

```

R1:
R2
conf t
int e0/0
ip add 10.12.1.2 255.255.255.0
no shut
int lo 0
ip add 10.1.1.1 255.255.255.0
router eigrp 100
net 10.0.0.0
exit

```

```

R2:
R2
conf t
int e0/0
ip add 10.12.1.2 255.255.255.0
no shut
int lo 0
ip add 20.1.1.1 255.255.255.0
router eigrp 100
net 10.0.0.0
net 20.0.0.0
exit

```

Classic Mode:

Narrow metric =(K1*Eigrp scaled BW + K3*Eigrp scaled Delay) *256

Scaled BW =10^7/Min BW in the path in kbits

Scaled Delay =Sum(Delay)/10

Named mode:

Interfaces <= 1GB

```

EIGRP_BANDWIDTH          10,000,000
EIGRP_DELAY_PICO         1,000,000
EIGRP_INACCESSIBLE       0xFFFFFFFFFFFFFFFF
EIGRP_MAX_HOPS           100
EIGRP_CLASSIC_SCALE      256
EIGRP_WIDE_SCALE         65536

```

(EIGRP_BANDWIDTH *
EIGRP_WIDE_SCALE)
Max-Throughput = K1 *

Interface Bandwidth (kbits)

Latency = K3 * $\frac{\text{Delay in pico} * \text{EIGRP_WIDE_SCALE}}{\text{EIGRP_DELAY_PICO}}$

micro to pico delay * 10^6
metric = (K1 * min(Throughput)) + (K3 * sum(Latency)) }

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(EIGRP_BANDWIDTH *
EIGRP_WIDE_SCALE)
Max-Throughput = K1 *

Interface Bandwidth (kbps)

Latency = K3 * -----
Delay in pico* EIGRP_WIDE_SCALE
EIGRP_DELAY_PICO

micro to pico delay * 10^6
metric = (K1 * min(Throughput)) + (K3 * sum(Latency)) }

Eigrp BW= 10000000
Eigrp Scale =65536
Int BW =10000

Throughput =(10000000*65536)/10000
= 6,55,36,00,00,000/10000
=6,55,36,000

Latency =2,00,00,00,000 *65536

Delay =2000
in pico =2000*1000000
=2,00,00,00,000
Eigrp-delay-pico 1,000,000
Eigrp Scale =65536

Latency = (2,00,00,00,000 *65536)/1,000,000
13,10,72,00,00,000/1000000
13,10,72,000

Wide metric =throughput+ latency
6,55,36,000+13,10,72,000
19,66,08,000 (64 bit)

196608000/128 (32 bit)
15,36,000

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```
router eigrp R1
!
address-family ipv4 unicast autonomous-system 100
!
topology base
exit-af-topology
network 10.1.1.1 0.0.0.0
network 11.1.1.1 0.0.0.0
network 192.168.1.1 0.0.0.0
exit-address-family
```

```
router eigrp R2
!
address-family ipv4 unicast autonomous-system 100
!
topology base
exit-af-topology
network 192.168.1.2 0.0.0.0
exit-address-family
exit
```