

IndiMail Frequently Answered Questions

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1. What is IndiMail ?

Intro

IndiMail is a secure, reliable, efficient, simple mail server with all major components coded entirely in C. It has a extremely small footprint. It provides the functionality of delivering mails to the User's mailbox and retrieving the same by any third party MUA used by the Internet Community.

However IndiMail does not provide any Email Client or web mail Client. It is designed for typical Internet-connected UNIX hosts. It is expected that one use any IMAP/POP3 client that you are comfortable with.

2. How can I set one virtual domain to be the primary domain for the machine? We don't want to have any /etc/passwd users.

configure IndiMail with this option:

```
./configure --enable-default-domain=<domain name>
```

If you have already configured IndiMail you will need to do it again.

```
make distclean ; ./configure < with your options > ;  
make ; make install-strip;
```

Then you can create the default domain with vaddddomain <domain name>

This will allow users of the primary domain to set their pop user name to <user> instead of <user>%<virtualdomain>

3. How do I pick up my virtual domain email? Virtual domain users need to use the following format for their user name when popping in:

user%virtual_domain_name

Eudora might require the following syntax

user%virtual_domain_name@pophost

Microsoft clients may the following syntax:

user@virtual_domain

If you don't include the %virtual_domain_name or @virtual_domain_name, IndiMail will assume it is either a /etc/passwd user or a indi user in ~indimail/users or configured with "default domain".

4. How do I forward all mail that doesn't match any users or .qmail files for a particular domain?

Edit the ~indimail/domains/virtual_domain/.qmail-default file and

change the last parameter to an email address of the form:
user@domain

5. How do I bounce all mail that doesn't match any users or .qmail files for a particular domain?

Edit the `~indimail/domains/virtual_domain/.qmail-default` file and change the last parameter to `"bounce-no-mailbox"` without the quotes.

For example:

```
# cat .qmail-default  
| /var/indimail/bin/vfilter '' bounce-no-mailbox
```

6. I don't want to bounce emails for non existent users. Instead I want to delete them, how?

The last parameter in the `.qmail-default` file tells **vdelivermail** what to do with non-matching emails. The default is to bounce the email back to the sender. But you can also delete it instead.

update your `.qmail-default` file from something like this:

```
| /var/indimail/bin/vfilter '' bounce-no-mailbox
```

to something like this:

```
| /var/indimail/bin/vfilter '' delete
```

7. How do I allow roaming users to use our smtp server without opening the machine up to everyone on the internet?

There are many methods. Choose any of the below after studying them. I prefer 2 & 3 for security reasons.

1. Have IP addresses in `tcp.smtp` file
2. Configure IndiMail to use MySQL relay table
3. Use authenticated SMTP
4. For allowing specific domains use control file `relaydomains`
5. For allowing specific users use control file `relaymailfrom`
6. Use control file `relayclients` for IP addresses of clients allowed to relay mail through this host.

1. Using `tcp.smtp`

Your startup script for the `qmail smtp` server must use the **tcpserver** `-x` file option similar to this startup line.

```
env - PATH="/var/indimail/bin:/usr/local/bin" \  
tcpserver -H -R -x ~indimail/etc/tcp.smtp.cdb \  
-c 20 -u 508 -g 508 0 smtp \  
/var/indimail/bin/qmail-smtpd 2>&1 > /dev/null &
```

Modify the `-u 508` and `-g 508` to match your `indimail` user id and group id.

Configure IndiMail with the option `-enable-roaming-users=y`

Then edit `~indimail/etc/tcp.smtp` and put in lines for all static IP's that you will always want to relay access to.

```
127.0.0.:allow,RELAYCLIENT=""  
10.1.1.:allow,RELAYCLIENT=""
```

The above lines will cause RELAYCLIENT variable to be set for localhost and all machines on the 10.1.1 class and hence allow to relay through. Remember that any user on hosts on 10.1.1 class will be able to relay mails. You may not want this.

You should always put in the 127.0.0. and the IP of the machine IndiMail is running on (including alias IP addresses)

2. Using MySQL relay table

Run the command `~indimail/bin/clearopensmtp` in the cron every 30 Minutes

By default everytime someone pops or imaps and authenticates, the following happens:

1. On successful authentication, IMAP/POP3 daemon inserts entry into relay table, inserting email, IP address and timestamp. You have to use indimail's authindi module, libnss-mysql, FSSOS for this.
2. If CHECKRELAY environment variable is enabled, SMTP checks the relay table for a entry within minutes specified by the RELAY_CLEAR_MINUTES environment variable. If the entry is there, RELAYCLIENT environment variable is set, which allows relaying.

At this point, the SMTP server will allow that IP to relay for 60 Mins (default)

clearopensmtp will clear all IP which have not authenticated in the past RELAY_CLEAR_MINUTES. clearopensmtp should be enabled in cron to run every 30 minutes.

3. Set up Authenticated SMTP

Setup up **tcpserver** to invoke **qmail-smtpd** with arguments as given below

```
env - PATH="/var/indimail/bin:/usr/local/bin" \  
tcpserver -H -R -x ~indimail/etc/tcp.smtp.cdb \  
-c 20 -u 508 -g 508 0 smtp \  
/var/indimail/bin/qmail-smtpd `hostname` \  
/var/indimail/bin/vchkpass \  
/var/indimail/bin/systpass \  
/bin/false 2>&1 > /dev/null &
```

Now whenever a user successfully authenticates through SMTP, the RELAYCLIENT environment variable is set, which allows relaying.

8. How do hard quota's for users work? How do I set a default quota for new user creation

When mail is delivered to a virtual domain, **vdelivermail** delivers

it to the users home directory. vdelivermail will enter the users Maildir and add up the sizes of all the files in these directories. If the size is greater than the HARD_QUOTA limit. The email is bounced back to the sender.

Use the configuration option `--enable-hardquota` to change the size of the hard quota per user. Please read README.quotas for information on maildirquotas and syntax information.

You can override the the value set at configuration time by setting the environment variable HARD_QUOTA. Setting this variable when running the **adduser** command sets the default quota for the user.

Set the environment variable HARD_QUOTA in the IMAP/POP3 service configuration for setting the default quota for new user creation (in case users are automatically added by the POP3/IMAP server).

9. I installed qmail in a place other than /var/indimail. How should I configure IndiMail for it?

```
./configure --enable-qmaildir=qmail-install-path
```

10. I want to use a different file name than /var/indimail/etc/tcp.smtp for my static IPs for perment relay.

```
./configure -enable-tcpserver-file=smtp-relay-file
```

11. How can we use an IP address per domain, so that users don't need to authenticate with user%domain or user@domain, they just want to use "user"?

```
./configure --enable-ip-alias-domains=y
```

Then run the below command for each IP you want to link to a domain.

```
vipmap -a IP domain
```

12. Logging? Please tell me about logging

```
./configure --enable-logging=
```

- y means log all successful and unsuccessful attempts and fatal errors
- n means don't log anything
- e means only log errors and fatal errors
- p means include passwords in errors
- v means log everything, including passwords in errors

By default we set it up to only log errors and fatal errors.

13. How do I alias a new virtual domain to a current virtualdomain?

```
vaddaliasdomain new_domain old_domain
```

14.How do I post a email to all users of a virtualdomain or a set of domains?

use the new **vbulletin** program:

```
vbulletin -f email_file vdomain vdomain ...
```

To see all the available options run **vbulletin** with no options. It will print out a complete list.

15.Is there a mailing list available for IndiMail package?

There are two mailing lists

For all queries

<http://groups.google.co.in/group/indimail>

and

For important Announcements

<http://groups.google.co.in/group/indimail-announce>

16.How do I setup IndiMail to talk to MySQL

Learn how to use dbinfo or the control file **mcdinfo**

17.I want to upgrade IndiMail, what do I need to worry about?

