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Лабораторная работа №9
по дисциплине: **КСиС**
Тема: НАСТРОЙКА ДИНАМИЧЕСКОЙ МАРШРУТИЗАЦИИ НА УСТРОЙСТВАХ CISCO

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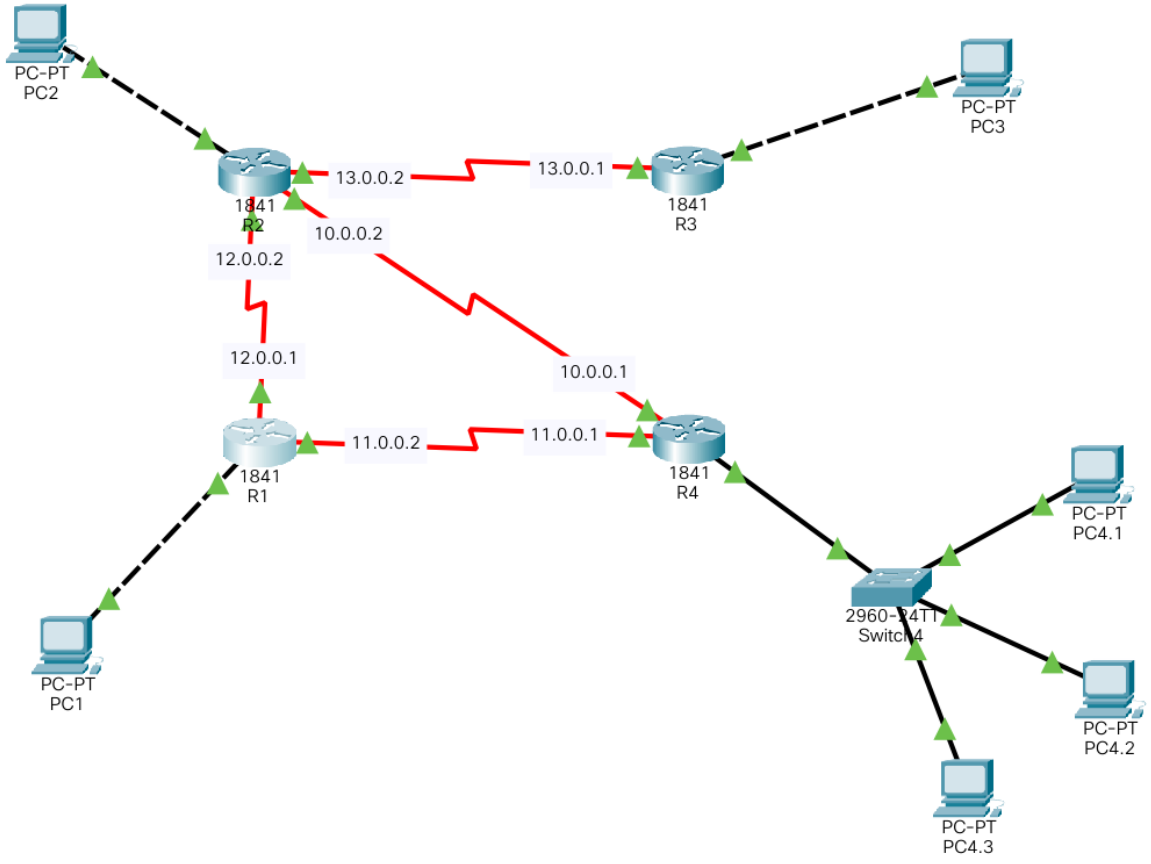
**Построить заданную сеть и настроить в ней динамическую маршрутизацию.**

