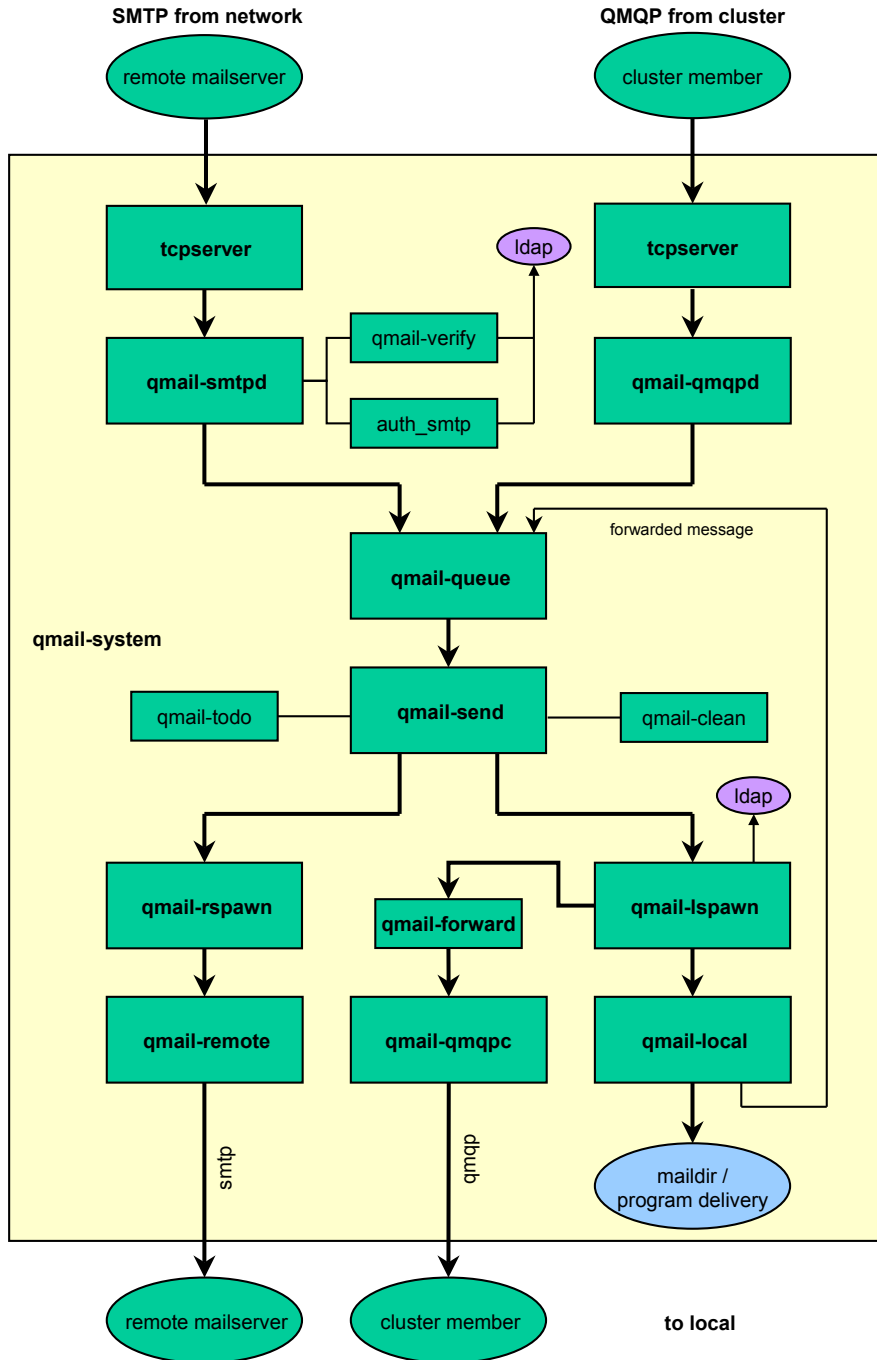


THE BIG Qmail-LDAP PICTURE

Version 20031112 for qmail-ldap-1.03-20031101

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



qmail-smtpd

Command line parameters:
none

Environment variables:

