



Flexible Document Delivery (FDD) Installation Instructions

Overview

For **FDD** print you will need to have **GUI Print** installed plus an email and a fax component:

- 1) Elm (email)
- 2) Hylafax (fax)

Installation of these prerequisite products is greatly streamlined by using Linux package specific install utilities.

Redhat:

Use the utility 'yum' to install packages. The format is:

```
$ yum install {package}
```

The administrator must have a RedHat Network (RHN) login which in turn requires a valid licensed product.

Debian:

Use the utility 'apt-get' to install packages. The format is:

```
$ apt-get install {package}
```

If you have trouble locating a repository with the packages you need, check the file:

```
/etc/apt/sources.list
```

If you need to install packages from source, you will need a development system-- compiler (gcc), libraries, and development utilities (binutils). Download and unpack the source to each package and use the sequence:

```
$ ./configure  
$ make  
$ make install
```

Details are provided in Appendices.

1. Email Prerequisite

Elm Installation-- See Appendix A.

Elm configuration

Configuration:

```
vi /etc/mail/local-host-names
# local-host-names - include all aliases for your machine here.
{your outgoing email server}
```

For each user:

```
for c in `ls -l /home` ;do echo "Login: $c" ;su $c -c elm ;done
... ".elm" subdirectory
May I create this directory for you (yes/no/quit) ? [y] :
... "/home/anylogin/Mail" directory
May I create this directory for you (yes/no/quit) ? [y] :
```

Manually start sendmail service.

```
/etc/init.d/sendmail restart
Starting sendmail:           [ OK ]
Starting sm-client:         [ OK ]
/etc/init.d/sendmail start
```

Testing:

Run: /fitrix/bin/sendmailtest.sh

```
#!/bin/sh
cDate=`date`
/usr/sbin/sendmail -v toms@fourthgeneration.com <<EOF
This is a test on: $cDate
EOF
# End...
```

```
$ cd tmp; /fitrix/bin/elmtest.sh myname@mydomain.com
$ cd tmp; /fitrix/bin/elmtest.sh toms@fourthgeneration.com
```

2. Fax Prerequisite

Hylafax Installation-- See Appendix B.
Modem Install and setup-- See Appendix C.

Hylafax configuration

Add a line to: 'vi /etc/rc.d/rc.local'

```
chmod 666 /dev/ttyS0
```

Plug in a modem and test.

```
$ cu -l ttyS0
Connected.
at+fclass=?
0,1,2.0

OK
~. <no newline>
Disconnected.
```

Setup:

```
$ faxsetup
...
Area code []? 678
...
```

Manually start hylafax service.

```
/etc/init.d/hylafax restart
Starting HylaFAX queue manager (faxq): [ OK ]
Starting HylaFAX server (hfaxd): [ OK ]
```

```
$ faxmodem
Serial port that modem is connected to []? ttyS0
...
Country code [1]? <NL>
Area code [415]? 678
Phone number of fax modem [+1.999.555.1212]? +1.678.589.4894
Local identification string (for TSI/CIG) ["NothingSetup"]? Main Setup
...
Probing for best speed to talk to modem: 38400 OK.
...
$ faxaddmodem
*** Re-run faxmodem ***
$ faxmodem ttyS0
$ faxrm 25 26
```

Testing:

```
$ hylafaxtest.sh {fax_number} {email_address}
```

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3. Do the actual FDD Install

```
$ install_fdd.sh -s
```

```
Are you root.....OK
Check for switches.....OK
Find Apache document root...../var/www/html OK
Check Apache document root path exists.....OK
Check for directory '/fitrix'.....OK
Check for directory '/fitrix/fx_tools/bin'.....OK
Check for directory '/fitrix/fx_tools_rt/bin'.....OK
Copy scripts to: '/fitrix/bin'.....OK
Copy scripts to: '/fitrix/fx_tools/bin' and set links to '/fitrix/bin'.....OK
Copy scripts to: '/fitrix/fx_tools_rt/bin' and set links to '/fitrix/bin'...OK
Set permissions under $documentRoot/pdfprint.....OK
Add all users to group 'guiprint'.....OK
Modify '/fitrix/bin/env_xtra.sh.....OK
Clean up.....OK
Backups (if made) are: {name}_20091203_120440
```

Switch -s implies a re-install or update and prevents the overwriting of document templates (*.std).

See Appendix D for details.

4. Testing

```
pdfprocessortest.sh
```

Trouble shooting:

Reset Faxing

```
/sbin/service/hylafax stop
chmod 666 /dev/ttyS0
cu -l ttyS0
at+fclass=?
~.
/sbin/service/hylafax stop
faxmodem ttyS0
```

```
$ faxstat -das
```

You do not see:

```
HylaFAX scheduler on virtual_57: Running
Modem ttyS0 (+1.678.512.1234): Waiting for modem to come ready
```