Two things happen on an upgrade.

- 1.The programs, library and include files get over written and the permissions get fixed.

None of the users or domain get touched. So to upgrade:

- 1.download new IndiMail software
- 2.run configure with your options
- 3.make
- 4.make install-strip
- 5.wait for phone calls
- 6.upgrade completed.

If you want to backup the programs, libraries and include files then back up

1. bin
2. sbin
3. libexec
4. modules
5. plugins
6. share

Scripts

1. boot

Library

1. lib
2. include

Config Files

1. control
2. etc

Data Files (including configuration)

1. etc
2. share
3. users

Domain Specific Configuration

1. domains
2. autoturn

Documentation

1. doc
2. man

18.How do I log when people authenticate with pop/imap?

Make sure you include this configuration option.

```
./configure --enable-auth-logging=y
```

19.How can I uninstall IndiMail?

Two Options (Use the one you find easier)

1.Run the following commands

On Gnu/Linux type systems as root:

```
# userdel -r indimail
# groupdel vchkpw
Done
```

To completely clean your qmail installation of virtual domains

```
# rm -rf /var/indimail/control*/virt*
# rm -rf /var/indimail/control*/rcpt*
# rm -rf /var/indimail/control*/more*
# cp /var/indimail/control/locals /var/indimail/control/rcpthosts
# rm -rf /var/indimail/users/*
```

If enable roaming users and your tcp.smtp file was not in the ~indimail/etc directory, you will need to remove the open-smtp* files, where ever they are.

Remove shared library libindimail.so* from /usr/lib

20.I get errors about not finding a .so library, how to fix?

Your operating system does not know where those shared object libraries are. On linux read up on how to use ld.so.conf. Edit /etc/ld.so.conf and run ldconfig.

Another method is to set the LD_LIBRARY_PATH environment variable. For example:

```
export LD_LIBRARY_PATH=/path/to/libmysqlclient.so.6
```

21.What is the relationship between ~indimail/etc/open-smtp ~indimail/etc/tcp.smtp and ~indimail/etc/tcp.smtp.cdb and how do they work with the smtpserver? (by Bram Dumolin <bram@grmbl.be>)

If you are running **qmail-smtpd** under **tcpserver**, you should add a `-x ~indimail/etc/tcp.smtp.cdb` option to it. This makes sure that **qmail-smtpd** checks in that file for allowed relaying (on top of the ones in `/var/indimail/control/rcpthosts`).

This `~indimail/etc/tcp.smtp.cdb` needs to be created manually first :
`/path/to/tcprules ~indimail/etc/tcp.smtp.cdb blah < ~indimail/etc/tcp.smtp`

This will enable the roaming for all hosts/networks you put in `~indimail/etc/tcp.smtp` which is necessary if you want to use your mailserver from the local network.

Secondly, check the permissions of the files in `~indimail/etc/`. They should be owned by the user running the `tcpserver` with the `popserver` as that user needs to update those files.

Everytime a user logs into the POP3/IMAP server, his ip and a timestamp gets written to `~indimail/etc/open-smtp`. If he's allowed in, the `tcp.smtp.cdb` gets regenerated automatically from the `open-smtp` file and the `tcp.smtp` file.

22.How to run vaddomain as non root

1. make sure `/var/indimail/control` directory and all the files inside it are owned by your non root user (indimail).
2. make sure `/var/indimail/users` directory and all the files inside are owned by your non root user (indimail)
3. change permissions on `/var/indimail/bin/qmail-newu` to allow non root users to run it. `chmod ugo+rx /var/indimail/bin/qmail-newu`
4. after adding the domain have root signal `qmail-send` with HUP to tell it to re-read it's control files.
5. change permissions on `/var/indimail/bin/qmail-newmrh` to allow non root users to run it. `chmod ugo+rx /var/indimail/bin/qmail-newmrh`

23.I want to have IndiMail access mysql as indimail and not root. What sql commands to I run?

First log into mysql as your mysql root user and pass. Then:

```
> create database indimail;
> use mysql;
> grant select, insert, update, delete, create, drop on indimail.*
  to indimail@localhost identified by 'your password';
```

That will create the indimail database then create a indimail login with access to the indimail database and will set the password to 'your password'. Pick something random to put in for 'your password'.

Edit the `indimail.h` file and change "root" to "indimail" and change "secret" to whatever you picked as 'your password'.

24. I have changed my IP address on a clustered setup. What gets affected

The following tables

1. `fstab` (host)
2. `host_table` (ipaddr)
3. `dbinfo` (server, mdahost)
4. `ip_alias_map` (ipaddr)
5. `smtp_port` (host, src_host)

The control file `localiphost`

On the relay servers the file **`smtproutes`**

You can use the program **`ipchange`** to change IP address in IndiMail tables

25. How to put your custom filters before queuing mail

It's not perl but **`qmail-qfilter`** handles the pipes and fd's for you. Set `QMAILQUEUE` to a program that runs **`qmail-qfilter`** with the list of programs you want to pipe the message through:

```
#!/bin/bash
exec /path/to/qmail-qfilter \
  /path/to/spamc -- \
  /path/to/reject-message-with-spamrating-over-5 -- \
  /path/to/reject-message-with-viagra -- \
  /path/to/reject-message-with-sobig -- \
  /var/indimail/bin/altermime --input= --disclaimer=/var/indimail/
control/disclaimer
```

Example `reject-message-with-spamrating-over-5`:

```
#!/bin/bash
exec 3</dev/stdin
sed -e '/^$/q' <&3 | grep -q '^X-Spam-Level: *\*\*\*\*\*' && exit
31
exec cat -
```

or

```
#!/usr/bin/perl
while (<>) {
    last if (/^$/);
    exit 31 if (/^X-Spam-Level: *\*\*\*\*\*\/);
}
seek(STDIN, 0, 0);
print while (<>);
```

26. I have an atrn domain. I want to set quota while delivering

```
$ vaddomain -t etrn.dom
$ vadduser postmaster@etrn.dom pass -q quota_in_bytes
$ vatrn -i etrn.dom postmaster@etrn.dom
```

Have the following entry in `.qmail-default`

```
|/var/indimail/bin/vfilter '' home_dir/Maildir
```

where home_dir is the home directory created by **vadduser** for the user postmaster

27. I have an atrn domain called etrn.dom. My users are split across multiple servers. How do I distribute mails for my users according to the server on which they belong?

1. Create a virtual domain (e.g. mysme.com). This domain will just act as a container domain for atrn MAPS.

```
$ vaddddomain -t mysme.com
```

2. Create artificial ATRN domains for each server with ATRN access (as in 34. above).

```
$ vaddddomain -t chn.mysme.com
```

```
$ vaddddomain -t mum.mysme.com
```

NOTE: If you want to set quota, edit the file
/var/indimail/autoturn/chn.mysme.com/Maildir/maildirsize

3. Create rule for each user's mail to get distributed to the subdomain Maildir

```
$ valias -i /var/indimail/autoturn/chn.mysme.com/Maildir/
```

```
chn\_user1@mysme.com
```

```
$ valias -i /var/indimail/autoturn/mum.mysme.com/Maildir/
```

```
mum\_user1@mysme.com
```

```
$ valias -i /var/indimail/autoturn/mum.mysme.com/Maildir/
```

```
mum\_user2@mysme.com
```

4. Create the .qvirtual file in each of these subdomains to etrn.dom

```
echo mysme.com > /var/indimail/autoturn/chn.mysme.com/.qvirtual
```

```
echo mysme.com > /var/indimail/autoturn/mum.mysme.com/.qvirtual
```

5. Create atrn maps (users having access to the above atrn domains)

```
$ vadduser master_chn@mysme.com xxxxxxxx # For auth and atrn
```

```
$ vatrn -i chn.mysme.com master_chn@mysme.com
```

```
$ vadduser master_mum@mysme.com xxxxxxxx
```

```
$ vatrn -i mum.mysme.com master_mum@mysme.com
```

.qvirtual allows mails for a main domain to be distributed across multiple directories in /var/indimail/autoturn directory. i.e. if etrn.dom is the main domain and mails have been split into directories location1.etrn.dom and location2.etrn.dom specify .qvirtual having etrn.dom in /var/indimail/autoturn/location1.etrn.dom and /var/indimail/autoturn/location2.etrn.dom. .qvirtual also allows mails for a domain to be delivered to any directory and the domain identified by looking up the .qvirtual

file
xxxxxxx is the password for the above users.

