# Es ist alles gleich geblieben, bis auf die RIP-Metriktabelle.

Netzname	Anzahl der Rechner	IP-Netzadresse	Subnetzmaske	erste verwendbare IP-Adresse	letzte verwendbare IP-Adresse	Broadcastadresse
SW-Aachen 1	20000 -> 32766	90.96.0.0	255.255.128.0, /17	90.96.0.1	90.96.127.254	90.96.127.255
SW-Stockholm 1	14000 -> 16382	90.96.128.0	255.255.192.0, /18	90.96.128.1	90.96.191.254	90.96.191.255
SW-Aachen 2	3650 -> 4094	90.96.192.0	255.255.240.0, /20	90.96.192.1	90.96.207.254	90.96.207.255
SW-Amsterdam	2800 -> 4094	90.96.208.0	255.255.240.0, /20	90.96.208.1	90.96.223.254	90.96.223.255
SW-Aachen 3/4	1000+1250 -> 4094	90.96.224.0	255.255.240.0, /20	90.96.224.1	90.96.239.254	90.96.239.255
SW-Stockholm 2	2000 -> 2046	90.96.240.0	255.255.248.0, /21	90.96.240.1	90.96.247.254	90.96.247.255
SW-Madrid	1500 -> 2046	90.96.248.0	255.255.248.0, /21	90.96.248.1	90.96.255.254	90.96.255.255
SW-Aachen 5	1000 -> 1022	90.97.0.0	255.255.252.0, /22	90.97.0.1	90.97.3.254	90.97.3.255
SW-Aachen 7	600 -> 1022	90.97.4.0	255.255.252.0, /22	90.97.4.1	90.97.7.254	90.97.7.255
SW-Moskau 1	200 -> 254	90.97.8.0	255.255.255.0, /24	90.97.8.1	90.97.8.254	90.97.8.255
SW-Moskau 2	150 -> 254	90.97.9.0	255.255.255.0, /24	90.97.9.1	90.97.9.254	90.97.9.255
SW-Aachen 6	50 -> 62	90.97.10.0	255.255.255.192, /26	90.97.10.1	90.97.10.62	90.97.10.63
VN1	2 -> 2	90.97.10.64	255.255.255.252, /30	90.97.10.65	90.97.10.66	90.97.10.67
VN2	2 -> 2	90.97.10.68	255.255.255.252, /30	90.97.10.69	90.97.10.70	90.97.10.71
VN3	2 -> 2	90.97.10.72	255.255.255.252, /30	90.97.10.73	90.97.10.74	90.97.10.75
VN4	2 -> 2	90.97.10.76	255.255.255.252, /30	90.97.10.77	90.97.10.78	90.97.10.79
VN5	2 -> 2	90.97.10.80	255.255.255.252, /30	90.97.10.81	90.97.10.82	90.97.10.83
VN6	2 -> 2	90.97.10.84	255.255.255.252, /30	90.97.10.85	90.97.10.86	90.97.10.87
VN7	2 -> 2	90.97.10.88	255.255.255.252, /30	90.97.10.89	90.97.10.90	90.97.10.91
VN8	2 -> 2	90.97.10.92	255.255.255.252, /30	90.97.10.93	90.97.10.94	90.97.10.95
VN9	2 -> 2	90.97.10.96	255.255.255.252, /30	90.97.10.97	90.97.10.98	90.97.10.99

