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 qmail programs fit together and to have a quick reference handy. The main pages of the programs give more information on how things are working in detail.

qmail-smtpd

Command line parameters: none
Environment variables:
- 555GREETING
- AUTHREQUIRED
- AUTHPREPEND
- BLOCKRELAYPROBE
- LOGLEVEL
- MAXRCPCTOURLIMIT
- NOBOUNCE
- NOPBS
- PROTO (TCP)
- RELAYSMTP
- RETRYRESTART
- RELAYCLIENT
- RETURNSMTPCHECK
- SANITYCHECK
- SENDERCHECK
- SMTPSPAMDISCONNECT
- SMTPAUTH
- TARPITCOUNT
- TARPITDELAY
- TCLOCALHOST
- TCLOCALIP
- TCLOCALPORT
- TCREMOTEHOST
- TCREMOTEINFO
- TCREMOTEUSER
- TCREMOTEPORT

Configuration files:
- badmailfrom
- badmailfrom-unknown
- badcrptto
- databytes
- goodmailaddr
- localhost (me)
- locals (me)
- locals.cdb (cb format)
- rcphosts
- rcphosts.cdb (cb format)
- rbllist
- relaymailfrom
- smtpdsnurable
- 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:
- idapserver
- idapasedn
- idaplogon (anonymous)
- idappassword
- idapobjclass
- idaptimeout (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:
- idapserver
- idapasedn
- idaplogon (anonymous)
- idappassword
- idapobjclass
- idaptimeout (30)

Exit codes:
- 0 success
- 111 soft error

qmail-smtpd

Command line parameters: none
Environment variables:
- 555GREETING
- AUTHREQUIRED
- AUTHPREPEND
- BLOCKRELAYPROBE
- LOGLEVEL
- MAXRCPCTOURLIMIT
- NOBOUNCE
- NOPBS
- PROTO (TCP)
- RELAYSMTP
- RETRYRESTART
- RELAYCLIENT
- RETURNSMTPCHECK
- SANITYCHECK
- SENDERCHECK
- SMTPSPAMDISCONNECT
- SMTPAUTH
- TARPITCOUNT
- TARPITDELAY
- TCLOCALHOST
- TCLOCALIP
- TCLOCALPORT
- TCREMOTEHOST
- TCREMOTEINFO
- TCREMOTEUSER
- TCREMOTEPORT

Configuration files:
- badmailfrom
- badmailfrom-unknown
- badcrptto
- databytes
- goodmailaddr
- localhost (me)
- locals (me)
- locals.cdb (cb format)
- rcphosts
- rcphosts.cdb (cb format)
- rbllist
- relaymailfrom
- smtpdsnurable
- smtpgreeting (me)
- timeoutsmtpd (1200)

Exit codes:
- 0 normal exit
- 1 fatal error
- All errors come back as clear text

qmail-queue

Command line parameters: none
Environment variables:
- QMAIL QUEUE

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 queueid
- 63 problem with queue pid
- 64 problem with queue/emptyness
- 65 problem with queue/int
- 66 problem with todo
- 81 internal bug, eg. segfault
- 91 envelope format error

qmail-system

qmail-ldap

Command line parameters: none
Environment variables: none
Configuration files:
- bouncefrom (mailer-daemon)
- bouncehost (me)
- bounceaddresses (unlimited)
- concurrency/local (10)
- concurrency/remotely (20)
- custombounceaction
- doublebouncehost (me)
- doublebouncecancel (postmaster)
- envirohost (me)
- hosts (me)
- locals.cdb (cb format)
- percentbad
- queueid/timeout (90480)
- virtualdomains

Exit codes:
- always 0
- check logfile

qmail-send

Command line parameters: none
Environment variables: none
Configuration files:
- bouncefrom (mailer-daemon)
- bouncehost (me)
- bounceaddresses (unlimited)
- concurrency/local (10)
- concurrency/remotely (20)
- custombounceaction
- doublebouncehost (me)
- doublebouncecancel (postmaster)
- envirohost (me)
- hosts (me)
- locals.cdb (cb format)
- percentbad
- queueid/timeout (90480)
- virtualdomains

Exit codes:
- always 0
- check logfile

qmail-ispawn

Command line parameters: aliases
Environment variables: LOGLEVEL
Configuration files:
- idapserver
- idapasedn
- idaplogon (anonymous)
- idappassword
- idapudir
- idapgp
- idapmessagestore
- idapobjclass
- idaplocalhost
- idapuserdirectory
- idapdefaulthostname
- idaplocalhostname
- idapdefaultdomain
- idaplocaldomain
- idapdefaulttimeouts (120)
- idapcluster (off)
- idapclusterhosts
- idapdefaultquotasize (0)
- idapdefaultquota (0)
- idapdefaultquota (dimaker)
- me
- ~users/cdb
- ~bin/qmail-getpw

