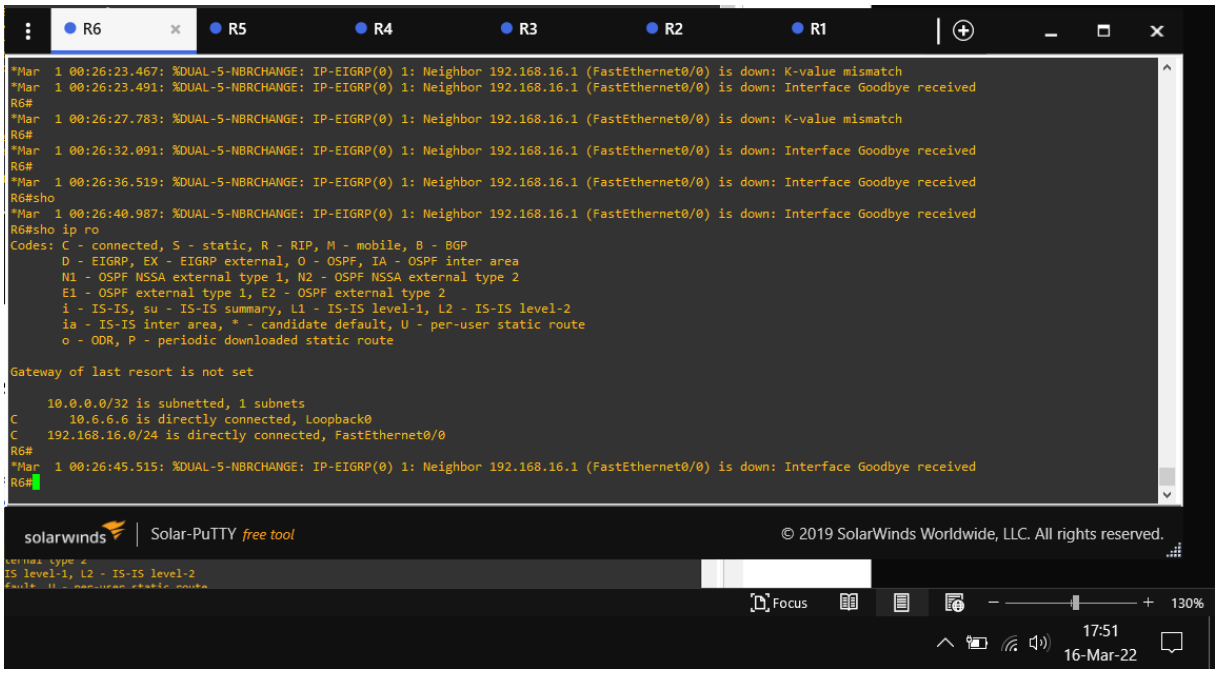
Focus
130%
17:50
16-Mar-22

R2:

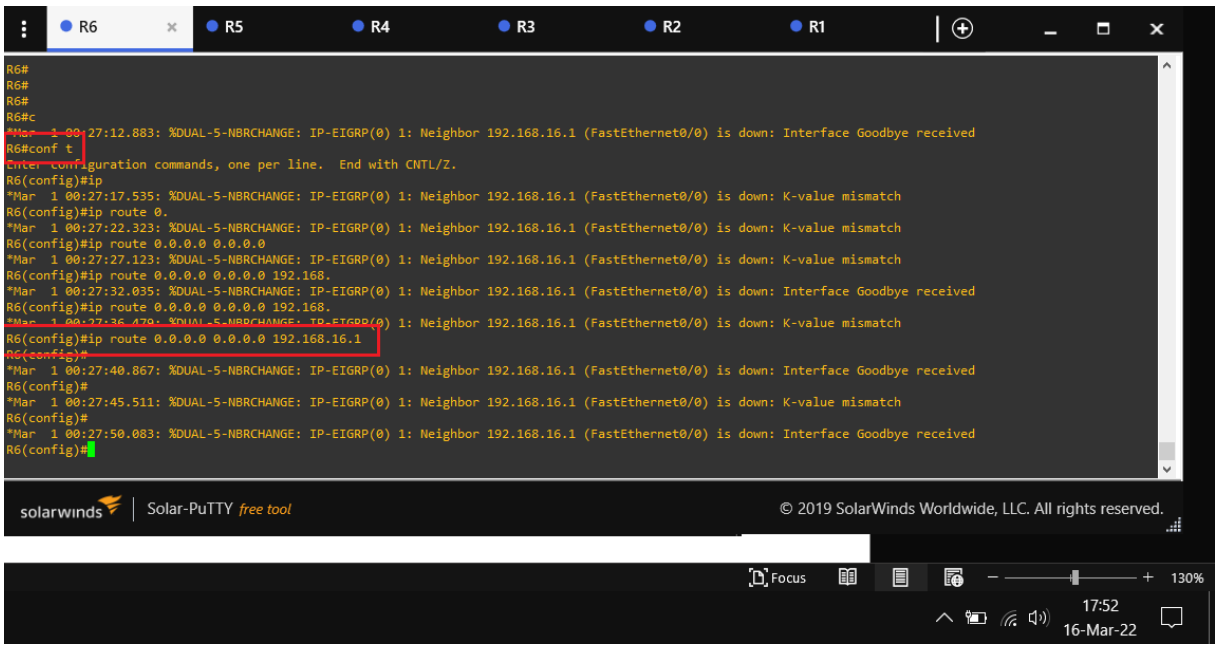



R6:




**<u>Giải pháp</u>**: Static Route và Redistribute

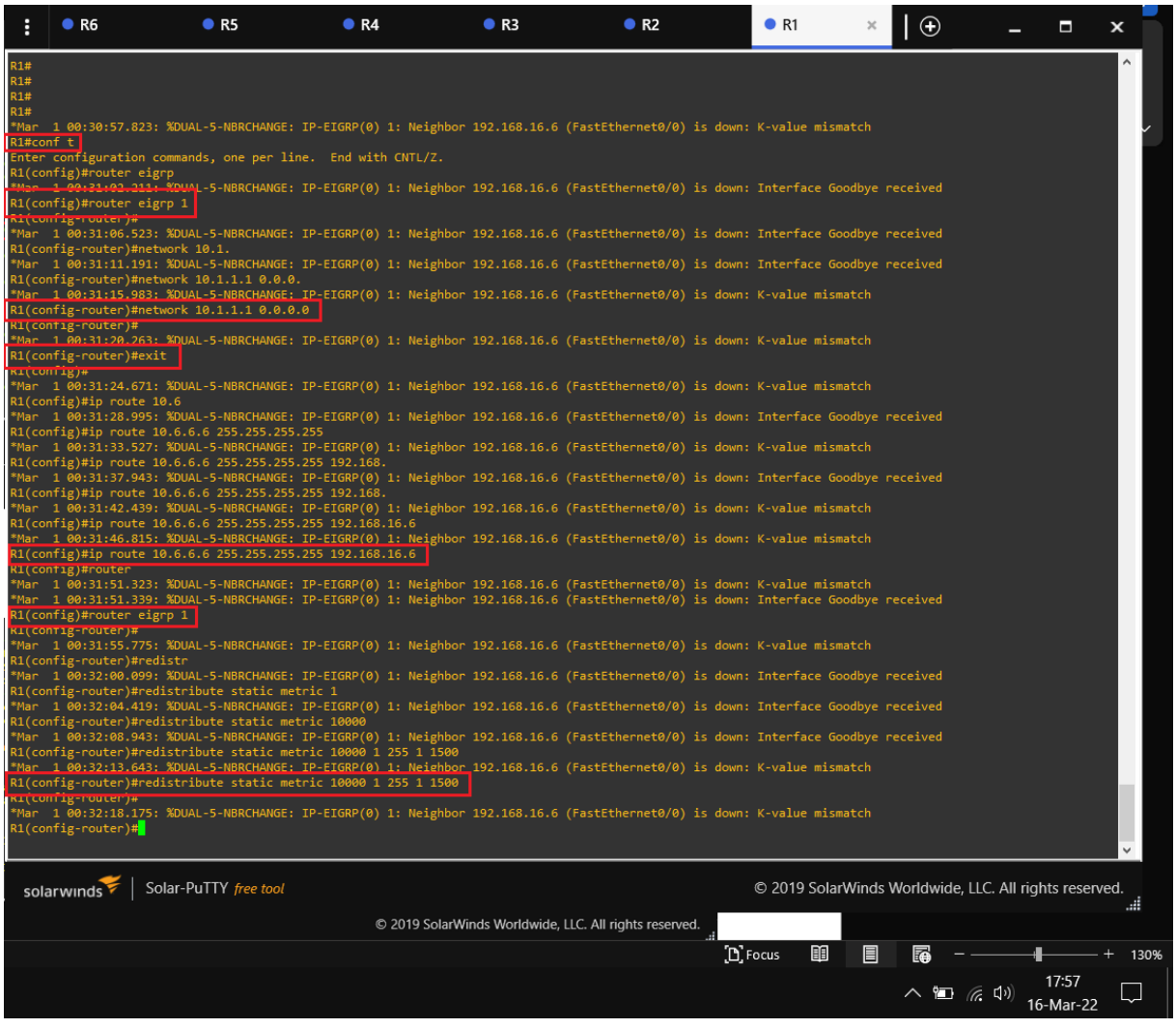
R6:




Giải thích:

ip route 0.0.0.0 0.0.0.0 192.168.16.1: cấu hình Routing tĩnh Default Route để R6 thông với toàn bộ mạng AS 1

R1:



Giải thích:

network 10.1.1.1 0.0.0.0: cấu hình routing cho đường mạng loopback R1

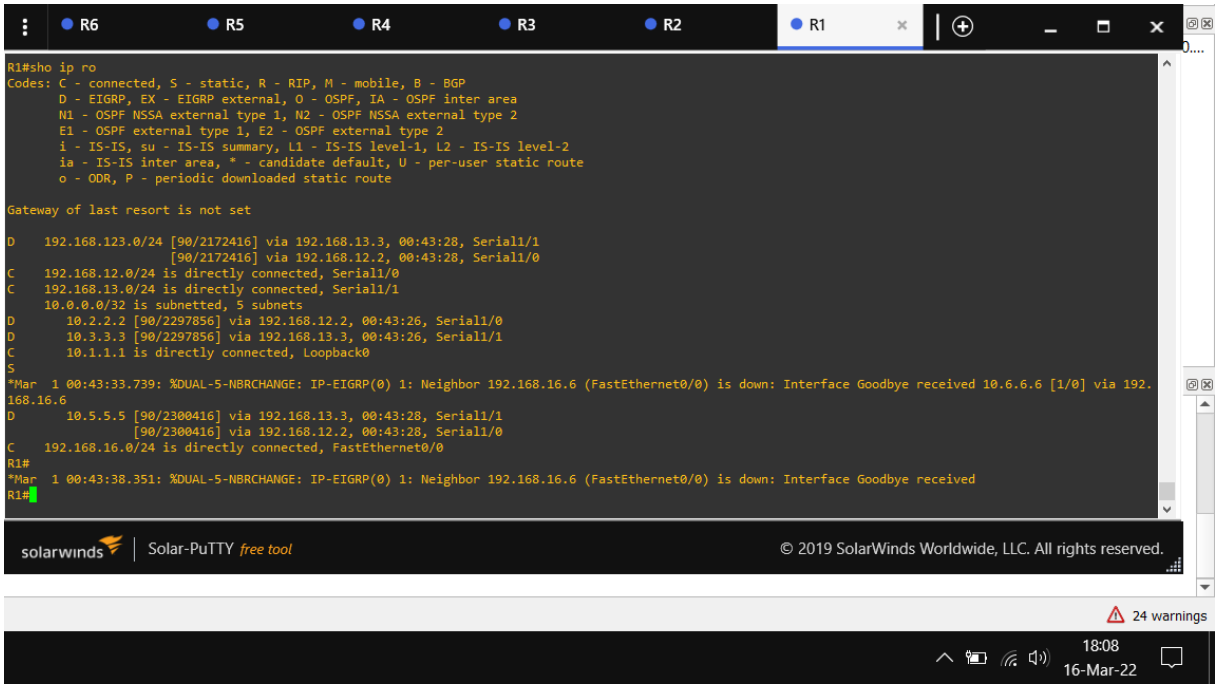
ip route 10.6.6.6 255.255.255.255 192.158.16.6: Cấu hình static route đến R6

redistribute static metric 10000 1 255 1 1500: redistribute static route vào eigrp

