

小跑:

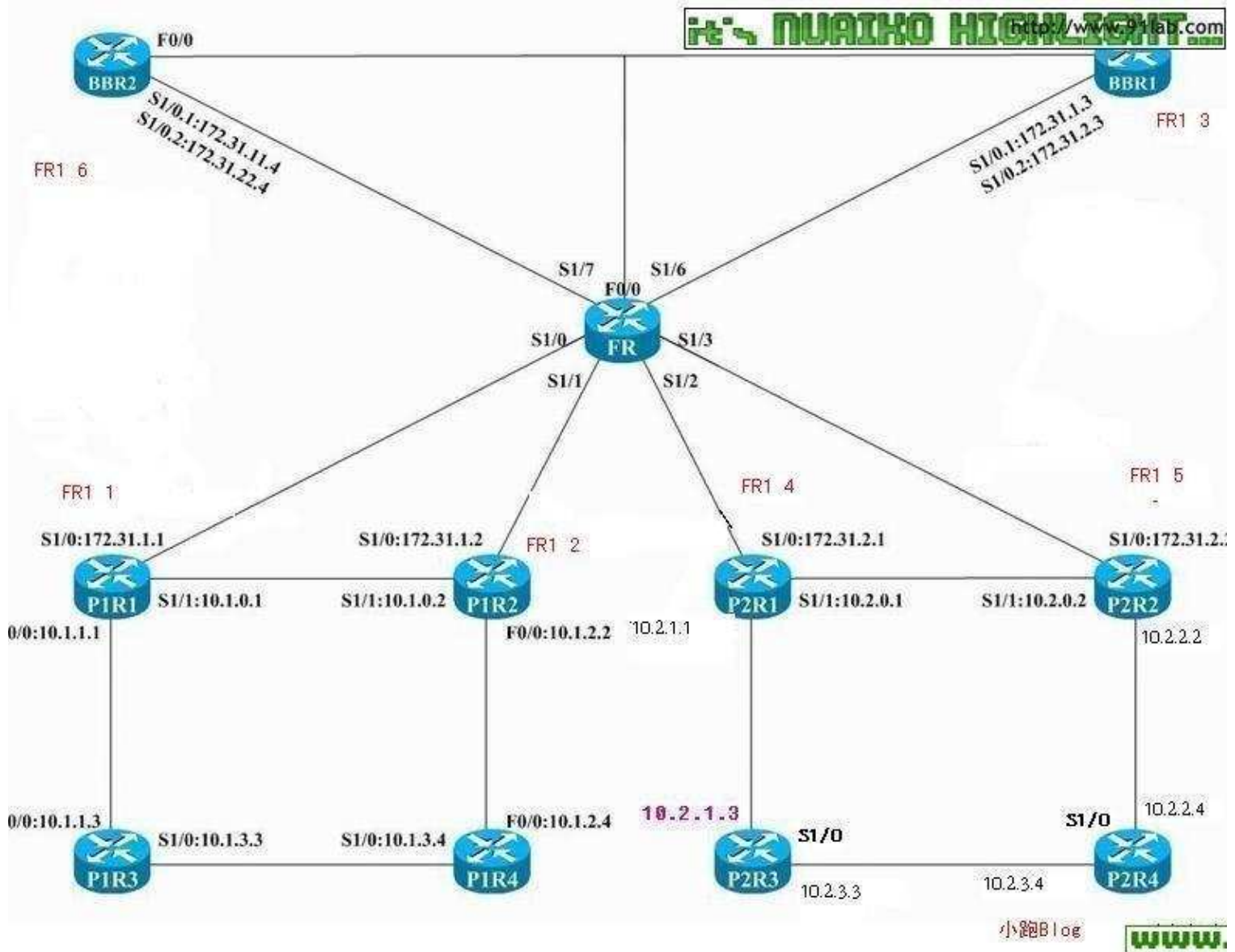
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如由转载, 请注明出处!

