

Chapter 7

Anti-SPAM and AntiVIRUS in MTA

badmailfrom

```
[root@cent ~]# locate badmailfrom
[root@cent ~]# cd /var/qmail/control/
[root@cent control]# ll
total 48
-rw-r--r--. 1 root root      3 Dec  7 03:06
concurrencyincoming
-rw-r--r-- 1 root root 11 Dec 14 01:34 defaultdelivery
-rw-r--r--. 1 root root 14 Dec  7 02:30 defaultdomain
-rw-r--r-- 1 root root 26 Jan  4 20:31 dksign
-rw-r--r--. 1 root root 19 Dec  7 02:30 locals
-rw-r--r--. 1 root root 19 Dec  7 02:30 me
-rw-r--r--. 1 root root 14 Dec  7 02:30 plusdomain
```

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```
lrwxrwxrwx 1 root root 10 Dec 8 14:45 qmail ->
/etc/qmail
```

```
-rw-r--r--. 1 root root 19 Dec 7 02:30 rcpthosts
```

```
-rw----- 1 root root 3119 Jan 23 18:44 servercert.pem
```

```
-rwxrwxrwx 1 root root 3119 Jan 24 15:07 stunnel.pem
```

```
-rw-r--r-- 1 root root 146 Jan 23 18:50
stunnel_smtpd.conf
```

```
-rw-r--r-- 1 root root 140 Jan 24 15:32 stunnel-smtpsd
```

```
[root@cent control]# vim badmailfrom
```

```
[root@cent control]# cat badmailfrom
```

```
ahamd@spam.net
```

```
@x.com
```

```
[root@cent control]# vim badmailfrom
```

```
[root@cent control]# qmailctl restart
```

```
Restarting qmail:
```

```
* Stopping qmail-smtpsd.
```

```
* Stopping qmail-smtpd.
```

```
* Sending qmail-send SIGTERM and restarting.
```

```
* Restarting qmail-smtpd.
```

```
* Restarting qmail-smtpsd.
```

```
[root@cent control]# telnet localhost 25
```

```
Trying ::1...
telnet: connect to address ::1: Connection refused
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^'.
220 mail.raja.internal ESMTP
HELO evildomain.net
250 mail.raja.internal
MAIL FROM: <badguy@evildomain.net>
250 ok
RCPT TO: <rich@ispnet1.net>
553 sorry, your envelope sender is in my badmailfrom list
(#5.7.1)
quit
221 mail.raja.internal
Connection closed by foreign host.
[root@cent control]#
[root@cent control]#
[root@cent control]#
```

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RBLSMTPD

```
[root@cent control]# vim /etc/tcp.smtp
[root@cent control]# vim /etc/tcp.smtp
[root@cent qmail-smtpd]# cat /etc/tcp.smtp
127.0.0.1:allow,RELAYCLIENT="",RBLSMTPD="black
holes.mail-abuse.org"
:allow,DKVERIFY="DEGIJKfh,CGHIJMQRkl",AUTH_
UNSET_DKVERIFY=""
[root@cent qmail-smtpd]#

[root@cent control]# cd ..
[root@cent qmail]# ls
alias bin boot control doc man queue rc supervise
users
[root@cent qmail]# cd supervise/
[root@cent supervise]# ls
qmail-send qmail-smtpd qmail-smtpsd
[root@cent supervise]# cd qmail-smtpd/
[root@cent qmail-smtpd]# ls
log run supervise
[root@cent qmail-smtpd]# vim run
```

```
[root@cent qmail-smtpd]# vim run  
/bin/sh
```

```
QMAILDUID=`id -u qmaild`
```

```
NOFILESGID=`id -g qmaild`
```

```
MAXSMTPD=`cat
```

```
/var/qmail/control/concurrencyincoming`
```

```
LOCAL=`head -1 /var/qmail/control/me`
```

```
if [ -z "$QMAILDUID" -o -z "$NOFILESGID" -o -z  
"$MAXSMTPD" -o -z "$LOCAL" ]; then
```

```
    echo QMAILDUID, NOFILESGID, MAXSMTPD, or  
    LOCAL is unset in
```

```
    echo /var/qmail/supervise/qmail-smtpd/run
```

```
    exit 1
```

```
fi
```

```
if [ ! -f /var/qmail/control/rcpthosts ]; then
```

```
    echo "No /var/qmail/control/rcpthosts!"
```

```
    echo "Refusing to start SMTP listener because it'll  
    create an open relay"
```

```
    exit 1
```

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fi

```
exec /usr/local/bin/softlimit -m 4000000 \  
    /usr/local/bin/tcpserver -v -R -l "$LOCAL" -x \  
/etc/tcp.smtp.cdb -c "$MAXSMTPD" \  
    -u "$QMAILDUID" -g "$NOFILESGID" 0 smtp -r \  
"blackholes.mail-abuse.org: Your \  
? site has been listed in the MAPS RSS database" \  
/var/qmail/bin/qmail-smtpd \  
    /bin/checkpassword /bin/true 2>&1
```

AntiVIRUS in MailServer(clamav)

Installation