# Vorgegebene IP: 90.96.0.0/12

Netzname	Subnetzmaske	IP-Netzadresse
Vorgegeben	11111111.11110000.00000000.00000000	01011010.01100000.00000000.00000000
SW-Aachen 1	11111111.1111 <b>1111.1</b> 0000000.00000000	01011010.01100000.00000000.00000000
SW-Stockholm 1	11111111.1111 <b>1111.11</b> 000000.00000000	01011010.01100000.10000000.00000000
SW-Aachen 2	11111111.1111 <b>1111.1111</b> 0000.00000000	01011010.01100000.11000000.00000000
SW-Amsterdam	11111111.1111 <b>1111.1111</b> 0000.00000000	01011010.01100000.11010000.00000000
SW-Aachen 3/4	11111111.1111 <b>1111.1111</b> 0000.00000000	01011010.01100000.11100000.00000000
SW-Stockholm 2	11111111.1111 <b>1111.111110</b> 00.00000000	01011010.0110 <b>0000.11110000</b> .00000000
SW-Madrid	11111111.1111 <b>1111.111110</b> 00.00000000	01011010.01100000.11111000.00000000
SW-Aachen 5	11111111.1111 <b>1111.1111110</b> 0.00000000	01011010.01100001.00000000.00000000
SW-Aachen 7	11111111.1111 <mark>1111.11111</mark> 100.00000000	01011010.01100001.00000100.00000000

Netzname	Subnetzmaske	IP-Netzadresse
SW-Moskau 1	11111111.1111 <b>1111.111111111.</b> 00000000	01011010.01100001.00001000.00000000
SW-Moskau 2	11111111.1111 <b>1111.11111111</b> .00000000	01011010.01100001.00001001.00000000
SW-Aachen 6	11111111.1111 <b>1111.111111111.11</b> 000000	01011010.01100001.00001010.00000000
VN1	11111111.111111111.11111111.11111100	01011010.01100001.00001010.01000000
VN2	11111111.111111111.111111111.11111100	01011010.01100001.00001010.01000100
VN3	11111111.111111111.111111111.11111100	01011010.01100001.00001010.01001000
VN4	11111111.1111111111.111111111.11111100	01011010.01100001.00001010.01001100
VN5	11111111.1111111111.111111111.11111100	01011010.01100001.00001010.01010000
VN6	11111111.1111111111.111111111.11111100	01011010.01100001.00001010.01010100
VN7	11111111.111111111.111111111.11111100	01011010.01100001.00001010.01011000
VN8	11111111.1111111111.111111111.11111100	01011010.01100001.00001010.01011100
VN9	11111111.111111111.111111111.11111100	01011010.01100001.00001010.01100000

grau: vorgegebener Netzanteil rot: spezialisierter Netzanteil

grün: Hostanteil

## **Aachen Nord**

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	-	direkt verbunden
90.96.128.0/18	2	90.97.10.66
90.96.192.0/20	-	direkt verbunden
90.96.208.0/20	2	90.96.224.2 / 90.97.10.70
90.96.224.0/20	-	direkt verbunden
90.96.240.0/21	2	90.97.10.66
90.96.248.0/21	1	90.97.10.66
90.97.0.0/22	1	90.96.224.2 / 90.97.10.70
90.97.4.0/22	1	90.96.224.2 / 90.97.10.70
90.97.8.0/24	3	90.97.10.70 / 90.96.224.2 / 90.97.10.66
90.97.9.0/24	3	90.97.10.70 / 90.96.224.2 / 90.97.10.66
90.97.10.0/26	1	90.96.224.2 / 90.97.10.70
90.97.10.64/30	-	direkt verbunden
90.97.10.68/30	-	direkt verbunden
90.97.10.72/30	1	90.97.10.66 / 90.96.224.2 / 90.97.10.70
90.97.10.76/30	1	90.96.224.2 / 90.97.10.70
90.97.10.80/30	1	90.97.10.66
90.97.10.84/30	1	90.97.10.66
90.97.10.88/30	2	90.96.224.2 / 90.97.10.70 / 90.97.10.66

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.97.10.92/30	2	90.96.224.2 / 90.97.10.70
90.97.10.96/30	2	90.97.10.66
100.0.0.0/8	3	90.97.10.66 / 90.96.224.2 / 90.97.10.70