28.How do I setup stupid disclaimers

Disclaimers are stupid and organizations too if they want disclaimers.

<http://www.goldmark.org/jeff/stupid-disclaimers>

However if your organization still insists on stupidity, this is what you can do in the file /var/indimail/control/filterargs

1. Option 1

The following will work if I send mails to indimail.org (both local and remote)

```
indimail.org:/var/indimail/bin/altermime --input=-  
--disclaimer=/var/indimail/control/disclaimer
```

The following will work if I send mails to indimail.org (remote)
indimail.org:remote:/var/indimail/bin/altermime --input=-
--disclaimer=/var/indimail/control/disclaimer

Here /var/indimail/control/disclaimer contains the disclaimer text

2. Option 2

Alternative method is to set
FILTERARGS="/var/indimail/bin/altermime --input=- \
--disclaimer=/var/indimail/control/disclaimer"
in qmail-smtp or the qmail-send variables

3. Option 3

```
FILTERARGS="/var/indimail/bin/altermime --multipart-insert --input=- \  
--replace=disclaimer.txt --with /var/indimail/control/disclaimer.txt"
```

4. Option 4

```
FILTERARGS="/usr/bin/altermime --input=- \  
--disclaimer=/var/indimail/control/disclaimer.txt \  
--disclaimer-html=/var/indimail/control/disclaimer.txt \  
--xheader=\"X-Copyrighted-Material: Please visit  
http://www.indimail.org/privacy.htm\""
```

29.How do i delete mails lying in a queue having a certain pattern. Can I use regex

Use **qmail-rm**. It can quickly delete mails matching a given pattern.

30.I have been hit by virus. My virus scanner is not able to handle the load. What should I do?

Use the *signatures* or the *bodycheck* control files. For external virus scanner you can set VIRUSCHECK variable to 4, 5 or 6 which uses **qscanq** to run an external virus scanner

31.How do I control access to SMTP for specific domains from specific or set of IP addresses

Use the *hostaccess* control file. e.g. to allow mails from yahoo.com from 2 IP addresses, 210.210.122.80 and 210.210.122.81 have the following in *hostaccess* control file.

```
yahoo.com:210.210.122.80-81
```

The behaviour of *hostaccess* can be modified by setting the *PARANOID* or *DOMAIN_MASQUERADE* environment variables. See *qmail-smtpd(8)* for more details

32.How do I restrict and control mail transactions between senders and recipients

Use the *accesslist* control file. The file has the following syntax

type:sender:recipient

where **type** is either 'rcpt' or 'from'. e.g.

```
rcpt:jmuruga@indimail.org:hcm@indimail.org  
from:recruiter@monster.com:bad_employee@indimail.org
```

will allow mails only from jmuruga@indimail.org to be sent to hcm@indimail.org. Also recruiter@monster.com will be allowed to send mails only to bad_employee@indimail.org

33.I want to run a program every time post imap/pop3 authentication for every user.

Define the environment variable *POSTAUTH* pointing to an executable which you desire to run. This can be defined in the *IMAP/POP3* variables directory

34.I want to run a program just once in a lifetime post imap/pop3 authentication for every user.

Define the environment variable *MIGRATEUSER* pointing to an executable which you desire to run. Additionally define *MIGRATEFLAG* which should be a name of a file without any path component. e.g. *indimail.txt* is a valid name but */tmp/indimail.txt* is invalid. After running the program, IndiMail will create a 0 bytes file and prevent further invocation of the program. If the program is again desired to be run, either delete the file defined by *MIGRATEFLAG* or change the value of *MIGRATEFLAG* environment variable in the *IMAP/POP3* variables directory.

This scheme of defining *MIGRATEUSER* and *MIGRATEFLAG* is useful for doing adhoc migrations.

35.What is envrules?

Using **envrules** you can set environment variables on a per sender basis (for SMTP) or on a per recipient basis for *qmail-local* or *qmail-remote* (if **spawn-filter** is used).

envrules is a function that gets executed with the sender as the argument in smtp and the recipient as the argument in qmail-local and qmail-remote. envrules uses a file defined by the ENVRULES environment variable to set or unset various environment variables used by **qmail-smtpd** or **spawn-filter**

qmail-smtpd uses *from.envrules* as a default while **spawn-filter** uses *rcpt.envrules* as a default.

36.How do I setup envrules for SMTP or local/remote deliveries

You can set the following environment variables which control the behaviour of SMTP or local/remote deliveries

define the environment variables ENVRULES=smtp.rules in qmail-smtp supervise variables directory. Set the following in the file /var/indimail/control/smtp.rules

```
mbhanguai*indimail.org:DATABYTES=2000000,SPAMFILTER=
```

sets outgoing mail size as 2 MB and disables spam filtering for any user in indimail.org whose name starts with mbhanguai

Similarly define the environment variables ENVRULES=spawn.rules in qmail-send supervise variables directory. Now any rules set in spawn.rules will apply to **qmail-remote** or **qmail-local**. The List of variables that can be controlled via envrules is listed below

- SMTP
 - 1.REQUIREAUTH - Force Authenticated SMTP.
 - 2.QREGEX - Use regular expressions while matching addresses in badhelo, blackholedsender, badmailfrom, spamignore, relaymailfrom, authdomains, badrcptto, chkrcptdomains, badext, accesslist
 - 3.ENFORCE_FQDN_HELO - Forces argument to helo/ehlo command to be a fully qualified domains.
 - 4.DATABYTES - Incoming/Outgoing data size limit
 - 5.BADHELOCHECK - Enables checking of the badhelo control file
 - 6.BADHELO - Overrides the name for badhelo control file.
 - 7.NODNSCHECK - Skips checking of DNS for the domain part of sender's address
 - 8.VIRUSCHECK - Enables virus scanner or bad extension scanner.
 - 9.SIGNATURES - virus signatures for inbuild qmail-smtpd virus scanner.
 - 10.BODYCHECK - Overrides name for the bodycheck control file
 - 11.BADMAILFROM - Overrides name for the badmailfrom control file.
 - 12.BADMAILFROMPATTERNS - Overrides name for the badmailpatterns control file
 - 13.BOUNCEMAIL - If set, qmail-smtpd rejects mail
 - 14.CUGMAIL - Enforces closed user group mailing.
 - 15.MASQUERADE - Enables masquerading of the sender's address for authenticated SMTP
 - 16.DEFAULT_DOMAIN
 - 17.BADRCPTTO - Overrides name for the badrcptto control file