```
1006 rpm -qa | grep zlib  
1007 cd ../Downloads/  
1008 ls  
1009 tar -zxvf clamav-0.99.2.tar.gz  
1010 cd clamav-0.99.2  
1011 ls  
1012 vim INSTALL  
1013 ./configure
```

```
1014 make
```

```
1015 make install
```

```
[root@cent clamav-0.99.2]# ldconfig
```

```
[root@cent clamav-0.99.2]# qmailctl restart
```

Restarting qmail:

```
* Stopping qmail-smtpsd.
```

```
* Stopping qmail-smtpd.
```

```
* Sending qmail-send SIGTERM and restarting.
```

```
* Restarting qmail-smtpd.
```

```
* Restarting qmail-smtpsd.
```

```
[root@cent clamav-0.99.2]# freshclam
```

```
ERROR: Can't open/parse the config file  
/usr/local/etc/freshclam.conf
```

```
[root@cent clamav-0.99.2]# cd /usr/local/etc/
```

```
[root@cent etc]# ls
```

```
authlib clamd.conf.sample freshclam.conf.sample stunnel
```

```
[root@cent etc]# cp freshclam.conf.sample freshclam.conf
```

```
[root@cent etc]# cp clamd.conf.sample clamd.conf
```

```
[root@cent etc]# vim freshclam.conf
```

```
[root@cent etc]# vim freshclam.conf
```

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```
[root@cent etc]# freshclam
```

```
WARNING: Can't get information about user clamav.
```

```
[root@cent etc]# echo $?
```

```
60
```

```
[root@cent etc]# cat /etc/passwd | grep clam
```

```
[root@cent /]# freshclam
```

```
WARNING: Can't get information about user clamav.
```

Solve the Errors

```
[root@cent clamav-0.99.2]# groupadd clamav
```

```
[root@cent clamav-0.99.2]# useradd -g clamav -s /sbin/nologin  
-c "Clam AntiVirus" clamav
```

```
[root@cent clamav-0.99.2]# cat /etc/passwd | grep clam
```

```
clamav:x:508:503:Clam AntiVirus:/home/clamav:/sbin/nologin
```

```
[root@cent clamav-0.99.2]# cd ~
```

```
[root@cent ~]# freshclam
```

```
ERROR: Can't change dir to /usr/local/share/clamav
```

```
[root@cent ~]# mkdir -p /usr/local/share/clamav
```

```
[root@cent ~]# chown clamav:clamav /usr/local/share/clamav
```

```
[root@cent ~]# /usr/local/bin/freshclam -v
```

```
Current working dir is /usr/local/share/clamav
```


Max retries == 3

ClamAV update process started at Mon Jan 30 17:54:10 2017

Using IPv6 aware code

Querying current.cvd.clamav.net

TTL: 1729

Software version from DNS: 0.99.2

Retrieving http://database.clamav.net/main.cvd

Trying to download http://database.clamav.net/main.cvd (IP: 130.59.113.36)

nonblock_recv: recv timing out (30 secs)

WARNING: getfile: Download interrupted: Operation now in progress (IP: 130.59.113.36)

WARNING: Can't download main.cvd from database.clamav.net

Querying main.0.82.0.0.823B7124.ping.clamav.net

Trying again in 5 secs...

ClamAV update process started at Mon Jan 30 17:56:14 2017

Using IPv6 aware code

Querying current.cvd.clamav.net

TTL: 1605

Software version from DNS: 0.99.2

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Retrieving http://database.clamav.net/main.cvd

Ignoring mirror 130.59.113.36 (due to previous errors)

Trying host database.clamav.net (193.230.240.8)...

Trying to download http://database.clamav.net/main.cvd (IP: 193.230.240.8)

nonblock_recv: recv timing out (30 secs)

WARNING: getfile: Download interrupted: Operation now in progress (IP: 193.230.240.8)

WARNING: Can't download main.cvd from database.clamav.net

Querying main.0.82.0.0.C1E6F008.ping.clamav.net

Trying again in 5 secs...

ClamAV update process started at Mon Jan 30 17:57:50 2017

Using IPv6 aware code

Querying current.cvd.clamav.net

TTL: 1509

Software version from DNS: 0.99.2

Retrieving http://database.clamav.net/main.cvd

Ignoring mirror 193.230.240.8 (due to previous errors)

Ignoring mirror 130.59.113.36 (due to previous errors)

ERROR: Can't download main.cvd from database.clamav.net

Giving up on database.clamav.net...