# **Aachen Sued**

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	1	90.96.224.1 / 90.97.10.69
90.96.128.0/18	2	90.97.10.78
90.96.192.0/20	1	90.96.224.1 / 90.97.10.69
90.96.208.0/20	1	90.97.10.78
90.96.224.0/20	-	direkt verbunden
90.96.240.0/21	2	90.97.10.78
90.96.248.0/21	2	90.96.224.1 / 90.97.10.69
90.97.0.0/22	-	direkt verbunden
90.97.4.0/22	-	direkt verbunden
90.97.8.0/24	2	90.97.10.78
90.97.9.0/24	2	90.97.10.78
90.97.10.0/26	-	direkt verbunden
90.97.10.64/30	1	90.96.224.1 / 90.97.10.69
90.97.10.68/30	-	direkt verbunden
90.97.10.72/30	-	direkt verbunden
90.97.10.76/30	-	direkt verbunden
90.97.10.80/30	1	90.97.10.78
90.97.10.84/30	2	90.97.10.78 / 90.96.224.1 / 90.97.10.69
90.97.10.88/30	1	90.97.10.78
90.97.10.92/30	1	90.97.10.78
90.97.10.96/30	2	90.97.10.78
100.0.0.0/8	2	90.97.10.78

## Madrid

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	1	90.97.10.65
90.96.128.0/18	1	90.97.10.86
90.96.192.0/20	1	90.97.10.65
90.96.208.0/20	2	90.97.10.86
90.96.224.0/20	1	90.97.10.65
90.96.240.0/21	1	90.97.10.86

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.248.0/21	-	direkt verbunden
90.97.0.0/22	2	90.97.10.65
90.97.4.0/22	2	90.97.10.65
90.97.8.0/24	2	90.97.10.86
90.97.9.0/24	2	90.97.10.86
90.97.10.0/26	2	90.97.10.65
90.97.10.64/30	-	direkt verbunden
90.97.10.68/30	1	90.97.10.65
90.97.10.72/30	-	direkt verbunden
90.97.10.76/30	2	90.97.10.65 / 90.97.10.86
90.97.10.80/30	-	direkt verbunden
90.97.10.84/30	-	direkt verbunden
90.97.10.88/30	1	90.97.10.86
90.97.10.92/30	2	90.97.10.86
90.97.10.96/30	1	90.97.10.86
100.0.0.0/8	2	90.97.10.86

# Amsterdam

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	2	90.97.10.77
90.96.128.0/18	1	90.97.10.89
90.96.192.0/20	2	90.97.10.77
90.96.208.0/20	-	direkt verbunden
90.96.224.0/20	1	90.97.10.77
90.96.240.0/21	1	90.97.10.89
90.96.248.0/21	2	90.97.10.89
90.97.0.0/22	1	90.97.10.77
90.97.4.0/22	1	90.97.10.77
90.97.8.0/24	1	90.97.10.94
90.97.9.0/24	1	90.97.10.94
90.97.10.0/26	1	90.97.10.77
90.97.10.64/30	2	90.97.10.77 / 90.97.10.89
90.97.10.68/30	1	90.97.10.77
90.97.10.72/30	1	90.97.10.77
90.97.10.76/30	-	direkt verbunden
90.97.10.80/30	-	direkt verbunden

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.97.10.84/30	1	90.97.10.89
90.97.10.88/30	-	direkt verbunden
90.97.10.92/30	-	direkt verbunden
90.97.10.96/30	1	90.97.10.94 / 90.97.10.89
100.0.0.0/8	1	90.97.10.94

# Stockholm

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	2	90.97.10.85
90.96.128.0/18	-	direkt verbunden
90.96.192.0/20	2	90.97.10.85
90.96.208.0/20	1	90.97.10.90
90.96.224.0/20	2	90.97.10.90 / 90.97.10.85
90.96.240.0/21	-	direkt verbunden
90.96.248.0/21	1	90.97.10.85
90.97.0.0/22	2	90.97.10.90
90.97.4.0/22	2	90.97.10.90
90.97.8.0/24	1	90.97.10.98
90.97.9.0/24	1	90.97.10.98
90.97.10.0/26	2	90.97.10.90
90.97.10.64/30	1	90.97.10.85
90.97.10.68/30	2	90.97.10.85 / 90.97.10.90
90.97.10.72/30	1	90.97.10.85
90.97.10.76/30	1	90.97.10.90
90.97.10.80/30	1	90.97.10.85 / 90.97.10.90
90.97.10.84/30	-	direkt verbunden
90.97.10.88/30	-	direkt verbunden
90.97.10.92/30	1	90.97.10.90 / 90.97.10.98
90.97.10.96/30	-	direkt verbunden
100.0.0.0/8	1	90.97.10.98

