Wageningen University and Mutt: a basic guide for GNU/Linux and *BSD users

M. Laurens Voogt

Student at Wageningen University and Research Centre

1. Introduction

This HOWTO aims to describe a basic method for students and employees of Wageningen University to configure *Mutt* to manage their WURnet emails via the university's exchange server. Besides having *Mutt* installed, you will need to install the following programs (unless already present on your system): *DavMail*, *lbdb* and *msmtp*.

Why all these extra programs? Primarily because of the design principles of *Mutt*, but also because Wageningen University uses a Microsoft exchange server, which *Mutt* cannot communicate with directly. Instead, *Mutt* will access this server through a POP/IMAP/SMTP/Caldav/Carddav/LDAP exchange gateway. And this is what *DavMail* will do for us. The other programs (*Mutt*, *lbdb* and *msmtp*) will use *DavMail* as the gateway to the WUR exchange server. When *DavMail* is properly configured on your system, then *Mutt* will be able to open your IMAP folders to read email. To send emails, *Mutt* will call on the *msmtp* program, which will in turn use the *DavMail* gateway to send the email. And if you need to look up someone's @wur.nl email address, then *Mutt* will call upon *lbdb* to use the DavMail gateway to access the LDAP global address book and see if it listed there. The next sections will provide basic instructions on how to configure these programs.

2. Configurations

As mentioned previously, Wageningen University uses a Microsoft Exchange server for email and accessing all the functions this server provides will require using the *DavMail* program. Next to *Mutt*, it is the most important program to install. If it is not yet installed on your system then you must first do so before continuing with this guide. See the manpages for your operating system to find instructions on how to install software, as well as the homepage of *DavMail* (http://davmail.sourceforge.net).

2.1. Configuring *DavMail*

After you have installed *DavMail* it needs to be configured. In this manual the configuration will be managed by editing the file *~/.davmail.properties* in your home directory. Most of the default settings are fine, but there are a few that you will have to change. See the list below, find the appropriate parameter in your *davmail.properties* file and change accordingly if necessary.

```
            davmail.enableEws=true
            davmail.server=true
            davmail.url=https//webmail.wur.nl/owa/
```

You can start *DavMail* from the command line simply by execution the command "davmail", but it will not do anything untill the other programs have been configured to use this gateway. So next we will configure *msmtp*.

2.2. Configuring *msmtp*

Unless already present on your system, download and install the *msmtp* SMTP client. The reason for using this program instead of *sendmail* is that it is small and easy to configure.

(See also http://msmtp.sourceforge.net)

To configure *msmtp*, open the file *~/.msmtprc* in a text editor and add the following lines:

```
            defaults
            logfile ~/.msmtp.log
            account default
            host localhost
            port 1025
            protocol smtp
            from <your @wur.nl email address>
            auth login
            user <your @wur.nl email address>
            password <your WURnet password>
```

As you can see, in this basic setup you will enter your password in a plain text file. This is a potential security risk. There are ways to use an encrypted password, but the details of such a more advanced configuration will not be discussed here.

2.3. Configuring *lbdb*

Once *lbdb* is installed and configured, you will be able to begin typing someone's name when composing a new email in *Mutt* and then, by pressing CTRL-t, *Mutt* will ask *lbdb* to suggest possible matching addresses. And *lbdb* will do this by accessing the LDAP global address book on the Exchange server. But before *lbdb* is able to do so, it needs to be configured. This is achieved by editing (yep, you guessed it) more configuration files.

First install *lbdb* (The Little Brother's Database) See also https://www.spinnaker.de/lbdb/) Then in your home directory, create a hidden directory called *.ldbd* like so: `mkdir ~/.ldbd`

Then change direcory into the new *.lbdb* hidden directory and in there create the following two configuration files, *ldap.rc* and *rc*. An important notice here: you are **not** free to choose different filenames. They must be written exactly as I have written them here, or the program will not function.

2.3.1. The *ldap.rc* **file**

The *ldap.rc* file must contain the following lines. Note that you do not use your @wur.nl email address, but you replace <username> with your WURnet username (for example *Janssen012*).

```
            ldap_server_db = (
                  'wurnet' => ['localhost:1389',
                               'ou=people',
                               'givenname sn cn mail',
                               'givenname cn sn mail o',
                               '${mail}',
                               '${givenname} ${sn}',
                               '${o}',
                               '1',
                               'WUR\<username>',
                               '<your password>',
                               '0',
                               '' ]
            );
            1;
```

A word of advice; be careful when you edit this file, because *ldbd* has absolutely no tolerance for typos of any kind. And with all these commas and single quotes it is surprisingly easy to miss something. So double check make sure that you made no mistakes when copying this configuration. If it doesn't work, then the first question you should ask yourself is "Did I make a typo in *ldap.rc*?"

2.3.2. The *rc* **file**

The *rc* file should have the following options set.

```
                        METHODS="m_ldap"
                        LDAP_NICKS="wurnet"
```

Now we can finally move on to *Mutt*.

2.4. Configuring *Mutt*

First open the *.muttrc* file located in your home directory in a text editor. Then make sure the following options are set. (The lines beginning with the hash character '#' are comments and do not have to be present for the configuration to work.)

```
set spoolfile="imap://<your @wur.nl address>@127.0.0.1:1143/Inbox"

set folder="imap://<your @wur.nl address>@127.0.0.1:1143"

# set username
set imap_user="<your @wur.nl address>"

# OPTIONAL: set your password (if you comment this out, Mutt will
# prompt you for your password when it opens the IMAP folder)
set imap_pass="<your password>"

# Use msmtp to send mail. Use the path to the msmtp binary on your
# system, on FreeBSD it is in /usr/local/bin, but your OS may put
# it in a different location. Execute "which msmtp" in a command
# prompt and use the path it returns here.
set sendmail="/usr/local/bin/msmtp"

set use_from=yes

# Define your "from" address
set from="<your @wur.nl address>"

# Define your real full name, e.g. "John L. Hacker"
set realname="<enter your real name here>"

set envelope_from=yes

# Use ldbq to look up email addresses in LDAP.
# USAGE: when Mutt prompts you for an email address to send/forward
# mail, then enter a partial name of the person you want to send the
# message to and then press CTRL-t. If there is only one match, then
# that email address will automatically be filled in. Otherwise a
# list will be shown and you can select the appropriate address
# yourself.
set query_command="ldbdbq '%s'"
```

Save and close the *.muttrc* file. To begin reading and sending emails, you must FIRST startup *DavMail*. Initially I would recommend starting it by executing "davmail" in a terminal so that you can see the debugging output and see if there are any serious errors. Then start *Mutt*; it should open your inbox. It may take some time to load the messages, and not just the first time you use *Mutt*: the emails are not stored locally, so you will need to have an active internet connection every time you use *Mutt*. More advanced configurations can speed things up (e.g. caching of headers), read more about it in the *Mutt* manual and/or search the Internet.

Once *Mutt* has accessed your inbox, you should try sending an email and try looking up an email address. If something does not work, check the logs and/or debugging output of *DavMail* to find out what is going wrong. And if it all works fine, then your next step may be to configure your system to start *DavMail* during boot, for example, or when you login. Consult your system's documentation for that.