Update failed. Your network may be down or none of the mirrors listed in /usr/local/etc/freshclam.conf is working. Check <http://www.clamav.net/doc/mirrors-faq.html> for possible reasons.

```
[root@cent ~]# proxychains4 /usr/local/bin/freshclam -v
```

```
[proxychains] config file found: /etc/proxychains.conf
```

```
[proxychains] preloading /usr/local/lib/libproxychains4.so
```

```
[proxychains] DLL init
```

```
Current working dir is /usr/local/share/clamav
```

```
Max retries == 3
```

```
ClamAV update process started at Mon Jan 30 18:00:01 2017
```

```
Using IPv6 aware code
```

```
Querying current.cvd.clamav.net
```

```
TTL: 1379
```

```
Software version from DNS: 0.99.2
```

```
Retrieving http://database.clamav.net/main.cvd
```

```
[proxychains] Strict chain ... 46.38.139.28:20009 ...  
127.0.0.1:9050 ... database.clamav.net:80 ... OK
```

```
Trying to download http://database.clamav.net/main.cvd (IP:  
224.0.0.1)
```

```
nonblock_recv: recv timing out (30 secs)
```

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WARNING: getfile: Download interrupted: Operation now in progress (IP: 224.0.0.1)

WARNING: Can't download main.cvd from database.clamav.net

Querying main.0.82.0.0.E0000001.ping.clamav.net

Trying again in 5 secs...

ClamAV update process started at Mon Jan 30 18:02:11 2017

Using IPv6 aware code

Querying current.cvd.clamav.net

TTL: 1248

Software version from DNS: 0.99.2

Retrieving http://database.clamav.net/main.cvd

Ignoring mirror 224.0.0.1 (due to previous errors)

WARNING: Can't download main.cvd from database.clamav.net

Trying again in 5 secs...

ClamAV update process started at Mon Jan 30 18:02:16 2017

Using IPv6 aware code

Querying current.cvd.clamav.net

TTL: 1243

Software version from DNS: 0.99.2

Retrieving <http://database.clamav.net/main.cvd>

Ignoring mirror 224.0.0.1 (due to previous errors)

ERROR: Can't download main.cvd from database.clamav.net

Giving up on database.clamav.net...

Update failed. Your network may be down or none of the mirrors listed in `/usr/local/etc/freshclam.conf` is working. Check <http://www.clamav.net/doc/mirrors-faq.html> for possible reasons.

[root@cent ~]#

Important Note

If you can't update via `freshclam` command. get it manually or install clamav with yum

Note: If your network is segmented or the end hosts are unable to reach the Internet, you should investigate setting up a private local mirror. If this is not viable, you may use these direct download links: `main.cvd` | `daily.cvd` | `bytecode.cvd`

[root@cent database]# yum install clamav

Loaded plugins: fastestmirror, refresh-packagekit, security

Loading mirror speeds from cached hostfile

* base: mirror.steadfast.net

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* extras: mirror.steadfast.net

* updates: mirror.steadfast.net

base	3.7 kB	00:00
epel	4.3 kB	00:00
extras	3.3 kB	00:00
updates	3.4 kB	00:00

Setting up Install Process

Resolving Dependencies

--> Running transaction check

---> Package clamav.i686 0:0.99.2-1.el6 will be installed

--> Processing Dependency: clamav-db = 0.99.2-1.el6 for
package: clamav-0.99.2-1.el6.i686

--> Running transaction check

---> Package clamav-db.i686 0:0.99.2-1.el6 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

=====
=====

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Package	Arch	Version	Repository	Size
---------	------	---------	------------	------

=====

=====

Installing:

clamav	i686	0.99.2-1.el6	epel	4.4 M
--------	------	--------------	------	-------

Installing for dependencies:

clamav-db	i686	0.99.2-1.el6	epel	110 M
-----------	------	--------------	------	-------

Transaction Summary

=====

=====

Install 2 Package(s)

Total download size: 115 M

Installed size: 123 M

Is this ok [y/N]: y

Downloading Packages:

<http://download.fedoraproject.org/pub/epel/6/i386/clamav-db-0.99.2-1.el6.i686.rpm>: [Errno 14] PYCURL ERROR 56 - "Failure when receiving data from the peer"

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Trying other mirror.

Error Downloading Packages:

```
clamav-db-0.99.2-1.el6.i686: failure: clamav-db-0.99.2-1.el6.i686.rpm from epel: [Errno 256] No more mirrors to try
```

```
[root@cent database]# proxychains4 yum install clamav
```

```
[proxychains] config file found: /etc/proxychains.conf
```

```
[proxychains] preloading /usr/local/lib/libproxychains4.so
```

```
[proxychains] DLL init
```

```
Loaded plugins: fastestmirror, refresh-packagekit, security
```

```
Loading mirror speeds from cached hostfile
```

```
[proxychains] Strict chain ... 46.38.139.28:20009
```

```
[proxychains] Strict chain ... 46.38.139.28:20009
```

```
[proxychains] Strict chain ... 46.38.139.28:20009 ...
```

```
127.0.0.1:9050 ... 127.0.0.1:9050 ... 127.0.0.1:9050 ...
```

```
ftp.hosteurope.de:80 ... ftp.hosteurope.de:80 ...
```

```
ftp.hosteurope.de:80 ... OK
```

```
... OK
```

```
... OK
```

```
* base: mirror.steadfast.net
```

```
* extras: mirror.steadfast.net
```