## Moskau

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.0.0/17	3	90.97.10.93 / 90.97.10.97
90.96.128.0/18	1	90.97.10.97
90.96.192.0/20	3	90.97.10.93 / 90.97.10.97
90.96.208.0/20	1	90.97.10.93

IP-Netzadresse	RIP-Metrik in Hops	nächste/r Hop/s
90.96.224.0/20	2	90.97.10.93
90.96.240.0/21	1	90.97.10.97
90.96.248.0/21	2	90.97.10.97
90.97.0.0/22	2	90.97.10.93
90.97.4.0/22	2	90.97.10.93
90.97.8.0/24	-	direkt verbunden
90.97.9.0/24	-	direkt verbunden
90.97.10.0/26	2	90.97.10.93
90.97.10.64/30	2	90.97.10.97
90.97.10.68/30	2	90.97.10.93
90.97.10.72/30	2	90.97.10.93 / 90.97.10.97
90.97.10.76/30	1	90.97.10.93
90.97.10.80/30	1	90.97.10.93
90.97.10.84/30	1	90.97.10.97
90.97.10.88/30	1	90.97.10.93 / 90.97.10.97
90.97.10.92/30	-	direkt verbunden
90.97.10.96/30	-	direkt verbunden
100.50.25.0/30	1	100.50.25.34
100.50.25.32/30	-	direkt verbunden

