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LaserWriter 16/600 PS: Problem w/ Novell Services on WANs (5/95)

Revised: 5/16/95
Security: Everyone

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Article Created: 16 May 1995

TOPIC ---

I ran into some problems with the Apple LaserWriter 16/600 PS, corrected by
turning off the Novell option in the printer. Here is the problem I had with
the LaserWriter 16/600 PS on my Novell WAN (Wide Area Network).

The Novell traffic generated by two LaserWriter 16/600 printers may have been
generating as much as 40% or more of our traffic back to our backbone, and our
T1 has been "bumping" 100% utilization on occasion, which is unusual for our
network.   We noticed a dramatic drop in traffic after to turning off the
Netware support on these printers.

The captures with a network sniffer show the printers attempting to configure
themselves as queue servers for Netware. To do this they attach to each Novell
Netware server advertising print services and see if any queues match those on
the print server. If they do not succeed they in one pass of all servers they
try each again, and again, and again. It looks like the printers poll
continually.

Is there a way to change this behavior?

DISCUSSION --

The IPX implementation on the LaserWriter 16/600 PS has a potential problem on
some networks. The problem is a potential degradation of network performance,
especially across WAN links, when the Netware mode on the Apple LaserWriter
16/600 PS is enabled (the default) and the Novell server(s) have PSERVER
queues.

When the LaserWriter 16/600 PS first starts up and periodically thereafter, it
tries to attach to each Novell Netware server that is advertising print services
to see if any queues on the server should be serviced by the printer. On a
large, multiple server or multiple printer network, these informational packets
can consume a large amount of bandwidth. The impact can be greater if the

network is also on a WAN, because the informational packets stretching across
slower speed WAN links may have greater impact on those links.

The solution is to use LWPMAN to configure the printer for specific servers that
are local to the printer, to prevent unnecessary traffic from being sent
everywhere. As a temporary fix, or a secondary fix, you can adjust the queues
scan time defaults from within LWPMAN as well (if the queue is scanned less
often, less packets are transmitted, but the job remains in the queue,
unserviced for a longer stretch of time).

Support Information Services

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Tech Info Library Article Number:17752