拓扑图:



拓扑参数:

```
autostart = false
[localhost]
port = 7200
udp = 10000
[[router P1R1]]
```

```
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3001
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
f0/0 = P1R3 f0/0
s1/1 = P1R2 s1/1
s1/0 = FR1 1
f0/1 = NIO_gen_eth:\Device\NPF_{A80F9AA7-9A39-4BBB-9357-300943B475FE}
[[router P1R2]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3002
ram = 40
idlepc=0x6054913c
confreg = 0x2102
mmp = true
slot1 = PA-4T
f0/0 = P1R4 f0/0
s1/0 = FR1 2
[[router P1R3]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3003
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
s1/0 = P1R4 s1/0
[[router P1R4]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3004
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
[[router BBR1]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3005
ram = 40
```

```
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
f0/0 = BBR2 f0/0
s1/0 = FR1 3
[[router P2R1]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3006
ram = 40
idlepc=0x6054913c
confreg = 0x210
slot1 = PA-4T
f0/0 = P2R3 f0/0
s1/1 = P2R2 s1/1
s1/0 = FR1 4
[[router P2R2]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3007
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
f0/0 = P2R4 f0/0
s1/0 = FR1 5
[[router P2R3]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3008
ram = 40
idlepc=0x6054913c
confreg = 0x2102
mmp = true
slot1 = PA-4T
s1/0 = P2R4 s1/0
[[router P2R4]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3009
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
```

```
[[router BBR2]]
image = E:\Dynamips\BSCI\Dynamips\images\C2691.BIN
model = 2691
console = 3010
ram = 40
idlepc=0x6054913c
confreg = 0x2102
slot1 = PA-4T
s1/0 = FR1 6
[[FRSW FR1]]
1:102 = 2:201
1:103 = 3:301
1:104 = 4:401
1:105 = 5:501
1:106 = 6:601
2:203 = 3:302
2:204 = 4:402
2:205 = 5:502
2:206 = 6:602
3:304 = 4:403
3:305 = 5:503
3:306 = 6:603
4:405 = 5:504
4:406 = 6:604
5:506 = 6:605
```

试验环境: dynamips 0.26RC4

IOS : 2691

Route plr1 plr2

1: 、 ip default-gateway

当路由器上的ip routing无效时，使用它指定默认路由

2、 ip default-network和ip route 0.0.0.0 0.0.0.0

两者都用于ip routing有效的路由器上，区别主要在于路由协议是否传播这条路由

信息。比如：IGRP无法识别0.0.0.0，因此传播默认路由时必须用ip default-network。

当用ip default-network指令设定多条默认路由时，administrative distance最

短的成为最终的默认路由；如果有复数条路由distance值相等，那么在路由表（show ip route）中靠上的成为默认路由。

同时使用ip default-network和ip route 0.0.0.0 0.0.0.0双方设定默认路由时，

如果ip default-network设定的网络是直连（静态、且已知）的，那么它就成为默认路由；

如果ip default-network指定的网络是由交换路由信息得来的，则ip route 0.0.0.0 0.0.0.0指定的表项成为默认路由。

最后，如果使用多条ip route 0.0.0.0 0.0.0.0指令，则流量会自动在多条链路上负载均衡。

Ip default-network:

当CISCO 路由器的IP ROUTING 可用额时候你可以使用Default-network 的命令 当你配置

ip default-network 时 你要考虑载路由上到达网络的最后求助网关 为每个网络配置

ip default-network 如果路由到达此网络，这个路由将会标记候选路由！。

```
P1R4#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is not set
```

```
10.0.0.0/24 is subnetted, 1 subnets
```

```
C 10.1.2.0 is directly connected, FastEthernet0/0
```

```
P1R4#
```

```
P1R4(config)# ip route 172.31.0.0 255.255.255.0 10.1.2.2
```

```
P1R4(config)#ip default-network 172.31.0.0
```

```
P1R4#show ip
```

```
*Mar 1 01:08:06.595: %SYS-5-CONFIG_I: Configured from console by console
```

```
P1R4#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
```

```
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
```

```
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
E1 - OSPF external type 1, E2 - OSPF external type 2
```

```
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
```

```
ia - IS-IS inter area, * - candidate default, U - per-user static route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is 10.1.2.2 to network 172.31.0.0
```

```
* 172.31.0.0/24 is subnetted, 1 subnets
```

```
S* 172.31.0.0 [1/0] via 10.1.2.2
```

```
10.0.0.0/24 is subnetted, 1 subnets
```

```
C 10.1.2.0 is directly connected, FastEthernet0/0
```

```
P1R4#
```