* updates: mirror.steadfast.net

Setting up Install Process

Resolving Dependencies

--> Running transaction check

---> Package clamav.i686 0:0.99.2-1.el6 will be installed

--> Processing Dependency: clamav-db = 0.99.2-1.el6 for package: clamav-0.99.2-1.el6.i686

--> Running transaction check

---> Package clamav-db.i686 0:0.99.2-1.el6 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

```

=====
=====

```

Package	Arch	Version	Repository	Size
=====				
=====				

Installing:

clamav	i686	0.99.2-1.el6	epel	4.4 M
--------	------	--------------	------	-------

Installing for dependencies:

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```
clamav-db      i686      0.99.2-1.el6      epel      110
M
```

Transaction Summary

```
=====
```

Install 2 Package(s)

Total size: 115 M

Total download size: 110 M

Installed size: 123 M

Is this ok [y/N]: y

Downloading Packages:

```
[proxychains] Strict chain ... 46.38.139.28:20009 ...
127.0.0.1:9050 ... download.fedoraproject.org:80 ... OK
```

```
[proxychains] Strict chain ... 46.38.139.28:20009 ...
127.0.0.1:9050 ... www.mirrorservice.org:443 ... OK
```

```
clamav-db-0.99.2-1.el6.i6 18% [==--          ] 4.7 kB/s | 21 MB
327:00 ETA
```

```
clamav-db-0.99.2-1.el6.i6 32% [=====-         ] 12 kB/s | 35
MB 111:05 ETA
```

.

.

.

clamav-db-0.99.2-1.el6.i686.rpm | 110 MB

01:09

Running rpm_check_debug

Running Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : clamav-db-0.99.2-1.el6.i686

1/2

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

Installing : clamav-0.99.2-1.el6.i686 2/2

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

[proxychains] DLL init

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```
[proxychains] DLL init
```

```
[proxychains] DLL init
```

```
[proxychains] DLL init
```

```
[proxychains] DLL init
```

```
Verifying          :      clamav-0.99.2-1.el6.i686  
1/2
```

```
Verifying          :      clamav-db-0.99.2-1.el6.i686  
2/2
```

Installed:

```
clamav.i686 0:0.99.2-1.el6
```

Dependency Installed:

```
clamav-db.i686 0:0.99.2-1.el6
```

Complete!

```
[root@cent database]#
```

```
1013 yum install crontabs
```

```
1014 service crond status
```

```
1015 vim /etc/crontab
root@cent ~]# cat /etc/crontab
33 * * * * root /usr/local/bin/freshclam --quiet
1014 service crond start
[root@cent ~]#

[root@cent database]# clam
clamav-config clamconf clamdscan clamsubmit
clambc clamd clamscan
[root@cent database]# clamconf
Checking configuration files in /usr/local/etc

Config file: clamd.conf
-----
LogFile disabled
StatsHostID disabled
StatsEnabled disabled
StatsPEDisabled disabled
StatsTimeout disabled
LogFileUnlock disabled
LogFileMaxSize = "1048576"
```

428 LPIC-3 305 Mail(Qmail MTA) بین‌المللی در مدرک اجرا شده عملی سناریوهای عملی اجرا شده در مدرک بین‌المللی (LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال‌ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی)

LogTime disabled

LogClean disabled

LogSyslog disabled

LogFacility = "LOG_LOCAL6"

LogVerbose disabled

LogRotate disabled

ExtendedDetectionInfo disabled

PidFile disabled

TemporaryDirectory disabled

DatabaseDirectory = "/usr/local/share/clamav"

OfficialDatabaseOnly disabled

LocalSocket disabled

LocalSocketGroup disabled

LocalSocketMode disabled

FixStaleSocket = "yes"

TCPsocket disabled

TCPAddr disabled

MaxConnectionQueueLength = "200"

StreamMaxLength = "26214400"

StreamMinPort = "1024"

StreamMaxPort = "2048"

MaxThreads = "10"
ReadTimeout = "120"
CommandReadTimeout = "5"
SendBufTimeout = "500"
MaxQueue = "100"
IdleTimeout = "30"
ExcludePath disabled
MaxDirectoryRecursion = "15"
FollowDirectorySymlinks disabled
FollowFileSymlinks disabled
CrossFilesystems = "yes"
SelfCheck = "600"
DisableCache disabled
VirusEvent disabled
ExitOnOOM disabled
AllowAllMatchScan = "yes"
Foreground disabled
Debug disabled
LeaveTemporaryFiles disabled
User disabled
AllowSupplementaryGroups disabled

