Power Macintosh: SoftWindows, NetWare, Token Ring (5/94)

Article Created: 4 April 1994
Article Reviewed/Updated: 20 May 1994

TOPIC --

I've looked at Power Macintosh in my environment which includes a Token Ring
network with both Windows and Macintosh computers, mainframe access, and NetWare
(including NetWare for Macintosh).

I've seen a Power Macintosh 7100/66 with the Apple Token Ring 4/16 NB Card.
Everything worked fine where TokenTalk connected to NetWare volumes with NetWare
for Macintosh, we accessed the mainframe with MacMainFrame, and we accessed the
Internet with MacTCP and MacTCP Token Ring.

With SoftWindows I could access applications from a mounted NetWare volume
through SoftWindows' Shared Volumes feature. Finally I wanted to login to
NetWare via IPX. The SoftWindows README said IPX is supported on Token Ring,
provided the card is written to Apple Computer's .TOKN specifications.

I launched NetWare, and did login by typing 'token', and various drivers loaded,
LSL, tokenspc, ODI, and so on. NETX launched to attach to the server, but the
process failed with the message, "Can't find network server."

What do I need to make this work?

DISCUSSION ---

The issue is the ability of an Apple Token Ring card and associated driver to
send and receive SPX packets. SPX packets are the 802.2 version of Novell's IPX
packet format whereby the SAP is 0xE0 as opposed to 0xFF. Novell has gotten
around this problem with MacIPX by manipulating the Token Ring driver directly.

The Token Ring drivers on the NSI 1.4.5 disk make it possible for both the Apple
Token Ring 4/16 NB Card and the Apple Token Ring NB/c Card to send and receive
SPX packets as well as other packets types that have non-SNAP SAPs. The API is
identical to Ethernet Card API.

These drivers are what we would call "dumb" drivers. In the case of the Apple
Token Ring 4/16 NB Card driver, the 68000 processor on card is not used at all.
This is a good thing for most situations. The driver is faster than the old
driver and has an added benefit of not putting the card in bus master mode. The
only caveat here is the dumb driver does not work with the SNA•ps Gateway

product. A "smart" driver is included on the NSI 1.4.5 disk just for the SNA•ps
Gateway product which puts the card in bus master mode.

Another issue to note here is that it's not possible to have the "dumb" and
"smart" drivers for the Apple Token Ring 4/16 NB Card installed and used at the
same time. If both drivers are installed, the "smart" driver will be used.

The Apple Token Ring NB/c Card is never in bus master mode and has only one
driver. This driver does not support the SNA•ps Gateway product at this time.

Article Change History:
20 May 1994 - Additional information and clarification.
09 May 1994 - Updated article with NSI 1.4.5 information.

Support Information Services
Copyright 1994, Apple Computer, Inc.

Keywords: knts,kppc

==

This information is from the Apple Technical Information Library.

19960215 11:05:19.00

Tech Info Library Article Number: 15160