

OSPF

Attribut	Wert
Type	Link-State
Algorithmus	Dijkstra
Metric	Cost (Bandbreite)
Standard	RFC 3228, 2740
Protokoll	IP
Port	89
Authentifizierung	Klartext, MD5
AllSPF Adresse	224.0.0.5
AllDR Adresse	224.0.0.6
Hello Timers	30
Dead Timers	120

Konfiguration

OSPF Beispiel
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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 ospf 100
R1(config-router)#network 10.1.1.0 0.0.3.255 area 0
R1(config-router)#router-id 1.1.1.1
R1(config-router)#default-information originate
R1(config-router)#passive-interface GigabitEthernet 0/0
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 ospf 100
R2(config-router)#network 10.2.1.0 0.0.0.127 area 0
R2(config-router)#network 10.2.20.0 0.0.1.255 area 0
R2(config-router)#network 10.2.200.0 0.0.0.255 area 0
R2(config-router)#router-id 1.1.1.2
```

```
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 ospf 100
R3(config-router)#network 10.3.1.0 0.0.1.255 area 0
R3(config-router)#router-id 1.1.1.3
R3(config-router)#exit
R3(config)#do wr
```

Troubelshooting

```
clear ip[v6] ospf process
show ip[v6] ospf [process] interface
show ip[v6] ospf [process] neighbor
show ip[v6] ospf border-routers
show ip[v6] ospf database [LSA-type]
show ip[v6] ospf virtual-links
debug ip[v6] ospf [...]
```

Revision #1

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