Resolution:

```
$ chmod 666 /dev/ttyS0
```

```
$ faxstat -das
```

You see:

```
...
Modem ttyS0 (5894894): Waiting for modem to come ready
JID Pri S Owner Number Pages Dials TTS Status
78 127 W toms 97704323448 0:0 0:12
```

but it does not change

Resolution

```
$ faxmodem ttyS0
```

Printing not working

```
$ lpstat -t
```

```
lpstat -t
scheduler is running
system default destination: Lexmark2
...
device for Lexmark2: ipp://penguin.fgss.com:631/printers/Lexmark2
...
Lexmark2 accepting requests since Tue 29 Jul 2008 11:13:30 PM EDT
...
printer Lexmark2 is idle. enabled since Tue 29 Jul 2008 11:13:30 PM EDT
Lexmark2-1          toms          27648    Tue 29 Jul 2008 11:20:36 PM EDT
Unable to lookup host 'xxx.xxx.com' - Unknown host
```

Resolution:

```
Change: /etc/hosts:
          999.999.999.999          xxx.xxx.com          xxx
```

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Appendix A:

1. Sendmail (prerequisite):

Check if installed:

```
/sbin/chkconfig --list sendmail
```

Install

Redhat:

```
yum install sendmail
```

Debian:

```
PATH=/sbin:$PATH # ldconfig
apt-get install sendmail-bin
cd /etc/mail
ln -s /usr/lib/sm.bin smrsh
```

Start up sendmail service a system boot.

RedHat

```
su -c '/sbin/chkconfig --level 345 sendmail on'
```

Debian

```
update-rc.d sendmail defaults
```

2. Elm:

Install:

Download source:

<http://www.instinct.org/elm/files/tarballs/elm2.5.8.tar.gz>

Place in a temporary directory and pack.

```
[su -c 'mkdir /usr/local/pub']
[/usr/src/redhat/SOURCES]
```

```
tar xvfz elm2.5.8.tar.gz
```

```
cd elm2.5.8
```

```
./Configure [Take all defaults except the one below]
```

...

```
Any additional cc flags? [-fpcc-struct-return] -fpcc-struct-return -DI_STDARG
```

...

```
What is your domain name? [.UUCP] localdomain {or other}
```

```
make
```

```
make install
```

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Appendix B:

1. uucp (cu) (prerequisite):

Install

Redhat: <code>yum install sharutils</code> <code>yum install uucp</code>	or /usr/src/redhat/RPMS/i386 <code>rpm -i sharutils-4.2.1-22.2.i386.rpm</code> <code>rpm -i uucp-1.07-3.i386.rpm</code>
---	---

Debian: <code>apt-get install uucp</code>

2. Hylafax:

Install

Redhat: <code>yum install hylafax</code>	or: <code>rpm -i hylafax-4.4.4-1rhel4.i386.rpm</code> <code>rpm -i hylafax-4.4.4-1rhel3.i386.rpm</code>
--	---

Debian: <code>apt-get install hylafax-server</code>

Start up hylafax service a system boot.

RedHat <code>su -c '/sbin/chkconfig --level 345 hylafax on'</code>
--

Debian <code>update-rc.d hylafax defaults</code>
--

Appendix C:

Modem firmware update:

Make sure modem is plugged in:

```
$ cu -l ttyS0
Connected.
at+fclass=?
0,1,2.0

OK
~. <no newline>
*** Be patient ***
Disconnected.
```

From the Linux distribution unpack the file below into a temporary directory:

```
tar xvfz \server\media\linux\Hardware\Modem\USR5686F.E.D.05.04.03-v5.4.79.tar.gz
```

Now install the firmware flash:

```
./mdmflash-v1.0.0.7 /dev/ttyS0 USR5686F.E.D.05.04.03-v5.4.79.dmf
```

```
Firmware Rev:      5.4.79
Firmware Date: 2007/08/23
This modem firmware is used for the following USRobotics product(s):
00568603
00568604
00568605

This may take a few minutes.....
Preparing to download modem firmware
Flash process is finished, checking.....
Your USRobotics modem firmware has successfully loaded.
```

```
. /fitrix/bin/env_dev.sh
/sbin/service hylafax stop
/sbin/service hylafax start
faxmodem ttyS0
hylafaxtest.sh {fax_number_including_dial_out_prefix} {email_address}
hylafaxtest.sh 97704323448 toms@fourthgeneration.com
```

Appendix D:

1. Setup up some scripts:

Modify script: /fitrix/bin/env_extra.sh

```
...
export mn_pdfprocessor=pdfprocessor.sh
export mn_fax_dialoutprefix="9" {if needed for fax}
export mn_noscreen=0
export mn_nopdfviewer=0
export mn_noexport=0
export mn_noedit=0
export mn_nohostprinter=0
export mn_noclientprinter=0
export mn_noemail=0
export mn_nofile=0
export mn_nofax=0
export mn_fdd=1
...
```

2. Set permissions

```
: ${documentRoot:=/var/www/html}
chmod -R 775 $documentRoot/pdfprint/pdfctest
chown -R root:guiprint $documentRoot/pdfprint/pdfctest
```

3. Logos

Place all logos here:

```
$documentRoot/pdfprint/images
```

In the form:

```
logo_<database>.jpg
```

For example:

```
logo_sample.jpg
```

```
logo_standard.jpg
```

```
logo_default.jpg *** This is a default logo ***
```