AppleTalk Phase 2: Network Nodes Store Recent Network Info

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TOPIC ---

On an AppleTalk Phase 2 network that has multiple levels of routers, does the
workstation retain information about the local router or about all routers that
exist on the network?

DISCUSSION --

EtherTalk 2.0 and TokenTalk 2.0 nodes store information about "recently heard
from" networks and routers. The node does not store information about all
routers on the Internet.

The first two paragraphs below are from the AppleTalk Phase 2 specification:

"The following information applies to AppleTalk Phase 2 nodes only. It is
desirable for nonrouting nodes to send each packet to the router yielding the
shortest route to the packet's destination network--the "best" router.
Although the current specification does not require this, an optional strategy
follows for implementing a "best routing" DDP algorithm in nonrouting nodes.

"When a packet arrives from an off-network node, DDP reads the data-link-level
source. This is the address of the last router on the route from the
originating network. This router should generally be the optimal "next router"
-- in terms of hops -- in the route back to that network. DDP maintains a
cache of "best routers" for "recently heard from" networks, and sends packets
to those routers for forwarding to those networks. If there is no cache entry
for a network, DDP sends the packet to any router, expecting that a response
packet will provide the information necessary to make an entry into the cache."

The algorithm in the preceding paragraph is used by EtherTalk 2.0 and TokenTalk
2.0 nodes. The phrase "recently heard from" networks means, in Apple's
implementation, networks that the node has heard from in the last 40 seconds or
so. After that, the cache is cleared of the network entry.
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