550GREETING
AUTHREQUIRED
AUTHPREPEND
BLOCKRELAYPROBE
LOGLEVEL
MAXRCPTCOUNT
NOBOUNCE
NOPBS
PROTO (TCP)
RBL
RBLONLYHEADER
RCPTCHECK
REJECTEXEC
RELAYCLIENT
RETURNMXCHECK
SANITYCHECK
SENDERCHECK
SMTP550DISCONNECT
SMTPAUTH
TARPITCOUNT
TARPITDELAY
TCPLOCALHOST
TCPLOCALIP
TCPLOCALPORT
TCPREMOTEHOST
TCPREMOTEINFO
TCPREMOTEIP
TCPREMOTEPORT

Configuration files:

badmailfrom
badmailfrom-unknown
badrcptto
databytes
goodmailaddr
localiphst (me)
locals (me)
locals.cdb (cdb format)
rcpthosts
rcpthosts.cdb (cdb format)
rbllist
relaymailfrom
smtpclustercookie
smtpgreeting (me)
timeoutsmtpd (1200)

Exit codes:

0 normal exit
1 fatal error
All errors come back as clear text

qmail-verify

Command line parameters:
none

Environment variables:

none

Configuration files:

ldapsrvr
ldapbasedn
ldaplogin (anonymous)
ldappassword
ldapobjectclass
ldaptimeout (30)

Exit codes:

0 success
1 read/write error
100 control file error
111 soft error

auth_smtp

Command line parameters:
none

Environment variables:
LOGLEVEL

Configuration files:

ldapsrvr
ldapbasedn
ldaplogin (anonymous)
ldappassword
ldaprebind (off)
ldapobjectclass
ldaptimeout (30)

Exit codes:

0 success
111 soft error

qmail-remote

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

Environment variables:
none

Configuration files:

helohost (me)
outgoingip (0.0.0.0)
smtpclustercookie
smtproutes
timeoutconnect (60)
timeoutremote (1200)

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

qmail-forward

Command line parameters:
host
sender
recip

Environment variables:
none

Configuration files:

me

Exit codes:

0 success
100 hard error
111 soft errors

qmail-qmqpc

Command line parameters:
host

Environment variables:
none

Configuration files:

qmqpservers (host)
qmqpcip (0.0.0.0)

Exit codes:

exits if no qmqpc server is reachable

qmail-queue

Command line parameters:
none

Environment variables:
QMAILQUEUE

Configuration files:
bigbrother

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-send

Command line parameters:
none

Environment Variables:
none

Configuration files:
bouncefrom (mailer-daemon)
bouncehost (me)
bouncemaxbytes (unlimited)
concurrencylocal (10)
concurrencyremote (20)
custombouncetext
doublebouncehost (me)
doublebounceto (postmaster)
envnoathost (me)
locals (me)
locals.cdb (cdb format)
percenthack
queuelifetime (604800)
virtualdomains

Exit codes:

always 0
check logfile

qmail-lspawn

Command line parameters:
aliasempty

Environment variables:
LOGLEVEL

Configuration files:

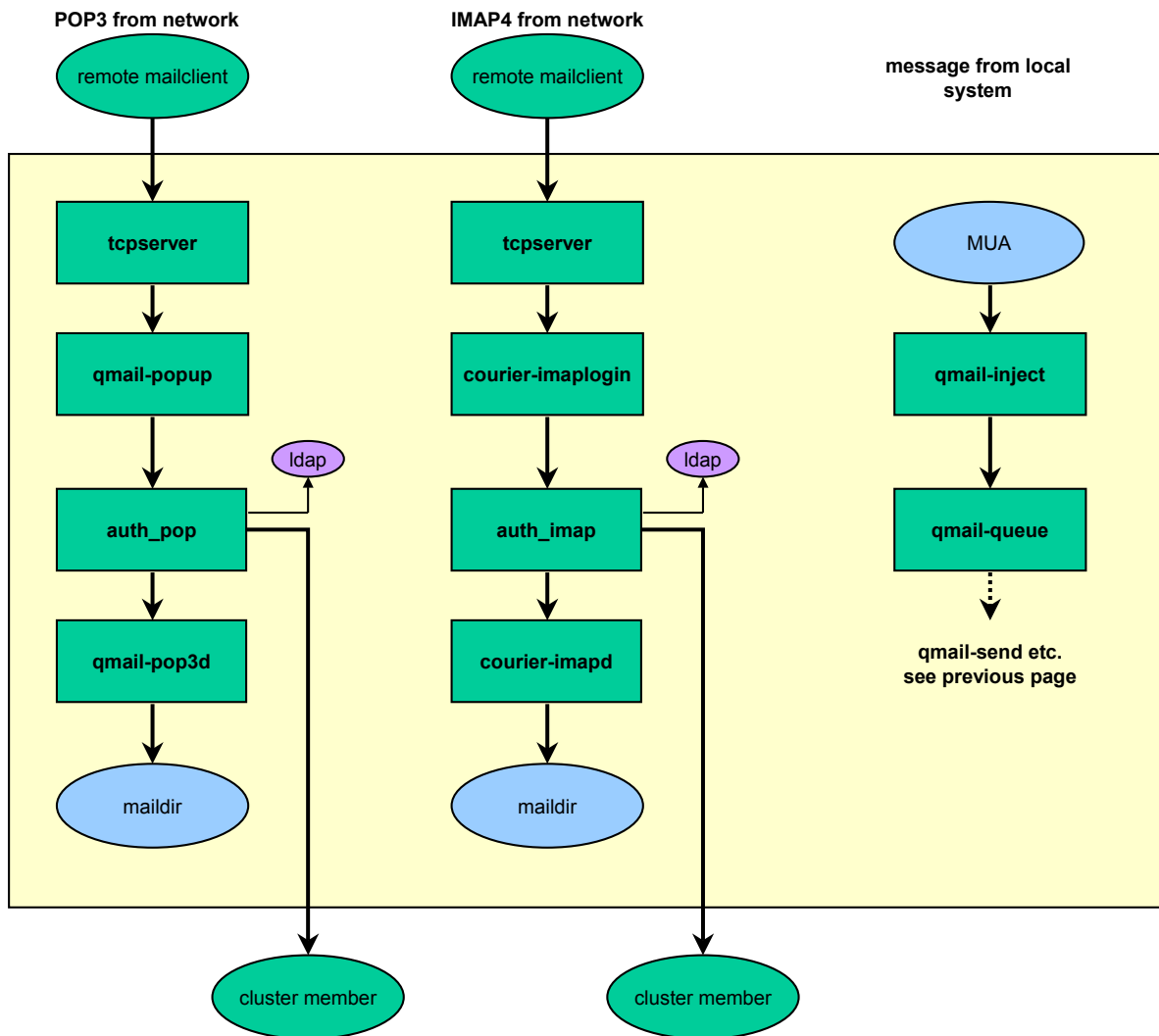
ldapsrvr
ldapbasedn
ldaplogin (anonymous)
ldappassword
ldapuid
ldapgid
ldapmessagestore
ldapobjectclass
ldaplocaldelivery (on)
ldapdefaultdotmode (ldaponly)
ldaptimeout (30)
ldapcluster (off)
ldapclusterhosts
defaultquotasize (0)
defaultquotacount (0)
dirmaker
me

Exit codes:

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

Remarks:

-locals.cdb replaces locals
-rcpthosts.cdb replaces rcpthosts + morercpthosts.cdb
-Domains listed in locals don't need to be listed in rcpthosts



qmail-qmqpd

Command line parameters:
none

Environment variables:
PROTO (TCP)
TCPLOCALHOST
TCPLOCALIP
TCPLOCALPORT
TCPREMOTEHOST
TCPREMOTEINFO
TCPREMOTEIP
TCPREMOTEPORT
QMAILQUEUE

Configuration files:
none

Exit codes:
none

Remarks:
will accept messages to any destination

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-inject

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

Environment Variables:
QMAILUSER
MAILUSER
USER
LOGNAME
QMAILHOST
MAILHOST
QMAILNAME
MAILNAME
NAME
QMAILINJECT
QMAILDEFAULTDOMAIN
QMAILDEFAULTHOST
QMAILIDHOST
QMAILPLUSDOMAIN
QMAILQUEUE

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

.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)

qmail-popup

Command line parameters:
hostname
subprogram [args ...]

