AppleTalk Phase 1: Nodes Send RTMP Packets On Different Routes

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TOPIC -----

It appears as if nodes on our nonextended (Phase 1) backbone (containing many routers) don't necessarily send data destined for a different zone along the route with the shortest distance. For example, during a copy, a node starts out sending packets to one router, and then switches, sending to different routers while still sending the same file. This creates excess traffic, as the routers have to forward the packets to the proper routers.

"Inside AppleTalk" Chapter on RTMP, pp. 5-17, 5-18 says that a node may listen for RTMP data packets and update its routing tables, causing its default router to "change continually (if there is more than one router on the network)."

With so many routers on one network, are the RTMP broadcasts causing all nodes to send data along different routes?

We plan to move completely to Phase 2 this summer, so the problem may not pertain to extended networks.

DISCUSSION -----

Your assumptions are correct. Each end node captures RTMP packets which are broadcast onto its cable segment. If you have multiple routers attached to a single cable, the end nodes will set their "AROUTER" (a low mem global) variable to the address of the router that sent the last RTMP packet. This can cause data to take a less than optimal route to its destination, but this is only true for AppleTalk Phase 1.

AppleTalk Phase 2 has an enhancement to DDP called "best route" which allows DDP to obtain a router to a remote node and then use that route for all future data transactions for the session. See "Inside AppleTalk" 2nd edition for more information concerning best route. As you stated, this won't be a problem as soon as the network is upgraded to Phase 2.

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