MacDFT: How to Tune Token Ring-Host Polling

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TOPIC ---

I have a network running under the following configuration:

• 4mbps Token Ring

• Various Macintoshes with MacDFT 1.1, configured as DSPUs in NCP gen

• 3174-51R with a Token Ring feature, connected to FEP via a 9600bps leased
  line

Everything works fine, except that when MacDFT is launched, it takes 3-4
minutes for the connection to come up. My best guess is that the host is
probably set to poll very infrequently on an inactive connection.
Therefore, when you make the request to attach, you sit around with a COMM
505 until the next poll.

The link status on the 3174 is always 02. It's 01 on the DSPUs until the
host finds it, when it changes to 02.

Is there a parameter that can be set in the NCP gen (or in the controller
config) to shorten the time it takes to attach to the host?

DISCUSSION --

There is an NCP Tuning parameter called SERVLIM which might help you in
this case. The following is from the IBM's "The Remote 3174 Token-Ring
Gateway", section 1.4.2.1, page 15, part number GG24-3366-00:

  "Contact" polling (the transmission of a SNRM, SNRME or DISC) is not
  subject to the data polling cycle. After the number of passes through
  the Service Order Table specified by SERVLIM, the NCP will perform one
  contact poll for a PU. On the next contact poll, it will start looking
  for an outstanding SNRM, SNRME, or DISC for the next entry in the
  Service Order Table. SERVLIM thus determines the ratio of
  activation/deactivation processing to normal data transfer. Setting the
  value high (its maximum is 254) means that relatively few attempts are

made to contact a PU in order to activate it. While this may help
performance for active users by reducing the time spent transmitting and
waiting for responses to special polls, it has a negative impact on
resource activation times. This effect may be more marked in the remote
Token-Ring Gateway environment since two polls are required to establish
connectivity between the NCP and each DSPU.

In environments where 3270 Emulation is being started and terminated
frequently and devices powered on and off, which is often the case with
PC users, a high value should not be specified. The long wait for the
VTAM 'USS10' message after requesting a host session may be considered
unacceptable. During the tests, we (IBM) found that a SERVLIM value of
254 led to resource activation times of some minutes. We (IBM)
recommend setting SERVLIM to 4 as a good starting point for your
installation.

Note: the questioner reported later that the above suggestion was right on
target. The problem went away as soon as they dropped the SERVLIM
parameter to a lower number.

Keywords: <None>

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