这个命令是独立于路由协议的！

默认网关已经变成 10.1.2.2 了！

Ip default-network 这个命令是 classful

```
P1R4(config)#ip route 168.32.1.0 255.255.255.0 10.1.3.3
```

```
P1R4(config)#ip def
```

```
P1R4(config)#ip default-n
```

```
P1R4(config)#ip default-network 168.32.1.0
```

```
P1R4(config)#end
```

```
P1R4#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
```

```
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
```

```
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
E1 - OSPF external type 1, E2 - OSPF external type 2
```

```
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
```

```
ia - IS-IS inter area, * - candidate default, U - per-user static
```

```
route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is 10.1.2.2 to network 172.31.0.0
```

```
168.32.0.0/16 is variably subnetted, 2 subnets, 2 masks
```

```
S 168.32.0.0/16 [1/0] via 168.32.1.0
```

```
S 168.32.1.0/24 [1/0] via 10.1.3.3
```

```
* 172.31.0.0/24 is subnetted, 1 subnets
```

```
S* 172.31.0.0 [1/0] via 10.1.2.2
```

```
10.0.0.0/24 is subnetted, 2 subnets
```

```
C 10.1.3.0 is directly connected, Serial1/0
```

```
C 10.1.2.0 is directly connected, FastEthernet0/0
```

```
P1R4#
```

```
*Mar 1 01:34:55.419: %SYS-5-CONFIG_I: Configured from console by console
```

```
P1R4#Explain:
```

ip default-network 命令有类别，意味着如果路由器有一个路由到此命令表示的子网，它安装路由对主网。这时两个网络未被标记 作为默认网络。必须 使用 主网再发出**ip default-network** 命令，为了标记候选默认路由。

再看：

```

P1R4(config)#ip default-n
P1R4(config)#ip default-network 168.32.0.0
P1R4(config)#end
P1R4#show ip r
*Mar 1 01:35:59.095: %SYS-5-CONFIG_I: Configured from console by console
P1R4#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 168.32.1.0 to network 168.32.0.0
* 168.32.0.0/16 is variably subnetted, 2 subnets, 2 masks
S* 168.32.0.0/16 [1/0] via 168.32.1.0
S 168.32.1.0/24 [1/0] via 10.1.3.3
* 172.31.0.0/24 is subnetted, 1 subnets
S* 172.31.0.0 [1/0] via 10.1.2.2
10.0.0.0/24 is subnetted, 2 subnets
C 10.1.3.0 is directly connected, Serial1/0
C 10.1.2.0 is directly connected, FastEthernet0/0
P1R4#

```

可以看到 命令是classful 默认路由又添加了一个！

注意下

Gateway of last resort is ??? 看看 是不是和上面的有变动了那！
 呵呵 请看看前面的说明！

使用不 同的路由协议：

使用ip default-network 命令选择的最后一招 网关根据哪个路由协议不同地被
 传播传播默认路由。为了能传播路由的IGRP 及EIGRP， ip default-network
 命
 令指定的 网络必须为IGRP 或EIGRP 所 知。这意味着网络在路由表里必须是一
 个IGRP-或EIGRP 派生 的网络, 或者必须再分布用于的静态路由生成路由对网
 络
 到IGRP 或 EIGRP 。
 RIP 做通告路由到0.0.0.0 。例如, 注意最后一招网关在如下路由器使用IP 路
 由
 和ip default-network 命令的 组合 是 获 知 。如果在此路由器启用RIP,
 RIP

做通告路由到0.0.0.0 (虽然不对令牌环网络由于纵向隔离):

列出RIP 和OSPF 的用default-information originate 通告的默认路由ISIS

BGP

都行 EIGRP 有点奇怪!

