

# Intel<sup>®</sup> NetportExpress<sup>™</sup> Print Server

## AppleTalk\* Configuration Guide

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The Intel NetportExpress<sup>™</sup> 10, 10/100, PRO and PRO/100 print servers support AppleTalk\* printing. This document explains the AppleTalk protocol implementation for NetportExpress print servers. Configuration *requires* a Windows\* workstation or an IP address and supported Web browser. The print server is not only designed to support AppleTalk, but to enhance performance by allowing Macintosh clients equal access to printers.

### Operations Overview:

Figure 1 provides an overview of how the print servers operate. Once configured, the print server supports EtherTalk\* (AppleTalk protocol over Ethernet) and TokenTalk (AppleTalk protocol over Token Ring). LocalTalk\* is supported only if the Macintosh workstation is connected via a router with EtherTalk running on the other side of the router (The print server does not have a LocalTalk port).

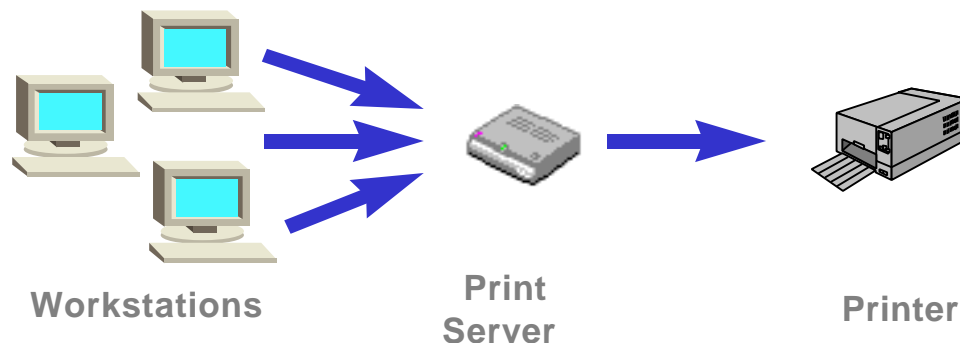


Figure 1

### **Setting up the NetportExpress print server for AppleTalk Printing**

The Intel Netport<sup>®</sup> Manager software is used to configure the print server for printing from a Windows\* workstation. The AppleTalk parameters are:

- Zone* – Used to assign the print server to an AppleTalk Zone
- Chooser Name* – Printer name to appear in the Macintosh Chooser
- Printer Type* – LaserWriter or other printer driver
- Font Group* – Fonts that apply to the printer defined
- Port* – Enables the port for AppleTalk printing

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## AppleTalk\* Printing

There are two basic ways to print from a Macintosh\*, foreground and background. In foreground printing, the Macintosh talks directly with the print server to gain access to a port. If the port is busy, the Macintosh waits and tries again. The print job is not spooled or queued. The user must wait until the Macintosh obtains access to the printer and sends the job.

In background printing, the Macintosh spools the print job to the user's local hard disk (using the Macintosh Print Monitor application). The Macintosh can then obtain access to the printer and send the print job in the background. This allows the user quicker access to the Macintosh, as contention for the printer is handled in the background while the user continues to work in the foreground.

### Step 1: Install the Print Server

1. Connect a network cable between the print server and your 10 or 100Mbps hub or switch. Use Category 5 cable with RJ-45 network connectors. Cable length must not exceed 328 feet (100 meters). Use a standard numbered port on the hub or switch, not a port labeled Out to Hub, Uplink, Daisy Chain, X, or Crossover.
2. Connect the printer cables. Connect the first printer to the printer port using a standard IEEE 1284 compliant cable that does not exceed six feet (1.83 meters).
3. Connect the print server power adapter to the power connector and a power source.

When the print server is first powered on, the status light on the front of the unit will go from red to amber to flashing amber to green. After the light turns green, the print server has completed its self-tests and is ready to print. When the print server is printing, the light will blink green.

### Step 2: Install the Software

Tip: The workstation must have either the NetBEUI or IPX protocol installed.

1. Insert the NetportExpress Print Server CD in the selected Windows PC. If the setup program doesn't run automatically start, run setup.exe from the CD.
  - ◆ Windows 98, Windows 95, or Windows NT\* 4.0: From the Start menu, click Run and browse to the CD drive.
  - ◆ Windows NT 3.51: Start Program Manager. From the File menu, click Run. Browse to the CD drive.
2. Click Install Netport® Manager and follow the on-screen instructions.

### Step 3: Configure the Print Server

1. Select the print server whose Device ID matches that of the NetportExpress print server you installed. The Device ID is printed on the bottom of the print server.
2. Click the Config Wizard button and follow the onscreen prompts.
  - ◆ Select a name for the print server. Click Next.
  - ◆ Select AppleTalk printing
  - ◆ Enter the AppleTalk Zone from the list or enter another one.  
**Note: At least one AppleTalk Zone must exist to print.**
  - ◆ Select the port you wish to configure.
  - ◆ Chooser Name: Enter the name that you wish to appear in the Chooser window of the Macintosh workstation. The default Chooser Name is the device ID, followed by -P1, -P2, or -S1. These names identify the two parallel ports and the serial port on the NetportExpress print servers.  
**Note: You cannot use these characters in the Chooser name: @ \* : = ;**
  - ◆ Printer Type: The type of printer connected to the selected port. LaserWriter\* is the default printer type and should be used for any PostScript\* printer.
  - ◆ Font Group: If your printer supports bi-directional communication, the printer automatically sets the font group. Otherwise, select the font group that matches the font group used by the printer. If you select No Font, the fonts are downloaded to the printer with each print job.
  - ◆ Select the port speed applicable to your printer.
  - ◆ Save the changes and close the Config Wizard.

For instructions on configuring the print server with Web Netport Manager, consult the *Intel® NetportExpress Print Server Setup Guide*.

### Step 4: Set up a Workstation to Print

1. At a Macintosh workstation, from the Apple menu, select Chooser.
2. Select the printer driver for the printer connected to the NetportExpress print server. If you're using a PostScript\* printer, you can select either the LaserWriter\* icon or the PostScript printer icon for your printer.
3. The Chooser window displays an AppleTalk Zone list. Select the Zone you specified when you configured the NetportExpress print server.
4. Select the Chooser name for the NetportExpress print server you want the Macintosh workstation to use.
3. Close the Chooser window.

## Top Technical Issues with AppleTalk

- ◆ “No AppleTalk Zone can be found on the network.” An AppleTalk Zone must be visible in the Macintosh Chooser window. AppleTalk Zones are created by AppleTalk routers. The router’s purpose is to divide devices on one or more networks up into logical groups. Information on setting up zones and networks with routers should be available in the router’s documentation.
- ◆ “My printer doesn’t appear in the Chooser.” The wrong printer type might be entered on the print server. Try setting “LaserWriter” as the printer type in Netport Manager or Web Netport Manager.
- ◆ “The router’s configuration of zone names is incomplete.” If the Chooser does not show the zone name configured on the NetportExpress print server, check your router’s configuration of zone names.
- ◆ “My printer will not print.” Make sure you are using a printer that supports PostScript printing. Consult your printer manufacturer’s documentation.