

Configuring CRM114 Spam Filtering Solaris/Postfix/Procmail

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Introduction to CRM114

CRM114 is a system to examine incoming e-mail, system log streams, data files or other data streams, and to sort, filter, or alter the incoming files or data streams according to the user's wildest desires. Criteria for categorization of data can be by satisfaction of regexes, by sparse binary polynomial matching with a Bayesian Chain Rule evaluator, or by other means. Accuracy of the SBPH/BCR classifier has been seen in excess of 99 per cent, for 1/4 megabyte of learning text. In other words, CRM114 learns, and it learns fast .¹

Lets start with obtaining CRM

You can pull off the latest version from <http://crm114.sourceforge.net/>. Since the software is always in development and numerous bug fixes come out often check the site at least monthly. Alternatively sign up for their mailing list at:

<http://lists.sourceforge.net/lists/listinfo/crm114-general>

Now let's compile and install CRM

You can build CRM with gnu regex libraries or the TRE regex libraries. The TRE libraries are recommended and come with the source.

Build your TRE:

```
#cd tre-<ver>  
#./configure  
#make  
#make intall
```

You now should have libtre installed in /usr/local/lib:

```
/usr/local/lib/libtre.so.3  
/usr/local/lib/libtre.so.3.0.1  
/usr/local/lib/libtre.so  
/usr/local/lib/libtre.la  
/usr/local/lib/libtre.a
```

Now you are ready to compile CRM. By default the binaries will go to /usr/bin. If you would like a different location edit the Makefile and edit INSTALL_DIR directive

```
#gunzip crm114-<ver>.tar.gz  
#tar xvf crm114-<ver>.tar  
#cd crm114-<ver>  
#make clean  
#make  
#make install
```

*Please note if compiling on Solaris use GNUmake otherwise compilation will fail.



<http://www.macroscAPE.com>

*Also part of the Makefile is a strip command, which will not work on Solaris either unless you can obtain the GNU version. You can just comment out all the references to "strip" in the Makefile and it will work just fine.

"Make install" will install the following files into /usr/bin:

crm	- the CRM114 "compute engine".
cssutil	- the .css file check/verify/edit program
cssdiff	- the .css file diff program
cssmerge	- the .css file merging program

Pick a directory where you will store all the .crm, .css and .mfp files and copy all of them to the destination

```
#cp *.css /path/to/crm
#cp *.mfp /path/to/crm
#cp *.crm /path/to/crm
```

Obtaining or recreating .css files

While the .css files that you can download from <http://crm114.sourceforge.net/crm114-2003-09-20-Beta.css.tar.gz> are pretty substantial in size and have been trained well, They will not work on Sparc architecture, furthermore it is best to train your spam according to what spam you get.

The first thing to do is create the new spam and nonspam css files:

```
cssutil -b -r /path/to/spam.css
```

```
cssutil -b -r /path/to/nonspam.css
```

Editing mailfilterconfig.crm file

First thing to do is you need to change your password:

```
# -----define the secret password ----- YOU NEED TO CHANGE THIS!
#
```

```
isolate (:spw:)
alter (:spw:) /your_password_here/
```

The rest of the options are very well documented within the file itself so we will not spend much more time on this.

One option for mime encoding needs to be changed from the default:

```
alter (:mime_decoder:) /mimencode -u/
```

You will need to download mimencode for Solaris and install the package.

Configuring postfix and procmail

We are assuming you already have postfix running and procmail installed, if not refer to their respected documentation. There is not much to do within postfix to enable procmail.

Method A – Global procmailrc file

(not recommended since that will only use one mailfilter.crm file for all users)

1. Pick a directory where you will store all the .crm, .css and .mfp files ((for ex. /etc/opt/crm) and copy all of them to the destination

```
#cp *.css /path/to/crm  
#cp *.mfp /path/to/crm  
#cp *.crm /path/to/crm
```

2. Create a global procmailrc file in /etc/

Change permissions on the file to:
#chmod 644 /etc/procmailrc

3. Edit your main.cf

```
mailbox_command = /usr/bin/procmail -pm /etc/procmailrc
```

CRM use to come with a procmail recipe to use in its distribution, however we changed it a bit to reflect our environment:

```
-----  
SHELL=/usr/bin/sh          #Use the Bourne shell (check your path!)  
MAILDIR=$HOME             #  
LOGFILE=$MAILDIR/procmail.log  
DEFAULT=$HOME/Mailbox  
LOG="--- Logging ${LOGFILE} for ${LOGNAME}, "  
:Ofw: .msgid.lock  
| /usr/bin/crm -u /etc/opt/crm mailfilter.crm  
  
:O:  
* ^X-CRM-Rejected:.*  
mail/crm-spam  
  
# Accept all the rest to your default mailbox  
:O:  
${DEFAULT}  
-----
```



The logging can be disabled, however it's a good idea to have it on at first to perform any troubleshooting. Your procmail.log will give you pretty good indication on where the issue is regarding CRM configuration

```
4.Reload postfix
#postfix reload
```

After reloading you will see similar messages in your mail log file:

```
Sep 28 03:13:32 host.example.com postfix/local[19273]: [ID 197553 mail.info]
92B4A26E57: to=<user@host.com
>, relay=local, delay=1, status=sent ("|/usr/bin/procmail -pm /etc/procmailrc")
```

Method B – Per User Spam filtering

For this method no changes to Postfix configuration is needed. Postfix supports .forward files out of the box.

1. Once the binaries are installed, each user will have to have all the above .css, .crm and .mfp files which you can preload for them in their home directories:

For ex. /export/home/user/crm

Remember to chown –R:

```
#chown –R user:group /export/home/user/crm
#chmod –R 700 /export/home/user/crm
```

2. I would suggest generating new .css files for each user and instructing them on how to train CRM (see the HOWTO from http://crm114.sourceforge.net/CRM114_Mailfilter_HOWTO.txt)

3. Each user will need a .forward and .procmailrc files the .forward file will need to contain the following:

```
"|exec /usr/bin/procmail -pm /export/home/user/.procmailrc"
```

the .procmailrc file can be used from above with a minor change of invoking crm:

```
| /usr/bin/crm -u /export/home/user/crm/ mailfilter.crm
```

References

1. Bill Yerazunis, Mailfilter HOWTO,
http://crm114.sourceforge.net/CRM114_Mailfilter_HOWTO.txt