DECnet: Tunneling and Network Traffic

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TOPIC ---

Using PATHWORKS and DECnet tunnels, I am trying to set up a 23-location WAN. I have a star and a central VAX at the home office. I'm going to use existing 9.6Kb DECnet links because I expect to do night time downloads only.

1) What would the RTMP traffic look like over the DECnet links assuming I have around five routers in the home office? Do the half routers on each VAX exchange routing table information?

2) Is there internal tunnel maintenance traffic outside of the standard AppleTalk traffic?

3) Anything else to look at?

DISCUSSION ---

1) With DECnet Tunneling, each VAX on each side of the tunnel is an AppleTalk half-router for routing AppleTalk traffic over DECnet. Since AppleTalk for VMS version 3.0 is a full implementation of AppleTalk Phase 2 protocol stack on VAX/VMS, the RTMP traffic will be similar to any other AppleTalk network. And because half-routers are logically a full router, they periodically broadcast and receive RTMP Data packets to and from all other routers on its directly connected networks, backbones, or the DECnet links.

2) Within the Tunnel traffic, there should not be any other traffic besides the standard AppleTalk traffic. The Tunnel is made up of DECnet logical links, so it needs all the DECnet maintenance traffic (such as circuit hello and listen traffic) to be maintained.

3) With AppleTalk for VMS 3.0, we strongly recommend that your wide-area link is at least 56KB or higher. Though you don't expect a high traffic load, we are not clear on how you will do the night time download. If your network has any delay longer than two minutes, you might have problems with AppleShare. If the ASP session timer of two

minutes expires, the session terminates and you lose the server connection.

Another problem may be with NBP lookup. Users might not see the file server when opening the Chooser and selecting the AppleShare icon. Some sites have to change a resource, called GNRL, to increase the Chooser interval timer and retry timer values. You can find a complete description of these two problems in the Tech Info Library on AppleLink. Search using keywords "AppleTalk and Wide and Area".

The other thing to look into is the capability of the central VAX since it serves as a single-point hub to the other 23 nodes. Does it have enough power to provide satisfactory performance?

Since you already have DECnet links, we suggest bringing up one tunnel at a time and stress test it with typical file download. Keep adding tunnels to see if performance remains acceptable. You might find that, at some point, you will want to add resources to the central VAX and/or increase the speed of the communications link.

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