



## FreeMED and Remitt on a SuSE 10 Server

### *difficulty: medium*

This HowTo is written for people who know how to set up a linux-server and know what the console is. I think this HowTo is not very easy because at the Install of the Remitt-Server, we have to configure a bit manually. This Howto is not solely GUI-based. This HowTo is based on the FreeMED-Installation-Instructions for Debian from Jeff and the HowTo from the SuSEWiki.

Used System-configuration:

- SuSE 10 – Box Version, as you can buy it in the shop(OpenSuSE should work too, but it is not tested yet!)
- FreeMED 0.8.2 from subversion (Version of 01.03.2006)
- Remitt 0.3.1 from subversion (Version of 1.3.2006)
- Working Internet-connection (This Howto won't work without an Internet connection)

### **1. Base-configuration**

I suppose you already set up SuSE 10 correctly. You don't even need a windowmanager to be installed – but it is more comfortable.

Please make sure SuSE 10 is running correctly and there are no Hardware-Errors that would harm the system in any way.

### **2. Dependencies**

To get the basic dependencies, you can do it 2 ways – GUI based or Console-based.

GUI: Start YaST2 and install the following packages:

```
perl
perl-Text-Iconv
perl-XML-Parser
perl-CGI-Application
perl-libxml-perl
perl-libwww-perl
perl-XML-LibXML
perl-XML-XSLT
perl-Crypt-SSLeay
perl-XML-Simple
perl-Config-IniFiles
perl-IO-Socket-SSL
perl-DBD-SQLite
perl-Compress-Zlib
perl-SOAP-Lite
perl-RPC-XML
perl-Apache-Session
perl-XML-LibXML-Common
```

```
perl-XML-Simple
subversion
mysql
php4-mysql
php4-pear
php4-session
php4
apache2
apache2-mod_php4
apache2-prefork
djavulibre
netpbm
ImageMagick
tetex
cups
cups-client
ghostscript-library
xpdf
bind
lynx
ncftp
```

Console: Log in as root, and then type:

```
yast -i <package1> <package2> <package n>
```

(Take all packages from above)

But this wasn't all of the dependencies. We need the CGI::Session Module for perl – unfortunately there's no existent .rpm Package for SuSE, so we have to do it this way:

```
perl -MCPAN -e 'install CGI::Session'
```

Now you have to follow the instructions of this program (mostly you have to just press ENTER). Please read the instructions of this Program carefully! When the program finishes without errors then the CGI::Session Module should be installed correctly.

Now one package is still missing: phpwebtools. We download the noarch.rpm from sourceforge: [http://sourceforge.net/project/showfiles.php?group\\_id=8420](http://sourceforge.net/project/showfiles.php?group_id=8420)

Select a Mirror-Site nearby you and click on Download. After the file is downloaded, go to the directory where it is lying and type

```
yast -i <exact filename>
```

This will install phpwebtools on your SuSE-system.

### **3. Install FreeMED and Remitt**

Now we have all packages we need, so we can start download and install FreeMED and Remitt via subversion.

Just type in on the console (as root)

```
cd /usr/share
```

```
subversion co http://svn.freemedsoftware.org/freemed/trunk freemed
```

When this command is finished type:

```
subversion co http://svn.freemedsoftware.org/remitt/trunk remitt
```

When this command is finished too, FreeMED and Remit are installed.

#### 4. Configure Apache2 and MySQL

Now we have to configure Apache2 and MySQL, so everything is as FreeMED needs it. First step: change the ownership of apache2 (we are still in the directory /usr/share!):

```
chown -Rf wwwrun:www freemed
```

Now we create an freemed.conf file in /etc/apache2/vhost.d/ that looks like this:

```
AddType application/x-httpd-php .php .phtml .php3
Alias /tmp /bills
```

```
<Directory „/usr/share/freemed“>

    DirectoryIndex index.php
    Options Indexes Includes ExecCGI Multiviews FollowSymLinks
    AllowOverride All
    Order allow, deny
    allow from all
</Directory>
```

Now we edit the /etc/sysconfig/apache2 file and set

```
APACHE_SERVERNAME="127.0.0.1"
```

Finally we edit /etc/apache2/listen.conf and set (mostly by uncommenting the last line)

```
NameVirtualHost *
```

Now Apache2 is finished and we start to configure MySQL. I suggest that you make MySQL more secure on yourself (for example by setting a root password and several restrictions).

First step start the mysql daemon on typing

```
rcmysql start
```

Now you will see some output, that mysql started successfully. When finished, type AS NORMAL USER; NOT AS ROOT:

```
mysql -u root
```

(if this generates some errors, add the parameter -p and enter your mysql-root password)

Now you are in a kind of mysql console. Here you have to type in (after each line just press enter):

```
CREATE DATABASE freemed;
```

```
GRANT ALL ON freemed.* TO arbitrary_user_name@localhost IDENTIFIED
BY 'your_password';
```

(Please type the username you would like that FreeMED uses to connect to the database, same with the password. PLEASE DO NOT REMOVE THE ' AND THE ; AT THIS COMMAND)

Now we set up a mysql account that has full access to the database. Now we reload the privileges-table and exit the mysql Prompt:

```
FLUSH PRIVILEGES;
EXIT;
```

Now we go into YaST => System => Runlevel-Editor, click on the radiobutton „expert-mode“, choose mysql from the list and make some checks at 3 and 5. Finally go on „start/stop“ and select „Start this service“. Now a new window should open and write the output of the mysql-startscript (just go on OK).

## 5. Configure FreeMED

Last thing we have to do is to tell FreeMED the database-password and the database user, simply by editing the /usr/share/freemed/lib/settings.php file. You can use any text-editor you like to.

Insert the username and the password in the lines(don't remove the semicolon ;):

```
define ('DB_USER' „username“);  
define ('DB_PASSWORD' „password“);
```

## 6. Configure Remitt

Now we have to configure Remitt to start up at boot-up and to behave correctly. First, we make a symbolic link to the init-script:

```
ln -s /usr/share/remitt/debian/init.d /etc/init.d/remitt
```

Now we go into YaST => System => Runlevel-Editor, click on the radiobutton „expert-mode“, choose remitt from the list and make some checks at 3 and 5. Finally go on „start/stop“ and select „Start this service“. Now a new window should open and write the output of the Remitt-startscript.

Now we set up a Remitt-user and -password.

```
cd /usr/share/remitt  
./bin/sqlite_user_admin.pl create remitt_username remitt_password
```

(Exchange remitt\_username and remitt\_password by your own settings)

## 7. Finished!

Now we have to control if the installation was successful. We can do this on access with a web browser the web-page: <http://localhost/freemed> . If you see FreeMED now (and without any warnings and errors) you were successful.

Now you can insert in Main => Administration-Menu => System Configuration => Remitt Billing System the remitt username, the password, the host(127.0.0.1) and the port the server runs on(7688).

## Troubleshooting

If some errors occur, please send an email to

freemed-ger@gmx.at

I hope i can help you to solve them.

## Suggestions

Please don't forget to secure every application you use on the system and remove as many services as you can (and as you don't need). Please mind that FreeMED is Medical Software and handles in its database loads of data that thirds should not see.

So please use a web searching engine on how to secure your system and especially MySQL and Apache2.

FreeMED only can be as secure as the services running on the server are!

Please feel free to email me any suggestons from you or errors I made in this script – even errors in my english expression(nobody's perfect, but i want to learn from my errors)

I hope this HowTo was useful for you and FreeMED is working!

Philipp Meng

(last edited on 02<sup>nd</sup> March 2006 )