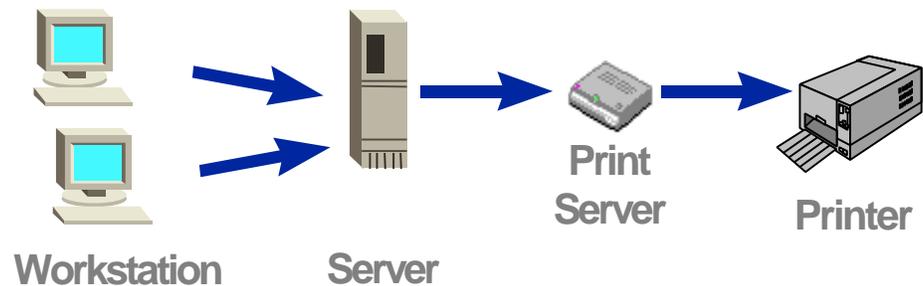


# Intel® NetportExpress™ 10 and 10/100 Print Servers

## Linux\* Red Hat 5.1 and S.u.S.E. 5.3 Configuration

The Intel NetportExpress™ 10 and 10/100 print servers support Linux\* systems (Red Hat 5.1 and S.u.S.E. 5.3)



### 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.

### Step 2: Assign an IP Address to the Print Server

By default, the NetportExpress™ print server will check to see if there is a DHCP (Dynamic Host Configuration Protocol) server on the network to automatically assign the print server a proper TCP/IP address. If the print server obtained an IP address from a DHCP server, you should set a static IP address using Netport® Manager, your Web browser, or Telnet. To change the IP address, browse or telnet to the print server using the current IP address. To check for the current IP address, press the Test Page button on the print server.

Note: For setting an IP address where there is no DHCP server, see [APPENDIX A](#).

## Step 3: Configure the Linux System to Print

1. Log in to your Linux workstation as root.
2. Add the NetportExpress print server's IP address and host name to the `/etc/hosts` file on the Linux host.
3. Add the following entries for the printer to the bottom of the `/etc/printcap` file:

ENTRY	ENTRY DESCRIPTION
<code>printer_name alternate_name comment:\</code>	Printer, alternate printer name, comment
<code>:rm=HOST:\</code>	Defines the NetportExpress IP address
<code>:rp=PORT:\</code>	Defines the port on the NetportExpress
	◆ LPT1_PASSTHRU or LPT1_TEXT
	◆ LPT2_PASSTHRU or LPT2_TEXT
	◆ COM1_PASSTHRU or COM1_TEXT
	Use PASSTHRU for PCL or PostScript* files and TEXT for standard UNIX text files
<code>:mx#0:\</code>	Provides unlimited buffer space
<code>:lf=/var/spool/lpd/Error-log\</code>	Logs errors to a log file
<code>:sh:\</code>	Suppresses burst page header sheet
<code>:sd=/var/spool/lpd/printer_name:</code>	Defines the directory for spooled files

### Example printcap:

```
lj3ps|LaserJet_IIIsi|Printer_on_Port1:\
:rm=192.168.219.181:\
:rp=LPT1_PASSTHRU:\
:mx#0:\
:lf=/var/spool/lpd/Error-log\
:sh:\
:sd=/var/spool/lpd/lj3ps:
```

### IMPORTANT:

- ◆ The last entry must end with a colon (:) not with a backslash (\).
- ◆ Each printer you set up requires a unique spool directory.

4. If the spool directory does not exist, go to the shell prompt and create the spool directory for the printer. To do this, type these commands:

```
mkdir /var/spool/lpd/printer_name
chown daemon /var/spool/lpd/printer_name
chgrp daemon /var/spool/lpd/printer_name
chmod 775 /var/spool/lpd/printer_name
```

where `/var/spool/lpd/printer_name` defines the directory for spooled files as specified in the `/etc/printcap` file by the `sd=` option.

Example: `/var/spool/lpd/lj3ps`

5. Enable queuing and printing by typing the following command:

```
lpc up all
```

This command need not be issued again unless printing has been disabled at some point.

## 6. Test the configuration by typing:

```
ping HOST
lpr -P PRINTER FILE
```

where `HOST` is the IP address or name of the NetportExpress print server as it appears in the `/etc/hosts` file.

`PRINTER` is the name of the printer in the printcap file.

`FILE` is the name of a file to be printed.

## Appendix A: Setting an IP Address without DHCP

If the print server has no IP address, you can set one using:

- A. Netport Manager (Windows\* only)
- B. ARP and Ping commands

### ◆ Setting an IP address with Netport Manager (Windows only):

*Note:* Requires the workstation be running NetBEUI or IPX protocol.

1. From the Netport Manager main window, select the NetportExpress print server(s) you want to update.
2. Click the Configure button and select TCP/IP.

### ◆ Setting an IP address using ARP and Ping

*Note:* This method works only if the print server did NOT obtain an IP address from a DHCP server. Use the Test Page button to verify the print server has not received an IP address.

1. Log in to a UNIX workstation as root.
2. Use a UNIX editor like `vi` to add the NetportExpress IP address and host name to the `/etc/hosts` file.
3. Register the print server on your workstation by typing:

```
arp -s IP_address network_address temp
```

where `IP_address` is the IP address you want to set for the print server.

`network_address` is the NetportExpress print server network address from the test page or the bottom of the print server device. Enter this address in two-character segments separated by colons. Example: `00:A0:C9:1E:5D:B8`

4. Set the NetportExpress print server IP address by typing:

```
ping IP_address
```

where `IP_address` is the IP address you specified above.