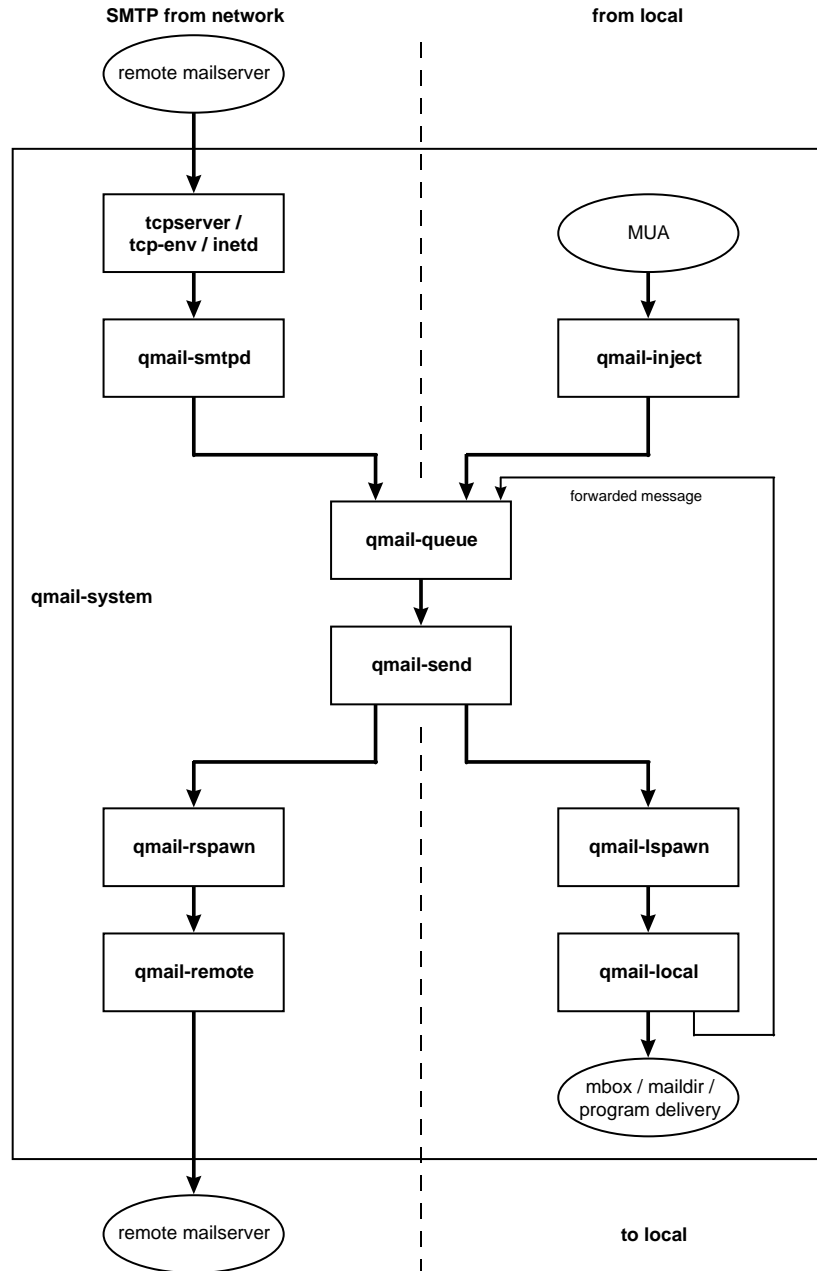


# THE BIG Qmail PICTURE

Version 1.03 for qmail 1.03

This picture is intended to give a broad overview of on how all the small qmail programs fit together and to have an quick reference handy. The man pages of the programs give more information on how things are working in detail.



