

实验:EIGRP浮动汇总路由配置思科认证 PDF转换可能丢失图片或格式，建议阅读原文

[https://www.100test.com/kao\\_ti2020/616/2021\\_2022\\_\\_E5\\_AE\\_9E\\_E9\\_AA\\_8C\\_EIG\\_c101\\_616913.htm](https://www.100test.com/kao_ti2020/616/2021_2022__E5_AE_9E_E9_AA_8C_EIG_c101_616913.htm) 实验拓扑：接口连接：

Router1 S0/0 gt. Router2 S0/0 Router2 S0/1 gt. Router3 S0/0  
Router1 S0/1 gt. Router4 S0/0 Router3 S0/1 gt. Router4 S0/1 VPCS  
V0/1 gt. Router1 E1/0 VPCS V0/2 gt. Router3 E1/0 实验原理：

在R1\R2\R3\R4上均运行EIGRP路由协议。R4通过S0/1向R3通告一条0.0.0.0 0.0.0.0的汇总路由，并将这条浮动路由的管理距离设置为250，于是在网络连通的情况下R3上到达200.1.1.0/24网段的路由经过R2，而在R2与R3链路故障的时候，通过R3前往200.1.1.0/24的数据包会通过R4（R3拓扑表中，默认路由由A变为P）

关键配置：R1: interface Serial0/0 ip address 192.168.1.1 255.255.255.0 serial restart-delay 0 ! interface Serial0/1 ip address 192.168.3.1 255.255.255.0 serial restart-delay 0 ! interface Ethernet1/0 ip address 200.1.1.254 255.255.255.0 half-duplex ! router eigrp 100 network 192.168.1.0 network 192.168.3.0 network 200.1.1.0 no auto-summary R2、R3略，参照R1进行接口IP和路由协议的配置

重点看下R4的配置 R4: interface Serial0/0 ip address 192.168.3.2 255.255.255.0 serial restart-delay 0 ! interface Serial0/1 ip address 192.168.4.1 255.255.255.0 ip summary-address eigrp 100 0.0.0.0 0.0.0.0 250（向R3通过默认路由，管理距离高于EIGRP默认值） ! router eigrp 100 network 192.168.3.0 network 192.168.4.0

auto-summary 查看结果：1.R2和R3之间链路正常时 a) R3的路由表：R3#sh ip route Codes: C - connected, S - static, I - IGRP, 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, E - EGP 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 192.168.4.1 to network 0.0.0.0 D 200.1.1.0/24 [90/2707456] via 192.168.2.1, 00:00:02, Serial0/0 C 200.1.2.0/24 is directly connected, Ethernet1/0 C192.168.4.0/24 is directly connected, Serial0/1 D192.168.1.0/24 [90/2681856] via 192.168.2.1, 00:00:02, Serial0/0 C192.168.2.0/24 is directly connected, Serial0/0 D192.168.3.0/24 [90/3193856] via 192.168.2.1, 00:00:02, Serial0/0 D\* 0.0.0.0/0 [90/2681856] via 192.168.4.1, 00:00:00, Serial0/1 b)R3的拓扑表 : R3#sh ip eigrp topology IP-EIGRP Topology Table for AS(100)/ID(200.1.2.254) Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply, r - reply Status, s - sia Status A 0.0.0.0/0, 1 successors, FD is Inaccessible 1 replies, active 00:00:00, query-origin: Successor Origin Remaining replies: via 192.168.2.1, r, Serial0/0 P 192.168.1.0/24, 1 successors, FD is 2681856 via 192.168.2.1 (2681856/2169856), Serial0/0 P 192.168.2.0/24, 1 successors, FD is 2169856 via Connected, Serial0/0 P 192.168.3.0/24, 1 successors, FD is 3193856 via 192.168.2.1 (3193856/2681856), Serial0/0 P 192.168.4.0/24, 1 successors, FD is 2169856 via Connected, Serial0/1 P 200.1.1.0/24, 1 successors, FD is 2707456 via 192.168.2.1 (2707456/2195456), Serial0/0 P 200.1.2.0/24, 1 successors, FD is 281600 via Connected, Ethernet1/0 2.R2的S0/1设置为DOWN,观察R3路由表和拓扑表 a)R3路由表

: R3#sh ip route Codes: C - connected, S - static, I - IGRP, 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, E - EGP 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 192.168.4.1 to network 0.0.0.0 C200.1.2.0/24 is directly connected, Ethernet1/0 C192.168.4.0/24 is directly connected, Serial0/1 C192.168.2.0/24 is directly connected, Serial0/0 D\* 0.0.0.0/0 [90/2681856] via 192.168.4.1, 00:00:05, Serial0/1 b)R3的拓扑表 : R3#sh ip eigrp topology IP-EIGRP Topology Table for AS(100)/ID(200.1.2.254) Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply, r - reply Status, s - sia Status P 0.0.0.0/0, 1 successors, FD is 2681856 via 192.168.4.1 (2681856/2169856), Serial0/1 P 192.168.4.0/24, 1 successors, FD is 2169856 via Connected, Serial0/1 P 200.1.2.0/24, 1 successors, FD is 281600 via Connected, Ethernet1/0 该实验说明 , 当R2和R3链路正常是 , 通过R3去往PC1的数据包不通过R4 , 只有当R2、 R3间链路出现故障 , 默认路由才启用。 更多优质资料尽在百考试题论坛 百考试题在线题库 思科认证更多详细资料 100Test 下载频道开通 , 各类考试题目直接下载。 详细请访问 [www.100test.com](http://www.100test.com)