RIP

P1R1配置:

```
P1R1(config)#ip route 0.0.0.0 0.0.0.0 172.31.1.2 创建一条静态路由  
也可以 ip route 0.0.0.0 0.0.0.0 s1/0
```

这样的话 P1R1路由表出现的

```
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
```

```
P1R1(config)#router rip
```

```
P1R1(config-router)#default-information originate 通过RIP协议通告默认  
路由!
```

P1R1路由表:

```
P1R1#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
E1 - OSPF external type 1, E2 - OSPF external type 2  
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2  
ia - IS-IS inter area, * - candidate default, U - per-user static  
route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is 172.31.1.2 to network 0.0.0.0
```

```
172.31.0.0/16 is variably subnetted, 2 subnets, 2 masks
```

```
C 172.31.1.0/24 is directly connected, Serial1/0
```

```
R 172.31.0.0/16 [120/1] via 10.1.0.2, 00:00:08, Serial1/1
```

```
10.0.0.0/24 is subnetted, 3 subnets
```

```
R 10.1.2.0 [120/1] via 10.1.0.2, 00:00:08, Serial1/1
```

```
C 10.1.1.0 is directly connected, FastEthernet0/0
```

```
C 10.1.0.0 is directly connected, Serial1/1
```

```
S* 0.0.0.0/0 [1/0] via 172.31.1.2
```

P1R2的路由表

```
P1R2#
```

```
*Mar 1 00:03:06.415: %SYS-5-CONFIG_I: Configured from console by  
console
```

```
P1R2#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```

E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 10.1.0.1 to network 0.0.0.0
172.31.0.0/24 is subnetted, 1 subnets
C 172.31.1.0 is directly connected, Serial1/0
10.0.0.0/24 is subnetted, 3 subnets
C 10.1.2.0 is directly connected, FastEthernet0/0
R 10.1.1.0 [120/1] via 10.1.0.1, 00:00:13, Serial1/1
C 10.1.0.0 is directly connected, Serial1/1
R* 0.0.0.0/0 [120/1] via 10.1.0.1, 00:00:03, Serial1/1
P1R2#
已经传递了!!

```

Ospf

P1 R1:

```

P1R1(config)#ip route 0.0.0.0 0.0.0.0 s1/0
P1R1(config-router)#default-information originate
P1r1 route table
P1R1#
*Mar 1 00:22:52.363: %SYS-5-CONFIG_I: Configured from console by
console
P1R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
172.31.0.0/24 is subnetted, 1 subnets
C 172.31.1.0 is directly connected, Serial1/0
10.0.0.0/24 is subnetted, 3 subnets
O 10.1.2.0 [110/65] via 10.1.0.2, 00:02:14, Serial1/1
C 10.1.1.0 is directly connected, FastEthernet0/0
C 10.1.0.0 is directly connected, Serial1/1
S* 0.0.0.0/0 is directly connected, Serial1/0
P1R1#
P1R2 route table

```

```

P1R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 10.1.0.1 to network 0.0.0.0
172.31.0.0/24 is subnetted, 1 subnets
O 172.31.1.0 [110/128] via 10.1.0.1, 00:00:05, Serial1/1
10.0.0.0/24 is subnetted, 3 subnets
C 10.1.2.0 is directly connected, FastEthernet0/0
O 10.1.1.0 [110/65] via 10.1.0.1, 00:00:05, Serial1/1
C 10.1.0.0 is directly connected, Serial1/1
O*E2 0.0.0.0/0 [110/1] via 10.1.0.1, 00:00:05, Serial1/1
P1R2#