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Bytecode = "yes"

BytecodeSecurity = "TrustSigned"

BytecodeTimeout = "5000"

BytecodeUnsigned disabled

BytecodeMode = "Auto"

DetectPUA disabled

ExcludePUA disabled

IncludePUA disabled

AlgorithmicDetection = "yes"

ScanPE = "yes"

ScanELF = "yes"

DetectBrokenExecutables disabled

ScanMail = "yes"

ScanPartialMessages disabled

PhishingSignatures = "yes"

PhishingScanURLs = "yes"

PhishingAlwaysBlockCloak disabled

PhishingAlwaysBlockSSLMismatch disabled

PartitionIntersection disabled

HeuristicScanPrecedence disabled

StructuredDataDetection disabled

StructuredMinCreditCardCount = "3"

StructuredMinSSNCount = "3"

StructuredSSNFormatNormal = "yes"

StructuredSSNFormatStripped disabled

ScanHTML = "yes"

ScanOLE2 = "yes"

OLE2BlockMacros disabled

ScanPDF = "yes"

ScanSWF = "yes"

ScanXMLDOCS = "yes"

ScanHWP3 = "yes"

ScanArchive = "yes"

ArchiveBlockEncrypted disabled

ForceToDisk disabled

MaxScanSize = "104857600"

MaxFileSize = "26214400"

MaxRecursion = "16"

MaxFiles = "10000"

MaxEmbeddedPE = "10485760"

MaxHTMLNormalize = "10485760"

MaxHTMLNoTags = "2097152"

432 LPIC-3 305 Mail(Qmail MTA) بین‌المللی در مدرک اجرا شده عملی سناریوهای عملی اجرا شده در مدرک بین‌المللی (Qmail MTA) دستورات، کدها، مثال‌ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

MaxScriptNormalize = "5242880"

MaxZipTypeRcg = "1048576"

MaxPartitions = "50"

MaxIconsPE = "100"

MaxRecHWP3 = "16"

PCREMatchLimit = "10000"

PCRERecMatchLimit = "5000"

PCREMaxFileSize = "26214400"

ScanOnAccess disabled

OnAccessMountPath disabled

OnAccessIncludePath disabled

OnAccessExcludePath disabled

OnAccessExcludeUID disabled

OnAccessMaxFileSize = "5242880"

OnAccessDisableDDD disabled

OnAccessPrevention disabled

OnAccessExtraScanning disabled

DevACOnly disabled

DevACDepth disabled

DevPerformance disabled

DevLiblog disabled

DisableCertCheck disabled

Config file: freshclam.conf

StatsHostID disabled

StatsEnabled disabled

StatsTimeout disabled

LogFileMaxSize = "1048576"

LogTime disabled

LogSyslog disabled

LogFacility = "LOG_LOCAL6"

LogVerbose disabled

LogRotate disabled

PidFile disabled

DatabaseDirectory = "/usr/local/share/clamav"

Foreground disabled

Debug disabled

AllowSupplementaryGroups disabled

UpdateLogFile disabled

DatabaseOwner = "clamav"

Checks = "12"

434 LPIC-3 305 Mail(Qmail MTA) بین‌المللی در مدرک اجرا شده عملی سناریوهای عملی اجرا شده در مدرک بین‌المللی (Qmail MTA) دستورات، کدها، مثال‌ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

DNSDatabaseInfo = "current.cvd.clamav.net"

DatabaseMirror = "database.clamav.net"

PrivateMirror disabled

MaxAttempts = "3"

ScriptedUpdates = "yes"

TestDatabases = "yes"

CompressLocalDatabase disabled

ExtraDatabase disabled

DatabaseCustomURL disabled

HTTPProxyServer disabled

HTTPProxyPort disabled

HTTPProxyUsername disabled

HTTPProxyPassword disabled

HTTPUserAgent disabled

NotifyClamd = "/usr/local/etc/clamd.conf"

OnUpdateExecute disabled

OnErrorExecute disabled

OnOutdatedExecute disabled

LocalIPAddress disabled

ConnectTimeout = "30"

ReceiveTimeout = "30"

SubmitDetectionStats disabled

DetectionStatsCountry disabled

DetectionStatsHostID disabled

SafeBrowsing disabled

Bytecode = "yes"

clamav-milter.conf not found

Software settings

Version: 0.99.2

Optional features supported: MEMPOOL IPv6 AUTOIT_EA06
LIBXML2 ICONV RAR JIT

Database information

Database directory: /usr/local/share/clamav

Total number of signatures: 0

Platform information

436 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
uname: Linux 2.6.32-279.el6.i686 #1 SMP Fri Jun 22 10:59:55
UTC 2012 i686
```