**Kết quả**:

R6:

R1:




R4:

R6
R5
R4
R3
R2
R1
D 192.168.16.0/24 [90/2174976] via 192.168.123.3, 00:10:06, FastEthernet0/0
[90/2174976] via 192.168.123.2, 00:10:06, FastEthernet0/0
R4#sho ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
D 192.168.12.0/24 [90/2172416] via 192.168.123.2, 00:44:28, FastEthernet0/0
D 192.168.13.0/24 [90/2172416] via 192.168.123.3, 00:44:28, FastEthernet0/0
10.0.0.0/32 is subnetted, 8 subnets
D 10.2.2.2 [90/156160] via 192.168.123.2, 00:44:28, FastEthernet0/0
D 10.3.3.3 [90/156160] via 192.168.123.3, 00:44:28, FastEthernet0/0
D 10.1.1.1 [90/2300416] via 192.168.123.3, 00:44:28, FastEthernet0/0
[90/2300416] via 192.168.123.2, 00:44:30, FastEthernet0/0
D EX 10.6.6.6 [170/2172672] via 192.168.123.3, 00:12:21, FastEthernet0/0
[170/2172672] via 192.168.123.2, 00:12:21, FastEthernet0/0
C 10.4.4.6 is directly connected, Loopback2
C 10.4.4.4 is directly connected, Loopback0
D 10.5.5.5 [90/156160] via 192.168.123.5, 00:44:30, FastEthernet0/0
C 10.4.4.5 is directly connected, Loopback1
D 192.168.16.0/24 [90/2174976] via 192.168.123.3, 00:44:33, FastEthernet0/0
[90/2174976] via 192.168.123.2, 00:44:33, FastEthernet0/0
R4#
R4#ping 192.168.16.6
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 80/89/100 ms
R4#
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Focus
130%
18:09
16-Mar-22

R5:

R6
R5
R4
R3
R2
R1
R5#show ip ro
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.123.0/24 is directly connected, FastEthernet0/0
D 192.168.12.0/24 [90/2172416] via 192.168.123.2, 00:46:02, FastEthernet0/0
D 192.168.13.0/24 [90/2172416] via 192.168.123.3, 00:46:03, FastEthernet0/0
10.0.0.0/32 is subnetted, 6 subnets
D 10.2.2.2 [90/156160] via 192.168.123.2, 00:46:02, FastEthernet0/0
D 10.3.3.3 [90/156160] via 192.168.123.3, 00:46:03, FastEthernet0/0
D 10.1.1.1 [90/2300416] via 192.168.123.3, 00:46:02, FastEthernet0/0
[90/2300416] via 192.168.123.2, 00:46:04, FastEthernet0/0
D EX 10.6.6.6 [170/2172672] via 192.168.123.3, 00:13:56, FastEthernet0/0
[170/2172672] via 192.168.123.2, 00:13:56, FastEthernet0/0
C 10.5.5.5 is directly connected, Loopback0
C 10.5.5.55 is directly connected, Loopback1
D 192.168.16.0/24 [90/2174976] via 192.168.123.3, 00:46:04, FastEthernet0/0
[90/2174976] via 192.168.123.2, 00:46:04, FastEthernet0/0
R5#ping 192.168.16.6
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.16.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 84/88/100 ms
R5#
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Focus
130%
18:11
16-Mar-22

R3:

R2:

Tài liệu tham khảo

Bộ môn MMT&VT, Khoa CNTT (November 2013). *EIGRP*. ĐH KHTN TP HCM

| Bài | Phân công | Điểm đánh giá |
|---|---|---|
| 1.1 | 19127426 | 0.5 |
| 1.2a | 19127426 | 0.5 |
| 1.2b | 19127426 | 2 |
| 1.2c | 19127426 | 1 |
| 1.2d | 19127426 | 0.5 |
| 1.2e | 19127102 | 0.5 |
| 1.2f | 19127102 | 0 |
| 2.1 | 19127102 | 0.5 |
| 2.2 | 19127102 | 0.5 |
| 2.3 | 19127102 | 2 |
| Tài liệu tham khảo | | 0.5 |
| Phân công đánh giá | | 0.5 |
| Tổng | | 9 |