## tcpserver

**Command line parameters:**  
 [-qQvDoOpPhHrR1 ]  
 [-climit ] [-bbacklog ]  
 [-xrules.cdb ] [-ggid ] [-uid ]  
 [-llocalname ] [-timeout ]  
 host port program [ arg ... ]

**Environment Variables:**  
 none

**Configuration files:**  
 rules.cdb

## qmail-smtpd

**Command line parameters:**  
 none

**Environment Variables:**  
 PROTO (TCP)  
 TCPLOCALHOST  
 TCPLOCALIP  
 TCPLOCALPORT  
 TCPREMOTEHOST  
 TCPREMOTEINFO  
 TCPREMOTEIP  
 TCPREMOTEPORT  
 RELAYCLIENT

**Configuration files:**  
 badmailfrom  
 databytes  
 localiphost (me)  
 rcpthosts  
 morercpthosts (cdb format)  
 smtpgreeting (me)  
 timeoutsmtpd (1200)

## qmail-queue

**Command line parameters:**  
 none

**Environment Variables:**  
 none

**Configuration files:**  
 none

**Exit codes:**  
 0 success  
 11 address too long  
 51 out of memory  
 52 timeout  
 53 write error  
 54 read error  
 61 problem with qmail homedir  
 62 problem with queuedir  
 63 problem with queue/pid  
 64 problem with queue/mess  
 65 problem with queue/intd  
 66 problem with todo  
 81 internal bug, eg. segfault  
 91 envelope format error

## qmail-rspawn

**Command line parameters:**  
 none

**Environment Variables:**  
 none

**Configuration files:**  
 none

**Exit codes:**  
 0 success  
 100 permanent error (bounce)  
 111 soft error (retry later)

## qmail-remote

**Command line parameters:**  
 host  
 sender  
 recip [ recip ... ]

**Environment Variables:**  
 none

**Configuration files:**  
 helohost (me)  
 smtproutes  
 timeoutconnect (60)  
 timeoutremote (1200)

**Exit codes:**  
 always 0 and all errors come  
 back as clear text

## qmail-inject

**Command line parameters:**  
 [-nNaAhH ]  
 [-fsender ]  
 recip

### Environment Variables:

QMAILUSER  
 MAILUSER  
 USER  
 LOGNAME  
 QMAILHOST  
 MAILHOST  
 QMAILNAME  
 MAILNAME  
 NAME  
 QMAILINJECT  
 QMAILDEFAULTDOMAIN  
 QMAILDEFAULTHOST  
 QMAILIDHOST  
 QMAILPLUSDOMAIN

**Configuration files:**  
 defaultdomain (me)  
 defaultthost (me)  
 idhost (me)  
 plusdomain (me)

## qmail-send

**Command line parameters:**  
 none

**Environment Variables:**  
 none

**Configuration files:**  
 bouncefrom (mailer-daemon)  
 bouncehost (me)  
 concurrencylocal (10)  
 concurrencyremote (20)  
 doublebouncehost (me)  
 doublebounceto (postmaster)  
 envnoathost (me)  
 locals (me)  
 percentthack  
 queuelifetime (604800)  
 virtualdomains

**Remarks:**  
 virtualdomains are handled  
 after locals

## qmail-lspawn

**Command line parameters:**  
 aliasempty

**Environment Variables:**  
 none

**Configuration files:**  
 ~users/cdb  
 ~bin/qmail-getpw

**Exit codes:**  
 0 success  
 100 aliasempty missing  
 111 soft error (retry later)  
 Most errors come back as  
 clear text

