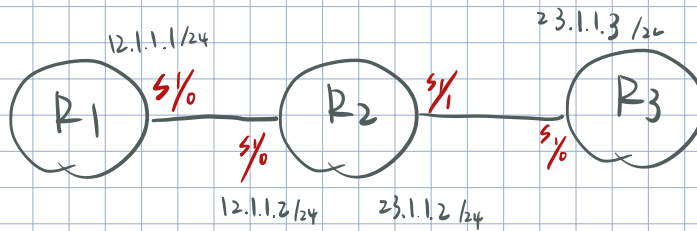


# 序列埠

# 靜態路由

設定 Edit - Serial portgroups 改 1 or 2



R1

```
# int s1/0
# ip add 12.1.1.1 255.255.255.0
# no shut
# clock rate 64000 設定時脈
```

R2

```
# int s1/0
# ip add 12.1.1.2 255.255.255.0
# no shut

# int s1/1
# ip addr 23.1.1.2 255.255.255.0
# no shut
# ping 12.1.1.1
```

R3

```
# int s1/0
# ip add 23.1.1.3 255.255.255.0
# no shut
# clock rate 64000
# ping 23.1.1.2
```

R1

```
# show ip route
```

C 直接相連

L 本身

R rip 動態路由

D eigrp

O ospf

S static 靜態路由

## 靜態路由

R1 到 23.1.1.0 的靜態路由

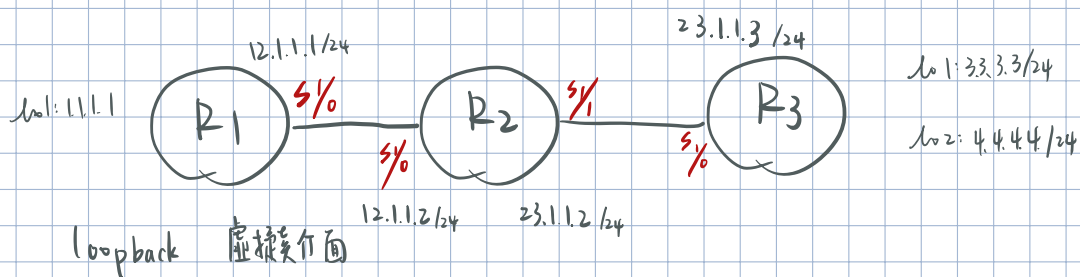
```
# ip route 23.1.1.0 255.255.255.0 s1/0
# do sh ip route
```

下一跳的位置 12.1.1.2

R3

```
# ip route 12.1.1.0 255.255.255.0 s1/0
# do sh ip route
```

# ping 12.1.1.1



R1

```
# int lo1
# ip addr 1.1.1.1 255.255.255.0
# ping 23.1.1.3 source 1.1.1.1
```

R3

```
# ip route 1.1.1.0 255.255.255.0 s1/0
```

R2

```
# ip route 1.1.1.0 255.255.255.0 12.1.1.1
```

R1

```
# ping 23.1.1.3 source 1.1.1.1
```

## 默認路由

R1

```
# ip route 0.0.0.0 0.0.0.0 12.1.1.2
# do ping 23.1.1.3 source 1.1.1.1
```

下一跳都送到這

R2

```
# ip route 0.0.0.0 0.0.0.0 s1/1
```

R1

```
# ping 3.3.3.3 source 1.1.1.1
```

5+

0.0.0.0/0 [1/0]

metric 值: 成本最低优先

administration distance: 数字越小, 权重越大  
(AD)

C → 0

static → 1

eigrp → 90

ospf → 110

rip → 120

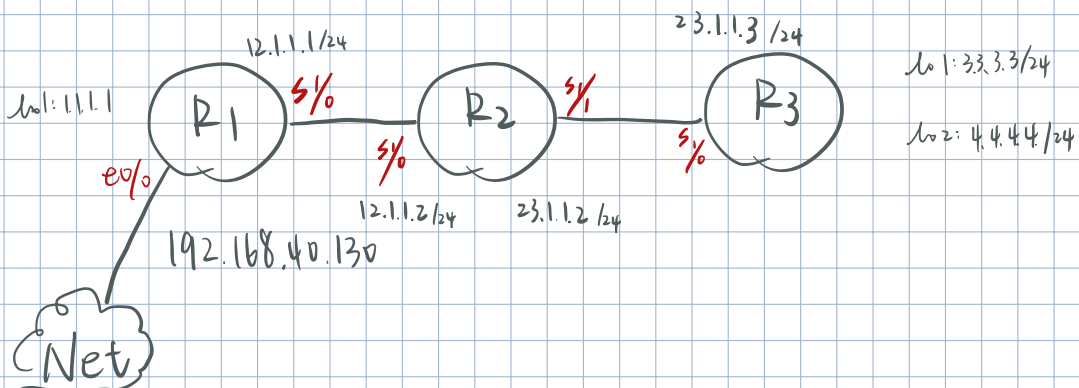
来源端到目的端

有好多条路径, 要走哪一条

AD值越小, 优先权越大

则全网互通吗? 哪能通? 哪不能?

快速的执行 ping ⇒ 脚本



```

R1 # int e0/0
# ip addr dhcp
# no shut
# show ip int br
192.168.40.130
  
```

```

centos7
~ # gcc pingtest.sh
  
```

```

#! /usr/bin/bash
  
```

```

for i in 192.168.157.161 1.1.1.1 2.2.2.2 3.3.3.3
do
  ping -w 1 -c 1 $i > /dev/null 2>&1
  if [ $? -eq 0 ]
  then
    echo $i is up
  else
    echo $i is down
  fi
done
  
```

```

ping -w 1 -c 1 $i > /dev/null 2>&1
if [ $? -eq 0 ]
  
```

```
then    回傳值 = 0
echo    "$i is ok"
else    回傳值 ≠ 0
echo    "$i is not ok"
fi
done
```

```
#./pingtest.sh
```

