Version : 0.6b1
Author : Christian DUMONT

Translation : Emmanuelle Perrault & Mathias Bachmann

It’s a SMERP Project documentation…

http://smerp.free.fr
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Introduction

This documentation allows a quick setup of a faxserver module for SME Server 6.x

The module is part of the future distribution from SMERP. The project proposes an integrated solution for companies and in particular for SMB (Small Medium Business). This solution for company management/administration should offer tools for messaging, webserver, database, e-commerce, faxserver...

The SMERPFax allows users to send facsimiles from every applications of their computers. The fax module also allows receiving of faxes in a shared environment where one user has to distribute them via the mailsystem.
General architecture

The general system architecture is as follows:
To use SMERPFax you should possess a Hayes compatible faxmodem.
The modem should be recognized by the SME server. In general it means that there should be
drivers available for Red Hat 7.x
The modem should be connected to the server on the serial port (com-port).
The use of an internal modem is possible but an external modem seems more useful due to
replacement in case of failure or defect.

Moreover certain external modems offer the possibility to temporary store faxes in internal
memory, which is important in case the server is not available (see maintenance).

As you can see in the picture, the clients messages are being sent as faxes through a virtual
samba printer.

On receivement the faxes are being placed in a waiting zone from where a user distributes
them via the message system. The faxmaster is a pseudonym which points to a user of the
server. The "real" users receives all faxes to retribute them.

The next version of the faxmodule will offer support for multiple modems and a routing
system for direct arrival of faxes to their destinations.
Installation
You install the rpm as root from the console.
From the console type the following command:

```
# Wget http://smerp.free.fr/fichiers/binaires/SMERPFax-0.6b1-9.noarch.rpm
```

Launch the installation

```
# rpm -Uhv SMERPFax-0.6b1-9.noarch.rpm
Preparing... ################################################################################ [100%]
1:SMERPFax ################################################################################ [100%]
Now you have to launch /tmp/SMERPFax.ins/SMERPFax_ins.sh
```

At the end of the installation process change to /tmp/SMERPFax.ins and execute the file SMERPFax_ins.sh

```
# /tmp/SMERPFax.ins/SMERPFax_ins.sh
Installing suporting modules (RPM)
Installing libtiff-3.5.7
Installing cups-libs-1.1.19
Installing ghostscript-7.05.6
Installing ghostscript-fonts-6.0
Installing metamail-2.7
Installing hylafax-4.1.8
Installing some files.
#1
#2
#3
Adding fax user.
Cleaning...
Rebuilding Web Server Manager Left Panel Cache... Can take up to a minute.
Installation Finished!
```

If all has gone well the faxserver is installed.
You can access the configuration panel from the SME server-manager.
Configuration

The receiving of faxes is done by the faxmaster. There are two possibilities for receiving faxes:
- via a user faxmaster
- via a pseudonym faxmaster which points to an existing user

Whichever is your choice, the received faxes are being sent in the mailbox of the faxmaster.

To not have too many accounts, the utilisation of a pseudonym is recommended. To create a pseudonym go to server manager and enter the the pseudonyms menu.

Create, modify, or remove pseudonyms

The server automatically creates an e-mail alias for each group. If you want to define an e-mail alias for a list of users, simply create a group and the list will automatically be maintained by the server.

Pseudonyms allow you to create other names for existing users or groups. For example, you may wish to create a pseudonym "webmaster" for your "webdevelopers" group or a pseudonym "Joe" for the user "Joseph".

The server automatically creates pseudonyms of the form firstname.lastname and firstname_lastname for every user on the system and a pseudonym "everyone" which contains all users on the system.

You can modify or remove a pseudonym by clicking on the corresponding command next to the pseudonym.

On clicking of the button "add a pseudonym" we create a pseudonym "faxmaster" who distributes the faxes.
In our example we use the administrator account, even it would be more careful to use another account for distribution because the faxes are sent by mail to the user.

Make sure to review the list of the pseudonyms on the following form

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>User or group</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>everyone</td>
<td>Everyone (local network only)</td>
<td></td>
</tr>
<tr>
<td>mailer-daemon</td>
<td>Administrator</td>
<td></td>
</tr>
<tr>
<td>postmaster</td>
<td>Administrator</td>
<td></td>
</tr>
<tr>
<td>anonymous</td>
<td>Administrator</td>
<td>Modify, Remove</td>
</tr>
<tr>
<td>faxmaster</td>
<td>Administrator</td>
<td>Modify, Remove</td>
</tr>
</tbody>
</table>
After creating the faxmaster, you want to configure the faxserver. From the configuration menu (in SME server manager) choose "Faxserver".

**Configuration of fax server.**

The fax server allows sending and receiving facsimiles through the network. The workstations receive facsimiles through e-mail. Sending is managed by a virtual printer located in the SMERP server.