## qmail-local

**Command line parameters:**  
 [-nN]  
 user  
 homedir  
 local  
 dash  
 ext  
 domain  
 sender  
 aliasempty

**Environment Variables:**  
 none

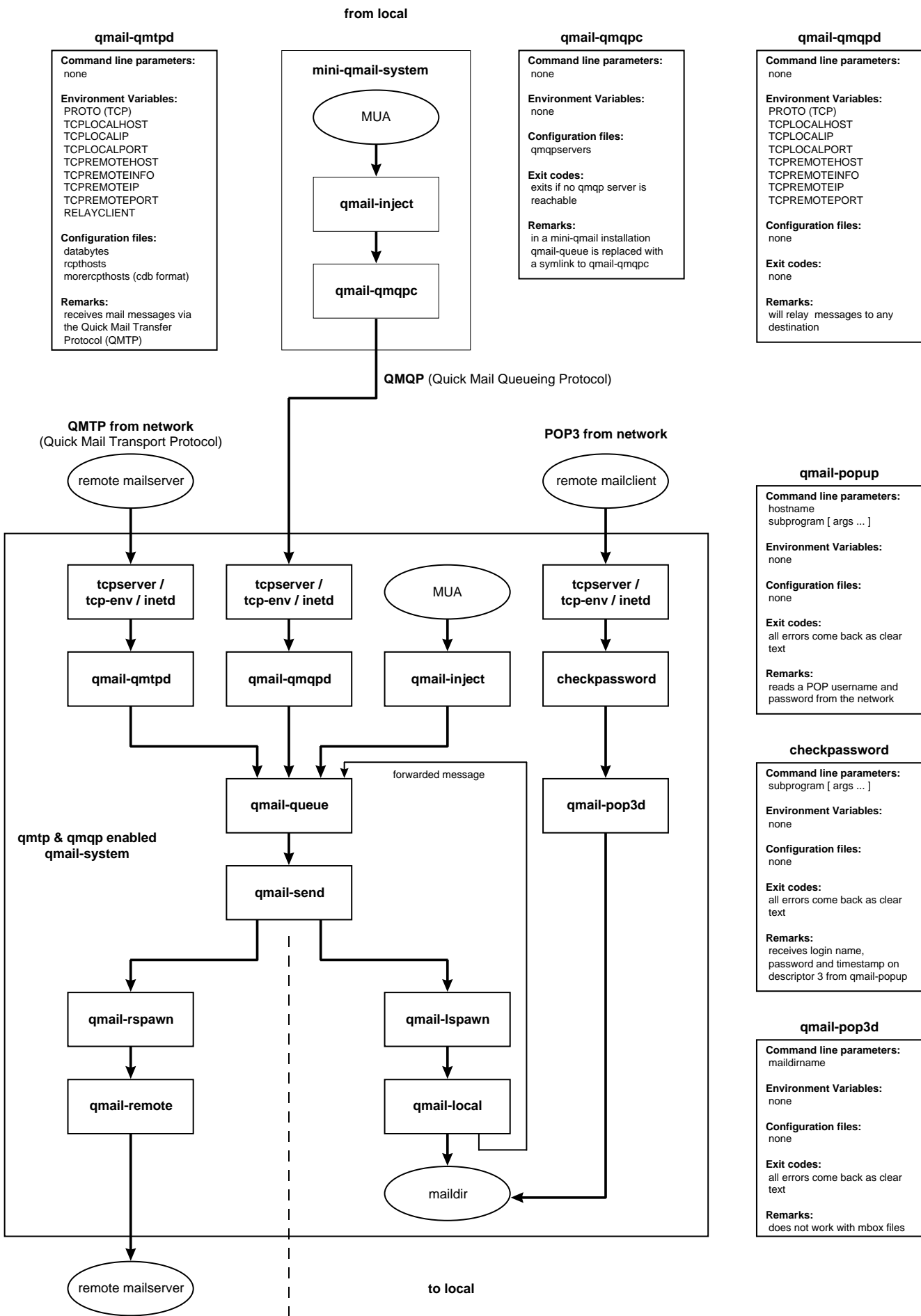
**Configuration files:**  
 ~home/.qmail  
 ~alias/.qmail

**Exit codes:**  
 0 success  
 1 fatal error  
 2 chdir error  
 3 SIGALRM  
 4 tryunlinktmp() error  
 100 permanent error (bounce)  
 111 soft error (retry later)  
 Most errors come back as  
 clear text

## .qmail

**Content:**  
 #comment  
 [program to execute  
 &forwarding email address  
 ./mailbox deliver to Mbox  
 ./maildir/ deliver to Maildir

**Exit codes of program:**  
 0 success  
 99 success and abort .qmail  
 100 permanent error (bounce)  
 111 soft error (retry later)



## dot-qmail programs

### bouncesaying

**Description:**  
bounce each incoming message (according to the exit value of [ program ])

**Command line parameters:**  
in .qmail:  
|bouncesaying  
error  
[ program [ arg ... ] ]

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes of program:**  
0 bounce and say error  
111 soft error (retry later)  
all other errors are ignored and the rest of .qmail will be processed as usual

### condredirect

**Description:**  
redirect message to another address according to the exit value of program

**Command line parameters:**  
in .qmail:  
|condredirect  
newaddress  
program [ arg ... ]

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes of program:**  
0 forward to newaddress  
111 soft error (retry later)  
all other errors are ignored and the rest of .qmail will be processed as usual

### except

**Description:**  
reverse the exit code of a program

**Command line parameters:**  
in .qmail:  
|except  
program [ arg ... ]

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes of program:**  
0 except exits 100  
111 soft error (retry later)  
all other errors are ignored and the rest of .qmail will be processed as usual

