

# Configurar Rota Padrão no EIGRP

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## Introduction

Este documento descreve como configurar rotas padrão no EIGRP (Enhanced Interior Gateway Routing Protocol).

## Prerequisites

### Requirements

A Cisco recomenda que você tenha conhecimento do EIGRP.

### Componentes Utilizados

Este documento não se restringe a versões de software e hardware específicas.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

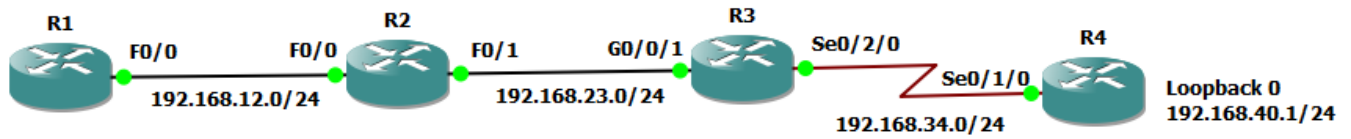
## Configurar

Esses métodos estão disponíveis para anunciar a rota padrão no EIGRP, explicados neste artigo:

1. Usar rota padrão e redistribuição

## 2. Usar endereço de resumo

### Diagrama de Rede



### Configuração

Aqui os roteadores R1, R2 e R3 são configurados com EIGRP e nenhum EIGRP é executado entre R3 e R4.

#### R1

```
!  
router eigrp 1 network 192.168.12.0  
!
```

#### 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

```
C 192.168.12.0/24 is directly connected, FastEthernet0/0  
D 192.168.23.0/24 [90/30720] via 192.168.12.2, 00:10:27, FastEthernet0/0
```

#### R2

```
!  
router eigrp 1  
 network 192.168.12.0  
 network 192.168.23.0  
!
```

#### 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

```
C 192.168.12.0/24 is directly connected, FastEthernet0/0  
C 192.168.23.0/24 is directly connected, FastEthernet0/1
```

## R3

```
!  
router eigrp 1  
  network 192.168.23.0  
!
```

### R3#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  
a - application route  
+ - replicated route, % - next hop override
```

Gateway of last resort is not set

```
D 192.168.12.0/24  
  [90/28416] via 192.168.23.2, 00:05:16, GigabitEthernet0/0/1  
  192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks  
C 192.168.23.0/24 is directly connected, GigabitEthernet0/0/1  
L 192.168.23.3/32 is directly connected, GigabitEthernet0/0/1  
  192.168.34.0/24 is variably subnetted, 2 subnets, 2 masks  
C 192.168.34.0/24 is directly connected, Serial0/2/0  
L 192.168.34.3/32 is directly connected, Serial0/2/0
```

## Método 1. Usar rota padrão e redistribuição

Este método descreve como anunciar a rota padrão no EIGRP com o uso da rota padrão estática:

```
R3(config)#ip route 0.0.0.0 0.0.0.0 192.168.34.4
```

### R3#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  
a - application route  
+ - replicated route, % - next hop override
```

Gateway of last resort is 192.168.34.4 to network 0.0.0.0

```
S* 0.0.0.0/0 [1/0] via 192.168.34.4  
D 192.168.12.0/24  
  [90/28416] via 192.168.23.2, 00:59:18, GigabitEthernet0/0/1  
  192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks  
C 192.168.23.0/24 is directly connected, GigabitEthernet0/0/1  
L 192.168.23.3/32 is directly connected, GigabitEthernet0/0/1  
  192.168.34.0/24 is variably subnetted, 2 subnets, 2 masks  
C 192.168.34.0/24 is directly connected, Serial0/2/0
```

```
L 192.168.34.3/32 is directly connected, Serial0/2/0
```

**Note:** Nessa situação, uma instrução de rede não pode ser usada dentro do EIGRP para anunciar 0.0.0.0 porque não está diretamente conectada.

A redistribuição da rota estática é feita em EIGRP, como mostrado aqui:

```
R3(config)#router eigrp 1
R3(config-router)#redistribute static metric 100000 1000 255 1 1500
```

## Verificar

Use esta seção para confirmar se a sua configuração funciona corretamente.

### 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 192.168.12.2 to network 0.0.0.0
```

```
C 192.168.12.0/24 is directly connected, FastEthernet0/0
D 192.168.23.0/24 [90/30720] via 192.168.12.2, 00:14:01, FastEthernet0/0
D*EX 0.0.0.0/0 [170/286720] via 192.168.12.2, 00:00:39, FastEthernet0/0
```

### R2#show ip route

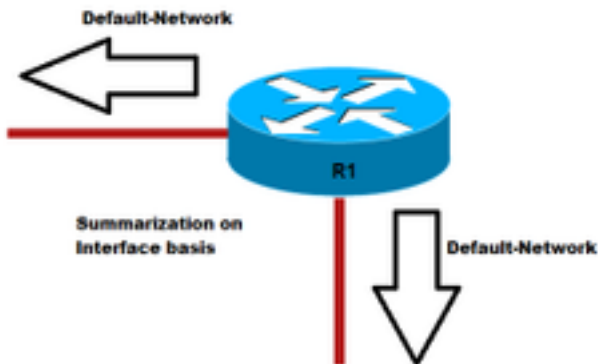
```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2
        i - IS-IS, su - IS-IS summary, 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 192.168.23.3 to network 0.0.0.0
```

```
C 192.168.12.0/24 is directly connected, FastEthernet0/0
C 192.168.23.0/24 is directly connected, FastEthernet0/1
D*EX 0.0.0.0/0 [170/284160] via 192.168.23.3, 00:04:44, FastEthernet0/1
```

## Método 2. Usar endereço de resumo

Esse método usa a regra de sumarização do EIGRP como mostrado na imagem.



```
!
R3(config)#interface gigabitEthernet 0/0/1 R3(config-if)#ip summary-address eigrp 1 0.0.0.0
0.0.0.0
!
```

## Verificar

Use esta seção para confirmar se a sua configuração funciona corretamente.

```
R3#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
        a - application route
        + - replicated route, % - next hop override
```

```
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
```

```
D* 0.0.0.0/0 is a summary, 00:00:06, Null0
D   192.168.12.0/24
    [90/28416] via 192.168.23.2, 00:15:54, GigabitEthernet0/0/1
    192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.23.0/24 is directly connected, GigabitEthernet0/0/1
L   192.168.23.3/32 is directly connected, GigabitEthernet0/0/1
    192.168.34.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.34.0/24 is directly connected, Serial0/2/0
L   192.168.34.3/32 is directly connected, Serial0/2/0
```

A tabela de roteamento de R1 e R2 agora mostra uma rota padrão aprendida do EIGRP:

```
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 192.168.12.2 to network 0.0.0.0

```
C    192.168.12.0/24 is directly connected, FastEthernet0/0
D    192.168.23.0/24 [90/30720] via 192.168.12.2, 00:17:50, FastEthernet0/0
D*   0.0.0.0/0 [90/30976] via 192.168.12.2, 00:01:30, FastEthernet0/0
```

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 192.168.23.3 to network 0.0.0.0

```
C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.23.0/24 is directly connected, FastEthernet0/1
D*   0.0.0.0/0 [90/28416] via 192.168.23.3, 00:03:50, FastEthernet0/1
```

## Troubleshoot

Atualmente, não existem informações disponíveis específicas sobre Troubleshooting para esta configuração.