

Technote: Installing Cyrus 2.2.8/ Postfix/Mysql/Web-Cyradm on Debian Sarge

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V0.0.22 DRAFT

Overview

This document is a quick cheat-sheet for installing the system described in Luc de Louw's Postfix-Cyrus-Web-Cyradm HOWTO (see www.web-cyradm.org), using mostly Debian packages rather than source tarballs. It is designed to work with Debian Sarge. If you are using a different distribution, you are on your own.

This only covers basic setup, not TLS/SSL etc. But there is plenty of documentation online about all of that – the goal of this is to get a *stable, package-based* mail server up and running as quickly as possible on *Debian Sarge*.

Following this step-by-step should end up with a working system, but we STRONGLY suggest you have Luc's HOWTO to hand to explain why you are doing what you are doing. The HOWTO includes much more detail, and additional steps you may wish to take to ensure more security – although we think the whole system has a long way to go before I would consider it secure from any *local* attacks.

Prerequisites

Assumes the following `/etc/apt/sources.list`:

```
#deb file:///cdrom/ sarge main
deb http://<mirror> testing main contrib non-free
deb-src http://<mirrot> testing main contrib non-free
deb http://<mirror> testing/updates main contrib non-free
```

We're also assuming you have a working development environment on your machine (c compiler, perl, libraries...).

Thanks

Everyone on the cyrus-imapd [mailing list](#), whose patient analysis and archiving answered *all* the cyrus-related questions that arose during the install.

Luc for web-cyradm.

Bruce Russell for actually trying this out, in very alpha form.

Warning

These notes are based on those we made while doing an install – we haven't run through them on a fresh machine to check! There are almost certainly typos and other inaccuracies. If you find any, let us know! NO LIABILITY! NO WARRANTY! NO SUPPORT!

If you follow these notes and something goes wrong, it is NOT OUR RESPONSIBILITY.

Installation

M Y S Q L

```
apt-get install mysql-server \
    mysqladmin -u root password \
    'newpassword'
```

```
apt-get install mysql-client
```

A P A C H E

```
apt-get install apache libapache-mod-php4
```

P H P / P E A R

```
apt-get install php4 php4-pear \
    php4-mysql php4-imap
```

W E B - C Y R A D M

Download the source tarball from www.web-cyradm.org, and unpack somewhere under your webroot.

cd into the *scripts* subdirectory

Edit the `create_mysql.sql` script. At the bottom, choose passwords for the admin and cyrus users. The admin user is the one you use initially to log into the web interface. The cyrus user is the cyrus admin user. If you want to use the CLI `cyradm` tool at any point, this is the username and password to use with that (as in

```
su cyrus; cyradm localhost
```

).

Edit the `insertuser_mysql.sql` script. This specifies a name ('mail') and password (by default 'secret', but CHANGE IT!) that will be used by all the systems which talk back to mysql. Its not an OS account, it's a mysql account used to authenticate between cyrus, postfix, SASL and mysql. Make sure the password here is the same one you use in the postfix setup files (see below).

You also need to insert the line

```
connect mail;
```

at the top of `create_mysql.sql`

Then load these into mysql:

```
mysql -u root -p < insertuser_mysql.sql
mysql -u root -p < create_mysql.sql
```

cd into the config subdirectory

```
cp conf.php.dist conf.php
touch /var/log/web-cyradm-login.log
chown www-data:www-data \
    /var/log/web-cyradm-login.log
```

Edit the conf.php script to specify the same password for the 'cyrus' database entry as you specified in the insertuser_mysql.sql script (above)

B E R K E L E Y D B

```
apt-get install libdb4.2 \
    libdb4.2-dev db4.2-util
```

O P E N S S L

```
apt-get install openssl libssl-dev
```

S A S L 2

```
apt-get install libsasl2 \
    libsasl2-modules \
    sasl2-bin libsasl2-dev
```

You also need to make a script in /etc/init.d to start

```
saslauthd -a pam -c
```

and

```
/usr/bin/cyrus/master
```

(when you've built it in the next step!). Fairly basic/dangerous scripts are given in the HOWTO. We'll not repeat them here, because you really should use something better!

CYRUS

```
apt-get install autoconf
```

Download and unpack the source tarball for cyrus-imapd (I used 2.2.8), then

```
useradd -u 96 -d /usr/cyrus -g mail cyrus
```

add cyrus user to sasl group in /etc/group, then

```
chmod o+x /var/run/saslauthd
```

cd into the cyrus-imapd source directory, and

```
./configure
```

Now, some hacking. On our test system, cyrus didn't autodetect that DB4.2 was installed and ready for use (configure has a test for something called db_create, and only finds it in 3.2, but simply refused to link unless we did the following manually (telling it to use 4.2 instead) - I'm sure there's a neater way to do this, but this worked for me: in the following sub-directories of the source directory, edit ALL the Makefiles, replacing the string db-3.2 with the string db-4.2: sieve, imap, timsieved, notifyd, imtest and master