- 18.BADRCPTPATTERNS - Overrides name for the badrcptpatterns control file
- 19.TARPITCOUNT - Max number of mails to be accepted in a single SMTP session after which a delay (sleep) is imposed on mail's receipt for every recipient
- 20.TARPITDELAY - The duration of sleep to be imposed when TARPITCOUNT is reached
- 21.MAXRECIPIENTS - Maximum number of recipients allowed in a single SMTP session
- 22.AUTH_ALL - Enforce authenticated SMTP before accepting mails
- 23.CHECKRELAY - Check the MySQL relay table and allow relaying if POP/IMAP before SMTP has been done. If this is not set, the only other method to allow relaying is by using authenticated SMTP
- 24.CONTROLDIR - Sets the directory to be used for reading qmail's control files.
- 25.ANTISPOOFING - Forces authentication for local users before accepting mails
- 26.CHECKRECIPIENT - Checks the status of local recipients (active, inactive, overquota) before accepting mail. Mails are bounced if the user is inactive or overquota at the SMTP itself.
- 27.SPAMFILTER - Sets the program for doing SPAM filtering
- 28.LOGFILTER - Name of a fifo to which all SPAM status logs are sent.
- 29.SPAMFILTERARGS - Arguments to be passed to the spam filter program defined by SPAMFILTER
- 30.SPAMEXITCODE - Value of exit code for the spam filter program which indicates spam
- 31.REJECTSPAM - Value which determines what to be done for spam mails
 0. Accept the mail
 1. Reject the mail
 2. Accept and blackhole the mail
- 32.SPAMREDIRECT - Redirect spam mails to another address defined by the SPAMREDIRECT variable
- 33.SPAMIGNORE - Overrides name of the spamignore control file
- 34.SPAMIGNOREPATTERNS - Overrides name of the spamignorepatterns control file
- 35.FILTERARGS - Name of a filter with arguments through which the mail can be run through. Filtering can happen before a mail is deposited in the queue by qmail-smtpd, qmail-inject, sendmail.
- 36.QMAILQUEUE - Path of the queue program which all qmail executable use to insert mails into the queue
- 37.RELAYCLIENT - If set, relaying is allowed
- 38.QQEH - qmail Queue Extra Header
- 39.BADEXT - Overrides name of the badext control file
- 40.BADEXTPATTERNS - Overrides the name of the badextpatterns control file
- 41.ACCESSLIST - List of email pairs which are allowed to transact with each other.
- 42.EXTRAQUEUE - List of extra envelope recipients to whom the mail should be sent
- 43.QUARANTINE - Mailbox in which the mail should be quarantined
- 44.QHPSI (QHPSIMINSIZE, QHPSIMAXSIZE, QHPSIRC, QHPSIRN)
- 45.USE_FSYNC - Do a sync before every write. Ensures mails to be safely written to the disk.

- 46.SCANCMD - The scanner command with arguments
- 47.REMOVEHEADERS - List of headers to be removed from the original mail before being written to disk.
- 48.PLUGINDIR - Directory containing list of dynamic libraries having virus scanning functionality.
- 49.VIRUS_PLUGIN - The virus scanner function to be loaded from libraries in PLUGINDIR.
- 50.PASSWORD_HASH - You can set this to DES, MD5, SHA256, SHA512 to define the encryption method

- spawn-filter

- 1.SPAMFILTER - Sets the program for doing SPAM filtering
- 2.LOGFILTER - Name of a fifo to which all SPAM status logs are sent.
- 3.SPAMFILTERARGS - Arguments to be passed to the spam filter program defined by SPAMFILTER
- 4.FILTERARGS - Name of a filter with arguments through which the mail can be run through. Filtering can happen before a mail is deposited in the queue by qmail-smtpd, qmail-inject, sendmail.
- 5.SPAMEXITCODE - Value of exit code for the spam filter program which indicates spam
- 6.REJECTSPAM - Value which determines what to be done for spam mails
 - 1.Accept the mail
 - 2.Reject the mail
 - 3.Accept and blackhole the mail
- 7.SPAMREDIRECT -Redirect spam mails to another address defined by the SPAMREDIRECT variable
- 8.SPAMIGNORE - Overrides name of the spamignore control file
- 9.SPAMIGNOREPATTERNS - Overrides name of the spamignorepatterns control file
- 10.QMAILREMOTE - By default, qmail-rspawn executes qmail-remote. If this is set, the executable defined by QMAILREMOTE will be called instead
- 11.QMAILLOCAL - By default, qmail-lspawn executes qmail-local. If this is set, the executable defined by QMAILLOCAL will be called instead
- 12.DATABYTES - Incoming/Outgoing data size limit
- 13.SMTPROUTE - Overrides the control file smtproutes.
- 14.AUTH_SMTP - If set, qmail-remote uses authenticated SMTP. The value of this variable can be PLAIN, LOGIN or CRAM-MD5
- 15.MDA - The mail delivery agent to be called by vfilter
- 16.MYSQL_INIT_COMMAND - Command to run when connecting to MySQL in qmail-rspawn. Will automatically be re-executed when reconnecting
- 17.MYSQL_READ_DEFAULT_FILE - File from which to read MySQL specific options affecting mysql_real_connect()
- 18.MYSQL_READ_DEFAULT_GROUP - Read options from named group from the file specified by MYSQL_READ_DEFAULT_FILE
- 19.MYSQL_OPT_CONNECT_TIMEOUT - Connect timeout in seconds.
- 20.MYSQL_OPT_READ_TIMEOUT - read timeout in seconds on a MySQL connection.
- 21.MYSQL_OPT_WRITE_TIMEOUT - write timeout in seconds on a MySQL connection.

37.How do I have a wildcard smtp route?

```
:202.144.77.55:25
```

directs all remote deliveries to the host 202.144.77.55 on port 25

38.How do I enable IndiMail automatically on startup?

On non-upstart systems

Run the following commands as root

```
# /var/indimail/bin/initshvc -on
# init q
```

To disable automatic startup, run

```
# /var/indimail/bin/initshvc -off
# init q
```

On systems which have the latest upstart daemon

```
# /var/indimail/bin/initshvc -on
# /sbin/initctl emit qmailstart
```

To disable automatic startup, run

```
# /var/indimail/bin/initshvc -off
# /sbin/initctl emit qmailstop
```

39.How do I use postfix with IndiMail?

IndiMail has a wrapper to vdelivermail called 'postdel' for postfix.

1.Add the following two lines to main.cf

```
mydestination=indimail.org,satyam.net.in # domains added by vaddomain
local_transport=vdel
vdel_destination_recipient_limit=1
```

2.Add the following to master.cf

```
vdel      unix      -      n      n      -      100      pipe
flags=Fq, user=indimail argv=/var/indimail/bin/postdel -f -u $user -d $recipient -r $sender
```

40.Controlling the appearance of outgoing messages (using qmail-inject/sendmail)

1.How do I set up host masquerading? All the users on this host, webmaill.indimail.org, are users on indimail.org. When raj sends a message to prem, the message should say ``From: raj@indimail.org'' and ``To: prem@indimail.org'', without ``webmaill'' anywhere.

```
echo indimail.org > /var/indimail/control/defaulthost;
chmod 644 /var/indimail/control/defaulthost.
```

2.How do I set up user masquerading? I'd like my own From lines to show boss@indimail.org rather than god@heaven.indimail.org.

Add MAILHOST=indimail.org and MAILUSER=boss to your environment. To override From lines supplied by your MUA, add QMAILINJECT=f to your environment.

3. How do I set up Mail-Followup-To automatically? When I send a message to the sos@heaven.indimail.org mailing list, I'd like to include ``Mail-Followup-To: sos@heaven.indimail.org''

Add QMAILMFTFILE=\$HOME/.lists to your environment, and put sos@heaven.indimail.org into ~/.lists.

41. Routing outgoing messages

1. How do I send local messages to another host? All the mail for indimail.org should be delivered to our disk server, pokey.indimail.org. I've set up an MX from indimail.org to pokey.indimail.org, but when a user on the indimail.org host sends a message to boss@indimail.org, indimail.org tries to deliver it locally. How do I stop that?

Remove indimail.org from /var/indimail/control/locals. If **qmail-send** is running, give it a HUP. Make sure the MX is set up properly before you do this. Also make sure that pokey can receive mail for indimail.org, see question 51.1.

