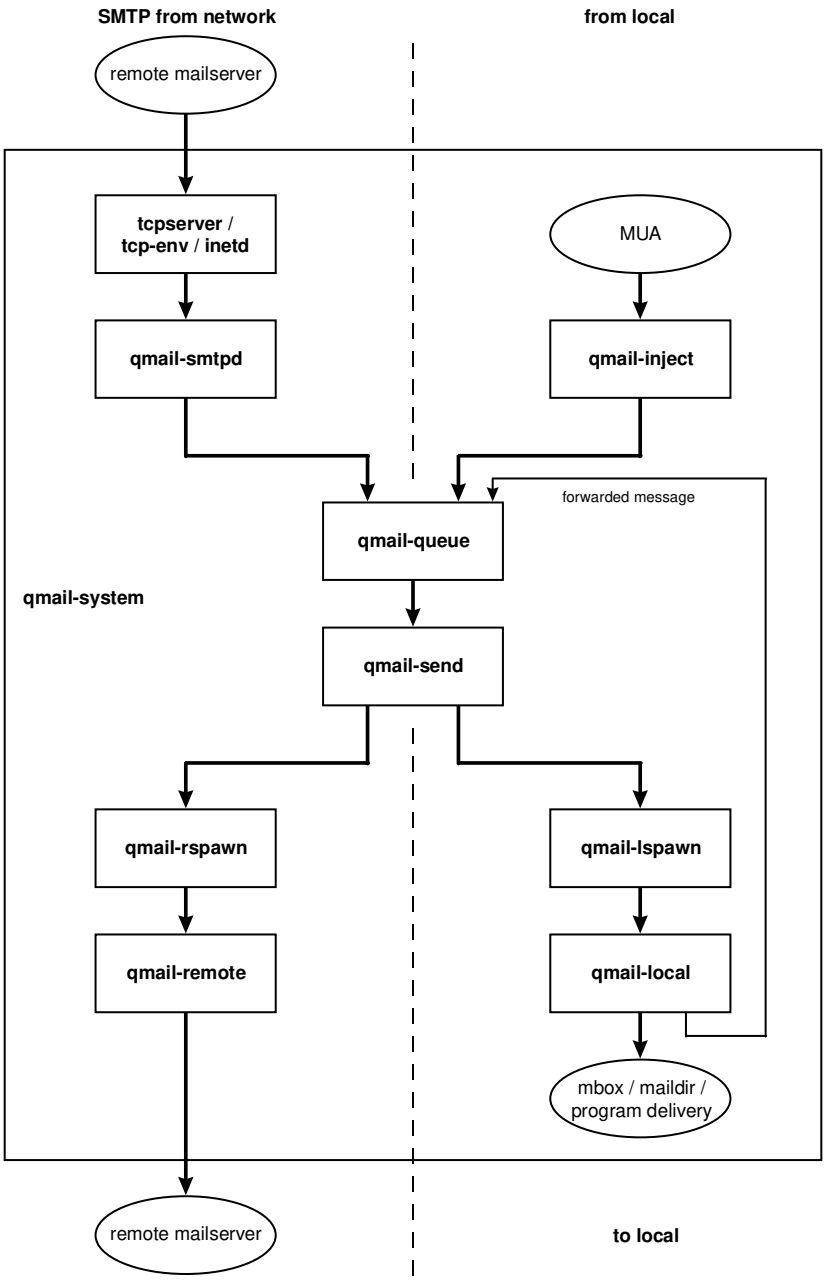
THE BIG Qmail PICTURE

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:
[-qQvdDoOpPhHrR1]
[-climit] [-bbacklog]
[-xrules.cdb] [-ggid] [-uuid]
[-llocalname] [-ttimeout]
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

Content:
#comment
|program to execute
&forwarding email address
./mailbox deliver to Mbox
./maidir/ deliver to Maildir

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

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)
defaulthost (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)
percenthack
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