```

现在其中一台ROUTE 中通告一个默认路由
通过Default-information originate 传播到外地的路由表中!

```

P1R4
P1R4#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 10.1.2.2 to network 0.0.0.0
172.31.0.0/24 is subnetted, 1 subnets
O 172.31.1.0 [110/129] via 10.1.2.2, 00:06:30, FastEthernet0/0
10.0.0.0/24 is subnetted, 3 subnets
C 10.1.2.0 is directly connected, FastEthernet0/0
O 10.1.1.0 [110/66] via 10.1.2.2, 00:06:30, FastEthernet0/0
O 10.1.0.0 [110/65] via 10.1.2.2, 00:06:30, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 10.1.2.2, 00:06:30, FastEthernet0/0
P1R4#

```

Default metric 是1 而不是BSCI 自学指南P212 上说的 10 书的作者已经试验验证了!

方法二: Default-information originate always 强行通告默认路由不管接口是否

DOWN 掉! 即使你没有配置IP ROUTE 0.0.0.0 0.0.0.0 他也会强行通告

EIGRP

Eigrp 在默认的情况下不重发 0.0.0.0 0.0.0.0 默认路由 但是如果在 NETWORK 中添加network 0.0.0.0 命令 由于ip route 0.0.0.0 0.0.0.0 interface 命令所产生的结果(不是ip route 0.0.0.0 0.0.0.0 add 或 ip default-network).他将重分发一条默认路由。实验见:

方法: 一

```
P1R1(config-router)#ip route 0.0.0.0 0.0.0.0 s1/0
P1R1(config)#
*Mar 1 00:00:44.851: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Serial1/0, changed state to down
P1R1(config)#router eigrp 100y
P1R1(config-router)#network 0.0.0.0
```

P1R1 的 路由表:

```
P1R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
172.31.0.0/16 is variably subnetted, 2 subnets, 2 masks
C 172.31.1.0/24 is directly connected, Serial1/0
D 172.31.0.0/16 is a summary, 00:05:04, Null0
10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
D 10.1.2.0/24 [90/2172416] via 10.1.0.2, 00:05:07, Serial1/1
C 10.1.1.0/24 is directly connected, FastEthernet0/0
D 10.0.0.0/8 is a summary, 00:05:04, Null0
C 10.1.0.0/24 is directly connected, Serial1/1
S* 0.0.0.0/0 is directly connected, Serial1/0
P1R1#
*Mar 1 00:06:28.071: %SYS-5-CONFIG_I: Configured from console by
console
P1R1#
```

P1R2 的

```
P1R2#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
E1 - OSPF external type 1, E2 - OSPF external type 2  
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2  
ia - IS-IS inter area, * - candidate default, U - per-user static  
route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is 10.1.0.1 to network 0.0.0.0
```

```
D 172.31.0.0/16 [90/2681856] via 10.1.0.1, 00:00:02, Serial1/1  
10.0.0.0/24 is subnetted, 3 subnets
```

```
C 10.1.2.0 is directly connected, FastEthernet0/0
```

```
D 10.1.1.0 [90/2172416] via 10.1.0.1, 00:00:05, Serial1/1
```

```
C 10.1.0.0 is directly connected, Serial1/1
```

```
D* 0.0.0.0/0 [90/2681856] via 10.1.0.1, 00:00:02, Serial1/1
```

```
P1R2#
```

已经传递过来了!

方法: 二

```
P1R1
```

```
router eigrp 100
```

```
redistribute static
```

```
network 10.0.0.0
```

```
auto-summary
```

```
!
```

```
ip http server
```

```
ip classless
```

```
ip route 0.0.0.0 0.0.0.0 172.31.1.3 (# 接口或者地址都可以)
```

```
P1R1 route table
```

```
P1R1#show ip route
```

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
```

```
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
E1 - OSPF external type 1, E2 - OSPF external type 2
```

```
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
```

```
ia - IS-IS inter area, * - candidate default, U - per-user static
```

```
route
```

```
o - ODR, P - periodic downloaded static route
```

```
Gateway of last resort is 172.31.1.3 to network 0.0.0.0
```

```
172.31.0.0/24 is subnetted, 1 subnets
```

```
C 172.31.1.0 is directly connected, Serial1/0
```

```
10.0.0.0/24 is subnetted, 3 subnets
```

```

D 10.1.2.0 [90/2172416] via 10.1.0.2, 00:02:34, Serial1/1
C 10.1.1.0 is directly connected, FastEthernet0/0
C 10.1.0.0 is directly connected, Serial1/1
S* 0.0.0.0/0 [1/0] via 172.31.1.3
P1R1#

```

接下来看看 P1R2 的!