2. How do I set up a null client? I'd like zippy.indimail.org to send all mail to bigbang.indimail.org

```
echo :bigbang.indimail.org > /var/indimail/control/smtproutes;
chmod 644 /var/indimail/control/smtproutes.
Disable local delivery as in question 50.1. Turn off qmail-smtpd
in /service*/qmail.smtpd*.
```

3. How do I send outgoing mail through UUCP? I need qmail to send all outgoing mail via UUCP to my upstream UUCP site, gonzo.

Put

```
:alias-uucp
```

into control/virtualdomains and

```
|preline -df /usr/bin/uux - -r -gC
-a"${SENDER:-MAILER-DAEMON}" gonzo!rmail "($DEFAULT@$HOST)"
```

(all on one line) into ~alias/.qmail-uucp-default. (For some UUCP software you will need to use -d instead of -df.) If **qmail-send** is running, give it a HUP.

4. How do I set up a separate queue for a SLIP/PPP link?

Deliver to a maildir. Configure ETRN/AUTOTURN or ATRN to access the maildir and deliver the mails.

5. How do I deal with ``CNAME lookup failed temporarily''? The log showed that a message was deferred for this reason. Why is qmail

doing CNAME lookups, anyway?

The SMTP standard does not permit aliased hostnames, so qmail has to do a CNAME lookup in DNS for every recipient host. If the relevant DNS server is down, qmail defers the message. It will try again soon.

42. Routing incoming messages by host

1. How do I receive mail for another host name? I'd like our disk server, pokey.indimail.org, to receive mail addressed to indimail.org. I've set up an MX from indimail.org to pokey.indimail.org, but how do I get pokey to treat indimail.org as a name for the local host?

Add indimail.org to /var/indimail/control/locals and to /var/indimail/control/rcpthosts. If **qmail-daemon** is running, give it a HUP (or do `svc -h /service*/qmail-send*` if qmail is supervised).

2. How do I set up a virtual domain? I'd like any mail for indimail.org, including root@indimail.org and postmaster@indimail.org and so on, to be delivered to Bob. I've set up the MX already.

Answer: Put

```
indimail.org:manny
```

into control/virtualdomains. Add indimail.org to control/rcpthosts. If **qmail-daemon** is running, give it a HUP (or do `svc -h /service*/qmail-send*` if qmail is supervised).

Now mail for whatever@indimail.org will be delivered locally to manny-whatever. Bob can set up ~manny/.qmail-default to catch all the possible addresses, ~manny/.qmail-info to catch info@indimail.org, etc.

3. How do I set up several virtual domains for one user? Manny wants another virtual domain, everywhere.org, but he wants to handle indimail.org users and everywhere.org users differently. How can we do that without setting up a second account?

Answer: Put two lines into control/virtualdomains:

```
indimail.org:manny-nowhere
everywhere.org:manny-everywhere
```

Add indimail.org and everywhere.org to control/rcpthosts. If **qmail-daemon** is running, give it a HUP (or do `svc -h /service*/qmail-send*` if qmail is supervised).

Now Manny can set up separate .qmail-nowhere-* and everywhere-* files. He can even set up .qmail-nowhere-default and .qmail-everywhere-default.

43. Routing incoming messages by user

1. How do I forward unrecognized usernames to another host? I'd like to set up a `USER_RELAY` pointing at `bigbang.indimail.org`.

Put

```
| forward "$LOCAL"@bigbang.indimail.org
```

into `~alias/.qmail-default`.

2. How do I set up a mailing list? I'd like `me-sos@my.host.name` to be forwarded to a bunch of people.

Put a list of addresses into `~me/.qmail-sos`, one per line. Then incoming mail for `me-sos` will be forwarded to each of those addresses. You should also touch `~me/.qmail-sos-owner` so that bounces come back to you rather than the original sender.

Alternative: `ezmlm` (<http://pobox.com/~djb/ezmlm.html>) is a modern mailing list manager, supporting automatic subscriptions, confirmations, archives, fully automatic bounce handling (including warnings to subscribers saying which messages they've missed), and more.

3. How do I use `procmail` with `qmail`?

Put

```
| preline procmail
```

into `~/.qmail`. You'll have to use a full path for **procmail** unless **procmail** is in the system's startup `PATH`. Note that **procmail** will try to deliver to `/var/spool/mail/$USER` by default; to change this, see `INSTALL.mbox`.

4. How do I use `elm`'s filter with `qmail`?

Put

```
| preline filter
```

into `~/.qmail`. You'll have to use a full path for `filter` unless `filter` is in the system's startup `PATH`.

5. How do I create aliases with dots? I tried setting up `~alias/.qmail-P.D.Q.Bach`, but it doesn't do anything.

Use `.qmail-p:d;q:bach`. Dots are converted to colons, and uppercase is converted to lowercase.

6. How do I use `sendmail`'s `.forward` files with `qmail`?

Install the `dot-forward` package (<http://pobox.com/~djb/dot-forward.html>).

7. How do I use `sendmail`'s `/etc/aliases` with `qmail`?

Install the fastforward package
(<http://pobox.com/~djb/fastforward.html>).

8. How do I make qmail defer messages during NFS or NIS outages? If ~joe suddenly disappears, I'd like mail for joe to be deferred.

Build a qmail-users database, so that qmail no longer checks home directories and the password database. This takes three steps.

First, put your complete user list (including local and NIS passwords) into /var/indimail/users/passwd.

Second, run

```
# qmail-pw2u -h < /var/indimail/users/passwd > /var/indimail/users/assign
```

Here -h means that every user must have a home directory; if you happen to run **qmail-pw2u** during an NFS outage, it will print an error message and stop.

Third, run

```
# qmail-newu
```

Make sure to rebuild the database whenever you change your user list.

9. How do I change which account controls an address? I set up ~alias/.qmail-www, but qmail is looking at ~www/.qmail instead.

If you do

```
# chown root ~www
```

then qmail will no longer consider www to be a user; see qmail-getpw.0. For more precise control over address assignments, see qmail-users.0.

44. Setting up servers

1. How do I run **qmail-smtpd** under tcpserver? inetd is barfing at high loads, cutting off service for ten-minute stretches. I'd also like better connection logging.

```
tcpserver -u 7770 -g 2108 0 smtp /var/indimail/bin/qmail-smtpd &
```

into your system startup files. Replace 7770 with your indimail uid, and replace 2108 with your vchkpw gid. Don't forget the &. The change will take effect at your next reboot.

By default, **tcpserver** allows at most 40 simultaneous **qmail-smtpd** processes. To raise this limit to 400, use tcpserver -c 400. To keep track of who's connecting and for how long, run (on two lines)

```
tcpserver -v -u 7770 -g 2108 0 smtp /var/indimail/bin/qmail-smtpd \  
2>&1 | /var/indimail/bin/splogger smtpd 3 &
```

2. How do I set up qmail-qmtpd?

If you have **tcpserver** installed, set up

```
tcpserver -u 7770 -g 2108 0 qmtp /var/indimail/bin/qmail-qmtpd &
```

replacing 7770 and 2108 with the indimail uid and vchkpw gid.
See question 53.1 for more details on tcpserver.

3. How do I allow selected clients to use this host as a relay? I see that qmail-smtpd rejects messages to any host not listed in control/rcpthosts.

Three steps. First, install tcp-wrappers, available separately, including hosts_options. Second, change your qmail-smtpd line in inetd.conf to

```
smtp stream tcp nowait qmaild /usr/local/bin/tcpd  
/var/indimail/bin/tcp-env /var/indimail/bin/qmail-smtpd
```

(all on one line) and give inetd a HUP. Third, in tcpd's hosts.allow, make a line setting the environment variable RELAYCLIENT to the empty string for the selected clients:

```
tcp-env: 1.2.3.4, 1.2.3.5: setenv = RELAYCLIENT
```

Here 1.2.3.4 and 1.2.3.5 are the clients' IP addresses. qmail-smtpd ignores control/rcpthosts when RELAYCLIENT is set. (It also appends RELAYCLIENT to each envelope recipient address. See question 53.4 for an application.)