Environment variables:
none

Configuration files:
none

Exit codes:
all errors come back as clear text

Remarks:
reads a POP username and password from the network

auth_pop

Command line parameters:
[opts]
subprogram [args ...]

Environment variables:
LOGLEVEL

Configuration files:
same as qmail-lspawn

Exit codes:
all errors come back as clear text

Remarks:
receives login name, password and timestamp on descriptor 3 from qmail-popup

qmail-pop3d

Command line parameters:
maildirname

Environment variables:
POP3_LOGLEVEL

Configuration files:
none

Exit codes:
all errors come back as clear text

Remarks:
works only with maildirs

qmail-local

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

Environment Variables:
MAILDIRQUOTA
QLDAPAUTOHOMEDIRMAKE
QLDAPGROUP
QMAILDELIVERYPROGRAM
QMAILDOTMODE
QMAILFORWARDS
QMAILMODE
QMAILQUOTAWARNING
QMAILREPLYTEXT

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

Remarks:
none

courier-imaplogin

Command line parameters:
hostname
subprogram [args ...]

Environment variables:
none

Configuration files:
none

Exit codes:
all errors come back as clear text

Remarks:
reads a IMAP username and password from the network

auth_imap

Command line parameters:
[opts]
subprogram [args ...]

Environment variables:
LOGLEVEL

Configuration files:
same as qmail-lspawn

Exit codes:
all errors come back as clear text

Remarks:
receives login name, password and timestamp on descriptor 3 from imaplogin

courier-imapd

Command line parameters:
maildirname

Environment variables:
IMAP_CAPABILITIES

Configuration files:
none

Exit codes:
all errors come back as clear text

Remarks:
works only with maildirs

qmail-local programs

qmail-reply	qmail-quotawarn	qmail-group	qmail-secretary
<p>Description: replies to incoming emails</p> <p>Command line parameters: [opts] [maildir]</p> <p>Environment variables: REPLYTEXT QMAILQUEUE</p> <p>Options: -f <i>replymsgfile</i> -j <i>junksenderfile</i></p> <p>Exit codes of program: 0 success 100 hard error 111 soft error</p> <p>Remarks: none</p>	<p>Description: puts a quota warning email into users maildir</p> <p>Command line parameters: none</p> <p>Environment variables: USER HOST</p> <p>Configuration files: me quotawarning</p> <p>Exit codes of program: 0 success 100 hard error 111 soft error</p> <p>Remarks: none</p>	<p>Description: distributes emails to members of groups</p> <p>Command line parameters: none</p> <p>Environment variables: QLDAPGROUP QMAILQUEUE</p> <p>Configuration files: ldapgrouplogin ldapgrouppassword ldap* files</p> <p>Exit codes of program: 0 success 100 hard error 111 soft error</p> <p>Remarks: none</p>	<p>Description: provides sender verification and moderation to groups</p> <p>Command line parameters: [opts]</p> <p>Environment variables: APPROVEMESS CONFIRMMESS</p> <p>Options: -c enable user confirmation -m <i>moderator</i> [-m <i>moderator..</i>]</p> <p>Exit codes of program: 0 success 99 success 100 hard error 111 soft error</p> <p>Remarks: ezmlm mode with -z option</p>

LDAP attributes

general objectclass	qmailUser objectclass	qmailGroup objectclass
<p>Required attributes: dn [s] distinguished name cn [s] common name objectclass [m] classes of this object</p> <p>Optional attributes: givenname [s] first name sn [s] last (sur)name and anything else</p> <p>[s] single value attribute [m] multiple value attribute</p>	<p>Required attributes: mail [s] email uid [s] user id userPassword [s] encrypted password mailMessageStore [s] path to maildir [homeDirectory [s] path to homedir]</p> <p>Optional attributes: mailAlternateAddress [m] email qmailUID [s] system uid qmailGID [s] system gid mailQuotaSize [s] max maildir size in bytes mailQuotaCount [s] max maildir email number mailSizeMax [s] max single email size mailForwardingAddress [m] email deliveryProgramPath [m] program delivery deliveryMode [m] reply, noloal, noforward, noprogram mailReplyText [s] text for reply message qmailDotMode [s] use/ignore dot qmail files mailHost [s] host of physical maildir accountStatus [s] active, noaccess, disabled qmailAccountPurge [s] purge maildir on date</p>	<p>Required attributes: mail [s] email mailAlternateAddress [m] email mailMessageStore [s] path to maildir</p> <p>Optional attributes: dnMember [m] dn of member rfc822member [m] email of member filtermember [m] filter for members membersonly [s] boolean senderconfirm [s] boolean confirmtext [s] text in confirmation message dnmoderator [m] dn of moderator rfc822moderator [m] email of moderator moderatorortext [s] text in moderator message</p>

