Tech Info Library

AppleTalk: A Discussion Of Problems Caused By Hello Broadcasts

Revised: 11/2/88
Security: Everyone

AppleTalk: A Discussion Of Problems Caused By "Hello" Broadcasts

==========

This article last reviewed: 29 August 1988

Customers with large networks comprising large numbers of computers (usually of diverse makes and kinds) have had to deal with two classes of AppleTalk problem.

The first problem has to do with the Routing Table Maintenance Protocol (RTMP) which causes AppleTalk devices to broadcast a "hello" message every 10 seconds, a message each device on the network must analyze. Some stated that Appletalk devices were the most talkative devices on the network.

The second problem is the limitation of 254 nodes on a single AppleTalk segment. Because there is no bridging provided by the standard EtherNet bridges AppleTalk sees all segments as one large network. Therefore, it does not take long to exceed this limit with Ethertalk and Fastpaths.

According to AppleTalk/EtherTalk engineering, if any workstations on a network have an AppleShare volume mounted, they will see increased traffic. When a workstation has an AppleShare volume mounted, it sends a request to the AppleShare server every 10 seconds asking for an update of the folder information for that volume. However, this is NOT a broadcast; it is a directed transaction to the AppleShare server that consists of one request from the workstation and one response from the server. This additional traffic should not cause a problem.

The only nodes that send broadcasts every 10 seconds are bridges and routers. They broadcast routing table information every 10 seconds, so that other routers can update their tables. Non-router nodes also listen to these broadcasts so they can keep track of a router address for next time they have to send a message across the internet.

Currently, EtherTalk (AppleTalk) network information packets also become Ethernet broadcasts. This means that non-AppleTalk nodes will get routing table and other broadcasts. A future release of EtherTalk will add a feature to send an EtherTalk broadcast that is NOT an Ethernet broadcast.

Lastly, AppleTalk/EtherTalk engineering is working on the AppleTalk's 254 nodes limit problem tentatively set for release in 1989.

Copyright 1988 Apple Computer, Inc.

Tech Info Library Article Number:3178