Alternative procedure, if you are using **tcpserver**: Create /var/indimail/etc/tcp.smtp containing

```
1.2.3.6:allow,RELAYCLIENT=""  
127.:allow,RELAYCLIENT=""
```

to allow clients with IP addresses 1.2.3.6 and 127.*.
Run tcprules /var/indimail/etc/tcp.smtp.cdb \
/var/indimail/etc/tcp.smtp.tmp < /var/indimail/etc/tcp.smtp

Finally, insert

```
-x /var/indimail/etc/tcp.smtp.cdb
```

after **tcpserver** in your **qmail-smtpd** invocation.

4. How do I fix up messages from broken SMTP clients?

Three steps. First, put

```
| bouncesaying 'Permission denied' [ "@$HOST" != "@fixme" ]  
| qmail-inject -f "$SENDER" -- "$DEFAULT"
```

into ~alias/.qmail-fixup-default.

Second, put

fixme:fixup

into /var/indimail/control/virtualdomains, and give qmail-send a HUP.

Third, follow the procedure in question 5.4, but set RELAYCLIENT to the string ``@fixme``:

```
tcp-env: 1.2.3.6, 1.2.3.7: setenv = RELAYCLIENT @fixme
```

Here 1.2.3.6 and 1.2.3.7 are the clients' IP addresses. If you are using **tcpserver** instead of **inetd** and **tcpd**, put

```
1.2.3.6:allow,RELAYCLIENT="@fixme"  
1.2.3.7:allow,RELAYCLIENT="@fixme"
```

into /var/indimail/etc/tcp.smtp, and run **tcprules** as in question 53.3.

5. How do I set up qmail-qmqpd? I'd like to allow fast queueing of outgoing mail from authorized clients.

Make sure you have installed **tcpserver**. Create /var/indimail/etc/qmqp.tcp in tcprules format to allow connections from authorized hosts. For example, if queueing is allowed from 1.2.3.*:

```
1.2.3.:allow  
:deny
```

Convert /var/indimail/etc/qmqp.tcp to /var/indimail/etc/qmqp.cdb:

```
tcprules /var/indimail/etc/qmqp.cdb /var/indimail/etc/qmqp.tmp < /var/indimail/etc/qmqp.tcp
```

Finally, set up

```
tcpserver -x /var/indimail/etc/qmqp.cdb -u 7770 -g 2108 0 628 /var/indimail/bin/qmail-qmqpd  
&
```

replacing 7770 and 2108 with the indimail uid and vchkw gid. See question 53.1 for more details on **tcpserver**.

6. How do I set up closed user group mailing

Follow the two simple steps below

1. Set the environment variable CUGMAIL - **qmail-smtpd** accepts mail only from local users (domains in *rcpthosts*)
2. unset the environment variable CHECKRELAY - This stops relaying of mails (i.e. domains not in *rcpthosts*)

7. How do I reject mails from open relays

Set the following in the qmail-smtpd run file

```
tcpserver -u 7770 -g 2108 0 smtp sh -c '  
if tcpclient -T2 -RH -l0 $TCPREMOTEIP 25  
/var/indimail/bin/relaytest
```

```

then
    /var/indimail/bin/qmail-relayreject
else
    /var/indimail/bin/qmail-smtpd
fi'

```

8. How do I implement DOMAIN KEYS

1. Set QMAILQUEUE to bin/qmail-dk
2. generate private/public key pair using the **dknewkey** program.
3. set the DKSIGN variable to the name of the private key. A good practice is to have a % sign in the DKSIGN environment variable. The % sign will be replaced with the domain in the From address. e.g. For indimail.org set DKSIGN=%/private. By having a % sign, qmail-dk returns a temporary error if the private key is missing.
4. insert the content of the file containing the public key in dns
5. Verify using dnstext. e.g. domain is indimail.org and the key is **private** as set above run the command
% dnstext private._domainkey.indimail.org

9. How do I use a MDA different from vdelivermail

You can either set this in the .qmail-default file or in case you are using **vfilter** in .qmail-default, set the environment variable **MDA** (in the qmail-send variables directory)

10. How do I implement an efficient virus scanner using clamav

1. Install clamav <http://www.clamav.net>

```

Download and extract clamav-0.94.2.tar.gz
./configure --prefix=/var/indimail --sysconfdir=/var/indimail/etc \
--with-user=qscand --with-group=qscand
make
su root
make install-strip
groupadd qscand
useradd -g qscand -G qmail -d /var/indimail/qscanq qscand

```

2. Define the environment variables

```

QHPSI=/var/indimail/bin/clamscan %s --quiet --disable-summary"
QHPSIRC=1
QHPSIRN=0
REJECTVIRUS=""
in the variables directory or the run file for qmail-smtpd

```

3. Configure /var/indimail/etc/clamd.conf with the following

```

LogFile stderr
DatabaseDirectory /var/indimail/share/clamd
LocalSocket /tmp/clamd
FixStaleSocket
User qscand
AllowSupplementaryGroups
Foreground
ScanPE
DetectBrokenExecutables
ScanOLE2
ScanMail

```

ScanHTML
ScanArchive

4. Install Services freshclam and clamd
svctool --qscanq --servicedir=/service --clamdPrefix=/var/indimail

11. How do I setup SSL encryption for SMTP, IMAP, POP3
You can either use a certificate from a Certificate Authority like verisign or generate your own self-signed certificate

Certificate from CA

1. Download your certificate files from your DigiCert Customer Account.

2. Create a combined servercert.pem certificate file
Once you have downloaded your Certificate files from your DigiCert Web-PKI Customer Account, gather your new certificate files and the private key you generated when you created your CSR. Open a text editor and paste the contents of each key/certificate one after another in the following order:

1. The Private Key (your_domain_name.key)
2. The Primary Certificate (your_domain_name.cert)
3. The Intermediate Certificate (DigiCertCA.crt)
4. The Root Certificate (TrustedRoot.crt)

Self-Signed Certificate

Just run the command

```
# svctool --postmaster=postmaster@indimail.org --config=cert
```

(replace indimail.org with your domain)

45. Configuring MUAs to work with qmail

1. How do I make BSD mail generate a Date with the local time zone?
When I send mail, I'd rather use the local time zone than GMT, since some MUAs don't know how to display Date in the receiver's time zone.

Put
set sendmail=/var/indimail/bin/datemail

into your *.mailrc* or your system-wide Mail.rc. Beware that BSD mail is neither secure nor reliable.

2. How do I make pine work with qmail?

Put
sendmail-path=/usr/lib/sendmail -oem -oi -t

into /usr/local/lib/pine.conf. (This will work with **sendmail** too.) Beware that pine is neither secure nor reliable.

3. How do I make MH work with qmail?

Put

```
postproc: /usr/mh/lib/spost
```

into each user's `.mh_profile`. (This will work with **sendmail** too.) Beware that MH is neither secure nor reliable.

46. Managing the mail system

1. How do I safely stop qmail-send? Back when we were running sendmail, it was always tricky to kill sendmail without risking the loss of current deliveries; what should I do with qmail-send?

Go ahead and kill the **qmail-daemon** process. It will shut down cleanly. Wait for ```exiting''` to show up in the log. To restart qmail, do `svc -t /service*/qmail-send*`. The **supervise** process will kill qmail, wait for it to stop, and restart it. Use `-d` instead of `-t` if you don't want qmail to restart automatically; to manually restart it, use `-u`.

2. How do I manually run the queue? I'd like qmail to try delivering all the remote messages right now.

Give the **qmail-daemon** process an ALRM.
(Do `svc -a /service*/qmail-send*` if qmail is supervised.)

You may want to run **qmail-tcpok** first, to guarantee that qmail-remote will try all addresses. Normally, if an address fails repeatedly, **qmail-remote** leaves it alone for an hour.