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

Remarks:
- -locals.cdb replaces -location
- -rcphosts.cdb replaces -rcpports + -morercpports.cdb
- -Domains listed in locals don’t need to be listed in rcpports

qmail-local programs

qmail-reply
Description: replies to incoming emails
Command line parameters: [ opts ]
[ maildir ]
Environment variables: REPLYTEXT QMAILQUEUE
Options: -r replymsgfile -j junksenderfile
Exit codes of program: 0 success 100 hard error 111 soft error
Remarks: none

qmail-quotawarn
Description: puts a quota warning email into users maildir
Command line parameters: none
Environment variables: USER HOST
Configuration files: me quotawarning
Exit codes of program: 0 success 100 hard error 111 soft error
Remarks: none

qmail-group
Description: distributes emails to members of groups
Command line parameters: none
Environment variables: QLDAPGROUP QMAILQUEUE
Configuration files: ldapgrouplogin ldapgrouppassword ldap*.files
Exit codes of program: 0 success 100 hard error 111 soft error
Remarks: none

qmail-secretary
Description: provides sender verification and moderation to groups
Command line parameters: [ opts ]
Environment variables: APPROVEMESS CONFIRMMESS
Options: -c enable user confirmation -m moderator [-m moderator...]
Exit codes of program: 0 success 99 success 100 hard error 111 soft error
Remarks: ezmlm mode with -z option

LDAP attributes

general objectclass
Required attributes:
dn [s] distinguished name
 cn [s] common name
 objectclass [m] classes of this object
Optional attributes:
givenname [s] first name
 sn [s] last (sur)name
 and anything else
 [s] single value attribute
 [m] multiple value attribute

qmailUser objectclass
Required attributes:
mail [s] email
 uid [s] user id
 userPassword [s] encrypted password
 mailMessageStore [s] path to maildir
 [ homeDirectory [s] path to homedir ]
Optional attributes:
mailAlternateAddress [m] email
 qmailUID [s] system uid
 qmailGID [s] system gid
 mailQuotaSize [s] max mailbox size in bytes
 mailquotaCount [s] max mailbox email number
 mailSizeLimit [s] max single email size
 mailForwardingAddress [m] email
 deliveryProgramPath [m] program delivery
deliveryMode [m] reply, nolocal, noforward, nooprogram
 mailReplyText qmailDotMode
 mail-host [s] host of physical maildir
 accountStatus [s] active, noaccess, disabled
 qmailAccountPurge [s] purge mailbox on date

qmailGroup objectclass
Required attributes:
mail [s] email
 mailAlternateAddress [m] email
 mailMessageStore [s] path to maildir
Optional attributes:
dnMember [m] dn of member
 rfc822member [m] email of member
 filterMember [m] filter for members
 membersonly [m] boolean
 senderconfirm [s] text in confirmation message
 conflictingtext [s] text in confirmation message
 rfc822moderator [m] email of moderator
 moderatorlist [s] text in moderator message

pbs (pop-before-smtp) tools

pbsadd
Description: adds remote ip into database
Command line parameters: prog [ args ... ]
Environment variables: TCPEMOTEP
Configuration files:
 psservers pssport psssecret psserv
 Exit codes: none
Remarks: Sends remote ip to all servers listed in psservers

pbscheck
Description: checks if the remote ip is in the pbs database
Command line parameters: prog [ args ... ]
Environment variables: TCPEMOTEP
Configuration files:
 psservers pssport psssecret psserv
 Exit codes: none
Remarks: If remote ip is in database it sets RELAYCLIENT

pbsdbd
Description: pbs database daemon
Command line parameters: none
Environment variables: none
Configuration files:
 pssport psssecret pssavequote psserv
 Exit codes: none
Remarks: Only accepts additions or requests if secret is the same

For more detailed description and options see /var/qmail/doc/POPBEFORESMTP

### daemontools

**svc**
- **Description:** controls supervised service
- **Command line parameters:**
  - `[ opts ]`
  - `service` directory `[ directory ... ]`
- **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
- **Configuration files:**
  - service directory `.run`
- **Remarks:** supervise is designed to run forever

**svstat**
- **Description:** reports status of service
- **Command line parameters:**
  - `[ opts ]`
  - `service` directory `[ directory ... ]`
- **Options:**
  - `-a` shows all
  - `-d` start once, no restart
  - `-h` send HUP signal
  - `-a` send ALRM signal
  - `-t` send TERM signal
  - `-k` send KILL signal
- **Configuration files:**
  - service directory '.run'
- **Remarks:**
  - prints status, pid and uptime of service

**service dirformat**
- **Description:**
  - directory format of services
- **Directories:**
  - `service`
  - `service/log`
- **Files:**
  - `service/run`
  - `service/log/run`
- **Remarks:**
  - none

