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LaserWriter Pro 810: Disappearing/Connection problems (6/95)

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TOPIC -----

There have been reports of the LaserWriter Pro 810 printer disappearing off network (disappearing completely from the Chooser). Turning the printer off, then back may resolve the issue temporarily, but where do I go from here?

DISCUSSION -----

With all reports of the LaserWriter Pro 810 disappearing from the Chooser when connected using Ethernet, we suggest the following (in order of priority):

Step 1

Determine if printer is really "disappearing":

Have customer open the Chooser and select a LaserWriter driver, then look for the 810. If the customer can see the printer in the Chooser, but is unable to print to it, then check for NOVELL or COPS (CoOperative Printing Solutions) servers on the network as outlined below.

Workaround

If the printer is not showing up in the Chooser, then the best workaround here is to put the printer on LocalTalk if AppleTalk is the only protocol being used on the printer. LocalTalk has equal to or greater performance than Ethernet on the LaserWriter Pro 810 due to the LaserWriter Pro 810's slower Ethernet architecture.

Step 2

Verify the printer's hardware connection:

LocalTalk or Ethernet (10-BASE-T/twisted pair, or 10-BASE-2/thin wire/coax), and verify that printer is connected appropriately:

Remember, connection to the 810 using 10-BASE-2 should be with a T-Connector and a terminator -- NOT with the thin coax cable directly connected to the BNC connector of the printer. Test the printer's functionality on an isolated net, or on a good known node/port of the network.

Step 3

Determine if Novell server is on the same network as the LaserWriter Pro 810:

Determine if a Novell server is present on the network, and if the server is running ATPS (AppleTalk Print Spooler). There is a known incompatibility when connecting a LaserWriter Pro 810 to a NetWare 3.1x server using ATPS. The incompatibility is caused by different implementations of the AppleTalk PAP protocol in the LaserWriter Pro 810 and Netware. Check if ATPS is running and if there is an entry for the 810 in the ATPS.CFG file (path:SYS:/SYSTEM/ATPS.CFG).

RESOLUTION:

Try using one of the workarounds outlined in the TIL article "LaserWriter Pro 810 and NetWare 3.1x" which includes deleting the ATPS entry (or commenting it out with a "#"), or using IPX on the backend of the Novell print server. If the workarounds are not acceptable to the customer, then have the customer get their Ethernet Card (service part 661-0852) replaced. All current service stock for the LW Pro 810 Ethernet Card as of 5/22/95 have new Printserver ROMs on-board that resolve the issue. A CS code should be issued for parts/labor to the authorized Apple service provider installing the new Ethernet Card.

Step 4

Determine if COPS Pserve spooler is being used:

There is a conflict with COPS Pserve spooler due to how AARP-Request are handled. The LaserWriter Pro 810 sends an AARP-Request, and if Pserve cannot process the AARP-Request quickly, the LaserWriter Pro 810 AARP-Request times-out resulting in the Pserve server sometimes not being able to open a connection with the printer. This problem is directly influenced by network traffic (high), and the number of printers captured by the printer (usually 4 or more).

Workaround

The best workaround here is to use a LocalTalk connection. If the printer needs to be on Ethernet, then the v1.2 PrintServer ROMs will resolve this issue.

Step 5

Determine if a Windows NT Advanced Server is trying to capture LaserWriter Pro 810 for print spooling:

If so, there is a known incompatibility when connecting a LaserWriter Pro 810 to a Windows NT Advanced Server. The incompatibility is very similar to the one with NetWare servers and is caused by different implementations of the AppleTalk PAP protocol in the LaserWriter Pro 810 and the Windows NT Advanced Server.

RESOLUTION:

Have the customer get their Ethernet Card (service part 661-0852) replaced. All current service stock for the LW Pro 810 Ethernet Card as of 5/22/95 have new Printserver ROMs on-board that resolve the issue. A CS code should be issued for parts/labor to the authorized Apple service provider installing the new Ethernet Card.

Step 6

Reset the Ethernet (PrintServer) board:

Follow the procedure outlined below in the instructions for replacing the Ethernet board, except replace steps #6, 7, 8, and 9 with the following:

- Place a 0.1-in. jumper on location W2 of the Ethernet board.
- Gently slide the I/O controller board back into the printer just far enough so you can reconnect the I/O power and I/O-to-DC controller cables.

CAUTION:

Be sure to install the I/O-to-DC controller cable with the key facing the front of the printer. If you install the cable backwards, the printer will not function properly and an MCU test message will appear in the printer's control panel when you power on the printer.

NOTE:

You do not need to push the board in completely as you will be removing it again.

- Plug in the power cable and switch on the printer. Wait for at least five minutes until the printer's control panel reads "Ready to Print."
- Switch off the printer and unplug the power cable.
- Remove the I/O Controller board from the printer.
- Remove the jumper from location W2 on the Ethernet board.

WARNING:

If any virtual printers (other than the default ones) have been created, they will be erased once the procedure is performed.

Step 7

Replace the Ethernet (PrintServer) board:

Replace the Ethernet (PrintServer) board, Apple service part #661-0852 (called Ethernet Card on the Service Price Pages), via an authorized Apple Service

Provider. The new Ethernet Card will have the new v1.2 PrintServer ROMs which have been known to resolve the disappearing issue. To verify if the new PrintServer ROMs (2) are installed, look at the label on each ROM for the following numbers:

U30
331045-112

U31
331045-212

NOTE:

The old RESET procedure is NO LONGER REQUIRED since the new Printserver ROMs are already installed on the Ethernet Card.

Step 8

AppleLink Tech.Comm if the problem persists.

Instructions for replacing the
LaserWriter Pro 810 Ethernet (Printserver) board

BEFORE YOU BEGIN: Make sure that you are in an ESD-safe work area and are properly grounded.

Step 1

Align the replacement Ethernet board connector with the connector on the I/O controller board. Press down evenly on the Ethernet board to install it on the I/O controller board.

Step 2

Replace the four bolts that secure the Ethernet board to the I/O controller board.

Step 3

Gently slide the I/O controller board back into the printer and reconnect the I/O power and I/O-to-DC controller cables BEFORE fully pushing the I/O controller board completely into the printer.

CAUTION:

Be sure to install the I/O-to-DC controller cable with the key facing the front of the printer. If you install the cable backwards, the printer will not function properly and an MCU test message will appear in the printer's control panel when you power on the printer.

Step 4

Replace the six screws that secure the I/O controller board to the printer.

Step 5

Plug in the power cord and reconnect all I/O cables to the back of the printer.

Step 6

Switch ON the printer and wait until the printer's control panel reads "Ready to Print."

Step 7

The Ethernet board has now been replaced and will show up on the network as "LW Pro 810" or "LW Pro 810f" (if a fax card is installed). You can use the LaserWriter Utility or Apple Printer Utility to rename the printer.

Step 8

Return the old Ethernet card to Apple Service as a KBB (known bad board).

NOTE:

A ROM upgrade has been shown to correct some of the network printing problems. For more information on a ROM upgrade for the LaserWriter Pro 810, please refer to "LaserWriter Pro 810: ROM Upgrade For Network Printing" (17646).

Article Change History:

- 09 Aug 1995 - Added cross-reference.
- 12 Jun 1995 - Replaced several steps. Changed title.
- 21 Feb 1995 - Added Resetting ethernet board and reformatted.

Support Information Services

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