3. How do I rejuvenate a message? Somebody broke into indimail's computer again; it's going to be down for at least another two days. I know Ramraj has been expecting an important message---in fact, I see it sitting here in `/queue/queue1/mess/15/26902`. It's been in the queue for six days; how can I make sure it isn't bounced tomorrow?

Just touch `/queue/queue1/info/15/26902`. (This is the only form of queue modification that's safe while qmail is running.)

4. How do I organize a big network? I have a lot of machines, and I don't know where to start.

First, choose the domain name where your users will receive mail. This is normally the shortest domain name you control. If you are in charge of `*.indimail.org`, you can use addresses like `prem@indimail.org`.

Second, choose the machine that will know what to do with different users at `indimail.org`. Set up a host name in DNS for this machine:

```
mailhost.indimail.org IN A 1.2.3.4
```

```
4.3.2.1.in-addr.arpa IN PTR mailhost.indimail.org
```

Here 1.2.3.4 is the IP address of that machine.

Third, make a list of machines where mail should end up. For example, if mail for Raj should end up on Raj's workstation, put Raj's workstation onto the list. For each of these machines, set up a host name in DNS:

```
rajshost.indimail.org IN A 1.2.3.7
7.3.2.1.in-addr.arpa IN PTR rajshost.indimail.org
```

Fourth, install qmail on rajshost.indimail.org. qmail will automatically configure itself to accept messages for raj@rajshost.indimail.org and deliver them to ~raj/Mailbox on rajshost. Do the same for the other machines where mail should end up.

Fifth, install qmail on mailhost.indimail.org. Put

```
indimail.org:alias-movie
```

into control/virtualdomains on mailhost. Then forward raj@indimail.org to raj@rajshost.indimail.org, by putting

```
raj@rajshost.indimail.org
```

into ~alias/.qmail-movie-raj. Do the same for other users.

Sixth, put indimail.org into control/rcpthosts on mailhost.indimail.org, so that mailhost.indimail.org will accept messages for users at indimail.org.

Seventh, set up an MX record in DNS to deliver indimail.org messages to mailhost:

```
indimail.org IN MX 10 mailhost.indimail.org
```

Eighth, on all your machines, put indimail.org into control/defaulthost.

5. How do I back up and restore the queue disk?

You can't.

One difficulty is that you can't get a consistent snapshot of the queue while qmail-send is running. Another difficulty is that messages in the queue must have filenames that match their inode numbers.

However, the big problem is that backups---even twice-daily backups--- are far too unreliable for mail. If your disk dies, there will be very little overlap between the messages saved in the last backup and the messages that were lost.

There are several ways to add real reliability to a mail server. Battery backups will keep your server alive, letting you park the disk to avoid a head crash, when the power goes out. Solid-

state disks have their own battery backups. RAID boxes let you replace dead disks without losing any data.

6. How do I immediately schedule messages

```
i=0
while true
do
    find $QUEUEDIR/queue"$i"/info -type f -exec touch {} \;
    i=`expr $i + 1`
    if [$i -eq $QUEUE_COUNT] ; then
        break
    fi
done
/var/indimail/bin/qmail-tcpok
svc -a /servicel/qmail-send*
```

Where QUEUEDIR is the directory where IndiMail's queue has been created by queue-fix

7. Is it safe to simply delete old file, or is there a cleaner way?

You can't just delete a file, no. Each message is represented in the queue by several files in the various queue/subdirectories.

The entry in the 'info/' directory is key, since it identifies the sender and qmail uses the last-modified timestamp of that file to determine when to expire a message.

The following example expires and bounces all mails in the IndiMail queue

```
i=0
while true
do
    find $QUEUEDIR/queue"$i"/info -type f -exec \
        touch -c --date '10 days ago' {} \;
    i=`expr $i + 1`
    if [$i -eq $QUEUE_COUNT] ; then
        break
    fi
done
```

You can force a particular message to expire, then, by using "touch" like this:

```
touch -c --date '10 days ago' /var/indimail/queue/info/15/40288
```

At the next failed delivery attempt, the message will bounce. This is about the only half-way safe "live" queue modification you can do.

(There's a small possibility of expiring a new message if the one you intended is delivered/expired and then replaced by a new message with the same id by the time you type the command.)

For anything more advanced, you have to stop qmail. There are

various queue manipulation tools on the qmail.org website that I expect can do the job (since you may want to just kill the message, not bounce it), like

8. How to have a different per-IP-concurrency for some hosts.

The number of concurrent connections allowed by **tcpserver** is determined by the value of **MAXPERIP** environment variable. This can be set globally in the *variables* directory or individually for hosts in the *tcprules* *cdb* file.

e.g. the following rules file gives a default per-IP-concurrency limit of 5 except for the host 192.9.200.1 which has 20

```
192.9.200.1:allow,MAXPERIP="20"
:allow,MAXPERIP="5"
```

Don't forget to run **tcprules** after modifying the rules file.

47. Miscellany

1. How do I tell qmail to do more deliveries at once? It's running only 20 parallel qmail-remote processes.

Decide how many deliveries you want to allow at once. Put that number into *control/concurrencyremote*. Restart **qmail-send** as in question 55.1. If your system has resource limits, make sure you set the descriptors limit to at least double the concurrency plus 5; otherwise you'll get lots of unnecessary deferrals whenever a big burst of mail shows up. Note that qmail also imposes a compile-time concurrency limit, 120 by default; this is set in *conf-spawn*.

2. How do I keep a copy of all incoming and outgoing mail messages?

Set **EXTRAQUEUE** environment variable to log.
Put *./msg-log* into *~alias/.qmail-log*.

You can also use **EXTRAQUEUE** to, e.g., record the Message-ID of every message: run

```
| awk '/^$/ { exit } /^[mM][eE][sS][sS][aA][gG][eE]-/ { print }'
```

You can also forward all mails to external@domain.com

```
| awk '/^$/ { exit } /^X-Queue-Extra: yes$/ { exit 99 }'
|(echo 'X-Qmail-Extra: yes'; cat ) |forward external@domain.com
./Maildir/
```

from *~alias/.qmail-log*.

3. How do I switch slowly from sendmail to qmail? I'm thinking of moving the heaven.indimail.org network over to qmail, but first I'd like to give my users a chance to try out qmail without affecting current sendmail deliveries. We're using NFS.

Find a host in your network, say pc.heaven.indimail.org, that isn't

running an SMTP server. (If addresses at pc.heaven.indimail.org are used, you should already have an MX pointing pc.heaven.indimail.org to your mail hub.)

Set up a new MX record pointing lists.heaven.indimail.org to pc.heaven.indimail.org.

Install qmail on pc.heaven.indimail.org. Replace pc with lists in the control files. Make the qmail man pages available on all your machines.

Now tell your users about qmail. A user can forward joe@heaven.indimail.org to joe@lists.heaven.indimail.org to get ~/Mailbox delivery; he can set up .qmail files; he can start running his own mailing lists @lists.heaven.indimail.org.

When you're ready to turn sendmail off, you can set up pc.heaven.indimail.org as your new mail hub. Add heaven.indimail.org to control/locals, and change the heaven.indimail.org MX to point to pc.heaven.indimail.org. Make sure you leave lists.heaven.indimail.org in control/locals so that transition addresses will continue to work.

4. How do I send mails from a Maildir

Learn how to use **maildirmtp**. It will use the Delivered-To header for the prefix.
e.g. Assuming all mails for indimail.org have been delivered to the directory /mail/tempMaildir, the following will deliver all mails to the host mx.indimail.org

```
maildirmtp /mail/tmpMaildir indimail.org mx.indimail.org  
`hostname`
```

5. How do i test vchkpass, systpass or any other checkpassword implementation for authenticated SMTP

There is a clever way to test your **checkpassword** with a bit of command line re-direction.