**envdir**
- **Description:**
  - converts files in directory into environment variables and runs `prog`
- **Command line parameters:**
  - `directory` `prog` `[ args ... ]`
- **Options:**
  - none
- **Configuration files:**
  - `.directory=` file name will be name of env file content will be value of env
- **Exit codes:**
  - 111 error reading files
- **Remarks:**
  - none

**setuidgid**
- **Description:**
  - switches to accounts uid/gid and runs `prog`
- **Command line parameters:**
  - `account`
  - `prog` `[ args ... ]`
- **Options:**
  - none
- **Configuration files:**
  - none
- **Exit codes:**
  - 111 UNIX account not found
- **Remarks:**
  - none

**softlimit**
- **Description:**
  - sets limits to opts and runs `prog`
- **Command line parameters:**
  - `opts`
  - `prog` `[ args ... ]`
- **Options:**
  - `-n` limit data segment
  - `-s` limit stack segment
  - `-m` all of the above
  - `-o` limit open file descriptors
  - `-p` limit number of processes
  - `-n` in bytes
- **Configuration files:**
  - none
- **Exit codes:**
  - 111 fatal error
- **Remarks:**
  - none

**multilog**
- **Description:**
  - puts stdin into log files
- **Command line parameters:**
  - `script` `args`
- **Script args:**
  - `t` timestamp in tail64 format
  - `.dir` log directory
  - `n` rotate when size `n` bytes
  - `n` number of old log files
  - `processor` run through script
- **Configuration files:**
  - none
- **Exit codes:**
  - 111 fatal error
- **Remarks:**
  - none

**svscan**
- **Description:**
  - start and monitor services
- **Command line parameters:**
  - `directory`
- **Configuration files:**
  - none
- **Exit codes:**
  - none
- **Remarks:**
  - Scans directory every five seconds
  - Starts supervise and `.run` for every directory
  - Starts supervise and `.log/`run for every directory

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**tcpserver**

**tcpserver**
- **Description:**
  - accepts incoming TCP conn and start prog with args
- **Command line parameters:**
  - `[ opts ]`
  - `host`
  - `port`
  - `prog` `[ args ... ]`
- **Options:**
  - `-v` verbose errors and status
  - `-c` (40) max connections
  - `-x` cdb rules file
  - `-g` gid switch to gid
  - `-u` uid switch to uid
  - `-i` hostname / local hostname
  - `-l` no reverse ip lookup
  - `-R` no remote ident lookup
- **Configuration files:**
  - `-x` rules.cdb

**tcprules**
- **Description:**
  - compiles rules for tcpserver
- **Command line parameters:**
  - `c` `tmp`
  - `[-r]` rules input (stdin)
- **Environment variables:**
  - `none`
- **Configuration files:**
  - `rules` `input` via stdin
- **Exit codes:**
  - `0` success
- **Remarks:**
  - none

**rules format**
- **Description:**
  - first match wins
- **Format:**
  - `[p] [action] [env]
- **Details:**
  - `[p]` 10.1.2.3 exact match
  - `[p]` 10.1.2. match first three
  - `[p]` 10.1.2-5, match 2,3,4,5
  - `[action]` allow access conn
  - `[action]` deny reject conn
  - `[env]` RBL="" set this env
- **Example:**
  - `10.1.2. allow,RBL=""
  - 10.2.3. deny
  - allow #default
- **Remarks:**
  - none

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For more detailed description and options see [http://cr.yp.to/daemontools.html](http://cr.yp.to/daemontools.html)

For more detailed description and options see [http://cr.yp.to/ucspi-tcp.html](http://cr.yp.to/ucspi-tcp.html)

user and system management

digest
Description:
password output in formats
SSHA, SHA, SMD5, MD5, MD4, RMD160, NS-MTA, MD5 and
CRYP'T
Command line parameters:
cdb
Bmp
{ < domains input (stdin) }
Environment variables:
none
Configuration files:
domains input via stdin
Exit codes:
0 success
Remarks:
none

qmail-cdb

qmail-showctl
Description:
analyze the qmail config files
Command line parameters:
none
Environment variables:
none
Configuration files:
al qmail-idap configuration files
Exit codes:
complains if there is a problem
Remarks:
explains the current qmail configuration

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 qmail and gid qmail

qmail-cp

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 qmail and gid qmail

other qmail daemons

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

qmail-ldaplookup
Description:
analyze ldap objects for qmail-ldap and qmail-user schema
Command line parameters:
-d n debug level
-u udf search for uid
-m mail search for mail
-p passwd password check
-D binddn ldap bind user
-n 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

qmail-tcpok
Description:
polls 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 qmail and gid qmail

qmail-start
Description:
turn on mail delivery
Command line parameters:
default delivery
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:
environmental locals
locals.cdb
percentback
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