| Device | Interface | IP Address | Mask | Default Gateway |
|---|---|---|---|---|
| R1 | Fa0/0 | 192.168.1.1 | 255.255.255.0 | N/A |
| | S0/0/0 | 12.0.0.1 | 255.0.0.0 | N/A |
| | S0/0/1 | 11.0.0.2 | 255.0.0.0 | N/A |
| R2 | Fa0/0 | 192.168.2.1 | 255.255.255.0 | N/A |
| | S0/0/0 | 12.0.0.2 | 255.0.0.0 | N/A |
| | S0/0/1 | 13.0.0.2 | 255.0.0.0 | N/A |
| | S0/1/0 | 10.0.0.2 | 255.0.0.0 | N/A |
| R3 | Fa0/0 | 192.168.3.1 | 255.255.255.0 | N/A |
| | S0/0/0 | 13.0.0.1 | 255.0.0.0 | N/A |
| R4 | Fa0/0 | 192.168.4.1 | 255.255.255.0 | N/A |
| | S0/0/0 | 10.0.0.1 | 255.0.0.0 | N/A |
| | S0/0/1 | 10.0.0.1 | 255.0.0.0 | N/A |
| PC1 | Fa0 | 192.168.1.10 | 255.255.255.0 | 192.168.1.1 |
| PC2 | Fa0 | 192.168.2.10 | 255.255.255.0 | 192.168.2.1 |
| PC3 | Fa0 | 192.168.3.10 | 255.255.255.0 | 192.168.3.1 |
| PC4.1 | Fa0 | 192.168.4.11 | 255.255.255.0 | 192.168.4.1 |
| PC4.2 | Fa0 | 192.168.4.12 | 255.255.255.0 | 192.168.4.1 |
| PC4.3 | Fa0 | 192.168.4.13 | 255.255.255.0 | 192.168.4.1 |




res

```
1 Router#show ip route
2 Codes: C - connected, S - static, I - IGRP, 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, E - EGP
       i - IS-IS, 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

R    10.0.0.0/8 [120/1] via 11.0.0.1, 00:00:12, Serial0/0/1
                [120/1] via 12.0.0.2, 00:00:07, Serial0/0/0
C    11.0.0.0/8 is directly connected, Serial0/0/1
C    12.0.0.0/8 is directly connected, Serial0/0/0
R    13.0.0.0/8 [120/1] via 12.0.0.2, 00:00:07, Serial0/0/0
C    192.168.1.0/24 is directly connected, FastEthernet0/0
R    192.168.2.0/24 [120/1] via 12.0.0.2, 00:00:07, Serial0/0/0
R    192.168.3.0/24 [120/2] via 12.0.0.2, 00:00:07, Serial0/0/0
R    192.168.4.0/24 [120/1] via 11.0.0.1, 00:00:12, Serial0/0/1
```

ping

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: FE80::201:C9FF:FED9:A6E2
   IPv6 Address.....: ::
   IPv4 Address.....: 192.168.4.11
   Subnet Mask.....: 255.255.255.0
   Default Gateway.....: ::
                                 192.168.4.1

C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:

Reply from 192.168.1.10: bytes=32 time=1ms TTL=126
Reply from 192.168.1.10: bytes=32 time=3ms TTL=126
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>ping 192.168.2.10

Pinging 192.168.2.10 with 32 bytes of data:

Reply from 192.168.2.10: bytes=32 time=21ms TTL=126
Reply from 192.168.2.10: bytes=32 time=1ms TTL=126
Reply from 192.168.2.10: bytes=32 time=16ms TTL=126
Reply from 192.168.2.10: bytes=32 time=22ms TTL=126
```

```
35
36 Ping statistics for 192.168.2.10:
37     Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
38 Approximate round trip times in milli-seconds:
39     Minimum = 1ms, Maximum = 22ms, Average = 15ms
40
41 C:\>ping 192.168.3.10
42
43 Pinging 192.168.3.10 with 32 bytes of data:
44
45 Reply from 192.168.3.10: bytes=32 time=26ms TTL=125
46 Reply from 192.168.3.10: bytes=32 time=2ms TTL=125
47 Reply from 192.168.3.10: bytes=32 time=2ms TTL=125
48 Reply from 192.168.3.10: bytes=32 time=2ms TTL=125
49
50 Ping statistics for 192.168.3.10:
51     Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
52 Approximate round trip times in milli-seconds:
53     Minimum = 2ms, Maximum = 26ms, Average = 8ms
```

**Вывод:** Были построены сети с заданной топологией. Настроена динамическая маршрутизация.