

# RIP

| Attribut          | Wert              |
|-------------------|-------------------|
| Type              | Distanzbasiert    |
| Algorithmus       | Bellman-Ford      |
| Standard          | RFC 2080, 2453    |
| Protokoll         | IPv4, IPv6        |
| Port              | 520,521           |
| Authentifizierung | Klartext, MD5     |
| Multicast IP      | 224.0.0.9/FF02::9 |
| Update-Time       | 30 sek.           |
| Invalid-Time      | 180 sek.          |
| Flush-Time        | 240 sek.          |
| Hold-down-Time    | 180 sek.          |

## Konfiguration

RIP Beispiel

RIP Konfiguration

## Router 1

```
R1#conf t
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#description WAN Link
R1(config-if)#ip address 192.0.2.41 255.255.255.0
R1(config-if)#interface GigabitEthernet 0/1
R1(config-if)#description Transfernet1
R1(config-if)#ip address 172.16.10.2 255.255.255.252
R1(config-if)#interface GigabitEthernet 0/2.10
R1(config-if)#encapsulation dot1q 10
```

```
R1(config-if)#ip address 10.1.1.1 255.255.254.0
R1(config-if)#interface GigabitEthernet 0/2.20
R1(config-if)#encapsulation dot1q 20
R1(config-if)#ip address 10.1.2.1 255.255.254.0
R1(config-if)#exit
R1(config)#router rip
R1(config-router)#network 10.1.1.0
R1(config-router)#passive-interface GigabitEthernet 0/0
R1(config-router)#default-information originate
R1(config-router)#exit
R1(config)#ip route 0.0.0.0 0.0.0.0 192.0.2.1
R1(config)#do wr
```

## Router 2

```
R2#conf t
R2(config)#interface GigabitEthernet 0/0
R2(config-if)#description Transfernet1
R2(config-if)#ip address 172.16.10.3 255.255.255.252
R2(config-if)#interface GigabitEthernet 0/1
R2(config-if)#description Transfernet2
R2(config-if)#ip address 172.16.10.5 255.255.255.252
R2(config-if)#interface GigabitEthernet 0/2.10
R2(config-if)#encapsulation dot1q 10
R2(config-if)#ip address 10.2.1.1 255.255.255.128
R2(config-if)#interface GigabitEthernet 0/2.20
R2(config-if)#encapsulation dot1q 20
R2(config-if)#ip address 10.2.20.1 255.255.254.0
R2(config-if)#interface GigabitEthernet 0/2.30
R2(config-if)#encapsulation dot1q 30
R2(config-if)#ip address 10.2.200.1 255.255.255.0
R2(config-if)#exit
R2(config)#router rip
R2(config-router)#network 10.2.1.0
R2(config-router)#network 10.2.20.0
R2(config-router)#network 10.2.200.0
R2(config-router)#exit
R2(config)#do wr
```

# Router 3

```
R3#conf t
R3(config)#interface GigabitEthernet 0/0
R3(config-if)#description Transfernet2
R3(config-if)#ip address 172.16.10.6 255.255.255.252
R3(config-if)#interface GigabitEthernet 0/2.10
R3(config-if)#encapsulation dot1q 10
R3(config-if)#ip address 10.3.1.1 255.255.255.0
R3(config-if)#interface GigabitEthernet 0/2.20
R3(config-if)#encapsulation dot1q 20
R3(config-if)#ip address 10.3.2.1 255.255.255.0
R3(config-if)#exit
R3(config)#router rip
R3(config-router)#network 10.3.1.0
R3(config-router)#exit
R3(config)#do wr
```

## Troubleshooting

```
show ip[v6] protocols
show ip[v6] rip database
debug ip rip { database | events }
debug ipv6 rip [interface]
```

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