Tech Info Library

AppleTalk: Zone and Performance Issues

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TOPIC--

I have an Internet containing five networks with a total of 75 Macintosh
systems using Hayes InterBridges as routers. All five networks are in a single
zone to minimize user confusion.

Is there a performance loss doing this? Should I separate the networks into
different zones?

DISCUSSION---

Zones provide almost no performance benefit. Zones were implemented to provide
a more convenient interface to the Internet for the user and network
administrator. NBP lookups are faster with more than one zone. Other than
that, there is no performance difference.

It would not be a good idea to have all the file servers or LaserWriters for
one Internet within a single network. The following is an example of
improperly designed Internet:

Network "A" contains 15 Macintosh systems. Network "B" contains four
LaserWriter printers and 15 Macintosh systems. Both networks are connected to
a backbone via routers.

Here is what happens during a sample printing operation:

Printing from a node on network A to a LaserWriter in network B:

1) The packets from the node on network A are sent to the network A
   router.

2) The packets are then sent by the network A router, over the backbone,
   to the network B router.

3) The network B router sends the packets to the destination LaserWriter
   on network B.

4) All packets sent by the LaserWriter giving the job status return to the
   node on network A, along the same path in reverse.

Printing from a node on network B to a LaserWriter in network B:

1) The packets from the node on network B are sent to the destination
   LaserWriter on network B.

2) All packets sent by the LaserWriter giving the job status return to the
   node on network B directly.

As you can see by the two examples, it is significantly more efficient to print
to a LaserWriter within the same network, whether or not the LaserWriter is in
the same zone.

When deciding what components to put into a network, keep the above information
in mind. It also applies to other networked devices, like file servers, not
just LaserWriters.

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