

## Tech Info Library

## **Inter•Poll: Why Hop Count Fluctuates**

Revised: 3/1/93 Security: Everyone

Inter • Poll: Why Hop Count Fluctuates

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TOPIC -----

I am using Inter•Poll on my network. The network is all Macintosh systems connected with Farallon's PhoneNET.

I did an echo test and sent out 200 packets at an interval of 0. The hop count fluctuated between 2 and 3. Why?

DISCUSSION -----

The hop count tells you how many routers the packet had to go through to get to the destination node.

All routers maintain complete routing tables that allow them to determine how to forward a datagram (packet) on the basis of its destination network number. RTMP (Routing Table Maintenance Protocol) allows routers to exchange their routing tables periodically. In this process, a router receiving the routing table of another router compares and updates its own table to record the shortest path for each destination network. This exchange process allows the routers to respond to changes in the connectivity of the Internet (for example, when a router goes down or a router is installed).

During this process of exchange, routers sometimes lose track of the shortest path to a particular network, and the packet may go through one or more additional routers to reach its destination. This is not uncommon and is not normally anything to be concerned about.

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