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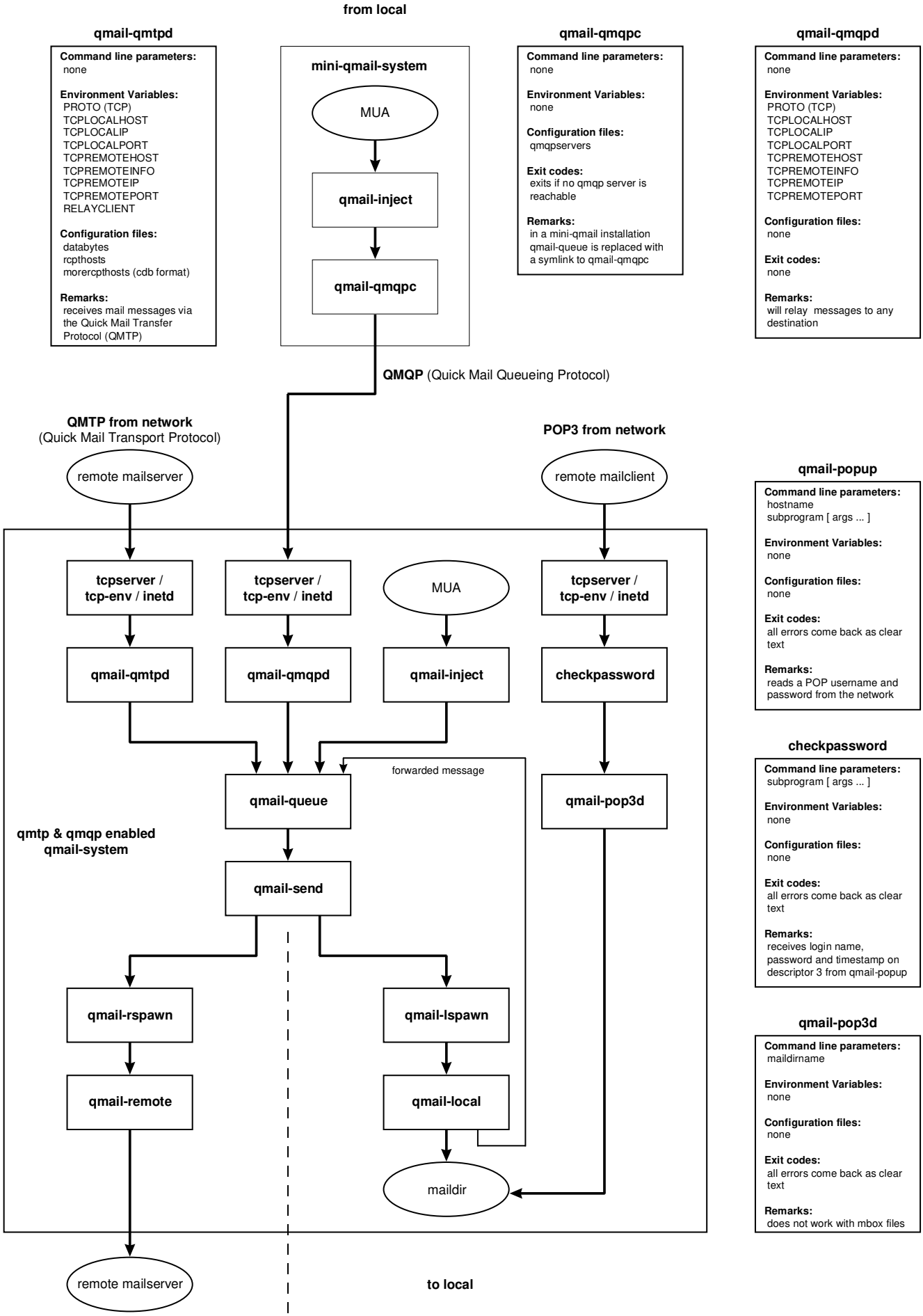

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dot-qmail programs

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

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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

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