

R1 # show interface e0/0

Eigrp 或 # FD

BW  $\frac{10000}{10^4}$

$BW = 10^7 \text{ kbit} \div \text{interface bandwidth (kbit)}$

$10^7 \div 10^4 = 10^3$

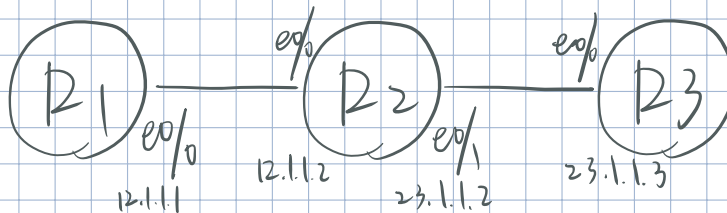
DLX 1000 usec

$\text{delay} = \text{interface delay (usec)} \div 10$

$10^3 \div 10 = 10^2$

$$\begin{aligned} \text{Metric} &= (BW^{256} + \text{delay}^{256}) \\ &= (BW + \text{delay})^{256} \\ &= (1000 + 100) \times 256 \\ &= 1100 \times 256 \\ &= 281600 \end{aligned}$$

5sec 送一数据包, 确定是否存在



R1

```
# int e0/0
# ip addr 12.1.1.1 255.255.255.0
# no shut
```

R2

```
# int e0/0
# ip addr 12.1.1.2 255.255.255.0
# no shut
# int e0/1
# ip addr 23.1.1.2 255.255.255.0
# no shut
```

R3

```
# int e0/0
# ip addr 23.1.1.3 255.255.255.0
# no shut
```

R2 e0/0 送一数据包

R1

```
# router eigrp 94
# network 12.1.1.0 0.0.0.255
```

R2

```
# router eigrp 94
# network 12.1.1.0 0.0.0.255
# network 23.1.1.0 0.0.0.255
```

R3

```
# router eigrp 94
# network 23.1.1.0 0.0.0.255
```

R1 # show ip eigrp neighbors

查看網路拓撲表

# show ip eigrp topology

# show ip route

D 23.1.1.0 [90/301200]

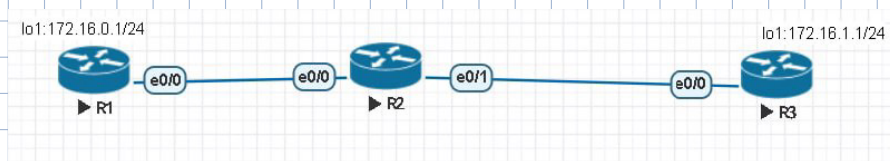
AD  
1

FD  
成本

eigrp 成本考量以 頻寬、delay 進行計算  
—— 假如如有相同的路由協定, FD 越小, 越優先  
傳送端到目的地端, 有不同路由協定, 要走哪條路徑,

AD 值越小, 越優先

	AD 值
static	1
eigrp	90
ospf	110
rip	120



第1步 172.16.0.1、172.16.1.1 在哪? A: 会被合并  
172.16.0.0

R1  
# int lo1  
# ip addr 172.16.0.1 255.255.255.0  
# exit  
# router eigrp 94  
# network 172.16.0.0 0.0.0.255

R3  
# int lo1  
# ip addr 172.16.1.1 255.255.255.0  
# exit  
# router eigrp 94  
# network 172.16.1.0 0.0.0.255

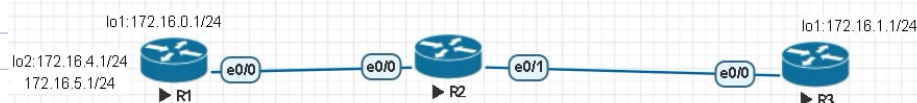
R2 # show ip route  
合并 172.16.0.0

R1 # router eigrp 94  
# no auto-summary

R2 # router eigrp 94  
# no auto-summary

R3 # router eigrp 94  
# no auto-summary

R2 # show ip route  
合并了



R1

不能直接在一个接口设2个ip

```
# int lo2
# ip addr 172.16.4.1 255.255.255.0
# ip addr 172.16.5.1 " secondary
# do show ip int br
172.16.5.1 会盖掉 172.16.4.1
```

```
# do show ip int lo2
```

```
# ping 172.16.4.1
ping 172.16.5.1
```

```
# router eigrp 94
```

手动总结

```
# network 172.16.4.0 0.0.0.255
# network 172.16.5.0 0.0.0.255
```

```
R1 # int e0/0
# ip summary-address eigrp 94 172.16.4.0 255.255.254.0
```

```
R2 # show ip route
```

认证 Authentication

```
R1 # key chain Mychain
# key 1
# key-string 123456 设passwd
```

```
R2 # key chain Mychain
# key 1
# key-string 123456
```

```
R1 # int e0/0
# authentication key-chain eigrp 94 My Chain
# authentication mode eigrp 94 md5
```

```
R2 # int e0/0
# authentication key-chain eigrp 94 My Chain
# authentication mode eigrp 94 md5
```