```
OS: linux-gnu, ARCH: i386, CPU: i686
```

```
zlib version: 1.2.3 (1.2.3), compile flags: 55
```

```
Triple: i386-pc-linux-gnu
```

```
CPU: amdfam10, Little-endian
```

```
platform id: 0x0a1152520404040701040407
```

Build information

```
GNU C: 4.4.7 20120313 (Red Hat 4.4.7-17) (4.4.7)
```

```
GNU C++: 4.4.7 20120313 (Red Hat 4.4.7-17) (4.4.7)
```

CPPFLAGS:

```
CFLAGS: -g -O2 -fno-strict-aliasing -
```

```
D_LARGEFILE_SOURCE -D_LARGEFILE64_SOURCE
```

CXXFLAGS:

LDFLAGS:

Configure:

```
sizeof(void*) = 4
```

```
Engine flevel: 82, dconf: 82
```

```
[root@cent database]# clear
```

```
[root@cent database]# clam
clamav-config clamconf clamdscan clamsubmit
clambc clamd clamscan
[root@cent database]# clamav-config
Usage: clamav-config [OPTION]
```

Known values for OPTION are:

```
--prefix=DIR      change libclamav prefix [default
/usr/local]
--libs            print library linking information
--cflags          print pre-processor and compiler flags
--help           display this help and exit
--version         output version information
```

```
[root@cent database]# clamav-config --version
0.99.2
```

```
[root@cent database]# clamav-config
Usage: clamav-config [OPTION]
```

Known values for OPTION are:

438 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
--prefix=DIR      change libclamav prefix [default
/usr/local]

--libs            print library linking information

--cflags          print pre-processor and compiler flags

--help           display this help and exit

--version         output version information

[root@cent database]# clamav-config --libs
-L/usr/local/lib -lz

[root@cent database]# clamav-config --cflags
-I/usr/local/include -g -O2 -fno-strict-aliasing -
D_LARGEFILE_SOURCE -D_LARGEFILE64_SOURCE

[root@cent database]# clam
clamav-config clamconf clamdscan clamsubmit
clambc clamd clamscan

[root@cent database]# clamd
clamd clamdscan

[root@cent database]# clamdscan
ERROR: Could not lookup : Servname not supported for
ai_socktype
```


----- SCAN SUMMARY -----

Infected files: 0

Total errors: 1

Time: 0.008 sec (0 m 0 s)

[root@cent database]#

[root@cent database]# service clamav-daemon start

clamav-daemon: unrecognized service

[root@cent database]# clamscan

ERROR: Could not lookup : Servname not supported for
ai_socktype

----- SCAN SUMMARY -----

Infected files: 0

Total errors: 1

Time: 0.008 sec (0 m 0 s)

[root@cent database]# rpm -qa | grep clam

clamav-db-0.99.2-1.el6.i686

clamav-0.99.2-1.el6.i686

[root@cent database]# yum search clam

Loaded plugins: fastestmirror, refresh-packagekit, security

440 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
No such command: seearch. Please use /usr/bin/yum --help
```

```
[root@cent database]# yum search clam
```

```
Loaded plugins: fastestmirror, refresh-packagekit, security
```

```
Loading mirror speeds from cached hostfile
```

```
* base: mirror.steadfast.net
```

```
* extras: mirror.steadfast.net
```

```
* updates: mirror.steadfast.net
```

```
===== N/S Matched: clam
```

```
clamav-db.i686 : Virus database for clamav
```

```
clamav-devel.i686 : Header files, libraries and development  
documentation for
```

```
clamav
```

```
clamav-milter.i686 : The Clam AntiVirus sendmail-milter  
Daemon
```

```
clamav-unofficial-sigs.noarch : Scripts to download unoffical  
clamav signatures
```

```
clamd.i686 : The Clam AntiVirus Daemon
```

```
claws-mail-plugins-clamd.i686 : Use Clam AntiVirus to scan  
messages in Claws
```

```
clamav : Mail
```

```
clamav.i686 : Anti-virus software
```

clamsmtp.i686 : A SMTP virus scanning system

clamz.i686 : Amazon Downloader

Name and summary matches only, use "search all" for everything.

```
[root@cent database]#
```

```
[root@cent database]# yum install clamd
```

Loaded plugins: fastestmirror, refresh-packagekit, security

Loading mirror speeds from cached hostfile

* base: mirror.steadfast.net

* extras: mirror.steadfast.net

* updates: mirror.steadfast.net

Setting up Install Process

Resolving Dependencies

--> Running transaction check

---> Package clamd.i686 0:0.99.2-1.el6 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

442 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین المللی

```
=====
=====
Package      Arch      Version      Repository
Size
=====
=====
```

Installing:

```
clamd      i686      0.99.2-1.el6      epel      164 k
```

Transaction Summary

```
=====
=====
```

Install 1 Package(s)

Total download size: 164 k

Installed size: 605 k

Is this ok [y/N]: y

Downloading Packages:

