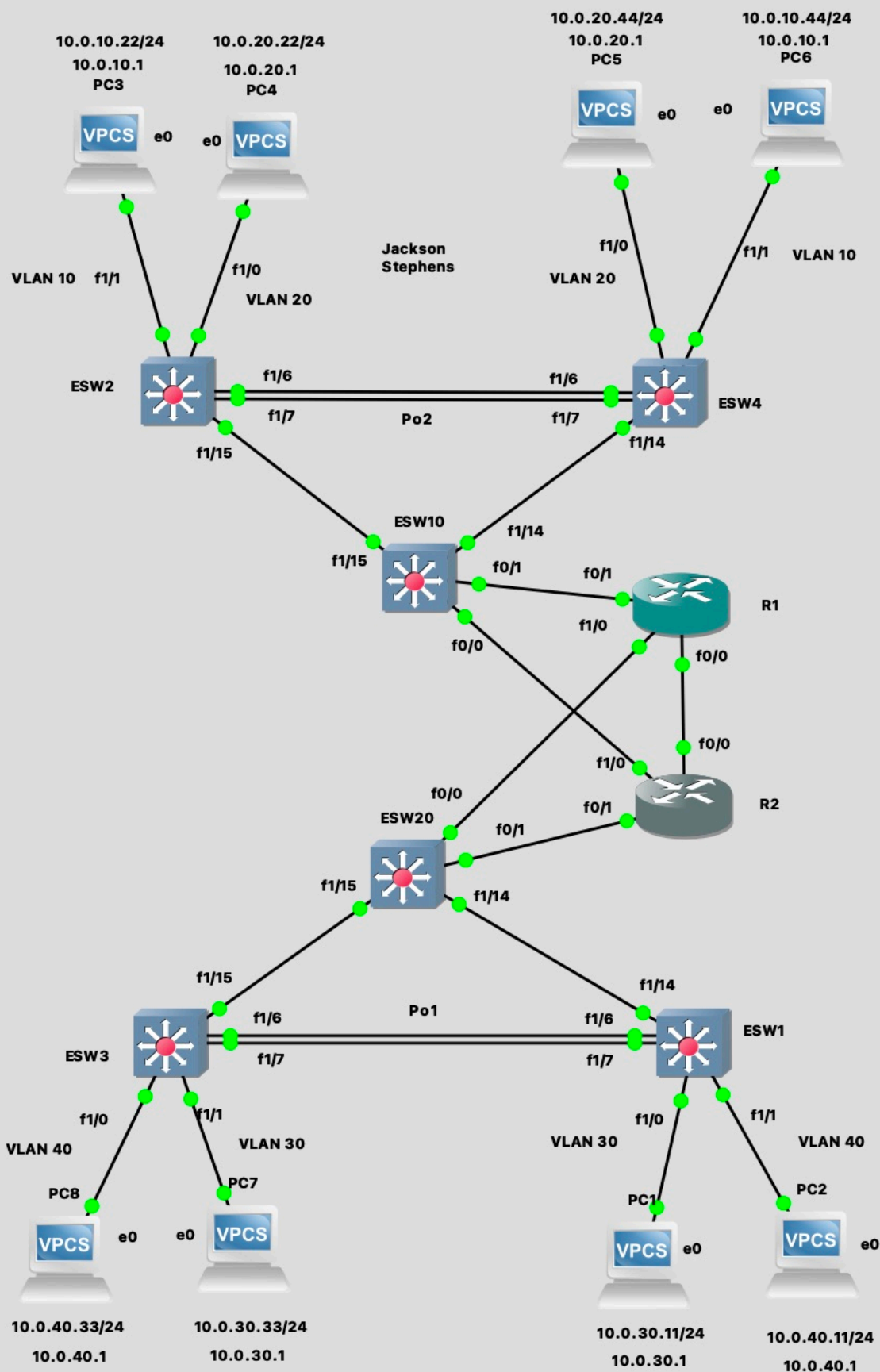


```
[ESW10#  
[ESW10#  
[ESW10#  
[ESW10#  
[ESW10#  
[ESW10#show ip route  
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP  
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
        E1 - 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 not set  
  
    1.0.0.0/32 is subnetted, 1 subnets  
C      1.1.1.1 is directly connected, Loopback1  
    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks  
C      10.0.10.0/24 is directly connected, Vlan10  
C      10.10.10.12/30 is directly connected, FastEthernet0/0  
C      10.10.10.4/30 is directly connected, FastEthernet0/1  
C      10.0.20.0/24 is directly connected, Vlan20  
ESW10#
```

```
[ESW20#  
[ESW20#  
[ESW20#  
[ESW20#  
[ESW20#  
[ESW20#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 not set  
  
    1.0.0.0/32 is subnetted, 1 subnets  
C      1.1.1.4 is directly connected, Loopback1  
    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks  
C      10.10.10.8/30 is directly connected, FastEthernet0/1  
C      10.0.30.0/24 is directly connected, Vlan30  
C      10.10.10.16/30 is directly connected, FastEthernet0/0  
C      10.0.40.0/24 is directly connected, Vlan40  
ESW20#
```

```
[R1#  
[R1#  
[R1#  
[R1#  
[R1#  
[R1#  
[R1#  
[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 not set  
  
    1.0.0.0/32 is subnetted, 1 subnets  
C      1.1.1.2 is directly connected, Loopback1  
    10.0.0.0/30 is subnetted, 2 subnets  
C      10.10.10.0 is directly connected, FastEthernet0/0  
C      10.10.10.4 is directly connected, FastEthernet0/1  
R1#
```

```
[R2#  
[R2#  
[R2#  
[R2#  
[R2#  
[R2#  
[R2#  
[R2#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 not set  
  
    1.0.0.0/32 is subnetted, 1 subnets  
C      1.1.1.3 is directly connected, Loopback1  
    10.0.0.0/30 is subnetted, 2 subnets  
C      10.10.10.8 is directly connected, FastEthernet0/1  
C      10.10.10.0 is directly connected, FastEthernet0/0  
R2#
```



