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ATalk Phase 2: Extracting Zone Multicast Addresses

This article last reviewed: 7 September 1990

TOPIC -----

I manage a large Ethernet network supporting Macintoshes and VAX systems. To manage the network traffic, we want to install filtering bridges to contain multicast packets within defined parts of the internet.

I understand that the Ethernet destination address for AppleTalk Phase 2 isn't broadcast, and zone multicasts are supported. How do you get access to the zone name/multicast address mapping for the Internet, as this is held within the bridges in the ZIT (Zone Information Tables)? We would need to dump the ZIT so that the bridge can be configured, but I can't find any utility that will extract the zone table from the Internet router. Do you know how this can be done?

DISCUSSION -----

There are no utilities that we know of to extract the zone multicast address from the routers of AppleTalk Phase 2 networks. You could use any of the new Macintosh-based Ethernet monitor programs (EtherPeek from the Avant Garde Group or Netminder from NEON Software) to extract the information.

There may be some problems even after you have the data. Zone multicast addresses are assigned on a dynamic basis, using an algorithm that gets the seed number of the multicast address from the zone name itself. If the zone names were changed, the multicast address could also change. There is also a problem where different zones can be assigned the same multicast address, in which case if you blocked one zone you would block all zones that are assigned to that multicast address.

I think you will find a small savings in packet traffic for the amount of work involved in setting up this non-standard approach to segmenting their network. Zone multicast traffic accounts for only a very small amount of the over all traffic present on the net. If you really want to segment your traffic, look at installing some Ethernet-based routers instead of the bridges. Routers are a much cleaner way of isolating network traffic in such situations.

You could also program their bridges to isolate all of the AppleTalk multicast addresses; the addresses start at 0x090007000000 and end at 0x0900070000FC. 0x0900007FFFFFFF is also used as the general AppleTalk broadcast address.

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Keywords: <None>

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19960215 11:05:19.00

Tech Info Library Article Number: 6099