pbs (pop-before-smtp) tools

pbsadd	pbscheck	pbsdbd	
<p>Description: adds remote ip into database</p> <p>Command line parameters: prog [args ...]</p> <p>Environment variables: TCPREMOTEIP</p> <p>Configuration files: pbsservers pbsport pbssecret pbsenv</p> <p>Exit codes: none</p> <p>Remarks: Sends remote ip to all servers listed in pbsservers</p>	<p>Description: checks if the remote ip is in the pbs database</p> <p>Command line parameters: prog [args ...]</p> <p>Environment variables: TCPREMOTEIP</p> <p>Configuration files: pbsservers pbsport pbssecret pbsenv</p> <p>Exit codes: none</p> <p>Remarks: If remote ip is in database it sets RELAYCLIENT</p>	<p>Description: pbs database daemon</p> <p>Command line parameters: none</p> <p>Environment variables: none</p> <p>Configuration files: pbsip pbsport pbssecret pbscachesize pbstimeout</p> <p>Exit codes: none</p> <p>Remarks: Only accepts additions or requests if secret is the same</p>	<pre> graph TD smtp[smtp] --> tcpserver1[tcpserver] tcpserver1 --> pbscheck[pbscheck] pbscheck --> qmail_smtpd[qmail-smtpd] qmail_smtpd -.-> tcpserver2[tcpserver] tcpserver2 --> qmail_popup[qmail-popup] qmail_popup --> auth_pop[auth_pop] auth_pop --> pbsadd[pbsadd] pbsdbd((pbsdbd)) --- pbscheck pbsdbd --- pbsadd </pre>
<p>For more detailed description and options see <code>/var/qmail/doc/POPBEFORESMTP</code></p>			

daemontools

<p>svc</p> <p>Description: controls supervised service</p> <p>Command line parameters: [opts] service directory [directory ..]</p> <p>Options: -u start/restart service -d stop service -o start once, no restart -h send HUP signal -a send ALRM signal -t send TERM signal -k send KILL signal</p> <p>Configuration files: service directory ./run</p> <p>Remarks: supervise is designed to run forever</p>	<p>svstat</p> <p>Description: reports status of service</p> <p>Command line parameters: service directory [directory ..]</p> <p>Configuration files: service directory ./supervise</p> <p>Remarks: prints status, pid and uptime of service</p>	<p>service dirformat</p> <p>Description: directory format of services</p> <p>Directories: service/ service/log/</p> <p>Files: service/run service/log/run</p> <p>Remarks: none</p>	<p>envdir</p> <p>Description: converts files in directory into environment variables and runs prog</p> <p>Command line parameters: directory prog [args ...]</p> <p>Options: none</p> <p>Configuration files: ./directory/* file name will be name of env file content will be value of env</p> <p>Exit codes: 111 error reading files</p> <p>Remarks: none</p>
<p>setuidgid</p> <p>Description: switches to accounts uid/gid and runs prog</p> <p>Command line parameters: account prog [args ...]</p> <p>Options: none</p> <p>Configuration files: none</p> <p>Exit codes: 111 UNIX account not found</p> <p>Remarks: none</p>	<p>softlimit</p> <p>Description: sets limits to opts and runs prog</p> <p>Command line parameters: opts prog [args ...]</p> <p>Options: -d n limit data segment -s n limit stack segment -m n all of the above -o n limit open file descriptors -p n limit number of processes</p> <p>n in bytes</p> <p>Configuration files: none</p> <p>Exit codes: none</p>	<p>multilog</p> <p>Description: puts stdin into log files</p> <p>Command line parameters: script args</p> <p>Script args: t timestamp in tai64 format ./dir log directory sn rotate when size n bytes nn number of old log files !processor run through script</p> <p>Configuration files: none</p> <p>Exit codes: 111 fatal error</p> <p>Remarks: none</p>	<p>svscan</p> <p>Description: start and monitor services</p> <p>Command line parameters: directory</p> <p>Configuration files: none</p> <p>Exit codes: none</p> <p>Remarks: Scans directory every five seconds Starts supervise and ./run for every directory Starts supervise and ./log/run for every directory</p>