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PC8> ping 10.0.30.11/24

10.0.30.11 icmp\_seq=1 timeout

84 bytes from 10.0.30.11 icmp\_seq=2 ttl=63 time=22.341 ms

84 bytes from 10.0.30.11 icmp\_seq=3 ttl=63 time=35.891 ms

84 bytes from 10.0.30.11 icmp\_seq=4 ttl=63 time=64.501 ms

84 bytes from 10.0.30.11 icmp\_seq=5 ttl=63 time=21.630 ms

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PC8> ping 10.0.10.22/24

10.0.10.22 icmp\_seq=1 timeout

84 bytes from 10.0.10.22 icmp\_seq=2 ttl=61 time=88.653 ms

84 bytes from 10.0.10.22 icmp\_seq=3 ttl=61 time=67.642 ms

84 bytes from 10.0.10.22 icmp\_seq=4 ttl=61 time=130.490 ms

84 bytes from 10.0.10.22 icmp\_seq=5 ttl=61 time=58.954 ms

PC8> █

[PC8&gt;

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```
[PC8> ping 10.0.20.44/24
```

```
84 bytes from 10.0.20.44: icmp_seq=2 ttl=61 time=54.355 ms
```

```
84 bytes from 10.0.20.44: icmp_seq=4 ttl=61 time=61.483 ms
```

```
84 bytes from 10.0.20.44: icmp_seq=5 ttl=61 time=61.483 ms
```

PC8&gt;



jacksonstephens — ESW10 — telnet localhost 5046 — 80x24

Gateway of last resort is not set

1.0.0.0/32 is subnetted, 1 subnets

C 1.1.1.1 is directly connected, Loopback1

10.0.0.0/8 is variably subnetted, 9 subnets, 2 masks

C 10.0.10.0/24 is directly connected, Vlan10

O 10.10.10.8/30 [110/20] via 10.10.10.14, 00:08:21, FastEthernet0/0

C 10.10.10.12/30 is directly connected, FastEthernet0/0

O 10.10.10.0/30 [110/20] via 10.10.10.14, 00:08:21, FastEthernet0/0

[110/20] via 10.10.10.6, 00:08:21, FastEthernet0/1

C 10.10.10.4/30 is directly connected, FastEthernet0/1

O IA 10.0.30.0/24 [110/12] via 10.10.10.6, 00:08:22, FastEthernet0/1

O 10.10.10.16/30 [110/11] via 10.10.10.6, 00:08:22, FastEthernet0/1

C 10.0.20.0/24 is directly connected, Vlan20

O IA 10.0.40.0/24 [110/12] via 10.10.10.6, 00:08:22, FastEthernet0/1

ESW10#show ip ospf neighbor

Neighbor ID Pri State Dead Time Address Interface

1.1.1.3 1 FULL/DR 00:00:32 10.10.10.14 FastEthernet0/0

1.1.1.2 1 FULL/DR 00:00:32 10.10.10.6 FastEthernet0/1

ESW10#

jacksonstephens — R1 — telnet localhost 5044 — 80x24

Gateway of last resort is not set

1.0.0.0/32 is subnetted, 1 subnets

C 1.1.1.2 is directly connected, Loopback1

10.0.0.0/8 is variably subnetted, 9 subnets, 2 masks

O IA 10.0.10.0/24 [110/11] via 10.10.10.5, 00:07:11, FastEthernet0/1

O 10.10.10.8/30 [110/11] via 10.10.10.17, 00:07:21, FastEthernet1/0

O 10.10.10.12/30 [110/11] via 10.10.10.2, 00:07:31, FastEthernet0/0

C 10.10.10.0/30 is directly connected, FastEthernet0/0

C 10.10.10.4/30 is directly connected, FastEthernet0/1

O IA 10.0.30.0/24 [110/2] via 10.10.10.17, 00:07:22, FastEthernet1/0

C 10.10.10.16/30 is directly connected, FastEthernet1/0

O IA 10.0.20.0/24 [110/11] via 10.10.10.5, 00:07:12, FastEthernet0/1

O IA 10.0.40.0/24 [110/2] via 10.10.10.17, 00:07:22, FastEthernet1/0

R1#show ip ospf neighbor

Neighbor ID Pri State Dead Time Address Interface

1.1.1.4 1 FULL/DR 00:00:38 10.10.10.17 FastEthernet1/0

1.1.1.1 1 FULL/BDR 00:00:38 10.10.10.5 FastEthernet0/1

1.1.1.3 1 FULL/DR 00:00:35 10.10.10.2 FastEthernet0/0

R1#