### forward

**Description:**  
forward message to one or more addresses

**Command line parameters:**  
in .qmail:  
|forward  
address ...

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes of program:**  
none

### preline

**Description:**  
prepend UUCP-style lines

**Command line parameters:**  
in .qmail:  
|preline  
command  
[ -d ] (no Delivered-To line)  
[ -f ] (no From\_ line)  
[ -r ] (no Return-Path line)

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes of program:**  
none

**Remarks:**  
is useful for procmail and ELM's filter

### qbiff

**Description:**  
announce new message the moment it arrives

**Command line parameters:**  
in .qmail:  
|qbiff

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
writes a message to your screen whenever a new message is delivered

### qlist

**Description:**  
handle mailing list subscription requests

**Command line parameters:**  
in .qmail-list-request:  
|qlist  
read man page for details

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
read man page for details

### qreceipt

**Description:**  
respond to delivery notice requests

**Command line parameters:**  
in .qmail:  
|qreceipt  
youraddress

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
sends a success notice back to the envelope sender

## userland programs

### maildirmake

**Description:**  
creates a maildir structure

**Command line parameters:**  
directory

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

### maildirwatch

**Description:**  
watch for new messages in a maildir

**Command line parameters:**  
you have so set the environment

**Environment Variables:**  
MAILDIR

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
prints a new mail summary twice per minute

### maildir2mbox

**Description:**  
moves messages from maildir to mbox format

**Command line parameters:**  
you have so set the environment

**Environment Variables:**  
MAILDIR  
MAIL  
MAILTMP

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
you should run only one maildir2mbox at a time

### mailsubj

**Description:**  
send a mail message with a subject line

**Command line parameters:**  
subject  
recip ...

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
reads the body of the message from its standard input

## queue management

### qmail-qstat

**Description:**  
summarize status of mail queue

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
complains if there is a problem

**Remarks:**  
must be run either as root or with gid qmail

### qmail-qread

**Description:**  
list outgoing messages and recipients

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
complains if there is a problem

**Remarks:**  
must be run either as root or with uid qmails and gid qmail

### qmail-tcpto

**Description:**  
prints qmail-remote's current list of timeouts

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
complains if there is a problem

**Remarks:**  
must be run either as root or with uid qmailr and gid qmail

### qmail-tcpok

**Description:**  
erases qmail-remote's current list of timeouts

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
complains if there is a problem

**Remarks:**  
must be run either as root or with uid qmailr and gid qmail

**Hint:** to reschedule every message in the queue for immediate delivery, do a "kill -ALRM *pid*" on the qmail-send pid

## user and system management

### qmail-pw2u

**Description:**  
build address assignments from a passwd file

**Command line parameters:**  
[ -ohHuUC ] [ -cchar ]

**Environment Variables:**  
none

**Configuration files:**  
~users/include  
~users/exclude  
~users/mailnames  
~users/subusers  
~users/append

**Exit codes:**  
complains if there is a problem

**Remarks:**  
generates ~users/assign

### qmail-newu

**Description:**  
prepare address assignments for qmail-lspawn

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
~users/assign

**Exit codes:**  
complains if there is a problem with ~users/assign qmail-newu

**Remarks:**  
generates ~users/cdb

### qmail-newmrh

**Description:**  
prepare morercpthosts for qmail-smtpd

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
~control/morercpthosts

**Exit codes:**  
complains if there is a problem with control/morercpthosts qmail-newmrh complains

**Remarks:**  
generates ~control/morercpthosts.cdb

### qmail-showctl

**Description:**  
analyze the qmail config files

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
all

**Exit codes:**  
complains if there is a problem

**Remarks:**  
explains the current qmail configuration

## other qmail daemons

### qmail-start

**Description:**  
turn on mail delivery

**Command line parameters:**  
defaultdelivery  
logger [ args ... ]

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
does not print anything, even on failure

**Remarks:**  
make sure to clean up the environment before starting qmail

### qmail-clean

**Description:**  
clean up the queue directory

**Command line parameters:**  
none

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
none

**Remarks:**  
can only be started by qmail-start

### splogger

**Description:**  
reads a series of messages and feeds them to syslog

**Command line parameters:**  
[ tag [ facility ] ]

**Environment Variables:**  
none

**Configuration files:**  
none

**Exit codes:**  
complains if there is a problem

**Remarks:**  
converts unprintable characters to question marks