Printing

CUPS

A short history.

Overview

Installation and setup

use ports run cupsd http://localhost:631/admin

OK, some of the worst systems administration problems, the most frustrating times come fromt trying to get ink onto paper.

We shall install CUPS on a USB conected printer. THen on a network enabled printer. discuss the diffeences, and the secruity implicatons.

PPD file

I am using a Brother HL-5270DN printer, it is ethernet enabled and fast. If I look up the PPD file at I find the entry easily and it says it works "perfectly"

so a PPD file looks like

```
*PPD-Adobe: "4.3"
*% This program is free software; you can redistribute it and/or modify it
*% under the terms of the GNU General Public License as pub-
lished by the Free
...
*%=================================================
*%  Copyright(C) 2005 Brother Industries, Ltd.
*%  "Brother HL-5270DN BR-Script3"
*%=================================================

*%==== General Information Keywords =======================
*FormatVersion: "4.3"
*FileVersion: "1.03"
*LanguageEncoding: ISOLatin1
*LanguageVersion: English
*Manufacturer: "Brother"
...
```

Where do i get my PPD file from?

There is a list, maintained by volunteers of PPD files and the printers they work with (and how well they work) at http://www.linuxprinting.org/printer_list.cgi

Using command line printing

This should work

$ lpr -P Brother_HL_5270DN mytestfile.txt

however there may be problems. The most common is that the old non CUPS printing software is also named lp or lpr. and that they sit higher up $PATH than the stuff CUPS installs

$ /usr/local/bin/lpr -P Brother_HL_5270DN resolv.conf

if that works you just have a path problem. It can be fixed on install of CUPS by XXX Or you can move /usr/local/bin *before* /usr/bin in your $PATH[1] Or force a replace of the old with a softlink to the new

$ ln -s /usr/local/bin/lpr /usr/bin/lpr

trouble shooting

1. Unable to open device file "/dev/ulpt0": Permission denied

solution 1
http://lists.freebsd.org/pipermail/freebsd-questions/2006-July/126232.html
crw------- 1 root wheel 0, 78 May 19 19:07 ttyvf crw-r--r-- 1 root operator 0, 80 May 19 19:19 ulpt0 crw-r--r-- 1 root operator 0, 81 May 19 19:07 unlpt0 lrwxr-xr-x 1 root wheel 6 May 19 19:07 urandom -> random
solution 1
http://lists.freebsd.org/pipermail/freebsd-questions/2006-July/126232.html
The printer is a HL-1430 connected to USB and the error I got was: 'Unable to open USB device "usb:/dev/unlpt0" Permission Denied.' Now I don't know if this is relevant in any way. After trying all kinds of solutions I finally decided to simply do "chmod 777 /dev/unlpt0", and that solved the problem.
results 1 Nope, it dod not complain, bt still sat there and did nothing
put the setup back > chmod 0644 ulpt0
solutuon 2 Be sensible
The model number shows this is HP LaserJet 1000W printer Q1342A - end of life
Linuxprinting.org http://www.openprinting.org/show_printer.cgi?recnum=HP-LaserJet_1000
OK, This printer requires the foo2zjs printer driver. This needs firmware loading up each boot. This is going to get complicated
http://foo2zjs.rkkda.com/
OK - we download from there. (note on paypal request) This asks us to run make (on freebsd we need gmake - its easy to tell - make fails horribly)
then reading INSTALL we need to get some more firmware files
it seems I need http://foo2zjs.rkkda.com/firmware/sihp1000.tar.gz
but the code assumes I have wget. It seemed easier to pkg_add wget than check the code - it seems to just untar it but...
OK

HP LASERJET 1000/1005/1018/1020, P1005/P1006/P1505 NOTES

These printers need their firmware downloaded to them every time they are powered up.

On Linux with USB connected printer: If you are running Linux and the printer is connected via USB, you can arrange for the firmware to be automatically downloaded to the printer by performing one more installation step:
make install-hotplug
Unplug and re-plug the USB printer.

On another OS or with a parallel port connected printer:

You must send a firmware file to the printer each time you power it up. If you downloaded the extra files for the HP above, a typical command line to load the firmware would be ONE of these:

===> cat /usr/share/foo2zjs/firmware/sihp1000.dl > /dev/usb/lp0 cat /usr/share/foo2zjs/firmware/sihp10 > /dev/usb/lp0 cat /usr/share/foo2zjs/firmware/sihp1018.dl > /dev/usb/lp0 cat /usr/share/foo2zjs/firmware/sihp > /dev/usb/lp0 cat /usr/share/foo2xqx/firmware/sihpP1005.dl > /dev/usb/lp0

problem 3 manhattan# cat /usr/share/foo2zjs/firmware/sihp1000.dl > /dev/ulpt0 cat: stdout: Input/output error

OK - http://foo2zjs.rkkda.com/forum/read.php?12,605,605

first you should build the kernel without ulpt driver. then you should get foo2zjs and follow the instructions in the readme file. if you'll have any questions - report me!

ok - rebuild the kernel in /usr/src/sys/i386/conf is GENERIC a file telng make how to build the kernel and what to leave ut. Comment out ulpt rebuid

OK - cat /usr/share/foo2zjs/firmware/sihp1000.dl > /dev/ugen0.1

that actually did something - it wrote and the printer got excited. However... cups does not see it...

OK - I give up - buy a parallel to ethernet adaptor

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[1] From http://www.freebsddiary.org/cups.php