jacksonstephens — ESW20 — telnet localhost 5047 — 80x24

Gateway of last resort is not set

1.0.0.0/32 is subnetted, 1 subnets

C 1.1.1.4 is directly connected, Loopback1

10.0.0.0/8 is variably subnetted, 9 subnets, 2 masks

O IA 10.0.10.0/24 [110/12] via 10.10.10.10, 00:07:11, FastEthernet0/1

C 10.10.10.8/30 is directly connected, FastEthernet0/1

O 10.10.10.12/30 [110/11] via 10.10.10.10, 00:07:21, FastEthernet0/1

O 10.10.10.0/30 [110/20] via 10.10.10.18, 00:07:21, FastEthernet0/0

[110/20] via 10.10.10.10, 00:07:21, FastEthernet0/1

O 10.10.10.4/30 [110/20] via 10.10.10.18, 00:07:23, FastEthernet0/0

C 10.0.30.0/24 is directly connected, Vlan30

C 10.10.10.16/30 is directly connected, FastEthernet0/0

O IA 10.0.20.0/24 [110/12] via 10.10.10.10, 00:07:13, FastEthernet0/1

C 10.0.40.0/24 is directly connected, Vlan40

ESW20#show ip ospf neighbor

Neighbor ID Pri State Dead Time Address Interface

1.1.1.2 1 FULL/BDR 00:00:31 10.10.10.18 FastEthernet0/0

1.1.1.3 1 FULL/BDR 00:00:31 10.10.10.10 FastEthernet0/1

ESW20#

jacksonstephens — R2 — telnet localhost 5045 — 80x24

Gateway of last resort is not set

1.0.0.0/32 is subnetted, 1 subnets

C 1.1.1.3 is directly connected, Loopback1

10.0.0.0/8 is variably subnetted, 9 subnets, 2 masks

O IA 10.0.10.0/24 [110/2] via 10.10.10.13, 00:07:17, FastEthernet1/0

C 10.10.10.8/30 is directly connected, FastEthernet0/1

C 10.10.10.12/30 is directly connected, FastEthernet1/0

C 10.10.10.0/30 is directly connected, FastEthernet0/0

O 10.10.10.4/30 [110/11] via 10.10.10.13, 00:07:17, FastEthernet1/0

O IA 10.0.30.0/24 [110/11] via 10.10.10.9, 00:07:28, FastEthernet0/1

O 10.10.10.16/30 [110/11] via 10.10.10.1, 00:07:28, FastEthernet0/0

O IA 10.0.20.0/24 [110/2] via 10.10.10.13, 00:07:18, FastEthernet1/0

O IA 10.0.40.0/24 [110/11] via 10.10.10.9, 00:07:28, FastEthernet0/1

R2#show ip ospf neighbor

Neighbor ID Pri State Dead Time Address Interface

1.1.1.1 1 FULL/BDR 00:00:37 10.10.10.13 FastEthernet1/0

1.1.1.4 1 FULL/DR 00:00:37 10.10.10.9 FastEthernet0/1

1.1.1.2 1 FULL/BDR 00:00:34 10.10.10.1 FastEthernet0/0

R2#

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For more information, please visit [wiki.freecode.com.cn](http://wiki.freecode.com.cn).

Press '?' to get help.

Executing the startup file

Checking for duplicate address...

trPC8 : 10.0.40.33 255.255.255.0 gateway 10.0.40.1

PC8> trace 10.0.20.44/24

trace to 10.0.20.44, 24 hops max, press Ctrl+C to stop

1	10.0.40.1	55.699 ms	37.739 ms	11.057 ms
2	10.10.10.10	54.516 ms	22.433 ms	35.500 ms
3	10.10.10.13	105.183 ms	60.233 ms	56.905 ms
4	*10.0.20.44	174.999 ms	(ICMP type:3, code:3, Destination port unreachable)	

PC8> █

84 bytes from 10.0.20.44 icmp\_seq=4 ttl=61 time=77.112 ms

84 bytes from 10.0.20.44 icmp\_seq=5 ttl=61 time=69.200 ms

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PC8>

PC8> trace 10.0.20.44/24

trace to 10.0.20.44, 24 hops max, press Ctrl+C to stop

1 10.0.40.1 30.465 ms 12.447 ms 41.516 ms

2 10.10.10.18 91.896 ms 22.686 ms 23.917 ms

3 10.10.10.5 57.137 ms 34.339 ms 58.752 ms

4 \*10.0.20.44 96.597 ms (ICMP type:3, code:3, Destination port unreachable)

PC8> █