<table>
<thead>
<tr>
<th>Name of the parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fax number</td>
<td>0123456789</td>
</tr>
<tr>
<td>Fax sender's name</td>
<td>SMERP-Fax</td>
</tr>
<tr>
<td>Volume of speaker</td>
<td>medium</td>
</tr>
<tr>
<td>Speed of the modem/fax</td>
<td>19200</td>
</tr>
<tr>
<td>Serial port</td>
<td>/dev/ttyS0</td>
</tr>
<tr>
<td>Country code</td>
<td>33</td>
</tr>
<tr>
<td>Area dial code</td>
<td>0</td>
</tr>
<tr>
<td>Long distance dial code</td>
<td>0</td>
</tr>
<tr>
<td>International dial code</td>
<td>00</td>
</tr>
<tr>
<td>Number of rings</td>
<td>2</td>
</tr>
<tr>
<td>Flow control</td>
<td>xonxoff</td>
</tr>
<tr>
<td>Type of modem/fax</td>
<td>Class1</td>
</tr>
<tr>
<td>Dialling mode</td>
<td>TONE</td>
</tr>
<tr>
<td>User's name</td>
<td>faxmaster</td>
</tr>
<tr>
<td>SAMBA name</td>
<td>sambaFax</td>
</tr>
</tbody>
</table>

As default the fax server is stopped. In this mode it will not sent or recieve faxes. In the field "user name" enter the username which is the Faxmaster (e.g. the Admin)
Fill in the field fax number your fax number. Your fax no. will appear in the headline, if you don't give a name (for the station?).

The Faxname or the name of the station identifies the sender of the fax. If this field is filled correct the name appears on the fax.

The volume of the modem is adjustable in 5 diffrents modes from off to loud.

The field modemspeed sets the communicationspeed between computer and modem. The speed will automatically managed be by the ITU Protokoll.

You attach the modem at the serial port. The serial port (COM 1 underr DOS) is /dev/ttyS0 under Linux, the 2nd port (COM 2 under DOS) is /dev/ttyS1 under Linux. SMERPFax only manages the two first serial ports.

Countrycode is the international dialing number without the first 0 (e.g. 33 France, 1 USA, 49 Germany).

The areacode (not used in France.)

The long distance code (not used in France.)

The international country code allows sending of faxes abroad.

The number of ringtones i until the fax is accepted is adjustable. 0 does never accept the fax.

Hardware flow control xon or xoff must be set.

Type of faxmodem: There are class 1, 2, and 2.1. (I have not seen 2.1. To find out wich type is supported, use a program like "minicom" and send "ATI7." to the modem. Alternatively you can tail -f /var/log/messages and see if the modem is recognized by hyfax).

Dialing modus: tone or impulse.

Name of the user faxmaster, who distributes the faxes. If you have an user faxmaster, then "faxmaster" should be entered here. If you have a pseudonym Faxmaster enter the name of the account.

Enter the name of the virtual samba-printer (without \servername\)
To sent a fax e.g from a MS-Windows or *samba-like* system it is neccessary to install a virtual postscript printer (e.g. a Apple Laser Writer 12/640 PS).

Under MS-Windows chose START / SETTINGS / PRINTERS

Click « Add Printer »

Here, you have to choose network printer since Sambafax is not on the Windows side!

Click next and enter the name of the printer as netbios name

\servername\printername.

(if the virtual samba printer is already available in the network neigbourhood you can just search after the printer)

Probably there will be a message that there is no driver available an you will have to install a suitable driver.
The printer wizard will propose to choose a driver, take a postscript printer like Apple Laserjet or any other postscript printer.

Anser the question if windows should take this newly installed printer as default with no

At the end the assistant will report, that the driver is installed and you can go for a test.
At the end of the printer installation you should see the following screen:
Usage

On receiving, the server sends all faxes as pdf to the email of the userfaxmaster (who maybe the admin or root user).

Then the faxmaster distributes the faxes by sending the mail to to appropriate user.

To send faxes, the virtual samba-printer is being used.

To send a document off a worksation, the user has to enter specific characters onto the first page (e.g. first page). These characters should contain the text Fax-Nr. followed by the number of the receiver. eg. Fax-Nr: 0123456789.

If you have the dial an anteceding 0 per default, write a 0 and a comma. The comma indicates the faxsoftware that it should shortly pause after the 0.

If you want to sent to multiple recipients, you should have a program capable of sending multiple faxes (Word or Open Office).
Deinstallation

if you want to uninstall the faxserver go to directory /tmp/SMERPFax.ins and issue SMERPFax_uninst.sh at the command prompt.

```
# ./SMERPFax_uninst.sh
Removing SMERP Fax panel
Removing hylafax
Removing metamail
Removing ghostscript-fonts
Removing ghostscript
Removing cups-libs
Removing libtiff
Removing fax user.
Rebuilding Web Server Manager Left Panel Cache... Can take up to a minute.
Uninstall Finished!
```

That’s all folks!