#### RIP Metriktabellen der einzelnen Router

```
RIP: sending v2 update to 224.0.0.9 via FastEthernet0/0 (90.96.248.1)
RIP: build update entries
     90.96.0.0/17 via 0.0.0.0, metric 2, tag 0
     90.96.128.0/18 via 0.0.0.0, metric 2, tag 0
     90.96.192.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.208.0/20 via 0.0.0.0, metric 3, tag 0
     90.96.224.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.240.0/21 via 0.0.0.0, metric 2, tag 0
     90.97.0.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.4.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.8.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.9.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.10.0/26 via 0.0.0.0, metric 3, tag 0
     90.97.10.64/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.68/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.72/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.76/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.80/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.84/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.88/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.92/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.96/30 via 0.0.0.0, metric 2, tag 0
     100.0.0.0/8 via 0.0.0.0, metric 3, tag 0
```

```
RIP: sending v2 update to 224.0.0.9 via Serial1/0 (90.97.10.81)
RIP: build update entries
     90.96.0.0/17 via 0.0.0.0, metric 2, tag 0
     90.96.128.0/18 via 0.0.0.0, metric 2, tag 0
     90.96.192.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.208.0/20 via 0.0.0.0, metric 3, tag 0
     90.96.224.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.240.0/21 via 0.0.0.0, metric 2, tag 0
     90.96.248.0/21 via 0.0.0.0, metric 1, tag 0
      90.97.0.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.4.0/22 via 0.0.0.0, metric 3, tag 0
      90.97.8.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.9.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.10.0/26 via 0.0.0.0, metric 3, tag 0
     90.97.10.64/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.68/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.72/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.76/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.84/30 via 0.0.0.0, metric 1, tag 0
      90.97.10.88/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.92/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.96/30 via 0.0.0.0, metric 2, tag 0
      100.0.0.0/8 via 0.0.0.0, metric 3, tag 0
RIP: sending v2 update to 224.0.0.9 via Serial0/1 (90.97.10.85)
RIP: build update entries
      90.96.0.0/17 via 0.0.0.0, metric 2, tag 0
     90.96.192.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.224.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.248.0/21 via 0.0.0.0, metric 1, tag 0
     90.97.0.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.4.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.10.0/26 via 0.0.0.0, metric 3, tag 0
     90.97.10.64/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.68/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.72/30 via 0.0.0.0, metric 1, tag 0
      90.97.10.80/30 via 0.0.0.0, metric 1, tag 0
RIP: sending v2 update to 224.0.0.9 via Serial0/0 (90.97.10.66)
RIP: build update entries
     90.96.128.0/18 via 0.0.0.0, metric 2, tag 0
     90.96.208.0/20 via 0.0.0.0, metric 3, tag 0
     90.96.240.0/21 via 0.0.0.0, metric 2, tag 0
     90.96.248.0/21 via 0.0.0.0, metric 1, tag 0
     90.97.8.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.9.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.10.72/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.80/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.84/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.88/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.92/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.96/30 via 0.0.0.0, metric 2, tag 0
     100.0.0.0/8 via 0.0.0.0, metric 3, tag 0
RIP: sending v2 update to 224.0.0.9 via Serial1/1 (90.97.10.73)
RIP: build update entries
      90.96.0.0/17 via 0.0.0.0, metric 2, tag 0
     90.96.128.0/18 via 0.0.0.0, metric 2, tag 0
```

```
90.96.192.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.208.0/20 via 0.0.0.0, metric 3, tag 0
     90.96.224.0/20 via 0.0.0.0, metric 2, tag 0
     90.96.240.0/21 via 0.0.0.0, metric 2, tag 0
     90.96.248.0/21 via 0.0.0.0, metric 1, tag 0
     90.97.0.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.4.0/22 via 0.0.0.0, metric 3, tag 0
     90.97.8.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.9.0/24 via 0.0.0.0, metric 3, tag 0
     90.97.10.0/26 via 0.0.0.0, metric 3, tag 0
     90.97.10.64/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.68/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.76/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.80/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.84/30 via 0.0.0.0, metric 1, tag 0
     90.97.10.88/30 via 0.0.0.0, metric 2, tag 0
     90.97.10.92/30 via 0.0.0.0, metric 3, tag 0
     90.97.10.96/30 via 0.0.0.0, metric 2, tag 0
     100.0.0.0/8 via 0.0.0.0, metric 3, tag 0
RIP: received v2 update from 90.97.10.86 on Serial0/1
     90.96.128.0/18 via 0.0.0.0 in 1 hops
     90.96.208.0/20 via 0.0.0.0 in 2 hops
     90.96.240.0/21 via 0.0.0.0 in 1 hops
     90.97.0.0/22 via 0.0.0.0 in 3 hops
     90.97.4.0/22 via 0.0.0.0 in 3 hops
     90.97.8.0/24 via 0.0.0.0 in 2 hops
     90.97.9.0/24 via 0.0.0.0 in 2 hops
     90.97.10.0/26 via 0.0.0.0 in 3 hops
     90.97.10.76/30 via 0.0.0.0 in 2 hops
     90.97.10.88/30 via 0.0.0.0 in 1 hops
     90.97.10.92/30 via 0.0.0.0 in 2 hops
     90.97.10.96/30 via 0.0.0.0 in 1 hops
     100.0.0.0/8 via 0.0.0.0 in 2 hops
RIP: received v2 update from 90.97.10.65 on Serial0/0
     90.96.0.0/17 via 0.0.0.0 in 1 hops
     90.96.192.0/20 via 0.0.0.0 in 1 hops
     90.96.208.0/20 via 0.0.0.0 in 3 hops
     90.96.224.0/20 via 0.0.0.0 in 1 hops
     90.97.0.0/22 via 0.0.0.0 in 2 hops
     90.97.4.0/22 via 0.0.0.0 in 2 hops
     90.97.10.0/26 via 0.0.0.0 in 2 hops
     90.97.10.68/30 via 0.0.0.0 in 1 hops
     90.97.10.76/30 via 0.0.0.0 in 2 hops
      90.97.10.92/30 via 0.0.0.0 in 3 hops
```