

Sendmail Quick Reference

Author: Jialong He

Jialong_he@bigfoot.com

http://www.bigfoot.com/~jialong_he

What is Sendmail?

Sendmail is the most popular mail server software and runs on Unix/Linux computers. The freeware version is available from: www.sendmail.org

Sendmail relies on a configuration file **sendmail.cf** which normally resides in `/etc/mail` directory. It is not easy to modify this file directly. One should modify sendmail macro configuration file: `/etc/mail/sendmail.mc` and then generate `sendmail.cf` with **m4** macro processor: **m4 /etc/mail/sendmail.mc > /etc/mail/sendmail.cf**

For new configuration file to take effects, you must restart sendmail daemon. On Redhat, use: **service sendmail restart**

Macro Configuration File - sendmail.mc

In `sendmail.mc`, any thing after “`dnl`” is treated as comments. A block of comments are delimited by `divert(-1)` and `divert(0)`. To use string value, use back tick (```) and end quota (`'`)

You must specify **OSTYPE** for OS dependent definitions, for example `OSTYPE('linux')`. Optionally, you can specify using **DOMAIN** dependent definitions, e.g., `DOMAIN('generic')`. *Note:* must use back tick (```) and end quota (`'`) to enclose a string value.

At the end of `.MC`, give mailer for Internet and Local mail

MAILER(smtp)
MAILER(procmail)

Use **FEATURE(keyword)** to enable desired features. Here are some useful keywords. For complete list of features, see <http://www.sendmail.org/m4/features.html>

After you changing `sendmail.mc`, you generate new `sendmail.cf` with:
m4 /etc/mail/sendmail.mc > /etc/mail/sendmail.cf

Keyword	Description
redirect	In aliases file, use following entry to tell sender the new address: foo: foo@newplace.com. REDIRECT
relay_hosts_only	By default, names listed in <code>/etc/mail/access</code> treated as domain. Allow only computer name.
access_db	Turns on the access control feature.
blacklist_recipients	Turns on the ability to block incoming mail for certain recipient usernames, hostnames, or addresses.
use_cw_file	Read <code>/etc/mail/local-host-names</code> file to get alternate names for this host (for multiple host name).
use_ct_file	Read <code>/etc/mail/trusted-users</code> file to get trusted users that allow set sender address.

[virtusertable](#) Used for host mutiple virtual domains.

You can use **define** in `.MC` file to change some default settings:

```
define('ALIAS_FILE', location of aliases file
`/etc/aliases')

define('SMART_HOST',`smtp. use external outgoing server
your.com')

define('confME_TOO', true) In aliases mailing, if sender is in the
list, also send copy to the sender.

define('confMAX_MESSAGE_ Maximum size of mail (0: no limit)
SIZE', 0)
```

Access Control

An access database can be created to accept or reject mails from selected domains or senders. You edit a text file `/etc/mail/access`. Each domain/computer/senders can be followed by: **OK**, **RELAY**, **REJECT**, or **DISCARD**.

```
#-----
# SAMPLE of /etc/mail/access
#-----
localhost.localdomain RELAY
localhost RELAY
127.0.0.1 RELAY
spammer@aol.com REJECT
```

After modifying access text file, you have to create database map with command: **makemap hash /etc/mail/access.db < /etc/mail/access**

if **FEATURE(use_cw_file)** is used, sendmail will read `/etc/mail/local-host-names` file to get alternate names for this host. You can list machine names that treat as localhost for RELAY.

Aliases file and \$HOME/.forward

A system wide aliases file (`/etc/aliases`) provides alternate names for individual users, forwarding of mail to other hosts and mailing lists. This is a text file. You can also include an external file in the aliases file

aliasname: recipient[, recipient,...]
listname: `:include: /path/filename`

After modifying aliases file, you must run **newaliases** to rebuild aliases database.

An individual user can create a **.forward** file in his home directory to forward mails send to him. It is possible put many email addresses in the `.forward` file and use it as a mailing list.

Keep a copy in mailbox and forward a copy
`\jialong # using \ to prevent further expand`
`jialong@otherplace.com`

SAMPLE /etc/aliases

```
#
# >>>>>>>>> The program "newaliases" must be run after
# >> NOTE >> this file is updated for any changes to
# >>>>>>>>> show through to sendmail.
#
```

```
# Basic system aliases -- these MUST be present.
mailer-daemon: postmaster
postmaster: root
root: jialong
```

```
#-----
# mailing list
#-----
list: :include:/home/jialong/list.txt
jialong: jialong\_he@yahoo.com, jialong@tiger.la.asu.edu
```

SAMPLE /etc/mail/sendmail.mc

```
include(`/usr/share/sendmail-cf/m4/cf.m4')dnl
VERSIONID(`setup for Red Hat Linux')dnl
OSTYPE('linux')dnl
define('SMART_HOST',`smtp.mydomain.com')dnl
define('PROCMAIL_MAILER_PATH',`/usr/bin/procmail')dnl
define('ALIAS_FILE',`/etc/aliases')dnl
FEATURE('mailertable',`hash -o /etc/mail/mailertable.db')dnl
FEATURE('virtusertable',`hash -o /etc/mail/virtusertable.db')dnl
FEATURE(redirect)dnl
FEATURE(always_add_domain)dnl
FEATURE(use_cw_file)dnl
FEATURE(use_ct_file)dnl
FEATURE(local_procmail,`,`procmail -t -Y -a $h -d $u')dnl
FEATURE(`access_db',`hash -T<TMPF> -o /etc/mail/access.db')dnl
FEATURE(`blacklist_recipients')dnl
EXPOSED_USER(`root')dnl
dnl # The following causes sendmail to only listen on the IPv4 loopback
dnl # address 127.0.0.1 Remove the loopback address restriction to accept
dnl # email from the internet or intranet.
dnl DAEMON_OPTIONS(`Port=smtp,Addr=127.0.0.1, Name=MTA')dnl
dnl FEATURE(`accept_unresolvable_domains')dnl
LOCAL_DOMAIN(`localhost.localdomain')dnl
dnl MASQUERADE_AS(`mydomain.com')dnl
MAILER(smtp)dnl
MAILER(procmail)dnl
```