No it’s up to you...
Annexes
Installed files.
/var/spool/hylafax
/var/spool/hylafax/archive
/var/spool/hylafax/FIFO
/var/spool/hylafax/bin
notify.awk
archive
faxrcvd
mkcover
notify
/var/spool/hylafax/client
/var/spool/hylafax/config
att-dataport-2.0
att-dataport
att-dataport-2
digi
att-dpexpress-2
cirrus
class1
exar
skel
elsa-microlink-56k-basic-2.0
gve-288
intel-400e
hayes
lucent-isa
lucent
lucent-nt-20
lucent-nt-2
lucent-nt-21
moto-288
mt-1432
nuvo-voyager
/var/spool/hylafax/config/defaults
config.modem
config
/var/spool/hylafax/dev
null
/var/spool/hylafax/docq
/var/spool/hylafax/doneq
/var/spool/hylafax/etc
dialnutil.europe
FaxDispatch
cover.templ
dialnutil
setup.cache
dialnutil.sf-ba
/var/spool/hylafax/
FIFO.ttyS0
/var/spool/hylafax/info
/var/spool/hylafax/log
/var/spool/hylafax/log/seqf
/var/spool/hylafax/pollq
/var/spool/hylafax/recvq
/var/spool/hylafax/recvq/seqf
/var/spool/hylafax/sendq
/var/spool/hylafax/status
/var/spool/hylafax/status/any.info
/var/spool/hylafax/status/ttyS0
/var/spool/hylafax/tmp
/var/flat/dmc-mitel-hylafax-pkg
chkfontpath-1.7.2-5.i386.rpm
dmc-mitel-hylafax-setup-4.1.5-
1.noarch.rpm
ghostscript-5.50-8.i386.rpm
ghostscript-fonts-5.50-3.noarch.rpm
hylafax-4.1.5-1rh7.i386.rpm
install.sh
libtrif-3.5-5.7.i386.rpm
metamail-2.7-25.i386.rpm
upgrade.sh
urw-fonts-2.0-8.noarch.rpm
XFree86-libx-4.0.1-1.i386.rpm
ps2fax.gs
tiff2fax
wedged
faxrcvd.org
digi-20
everex-2496d
e-tech
eicon
eicon-2
gve-288-2
telebit-wb
topic
tricom2842
uds-fastalk
urc92144
urc9624
usr-2.0
usr-nts
usr-xon
zyxel-1496e
zyxel-1496e-1
zyxel-1496e-2.0
zyxel-2864
lastrun
config.ttyS0
config.sav
xferfaxlog.1.gz
xferfaxlog.2.gz
xferfaxlog.3.gz
XFree86-xfs-4.0.1-1.i386.rpm
/var/flat/dmc-mitel-hylafax-pkg-4.1.5-
1.noarch.rpm
/var/flat/hylafax-4.1.8-1rh7.i386.rpm
<table>
<thead>
<tr>
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<th>contents.gif</th>
<th>new.gif</th>
<th>Christian DUMONT Translate by E.Perrault &amp; M.Bachmann</th>
</tr>
</thead>
<tbody>
<tr>
<td>back.gif</td>
<td>frog.gif</td>
<td>next.gif</td>
<td></td>
</tr>
<tr>
<td>ball_blue_icon.gif</td>
<td>improved.gif</td>
<td>smiley.gif</td>
<td></td>
</tr>
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<td>button_excl.gif</td>
<td>info_icon.gif</td>
<td>warning_icon.gif</td>
<td></td>
</tr>
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<td><code>/usr/share/doc/hylafax-4.1.8/</code></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>COPYRIGHT</td>
<td>README</td>
<td>TODO</td>
<td></td>
</tr>
<tr>
<td>INSTALL</td>
<td>README.rpm</td>
<td>VERSION</td>
<td></td>
</tr>
<tr>
<td><code>/usr/share/man/man1/</code></td>
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<td></td>
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<tr>
<td>fax2ps.1.gz</td>
<td>faxcover.1.gz</td>
<td>hylafax-client.1.gz</td>
<td></td>
</tr>
<tr>
<td>fax2tiff.1.gz</td>
<td>faxmail.1.gz</td>
<td>sendfax.1.gz</td>
<td></td>
</tr>
<tr>
<td>edit-faxcover.1.gz</td>
<td>faxrm.1.gz</td>
<td><code>sgi2fax.1.gz</code></td>
<td></td>
</tr>
<tr>
<td>faxalter.1.gz</td>
<td>faxstat.1.gz</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>/usr/share/man/man8/</code></td>
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<td>fax500.8.gz</td>
<td>faxinfo.8c.gz</td>
<td>faxstate.8c.gz</td>
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</tr>
<tr>
<td>faxabort.8c.gz</td>
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<td>faxwatch.8c.gz</td>
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<td>faxadduser.8c.gz</td>
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<td>pdf2fax.8c.gz</td>
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<td>xferfaxstats.8c.gz</td>
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<td>faxdeluser.8c.gz</td>
<td>faxsend.8c.gz</td>
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<td>faxsetup.8c.gz</td>
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<td>hylafax-shutdown.5f.gz</td>
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<td><code>/usr/sbin/</code></td>
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<td>edit-faxcover</td>
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<td>faxsetup.linux</td>
<td>faxmodem</td>
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<td>faxaddmodem</td>
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