For more detailed description and options see <http://cr.yip.to/daemontools.html>

tcpserver

<p>tcpserver</p> <p>Description: accepts incoming TCP conns and start prog with args</p> <p>Command line parameters: [opts] host port prog [args ...]</p> <p>Options: -v verbose errors and status -c n (40) max connections -x cdb rules file -g gid switch to gid -u uid switch to uid -l hostname local hostname -H no reverse ip lookup -R no remote ident lookup</p> <p>Configuration files: -x rules.cdb</p>	<p>tcprules</p> <p>Description: compiles rules for tcpserver</p> <p>Command line parameters: cdb tmp [< rules input (stdin)]</p> <p>Environment variables: none</p> <p>Configuration files: rules input via stdin</p> <p>Exit codes: 0 success</p> <p>Remarks: none</p>	<p>rules format</p> <p>Description: first match wins</p> <p>Format: [ip]:[action],[env]</p> <p>Details: [ip] 10.1.2.3 exact match [ip] 10.1.2. match first three [ip] 10.1.2-5. match 2,3,4,5.*</p> <p>[action] :allow accept conn [action] :deny reject conn</p> <p>[env] ,RBL="" set this env</p> <p>Example: 10.1.2.:allow,RBL="" 10.2-3.:deny :allow #default</p> <p>Remarks: none</p>	<pre> graph TD A[listen on host port] --> B[accept connection] B --> C[reverse + ident lookup] C --> D[check rules] D --> E[allow / deny connection] E --> F[set environment vars] F --> G[execute prog] G --> H[program runs] </pre>
---	---	--	--

For more detailed description and options see <http://cr.yip.to/ucspi-tcp.html>

user and system management

qmail-ldaplookup

Description:
analyze ldap objects for qmail-ldap and qmailUser schema

Command line parameters:
-d *n* debug level
-u *uid* search for uid
-m *mail* search for mail
-p *passwd* password check
-D *binddn* ldap bind user
-w *bindpw* ldap user passwd

Environment variables:
none

Configuration files:
all ldap* files

Exit codes:
complains if there is a problem

Remarks:
explains ldap object config

qmail-showctl

Description:
analyze the qmail config files

Command line parameters:
none

Environment variables:
none

Configuration files:
all qmail(-ldap) configuration files

Exit codes:
complains if there is a problem

Remarks:
explains the current qmail configuration

digest

Description:
password output in formats
SSHA SHA SMD5 MD5 MD4
RMD160 NS-MTA-MD5 and
CRYPT

Command line parameters:
[*opts*]
password

Options:
-s *salt* based64 salt
-S *salt* hex salt
-v *passwd hash* compare pw

Exit codes:
0 success

Remarks:
converts password to hashed formats

qmail-cdb

Description:
cdb file generator for
locals.cdb and
rcpthosts.cdb

Command line parameters:
cdb
tmp
[< domains input (stdin)]

Environment variables:
none

Configuration files:
domains input via stdin

Exit codes:
0 success

Remarks:
none

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 process id

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-todo

Description:
processes emails from
qmail-queue

Command line parameters:
none

Environment variables:
none

Configuration files:
envnoathost
locals
locals.cdb
percenthack
virtualdomains

Exit codes:
none

Remarks:
can only be started by
qmail-start

qmail-clean

Description:
clean up the queue directory
after email has been delivered

Command line parameters:
none

Environment variables:
none

Configuration files:
none

Exit codes:
none

Remarks:
can only be started by
qmail-start