```
clamd-0.99.2-1.el6.i686.rpm      | 164 kB
00:02
```

Running rpm_check_debug

Running Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : clamd-0.99.2-1.el6.i686 1/1

Verifying : clamd-0.99.2-1.el6.i686
1/1

Installed:

clamd.i686 0:0.99.2-1.el6

Complete!

[root@cent database]# yum install clamav-devel

Loaded plugins: fastestmirror, refresh-packagekit, security

Loading mirror speeds from cached hostfile

* base: ftp.hosteurope.de

* extras: ftp.hosteurope.de

* updates: ftp.hosteurope.de

Setting up Install Process

Resolving Dependencies

--> Running transaction check

---> Package clamav-devel.i686 0:0.99.2-1.el6 will be installed

--> Finished Dependency Resolution

444 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین المللی

Dependencies Resolved

```
=====
=====
```

Package	Arch	Version	Repository
---------	------	---------	------------

```
=====
=====
```

Installing:

clamav-devel	i686	0.99.2-1.el6	epel	23
--------------	------	--------------	------	----

k

Transaction Summary

```
=====
=====
```

Install 1 Package(s)

Total download size: 23 k

Installed size: 32 k

Is this ok [y/N]: y

Downloading Packages:

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```
clamav-devel-0.99.2-1.el6.i686.rpm | 23 kB  
00:00
```

```
Running rpm_check_debug
```

```
Running Transaction Test
```

```
Transaction Test Succeeded
```

```
Running Transaction
```

```
Installing      :      clamav-devel-0.99.2-1.el6.i686  
1/1
```

```
Verifying       :      clamav-devel-0.99.2-1.el6.i686  
1/1
```

```
Installed:
```

```
clamav-devel.i686 0:0.99.2-1.el6
```

```
Complete!
```

```
[root@cent database]#
```

```
[root@cent database]# /etc/init.d/clamd status
```

```
clamd is stopped
```

```
[root@cent database]# /etc/init.d/clamd start
```

```
Starting Clam AntiVirus Daemon: LibClamAV Warning:
```

```
*****
```

446 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
LibClamAV Warning: *** The virus database is older than 7
days! ***
```

```
LibClamAV Warning: *** Please update it as soon as
possible. ***
```

```
LibClamAV Warning:
*****
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Win.Trojan.ssid18332-1 uses PCREs but support is disabled,
skipping
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Win.Ransomware.Locky-4 uses PCREs but support is disabled,
skipping
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Html.Exploit.CVE_2016_0184-1 uses PCREs but support is
disabled, skipping
```

[OK]

```
[root@cent database]# clam
clamav-config clamconf clamdscan clamscan
clambc clamd clamdtop clamsubmit
[root@cent database]# clams
clamscan clamsubmit
[root@cent database]# clamscan
```


LibClamAV Error: cli_loaddbdir(): No supported database files
found in /usr/local/share/clamav

ERROR: Can't open file or directory

----- SCAN SUMMARY -----

Known viruses: 0

Engine version: 0.99.2

Scanned directories: 0

Scanned files: 0

Infected files: 0

Data scanned: 0.00 MB

Data read: 0.00 MB (ratio 0.00:1)

Time: 0.189 sec (0 m 0 s)

[root@cent database]# updatedb

[root@cent database]# locate main.cvd

/root/Downloads/main.cvd

/root/Downloads/clamav-0.99.2/database/main.cvd

/var/lib/clamav/main.cvd

[root@cent database]#

448 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
[root@cent database]# vim /usr/local/etc/clamd.conf
[root@cent database]# vim /usr/local/etc/clamd.conf
[root@cent database]# # uncomment bellow line
[root@cent database]# # DatabaseDirectory /var/lib/clamav
[root@cent database]#
```

```
[root@cent database]# /etc/init.d/clamd restart
```

```
Stopping Clam AntiVirus Daemon: [ OK ]
```

```
Starting Clam AntiVirus Daemon: LibClamAV Warning:
```

```
*****
```

```
LibClamAV Warning: *** The virus database is older than 7
days! ***
```

```
LibClamAV Warning: *** Please update it as soon as
possible. ***
```

```
LibClamAV Warning:
```

```
*****
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Win.Trojan.ssid18332-1 uses PCREs but support is disabled,
skipping
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Win.Ransomware.Locky-4 uses PCREs but support is disabled,
skipping
```

```
LibClamAV Warning: cli_loadldb: logical signature for
Html.Exploit.CVE_2016_0184-1 uses PCREs but support is
disabled, skipping
```

```
[ OK ]
```

```
[root@cent database]# ll /root/Downloads/clamav-
0.99.2/database/main.cvd
```

```
-rw-rw-r-- 1 1000 1000 109143933 Jan 31 16:44
/root/Downloads/clamav-0.99.2/database/main.cvd
```

```
[root@cent database]# ll /root/Downloads/main.cvd
```

```
-rw-r--r-- 1 root root 109143933 Jan 31 16:41
/root/Downloads/main.cvd
```

```
[root@cent database]# ll /var/lib/clamav/main.cvd
```

```
-rw-r--r-- 1 clam clam 109143933 Jun 13 2016
/var/lib/clamav/main.cvd
```

```
[root@cent database]# cp /root/Downloads/main.cvd
/var/lib/clamav
```

```
cp: overwrite `/var/lib/clamav/main.cvd'? y
```

```
[root@cent database]# cp /root/Downloads/*.cvd
/var/lib/clamav/
```

```
cp: overwrite `/var/lib/clamav/bytecode.cvd'? y
```

```
cp: overwrite `/var/lib/clamav/daily.cvd'? y
```