```

P1R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route
Gateway of last resort is 10.1.0.1 to network 0.0.0.0
10.0.0.0/24 is subnetted, 3 subnets
C 10.1.2.0 is directly connected, FastEthernet0/0
D 10.1.1.0 [90/2172416] via 10.1.0.1, 00:00:33, Serial1/1
C 10.1.0.0 is directly connected, Serial1/1
D*EX 0.0.0.0/0 [170/2681856] via 10.1.0.1, 00:00:03,
Serial1/1
P1R2#

```

通过 **Redistribute static** 也是可以的 但是 作为外部的**EIGRP** 路由通告出去!

注意: 在早期的RIP版本中 使用 **IP ROUTE 0.0.0.0 0.0.0.0** 创建的默认路由会自动的在rip路由器 中被宣告 但是 **CISCO SOFTWARE RELEASE 12.0T**以后的版本中 **RIP**不会宣告默认路由 就算是此设置为默认的网络被RIP学习的情况下 重分配进RIP就变成已个必要的步骤! , 或者使用 **default-information originate** 命令。

OSPF, 类似**RIP**, 为 **0.0.0.0 0.0.0.0** 做通告路由。然而, 与**OSPF**, 必须用 **default-information originate** 命令配置产生默认路由的 路由器。关于详细信息 , 请参阅 **如何执行OSPF 生成默认路由?** .

ip route 0.0.0.0 0.0.0.0

< \$\$+0> 创建静态路由到网络**0.0.0.0 0.0.0.0** 是另一 一个方式设置最后一招网关在路由器。照同 **ip default-network** 命令, 使用静态路由到**0.0.0.0** 不依靠任何路由协议。 然而, 在 路由器必须启用 **IP** 路由。

注意: **IGRP** 不了解路由到**0.0.0.0** 因此不能传播使用 **ip route 0.0.0.0 0.0.0.0**命令被创建的 默认路由。 使用 **ip default-network** 命令有 **IGRP** 繁殖默认路由。

EIGRP 传播一个 路由对网络0.0.0.0，但必须再分布静态路由到EIGRP。RIP和OSPF 正常运行如所描述当使用 ip default-network 命令时。记住上面附注仍 然适用。

如果 配置多个网络作为候选默认路由使用 ip default-network 命令， 有最低管理距离的网络被选择作为网络为最后一招网关。如 果所有网络有同一管理距离然后网络列表首先在路由表里 (show ip route 列出 路由表)被选择作为网络为最后一招网关。如果使用 ip default-network 和 ip route 0.0.0.0 0.0.0.0 命令配置候选默认值网络， 并且ip default-network 命令使用的 网络静态知道，用ipdefault-network 命 令被定义的网络采取优先次序 和为最后一招网关被选择。

否则如果ip default-network 命 令使用的 网络由路由协议派 生， ip route 0.0.0.0 0.0.0.0 命令， 将有一个更低的管 理距离， 采取优先次序和为最后一招网关被选择。最后，如 果使用多个 ip route 0.0.0.0 0.0.0.0 命 令配置默认路由， 数据流在多个路由负载平衡。

汇总

当IP 路由 在Cisco 路由器时， 禁 用 总结 ， 您能使用 ip default-gateway 命令。使用 ip default-network 和 ip route 0.0.0.0 0.0.0.0 命令设置最后一招网关在有 被启用的IP 路由 的 Cisco 路由器。路由协议传播默认路由信息的方 式为每个协议变化。

FINA

欢迎大家常来我的空间

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