

Communicating with Linux

Linux as PPP/Fax communication box

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Bits Over Atoms



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Communication?

- Data dialin / dialout
- PPP RAS (Remote Access Server) for
 - Linux boxes
 - Redmond boxes
- Sending / receiving / polling faxes
 - fax server on the LAN
 - over a remote printer device for UNIX machines
 - over SMB (Samba) for Redmond boxes



Introduction

- Choosing a modem
- Choosing software: mgetty+sendfax
- Installing the software
- Configuration for faxing
- Configuration for PPP dialin



Choosing a modem

- Pick one that can actually *do* what you *want*
 - data / fax / voice
- A lot of "crappy" modems around
 - but, if you only want data, it may work
 - specially for faxing there's a lot of trouble
- Certainly NOT a "winmodem"
 - software has to do almost everything
 - support is on its way, but... don't hold your breath



Choosing software: mgetty+sendfax

- Simple
- Easy to configure
- Works well
- Even voice support (vgetty)
- Available in most Linux distributions
- Even nice GUI clients available



Setting up...

- Connect & setup the modem
 - can be the most difficult part!
 - Check modem with minicom or similar
- Get & install mgetty+sendfax
 - available at major ftp sites (also RPMs)
 - help available at
<http://theory.uwinnipeg.ca/localfiles/infofiles/mgetty.html>



Compiling...

- As per README
 - copy policy.h-dist to policy.h
 - edit policy.h for your site
 - edit Makefile (if you want)
 - make; make install (root!)



Configuring...

- **Dialin configuration**
 - mgetty.config (general config)
 - login.config (dispatcher)
 - dialin.config (incoming access list)
 - /etc/inittab (startup)
- **Fax configuration**
 - sendfax.config
 - fax.allow (outgoing access list)



mgetty.config

- In /usr/local/etc/mgetty+sendfax

- # mgetty.config
debug 4
fax-id +32 2 245 5551
notify
speed 115200
port-owner uucp
port-group uucp
port-mode 0664
port ttyS1
modem-type c2.0



login.config

- In `/usr/local/etc/mgetty+sendfax`
- is the "login dispatcher"
- Put PPP definition in here
 - `# Consult "pppd" man page to find pppd options that work for you.`
 - `# NOTE: "man pppd" is your friend!`
 - `#/AutoPPP/ - a_ppp /usr/sbin/pppd auth -chap +pap login`
 - `debug`
 - `/AutoPPP/ - - /usr/sbin/pppd proxyarp auth login debug`
 - `#`
 - `# Standard behaviour`
 - `* - - /bin/login @`



Inittab

- Create an entry (or more) for dialin

```
f1:234:respawn:/usr/local/sbin/mgetty -x2 ttyS0
f2:234:respawn:/usr/local/sbin/mgetty -x2 ttyS1
```
- do "init q"



sendfax.config

- In /usr/local/etc/mgetty+sendfax

- # sendfax configuration file
- # ----- global section -----
- verbose y
- debug 5
- fax-devices ttyS1
- fax-id +32 2 245 5551
- dial-prefix ATDT
- max-tries 3
- max-tries-continue n
- # ----- port specific section -----
- port ttyS1
- modem-type c2.0
- modem-handshake AT&H3&I2&R2S7=90
- ignore-carrier true



Using...

- Use command line tools
 - faxspool – submit a fax
 - faxq – view the queue
 - faxrm – remove a fax
- /var/spool/fax
 - ./incoming and ./outgoing
- Use GUI tools like FaxViewer and KSendFax

