Linux simple fax printer server mini−HOWTO (faxsrv−mini−HOWTO)

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No warranties. *Comments are always welcome. This document describes in details one of the simplest ways to setup fax server on your Linux system. The fax is available to the users on the local host and to network users.*

1.Introduction

2.Questions & Answers

- 2.1 What is a fax printer server ?
- 2.2 How to set it up ?
- 2.3 How do I use it, for the server ?
- 2.4 Where do I specify the target Fax number ?
- 2.5 How do I use it from other Unixes on the net ?
- 2.6 Caldera, LPRng users

3.Latest version, Contacting the author.

1.Introduction

To get a working printer/fax on the linux machine you should have some software and fax modem.

The Printing software will be using the fax software as a print filter. The efax will find the fax number from the print Job number and will send the fax. The efax software was written be Ed Casas <edc@cce.com>.

The rest of the document is build as Q&A.

2.Questions & Answers

2.1 What is a fax printer server ?

A fax printer server is a setup of few programs: efax, and the print server, in such a way that sending a fax from the computer is as simple as sending printout to a printer.

2.2 How to set it up ?

Setting efax as fax print server includes few problems As I worked it out few times, I decided to collect this wisdom in this small mini−HOWTO, comments are welcome at `<erez@newplaces.com>`. I describe them here and the solutions, and all the instruction in short steps:

The efax Software

make sure you have the efax package.

On RPM based system use the command 'rpm −qv efax'.

You can get the efax sources in tar.gz format from sunsite: ftp://sunsite.unc.edu/pub/Linux/apps/serialcomm/fax/efax08a.tar.gz or binary rpm package: ftp://ftp.redhat.com/pub/redhat/redhat−4.2/i386/RedHat/RPMS/efax−0.8a−3.i386.rpm

The printcap entry.

The efax documentation is missing the : at the end of the printcap entry.

Solution: Add the following `/etc/printcap` entry:

```
fax:\
        :lp=/dev/null:\
        :sd=/var/spool/fax:\
        :if=/usr/bin/faxlpr:
```

The fax command

Use hard link and not symbolic link to the fax command.

Run the command:

```
ln /usr/bin/fax /usr/bin/faxlpr
```

The /usr/bin/fax file.

Edit the /usr/bin/fax to your preferences:

choose the right Fax Class for your modem:

```
CLASS=2.0
```

Set the FROM="your international phone number" field

```
NAME="Your Name"
```

Add the line for conversion of international phone number to local for example in Israel you would use:

```
TELCVT='sed −e s/+972/0/ −e s/+/00/'  # Israel
```

There is a problem in the file in line 586, change the `cfile=...` with the following two lines:

```
cfile=`/usr/bin/tail −1 lock`
cfile=`cat $cfile`
```

at lines 586,587 there shouldn't be '−' signs the lines are:

```
0) echo "$1" | mail −s "fax to $num succeeded" $user@$host ;;
*) echo "$1" | mail −s "fax to $num failed   " $user@$host ;;
```

The /var/spool/fax directory.

create the directory /var/spool/fax

```
mkdir /var/spool/fax
chmod 777 /var/spool/fax
```

The lock file.

The lock file (`/var/spool/fax/lock`) is being created with incorrect permissions, use the following command to set it correctly:

```
touch /var/spool/fax/lock ; chmod 644 /var/spool/fax/lock
```

The /dev/modem special file.

The efax program is expecting real device file at the `/dev/modem` and will not work with symbolic link, so create a device file with the same major and minor number as the `/dev/cua?` the is connected to the modem. The file should have the rw−rw−rw− mode to enable any user to use the fax software.

```
ls −lL /dev/modem
rm /dev/modem
mknod /dev/modem c Mj Mi
chmod 666 /dev/modem
```

Mj is 5, and Mi is 64 for the cua0, 65 for cua1 and so on. For example (for cua1):

```
mknod /dev/modem c 5 65
```

The `/var/lock` directory.

change the mode at the `/var/lock` directory

```
chmod 1777 /var/lock
```

2.3 How do I use it, for the server ?

You should use the fax printer using the −P option and the −J option with the fax number.

use one of the following lpr commands:

```
lpr −Pfax −J <Fax−Number> [file−names]
any command | lpr −Pfax −J <Fax−Number>
```

2.4 Where do I specify the target Fax number ?

After the −J option.

2.5 How do I use it from other Unixes on the net ?

Add the following entry into the `/etc/printcap` file and the client Linux systems, create the spool directory, and so on ...

```
fax:\
        :sd=/var/spool/fax:\
        :mx#0:\
        :sh:\
        :rm=host.domain:\
        :rp=fax:
```

add the name of the client hosts into the `/etc/hosts.lpd` on the fax server machine.

use it as before.

Note:

The header string that efax adds to the fax pages is not effected by the user name that sends the fax. (can be updated).

2.6 Caldera, LPRng users

The LPRng printing management software is using a different method to handle the control file.

Thanks to Luca Montecchiani <m.luca@usa.net>, who found the problem and the solution. Here is an update to the `/usr/bin/fax` file. The following line replace the two simple **cfile=...** lines at lines 586,587

```
# Modified to work also with the LPRng package
# Luca Montecchiani (08/11/97 m.luca@usa.net)
if [ !−z "$CONTROL_FILE" ]
    then
        cfile=`cat tail −1 lock`
        cfile=`cat $cfile`
    else
```

```
        cfile=$CONTROL_FILE
fi
```

3.Latest version, Contacting the author.

The latest version of this file can be accessed through the world wide web using URLs

```
http://www.newplaces.com/linux/faxsrv/faxsrv-mini-HOWTO.sgml
http://www.newplaces.com/linux/faxsrv/faxsrv-mini-HOWTO.html
http://www.newplaces.com/linux/faxsrv/faxsrv-mini-HOWTO.txt
http://www.newplaces.com/linux/faxsrv/faxsrv-mini-HOWTO.info
```

You can contact me


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