Laboratório nº 8 (extra)

Interpretação de tabelas de encaminhamento

Objectivos

Neste laboratório serão realizadas as seguintes tarefas:

- Interpretar informação de encaminhamento;
- Identificar o endereçamento dos vários equipamentos;
- Desenhar a topologia da rede;

Tabela de endereçamento

Equipamento	Interface	IP	Máscara de rede
R1			
R2			
R3			
R4			

Interpretar informação de encaminhamento

Examine a tabela de encaminhamento do router R1.

```
R1#sh ip route
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 0.0.0.0 to network 0.0.0.0

     172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C       172.16.20.0/23 is directly connected, FastEthernet0/0
C       172.16.24.0/22 is directly connected, FastEthernet0/1
     172.31.0.0/30 is subnetted, 1 subnets
C       172.31.200.244 is directly connected, Serial0/0/0
     192.168.1.0/24 is variably subnetted, 3 subnets, 3 masks
S       192.168.1.0/24 is directly connected, Serial0/0/0
S       192.168.1.64/28 is directly connected, Serial0/0/0
S       192.168.1.80/29 is directly connected, Serial0/0/0
S*   0.0.0.0/0 is directly connected, Serial0/0/0
R1#
```

Examine a tabela de encaminhamento do router R2.

```
R2#sh ip route
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 0.0.0.0 to network 0.0.0.0

     172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
S       172.16.20.0/23 is directly connected, Serial0/0/0
S       172.16.24.0/22 is directly connected, Serial0/0/0
     172.31.0.0/30 is subnetted, 3 subnets
C       172.31.200.244 is directly connected, Serial0/0/0
C       172.31.200.248 is directly connected, Serial0/0/1
C       172.31.200.252 is directly connected, FastEthernet0/0
     192.168.1.0/24 is variably subnetted, 3 subnets, 3 masks
S       192.168.1.0/24 is directly connected, FastEthernet0/0
S       192.168.1.64/28 is directly connected, Serial0/0/1
S       192.168.1.80/29 is directly connected, Serial0/0/1
S*   0.0.0.0/0 is directly connected, FastEthernet0/0
R2#
```

Examine a tabela de encaminhamento do router R3.

```
R3#sh ip route
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 0.0.0.0 to network 0.0.0.0

     172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
S       172.16.20.0/23 is directly connected, Serial0/0/1
S       172.16.24.0/22 is directly connected, Serial0/0/1
     172.31.0.0/30 is subnetted, 1 subnets
C       172.31.200.248 is directly connected, Serial0/0/1
     192.168.1.0/24 is variably subnetted, 3 subnets, 3 masks
S       192.168.1.0/24 is directly connected, Serial0/0/1
C       192.168.1.64/28 is directly connected, FastEthernet1/0
C       192.168.1.80/29 is directly connected, FastEthernet0/0
S*   0.0.0.0/0 is directly connected, Serial0/0/1
R3#
```

Examine a tabela de encaminhamento do router R4.

```
R4#sh ip route
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 0.0.0.0 to network 0.0.0.0

     10.0.0.0/24 is subnetted, 1 subnets
C       10.1.1.0 is directly connected, FastEthernet1/0
     172.16.0.0/20 is subnetted, 1 subnets
S       172.16.16.0 is directly connected, FastEthernet0/0
     172.31.0.0/30 is subnetted, 1 subnets
C       172.31.200.252 is directly connected, FastEthernet0/0
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/26 is directly connected, FastEthernet0/1
S       192.168.1.64/27 is directly connected, FastEthernet0/0
S*   0.0.0.0/0 is directly connected, FastEthernet1/0
```

Elabora o diagrama da topologia da rede com base na interpretação das várias tabelas de encaminhamento.

Preencha a tabela com o esquema de endereçamento.

Implementação

Construa a topologia da rede no Packet Tracer. Utilize routers 1841 ou 2811.

Configure as várias interfaces com o seu endereço IP e a sua máscara de rede.

Configure o protocolo de encaminhamento apropriado e anuncie as redes directamente ligadas.

Verifique se o cenário construído reproduz as mesmas tabelas de encaminhamento que lhe foram fornecidas.