

IntelliBar Net Printers

UNIX/Linux Installation Guide

UNIX Network Configuration

The IntelliBar Ethernet print server appears to the network as a UNIX host computer with a unique IP address running the line printer daemon (lpd) protocol. As a result, any host computer that supports the Berkeley remote-LPR command can spool jobs to the print server without the need for any special software on the host computer. Important Note: Before configuring a UNIX print queue, the IntelliBar must have a valid IP address.

Berkeley UNIX Host Configuration

Berkeley UNIX host computers include Linux, Digital Equipment Corporation Digital UNIX, OSF/1, and ULTRIX; Compaq Tru64 UNIX; SunOS (not Solaris), SCO UNIX; and many others. Sun Solaris, HP/UX, IBM AIX users should skip to the appropriate sections later in this manual.

Important Note: Do not use the Linux X-Windows graphical user interface printer configuration utility, because it does not work with IntelliBar print servers. Instead Linux users should follow the configuration steps listed in this section.

Important Note: SCO UNIX users should use the rlpconf command to create a printer and automatically configure the /etc/printcap file (you will still need to edit the /etc/hosts file). Enter the print server's service name (XCD_xxxxxx_P1) as the name of the printer (refer to the print server self-test for the exact name of this service), and enter the name of the print server that you assigned in the /etc/hosts file as the remote host name; note that because this name must be unique for each print-er, we recommend using the XCD_xxxxxx_P1 service instead of the normal BINARY_P1 service.

1. Edit the /etc/hosts file: (or equivalent local host table). For example:
192.189.207.33 / xcdprinter
2. Edit the printcap file: An example of a typical entry in the printcap file is:

```
LaserPrinter:\
:lp=\
:rm=XCD:\
:rp=BINARY_P1:\
:sd=/usr/spool/lpd/LaserPrinter
```

"LaserPrinter" is the queue name.

"XCD" matches the name in the hosts file.

"BINARY_P1" is the print server's service name. (NOTE: Use TEXT_P1 instead of BINARY_P1 for text files.)

"sd" is the spool directory.

3. Create the spool directory: The lpd spool directory is usually located in the /usr/spool directory. To create a new spool directory, use the mkdir command; for example:

```
mkdir /usr/spool/lpd/LaserPrinter
```

4. Print using the standard lpr command:

```
lpr -PLaserJet filename
```

5. For AT&T based UNIX systems, such as SCO, use the standard lp command:

```
lp -dLaserJet filename
```

Sun Solaris Configuration

To use a IntelliBar print server with Sun Solaris, first use the Host Manager in the Admintool utility to add the print server IP address and name to the /etc/hosts file.

1. Click on None - Use /etc files on host
2. Click on Apply
3. Click on Edit and then Add Host
4. Enter the print server name as the Host Name (this name is anything you want, but should not have an "_" character in it).
5. Enter the IP address and Ethernet address of the print server (the Ethernet address has the format aa:bb:cc:dd:ee:ff)
6. Click Add and then close the Host Manager windows

Then use the Printer Manager in the Admintool utility under Open Windows as follows:

1. Select Edit w Select Add
2. Select Add Access to Remote Printer
3. At the PrinterName prompt, type any desired name for the print queue
4. At the Printer Server prompt, type:

```
name\! servicename  
(for example, LaserJet\!BINARY_P1), where:
```

- name matches the print server name as entered in the hosts table.
 - servicename is the print service name. For binary graphics files use the service BINARY_P1; for text files use the service TEXT_P1.
5. Make sure that the Print Server OS is set to BSD (this is the default setting).
 6. Select Add
 7. To print, use the standard lp command; for example:

```
lp -dLaserJet filename
```

Notes:

- We recommend using the /etc/hosts file for the printer name rather than NIS or other name services.
- Due to a bug in the Sun lpd implementation on Solaris 2.4 and earlier releases, may cause problems printing very long print jobs. The workaround is to configure the IntelliBar as an HP JetDirect card using the HP JetAdmin for UNIX software.
- Solaris print queues can also be configured from the UNIX shell using the lpadmin command.

HP/UX Configuration

To configure a print server using HP/UX 10.x, use the sam program and execute the following steps:

1. When you get a list of options, select Printers and Plotters.
2. Select LP Spooler.
3. Select Printers and Plotters.
4. Select Actions and then Add Remote Printer/Plotter.
5. Enter any name as the Printer Name (this will be the name of the print queue).
6. Enter the IP address of the print server as the Remote System Name.
7. Enter the desired print server service name (BINARY_P1 for binary files or TEXT_P1 for text files) as the Remote Printer Name.
8. Check the box next to Remote Printer is on BSD System.
9. You may accept the default values for the remaining items
10. Click OK to configure the printer.
11. You should now be able to print using the lp -d command with the printer name.

Notes:

- The configuration for HP Distributed Print Services and for earlier versions of HP/UX is slightly different.
- The print server can also be configured as a JetDirect card using HP/UX. To do this, you will need the HP UNIX Host Printing Software (part of HP's JetAdmin for UNIX).

IBM AIX Configuration

To configure a print server on IBM AIX 4.x, use the SMIT program as follows:

1. Enter smit and select Devices
2. Select Printer/plotter
3. Select Manage remote printer subsystem
4. Select Client services
5. Select Remote printer queues
6. Select Add a remote queue
7. Enter the following remote queue settings:
8. Name of queue to add (user selectable)
9. Activate the queue (Yes)
10. Destination host (IntelliBar IP address; or if you have configured the /etc/hosts file, use the name of the print server that you specified in that file)
11. Name of queue on remote printer (BINARY_P1 for binary files or TEXT_P1 for text files)
12. Name of device to add (user selectable; for example lp0)
13. You should now be able to print using the normal lp -d command.

Notes:

- The configuration for earlier versions of AIX is slightly different. Refer to the Administrator's Manual on the CD-ROM for details.
- The print server can also be configured as a JetDirect card using AIX. To do this, refer to your AIX documentation.

Configuration on Other Systems

The IntelliBar can be used with any computer system that supports either the lpr/lpd protocol or the HP JetDirect card (the IntelliBar parallel port is port 9100 while the serial port is port 9101). Refer to your system's documentation for information on configuring lpr/lpd or JetDirect print queues.