For example, with username manny, password ssh-1.5-,

```
printf "manny\0ssh-1.5-\0\0" | /var/indimail/sbin/vchkpass /bin/false 3<&0
```

You can set the environment variable DEBUG, PASSWD_CACHE to change the behavior of vchkpass.

6. The entire world uses crazy attachments. Any idea on how to block them

1. Using *badext*, *badextpatterns* control filename

You can have extensions listed in the *badext* control file to block them (use *badextpatterns* for wildcards). Set VIRUSCHECK to one of the four values - 3,4,5 or 7

2. Using *bodycheck* control file

Have the following in the *bodycheck* control file to block 54 attachments (please note the line wrap)

```
^Content-Disposition:.*filename=.*(document|readme|doc|text|file|data|test|
message|body).(pif|scr|exe|cmd|bat|zip).*:Bad Attachments-header
```

3. Using Custom Scripts

You can check the Content-Type: header, especially with a helper program like **822field**, from the mess822 package. Have the following in user's .qmail

```
|bouncesaying "Only plain text, please." check-text
```

check-text is something like:

```
#!/bin/sh
ct=`822field content-type`
# If there's no Content-Type: header, it's plaintext
if [ -z "$ct" ] ; then exit 1 ; fi
# Otherwise, check that it includes "text/plain"
echo "$ct" | grep -q 'text/plain' && exit 1
```

If you want to accept mime messages but only keep the plain text part of them (or failing that to have their html or rich text and html alternatives rendered as plain text), these are some options ("demime" seems to be still maintained - not sure about the others):

emime: <http://scifi.squawk.com/demime.html>

mimefilter: <http://ftp.br.debian.org/debian/pool/main/m/mimefilter/>

stripmime: <http://www.phred.org/~alex/stripmime.html>

stripmime: <http://www.clarity.net/~adam/stripmime/>

Note: There are two different tools called "stripmime". In principle you could use them in conjunction through procmail. There is also the "no-alternative" package of Russell Nelson, which has only basic functionality (no attempt at transforminh other formats to plain text):

<http://www.qmail.org/no-alternative>

7. How to I prevent spoofing of my domain in mails.

Use either of the two methods described below. Please note that however the second method requires your outgoing SMTP server to be different from your incoming (MX) SMTP server

1. Set the environment variable **ANTISPOOFING** in qmail-smtpd run file or the variables directory (if using envdir). This will force authenticated SMTP or POP/IMAP before SMTP for my own domains before accepting mails.
2. Set up *badmailfrom* control file containing my local domain on the qmail-smtpd server serving as MX

8. qmail doesn't deliver mail to superusers

To prevent the possibility of qmail-local running commands as a

privileged user, qmail ignores all users whose UID is 0. This is documented in the **qmail-getpw** man page.

That doesn't mean qmail won't deliver to root, it just means that such a delivery will have to be handled by a non-privileged user. Typically, one creates an alias for root by populating

```
~alias/.qmail-root.
```

9. qmail doesn't deliver mail to users who don't own their home directory

Another security feature, and just good general practice. This is documented in the **qmail-getpw** man page.

10. qmail doesn't deliver mail to users whose usernames contain uppercase letters

qmail converts the entire "local part"--everything left of the "@" in an address, to lowercase. The man page doesn't come out and say that, but the code does. The fact that it ignores users with uppercase characters is documented in the **qmail-getpw** man page.

11. qmail replaces dot(.) in extension addresses with colons(:)

Another security feature. The purpose is prevent extension addresses from backing up the file tree using "..". By replacing them with colons, qmail ensures that all .qmail files for a user are under their home directory. Documented in the **dot-qmail** man page.

12. qmail converts uppercase characters in extension addresses to lowercase

This is another result of the fact that qmail lowercases the entire local part of addresses. Documented in the **dot-qmail** man page.

13. qmail doesn't use /etc/hosts

qmail never uses /etc/hosts to determine the IP address associated with a host name. If you use names in control files, qmail must have access to a name server.

It is possible to run qmail on systems without access to a name server, though. Hosts in control files can be specified by IP address by enclosing them in square brackets ([]), e.g.:

```
[10.1.2.219]
```

Actually, the square brackets aren't always necessary--but it's a good idea to use them anyway.

14. qmail doesn't generate deferral notices

If Sendmail is unable to deliver a message within a few hours,

typically four, it sends a deferral notice to the originator. These notices look like bounce messages, but don't indicate that the delivery has failed permanently, yet.

qmail doesn't send such warnings. An undeliverable message will only be returned to the originator after it spends queuelifetime in the queue.

15. qmail is slow if queue/lock/trigger is gone/has the wrong permissions/is a regular file

qmail-queue and qmail-send communicate via a named pipe called /var/indimail/queue/lock/trigger. If this pipe gets messed up, qmail-send doesn't notice new messages for a half hour or so.

The best way to ensure that it's set up right is to run "make check" from the source directory. If that's not possible, make sure it looks like:

```
# ls -l /var/indimail/queue/lock/trigger
```

```
prw--w--w-  1 qmails  qmail          0 Jul  5 21:25 /var/indimail/queue/lock/trigger
```

Pay particular attention to the "p" at the beginning of the line (says it's a named pipe), the mode (especially world writable), and the owner/group.

16. DNS or IDENT lookups can make SMTP slow

If qmail-smtpd is slow to respond to connections, the problem is probably due to DNS reverse lookups or IDENT lookups. If you're starting qmail-smtpd with tcpserver, remove the "-h", "-p", and "-r" options and add "-H", "-P", "-R", and "-l hostname".

17. Carriage Return/Linefeed (CRLF) line breaks don't work

qmail-inject and other local injection mechanisms like sendmail don't work right when messages are injected with DOS-style carriage return/linefeed (CRLF) line breaks. Unlike Sendmail, qmail requires locally-injected messages to use Unix newlines (LF only). This is a common problem with PHP scripts.

18. qmail-send or tcpserver stop working if logs back up

If you're logging to a supervised log service, as described in section 3.13.1.1, and the log service fails for any reason: disk full, typo in the run script, log directory configuration error, etc., the pipeline will eventually fill up, causing the service to block, or hang. Fix the problem (see Troubleshooting) and everything will return to normal.

19. qmail-inject sets From field to anonymous if USER and LOGNAME aren't set

If a message sent via **qmail-inject** doesn't contain a From field, qmail-inject looks for environment variables to tell it which user is sending the message. The variables it looks for,

in order, are: QMAILUSER, MAILUSER, USER, and LOGNAME,

Normal user login sessions usually set one or both of USER and LOGNAME, but some batch jobs, such as those started by cron might not have either of these set.

To cause your cron jobs to have a valid From field, set one these environment variables before sending any mail messages.

20. How do I disable qmail from adding any headers related to my host when it relays.

Set the following in your tcp.smtp file

1.2.3.4:allow,RELAYCLIENT="",TCPREMOTEIP="",TCPREMOTEHOST=""

21. What should I do if I have trouble with IndiMail

Read the documentation! Most questions are answered by

1. this list of frequently answered questions
2. the IndiMail documentation
3. the other how-to pages in /var/indimail/doc; and
4. the qmail man pages in /var/indimail/man/

Your system includes a wide variety of monitoring tools to show you what IndiMail is doing

1. the IndiMail logs as configured in supervise.
2. `svctool --check-install`
3. `qmail-showctl`
4. `dot-forward -n` (if you have installed dot-forward), which lets you see how a .forward file will be interpreted
5. `fastforwrad -n` (if you have installed fast-forward), which lets you see how a forwarding table will be interpreted
6. `ps`, which lets you see what processes are running
7. `recordio` and `tcpdump`, which lets you see what data is flowing over a TCP connection.
8. a syscall tracing tool, **trace** or **truss** or **strace** or **ktrace**, which lets you see how a program is interacting with the operating system