Then do the same (replace db-3.2 with db-4.2) in all Makefiles in ALL the subdirectories of ./perl, then

```
make; make install

cd /var
mkdir imap
chown cyrus:mail imap
chmod 750 imap

cd /var/spool
mkdir imap
chown cyrus:mail imap
chmod 750 imap

cd /usr
mkdir sieve
chown cyrus:mail sieve
chmod 750 sieve

su cyrus
<path-to-cyrus-source/tools/>/mkimap
exit
```

then

install our [/etc/imapd.conf](#) and [/etc/cyrus.conf](#)

P O S T F I X

First, get rid of existing MTA:

```
/etc/init.d/exim4 stop

apt-get remove exim4
```

then

```
apt-get install postfix \
    postfix-mysql postfix-tls
```

Use our [/etc/postfix/main.cf](#). This is slightly different to the one Luc uses in the HOWTO. The most significant differences are that it reuses mysql connections via postfix's built-in proxy. This stops mysql choking and running out of processes when things get busy). You also need [/etc/postfix/master.cf](#).

You also need these in /etc/postfix: [mysql-virtual.cf](#), [mysql-canonical.cf](#), [mysql-mydestination.cf](#)

IMPORTANT: Change the username and password in *each* of these three files to *match* the ones you entered in the insertuser_mysql.sql script (in the scripts subdirectory of the web-cyradm source, see above).

You need to add the user postfix to the group sasl in /etc/group, and put the following in /etc/postfix/sasl/smtpd.conf:

```
pwcheck_method: saslauthd
mech_list: PLAIN LOGIN
```

What about 'better' than plaintext? Well, the authentication chain is postfix->sasl->pam->mysql. Because we are using PAM, we are limited to plain-text logins (why?): the fancy stuff like CRAM-MD5, DIGEST-MD5 etc. are not options for us. But if you don't specify PLAIN and LOGIN explicitly here, sasl will still publish all the other mechs it knows about, resulting in a LOT OF ERRORS in your mail logs, as it tries (and fails) on the other mechs. You've been warned. If you want better security, wrap everything in SSL/TLS.

P A M

```
apt-get install libpam0g-dev libpam-mysql
```

Then install our [/etc/pam.d/imap](#)

Edit this so that the password for 'mail' is the same as you entered in insertuser_mysql.sql, above.

Copy this file to /etc/pam.d/smtp, /etc/pam.d/sieve and /etc/pam.d/pop.

A M A V I S

```
apt-get install amavis spamassassin \  
clamav-daemon lha arj \  
unrar zoo nomarch lzop \  
apt-listchanges \  
libio-socket-ssl-perl
```

and check the /etc/amavis/amavis.conf file to see that its all as you want - you might for example want to enable spamassassin's network-based checks...

**** NOTE probably want to get RAZOR as well, maybe DCC as well? haven't done that yet. ****

C L A M A V

```
apt-get install clamav  
  
dpkg-reconfigure clamav-daemon
```

and choose mostly the defaults, EXCEPT you need to change the user it runs as to amavis, then

```
chown amavis /var/run/clamav -R
```

Start everything up (don't forget to build those startup scripts for saslauthd and cyrus!).

CHECK ALL THE LOGS. And don't forget that includes the clamav log - if you aren't getting updated virus definitions, you aren't as secure as you think you are!

You should now be able to connect to the web interface, log in as the admin user, with the password you gave in the create_mysql.sql script, and get on with life...

DEBUGGING

Google is your friend. We encountered a number of issues doing the install first off, and there were answers to *all* of them online. In particular, the cyrus mailing list will be very useful.

Most problems will be due to problems with Berkeley DB (everything must be linked against the same version), permissions (make sure you've added cyrus and postfix to the sasl group and edited the clamav config file to make it run as amavis), or configuration file options.

Failure of cyrus build will probably be because you have missed one of the earlier package installs, OR have omitted to edit all the Makefiles as described above.

If you are getting segfaults or other similarly serious failures, strace is also your friend – both cyrus and saslauthd can be run in the foreground with strace – at least you will get SOME idea where things are breaking. Likewise, if you *are* seeing segfaults, its probably Berkeley DB-related. Run ldd on your executables to see what dependencies you have ended up with. Likewise on ALL the files in all the library paths, just in case something somewhere might be calling something linked against a different version of DB than the one you are using (4.2)

While debugging, turn logging on for mysql (it's an option in the startup script) and tail -f the log as you try to connect – you should at least be able to see that cyrus and postfix are making sensible queries. If the queries are *failing*, check that the config files in /etc/postfix contain the same usernames and passwords you specified in create_mysql.sql and insertuser_mysql.sql. If you aren't seeing any queries at all as you attempt connections, then check that you've configured the pam directory entries, and that saslauthd is running and using pam (saslauthd -a pam -c as runtime the commandline).

If you are getting weird SASL-related mail log entries about authentication, its also worth checking that you have configured /etc/postfix/sasl/smtpd.conf as described above.