

5

Connecting to the network

This chapter discusses the basic stages of connecting the printer to the network, provides an overview of network requirements and protocol diagrams, and describes how to physically connect the printer to an established network.

Network installation is generally performed by a network or printing administrator and involves four stages:

- Physical connection of the printer to the network and to the server. If this step includes preparation of a network node and routing of the printer network cable, refer to the network documentation for specific installation instructions.



If you plan to run the Command WorkStation software from a remote computer, you will need to install the software and connect the Command WorkStation computer to the network along with the printer.

- Configuring UNIX, Windows NT 4.0 and IPX (Novell) network servers to provide client access to the Phaser 790 as a color PostScript or PCL printer. No special configuration of AppleShare servers is required. Refer to the chapter *Setting up the network server*.
- Setting up the printer for the network environment. At the Printer Control Panel, configure the Server Setup, Network Setup, and Printer Setup. You can then configure the remaining setup options from the Printer Control Panel, the Command WorkStation, or remote workstation with WebSetup. You can also calibrate the Phaser 790. Refer to the chapters, *Performing the setup from the Printer Control Panel* and *Using ColorWise Pro Tools*.

- Preparing each client workstation that will be printing to the Phaser 790. Install the appropriate printer drivers and print description files and connect the workstation to the network. When appropriate, install Fiery utilities and an Internet browser. Verify the printer in the list of printers and run a test print. Refer to the *Installing user software* chapter for your operating system.

The system administrator is responsible for monitoring and maintaining system performance and troubleshooting any network problems that arise. For more information, refer to the chapter *Problem solving*.

Supported network protocols and frame types

The Phaser 790 supports TCP/IP, IPX/SPX, and AppleTalk protocols (rules that enable computers on a network to communicate with each other). These protocols are supported on Mac OS, Windows, and UNIX platforms. All can be simultaneously active. Workstations that use other protocols can print through a server that uses one of the protocols mentioned.

Printing through a Token Ring configuration (supports the TCP/IP and IPX/SPX protocols) is an option that requires purchase and installation of a Token Ring card in the server.

The following table lists supported protocols, printing services, frame types and platforms:

Protocol	Printing Services	Frame Types	Platforms
Novell IPX/SPX	PServer (Printer Server) Enables printing in NetWare networks. Can run in bindery and NDS modes. Supports up to 8 servers and an NDS connection.	Ethernet 802.2 Ethernet 802.3 Ethernet_II Ethernet SNAP Token Ring Token Ring SNAP	Windows NT Windows 95/98 Windows 2000
TCP/IP	LPD (Line Printer Daemon), the standard TCP/IP printing protocol http protocols for web pages Enables printing in TCP/IP networks using LPR clients. Supports direct socket interface with port 9100.	Ethernet_II Token Ring SNAP	Windows NT Windows 2000 Solaris 2.4 SunOS 4.1.x
TCP/IP	SMB (Server Message Block), the nbt protocol that supports Windows	Ethernet_II Token Ring SNAP	Windows NT Windows 95/98 Windows 2000
AppleTalk	PAP (Printer Access Protocol)	Ethernet SNAP (EtherTalk Phase 2 only)	Macintosh Windows 2000

Quick path to installation

The Phaser 790 can use Ethernet cabling (with the optional Token Ring adapter) to multiple workstations. It also supports a parallel cable connection to a single workstation.

Ethernet cabling

The standard Ethernet cabling includes the following:

- Unshielded Twisted Pair (UTP), defined as Category 5 for 100BaseT (Fast Ethernet)
- Unshielded Twisted Pair (UTP), Category 3, 4, or 5 for use with 10BaseT

The cable uses an 8-pin RJ-45 connector that plugs into the RJ-45 socket on the printer.

Do not attach cables to more than one Ethernet connector; only one Ethernet connection can be made at any one time.

