

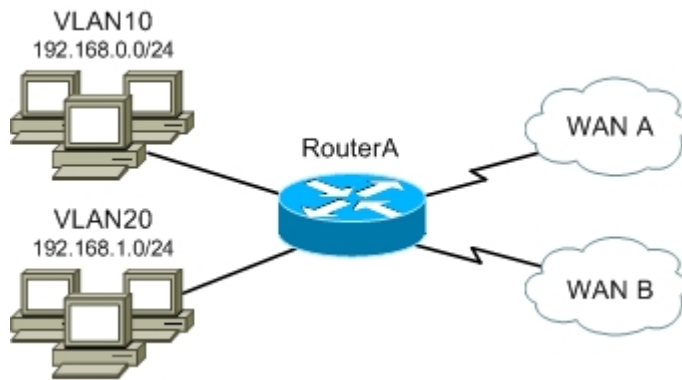
Protocol Header			
Version	Opcode	Checksum	
Flags			
Sequence Number			
Acknowledgement number			
Autonomous System number			
Type		Length	
Value			
Additional TLV's ...			

Attributes	
Type	Hybrid
Algorithm	DUAL
Internal AD	90
External AD	170
Summary AD	5
Standard	Cisco proprietary
Protocols	IP, IPX, Appletalk
Transport	IP 88
Authentication	MD5
Multicast IP	224.0.0.10
Hello Timer	5 / 60
Hold Timer	15 / 180

Metric Formula

$$256 * (K_1 * \text{bandwidth} + \frac{K_2 * \text{bandwidth}}{256 - \text{load}} + K_3 * \text{delay}) * \frac{K_5}{\text{reliability} + K_4}$$

Configuration Example



```

RouterA
interface Serial0/0
description WAN A
ip address 10.0.0.1 255.255.255.252
ip summary-address eigrp 123 192.168.0.0 255.255.254.0
!
interface Serial0/1
description WAN B
ip address 10.0.0.5 255.255.255.252
ip summary-address eigrp 123 192.168.0.0 255.255.254.0
!
interface Vlan10
description LAN Subnet A
ip address 192.168.0.0 255.255.255.0
!
interface Vlan20
description LAN Subnet B
ip address 192.168.1.0 255.255.255.0
!
router eigrp 123
passive-interface Vlan10
passive-interface Vlan20
network 10.0.0.0 0.0.0.7
network 192.168.0.0 0.0.1.255
no auto-summary
    
```

K Defaults	Packet Types
K1 1	1 Update
K2 0	3 Query
K3 1	4 Reply
K4 0	5 Hello
K5 0	8 Acknowledge

Terminology

Advertised Distance · The metric for a route advertised by a neighbor

Feasible Distance · The distance advertised by a neighbor *plus* the cost to get to that neighbor

Stuck In Active (SIA) · The condition when a route becomes unreachable and not all queries are answered

Passive Interface · An interface which does not participate in EIGRP but whose network is advertised

Stub Router · A router with only one neighbor, and thus only one path to all networks not directly connected

Troubleshooting

- show ip eigrp interfaces
- show ip eigrp neighbors
- show ip eigrp topology
- debug ip eigrp
- debug ip eigrp packet
- debug ip eigrp neighbors