Parallel cable connection

The Phaser 790 can also accept print jobs from a Windows computer through its high-speed, bi-directional parallel port. This connection is useful for portable computers and for workstations that use dedicated networks using protocols other than AppleTalk, TCP/IP, or IPX. Parallel port connections can be used simultaneously with network connections.

The parallel port uses a mini Centronics cable (Xerox part number 98S4330).

The diagrams on the following pages illustrate typical system installations. Refer to the page with your preferred platform and network type. For actual installation and setup, refer to the chapters that are appropriate to your system.

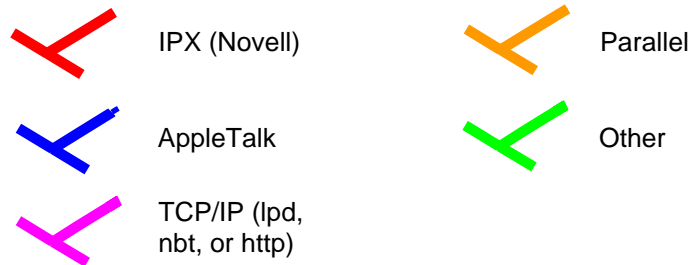
The illustrations are logical diagrams and are not intended to describe the physical arrangement (topology) of devices on the network. A variety of physical arrangements is possible with each logical arrangement.

If the network uses more than one protocol or more than one type of workstation, combine the setups listed for each component of your system. Multiple protocols (illustrated as parallel lines) can run on the same cable. A solid connection from the printer with an arrow indicates that other supported network types can be operational at the same time.

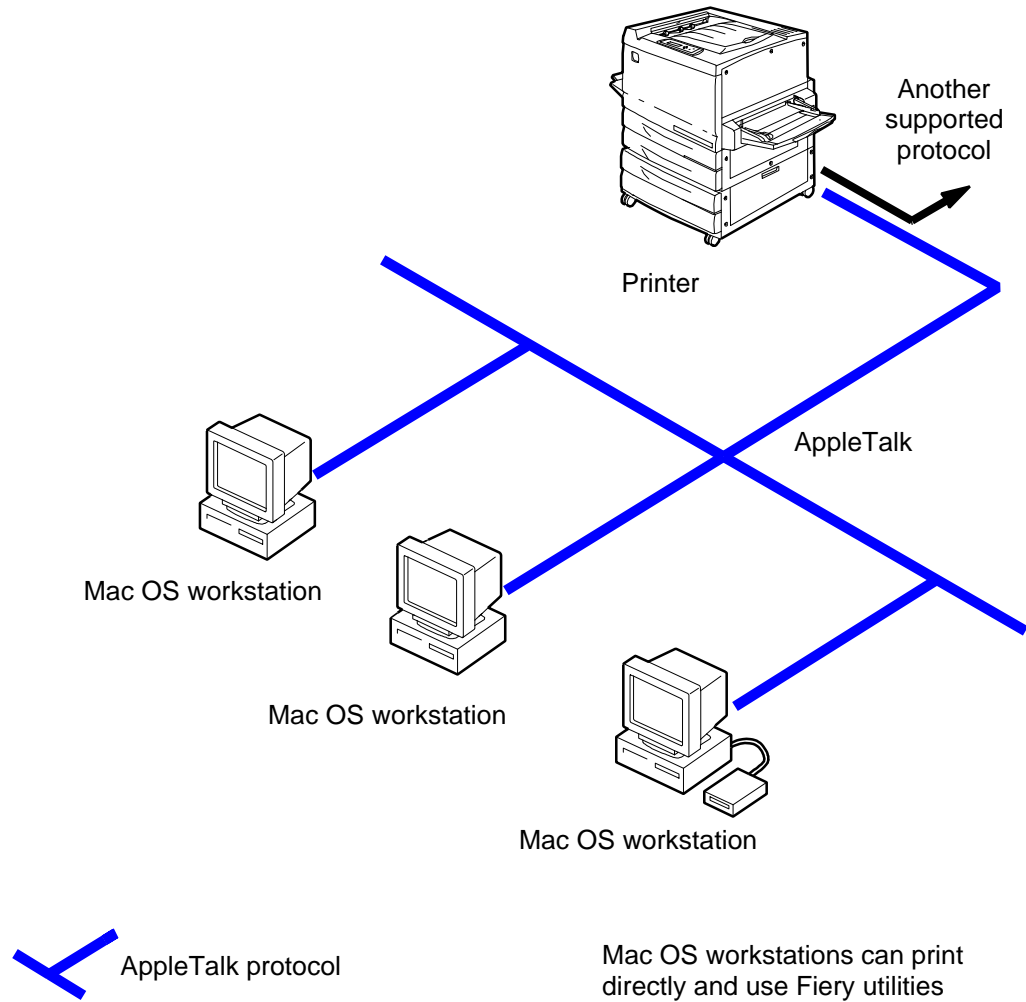


The IPX/SPX and TCP/IP functionality outlined in this section is available on both Ethernet and Token Ring networks. AppleTalk is supported on Ethernet only.

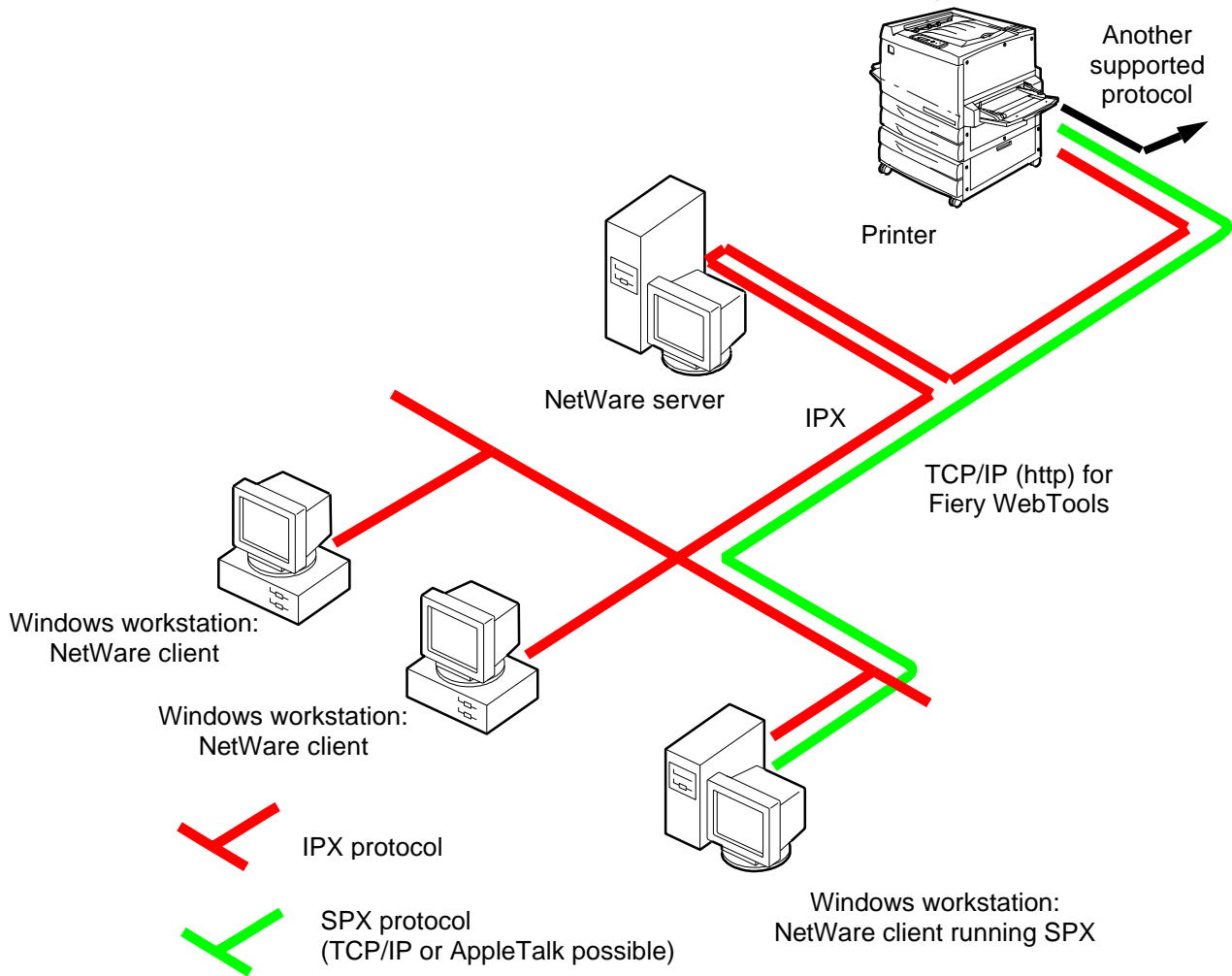
The protocols used in these diagrams are illustrated as follows:



Mac OS environment with AppleTalk



Windows computers in a Novell environment



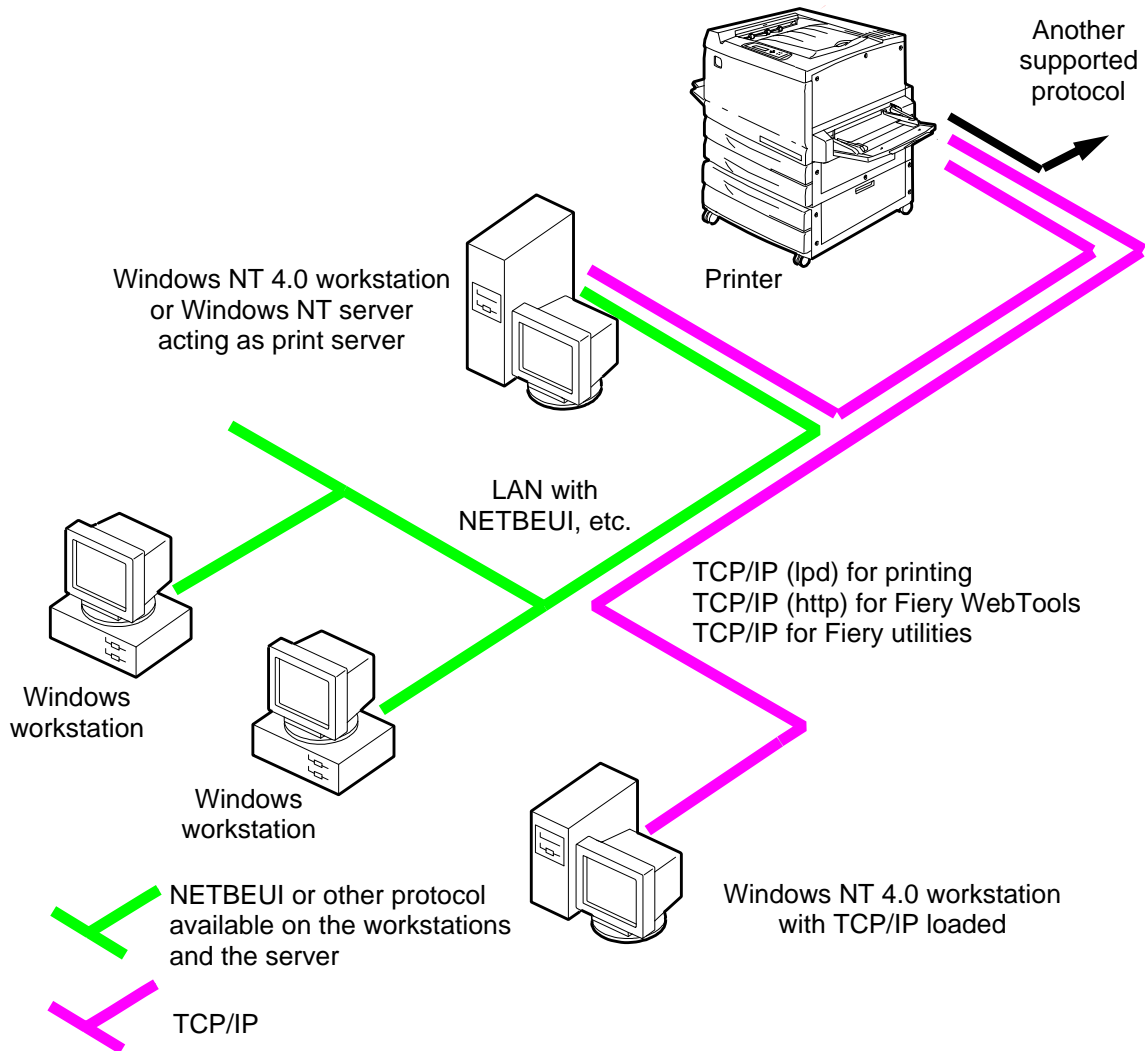
Printing on this network:

All Windows workstations can print through the NetWare server

For using Fiery WebTools:

A Windows 95/98 workstation with TCP/IP (http) loaded

Windows NT 4.0 server environment



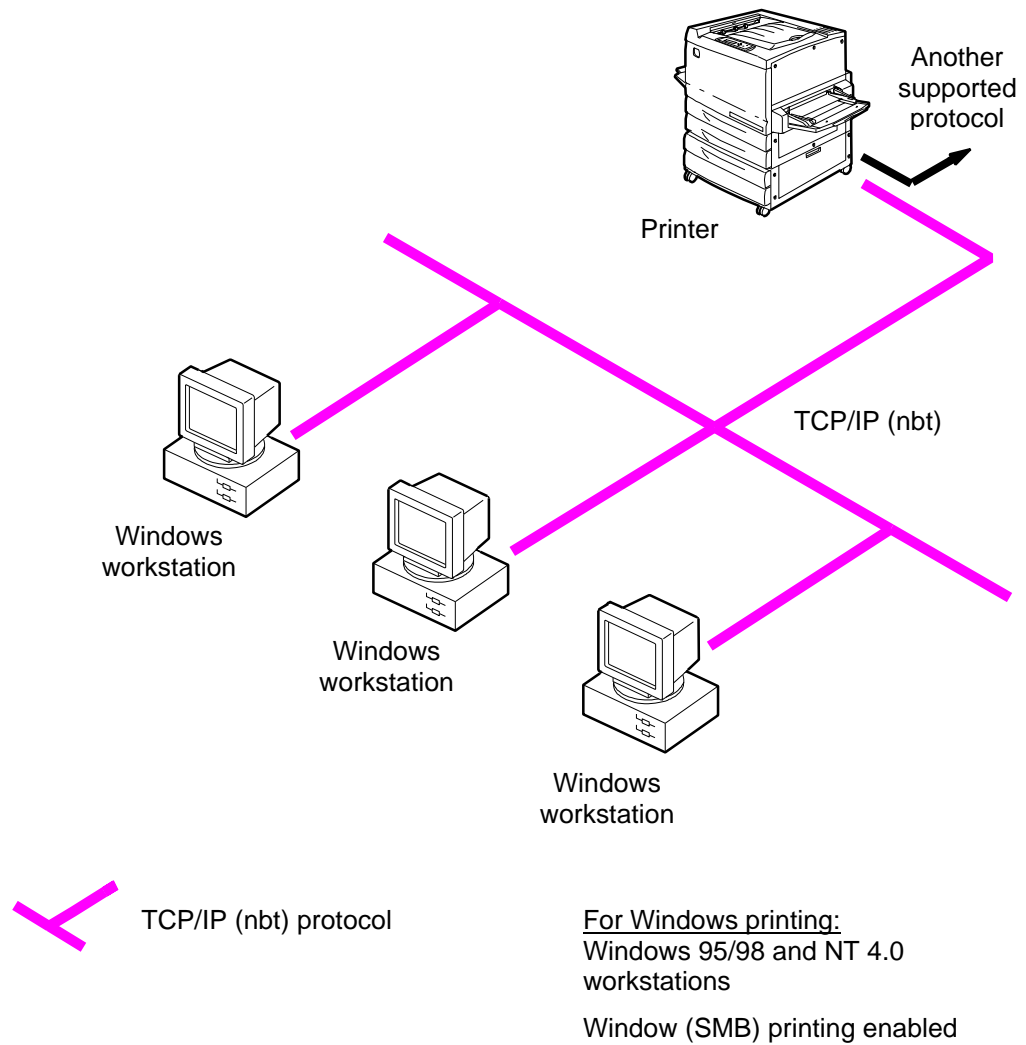
Printing on this network:

Windows 95/98 workstations can print using a protocol available on the Windows NT 4.0 print server. Windows 4.0 machines can print using TCP/IP with the lpd protocol.

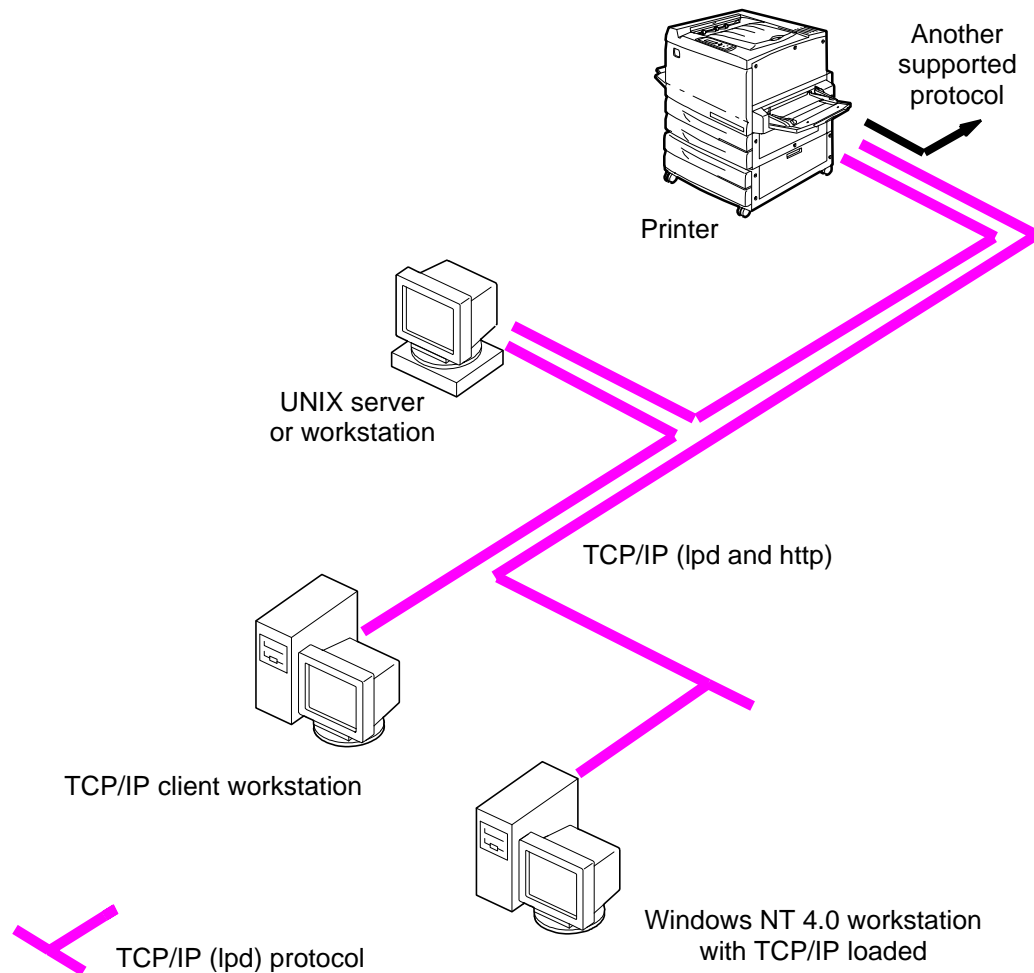
For using Fiery utilities and WebTools:

A Windows NT 4.0 workstation with TCP/IP loaded

Windows computers using Windows printing



Unix and Windows NT 4.0 workstations on a TCP/IP network



Printing on this network:

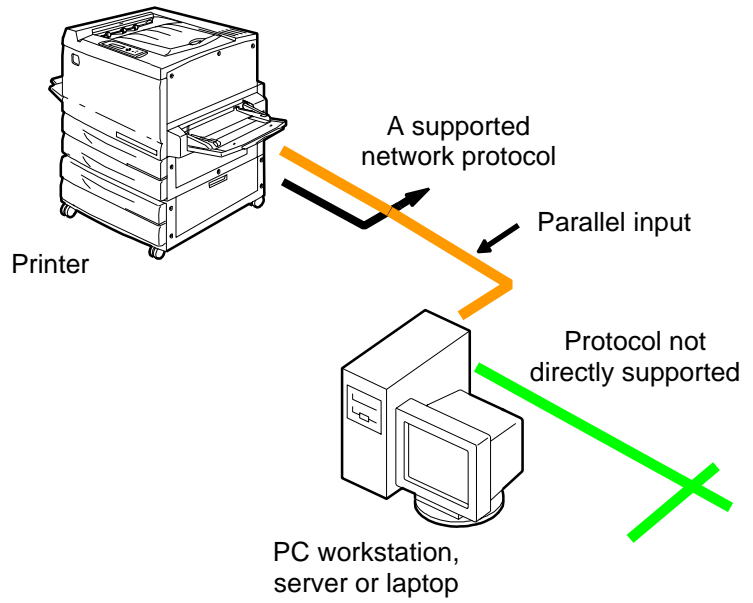
UNIX workstations with the TCP/IP (lpd) protocol can print directly and act as host for shared printing

TCP/IP workstations can print through UNIX server or directly; requires TCP/IP and the lpr print service loaded

For running Fiery utilities and WebTools:

Only a Windows 95/98, NT 4.0, or Mac OS workstation with TCP/IP loaded can use these applications

Parallel port connection



With the parallel port enabled, the printer can accept and print jobs sent to its parallel port

Connecting the Phaser 790 to the network

Complete the following steps before you configure the Phaser 790 and the workstations that will print to it:

1. Ensure that the Phaser 790 is plugged in, switched on, and functioning properly.
2. Prepare the network servers to share Phaser 790 software and to enable networked users to print to the printer.
3. Power off the Phaser 790.



CAUTION

Do not attach cables to more than one Ethernet connector; only one Ethernet connection can be made at any one time.

4. Connect the appropriate network cable to the printer.
 - For **UTP cable** for 100BaseT or 10BaseT, connect the RJ-45 cable connector to the RJ-45 socket on the back of the printer.
 - For **parallel cabling**, connect the mini Centronics cable (Xerox part number 98S4330) to the parallel port on the back of the printer. Connect the other end of the cable to the parallel port on the Windows workstation. Power on the workstation and the Phaser 790.
5. Configure network servers for printing. Refer to the chapter *Setting up the network server*.