450 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین المللی

```
cp: overwrite `/var/lib/clamav/main.cvd'? y
```

```
[root@cent database]#
```

```
[root@cent database]# cp /root/Downloads/*.cvd  
/usr/local/share/clamav
```

```
[root@cent database]# clamscan
```

```
LibClamAV Warning:
```

```
*****
```

```
LibClamAV Warning: *** The virus database is older than 7  
days! ***
```

```
LibClamAV Warning: *** Please update it as soon as  
possible. ***
```

```
LibClamAV Warning:
```

```
*****
```

```
LibClamAV Warning: cli_loadldb: logical signature for  
Win.Trojan.ssid18332-1 uses PCREs but support is disabled,  
skipping
```

```
/root/Downloads/clamav-0.99.2/database/bytocode.cvd: OK
```

```
/root/Downloads/clamav-0.99.2/database/main.cvd: OK
```

```
/root/Downloads/clamav-0.99.2/database/Makefile.in: OK
```

```
/root/Downloads/clamav-0.99.2/database/Makefile.am: OK
```

```
/root/Downloads/clamav-0.99.2/database/daily.cvd: OK
```

/root/Downloads/clamav-0.99.2/database/Makefile: OK

----- SCAN SUMMARY -----

Known viruses: 4297372

Engine version: 0.99.2

Scanned directories: 1

Scanned files: 6

Infected files: 0

Data scanned: 4.51 MB

Data read: 106.32 MB (ratio 0.04:1)

Time: 43.058 sec (0 m 43 s)

[root@cent database]#

Note: I get error when sending mail

[root@cent etc]# netstat -ntlp | grep cour

tcp	0	0	:::993	:::*	LISTEN
1699/couriertcpd					
tcp	0	0	:::995	:::*	LISTEN
1675/couriertcpd					
tcp	0	0	:::110	:::*	LISTEN
1649/couriertcpd					

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```
tcp    0    0 :::143                :::*                LISTEN
1687/couriertcpd
```

```
[root@cent etc]# netstat -ntlp | grep 25
```

```
tcp    0    0 0.0.0.0:25            0.0.0.0:*
LISTEN 2050/exim
```

```
tcp    0    0 :::25                :::*                LISTEN
2050/exim
```

```
[root@cent etc]# yum remove exim
```

Loaded plugins: fastestmirror, refresh-packagekit, security

Setting up Remove Process

Resolving Dependencies

--> Running transaction check

---> Package exim.i686 0:4.84.2-3.el6 will be erased

--> Processing Dependency: /usr/sbin/sendmail for package:
cronie-1.4.4-16.el6_8.2.i686

--> Restarting Dependency Resolution with new changes.

--> Running transaction check

---> Package cronie.i686 0:1.4.4-16.el6_8.2 will be erased

--> Processing Dependency: cronie = 1.4.4-16.el6_8.2 for
package: cronie-anacron-1.4.4-16.el6_8.2.i686

--> Running transaction check

---> Package cronie-anacron.i686 0:1.4.4-16.el6_8.2 will be erased

--> Processing Dependency: /etc/cron.d for package: crontabs-1.10-33.el6.noarch

--> Restarting Dependency Resolution with new changes.

--> Running transaction check

---> Package crontabs.noarch 0:1.10-33.el6 will be erased

--> Finished Dependency Resolution

Dependencies Resolved

```

=====
=====
Package      Arch      Version      Repository
Size
=====
=====

```

Removing:

```

exim          i686      4.84.2-3.el6      @epel      4.0
M

```

Removing for dependencies:

```

cronie        i686      1.4.4-16.el6_8.2  @updates
169 k

```

454 LPIC-3 305 Mail(Qmail MTA) دستورات، کدها، مثال ها و سناریوهای عملی اجرا شده در مدرک بین‌المللی

```
cronie-anacron    i686      1.4.4-16.el6_8.2    @updates
38 k
crontabs          noarch    1.10-33.el6         @base      2.4
k
```

Transaction Summary

```
=====
=====
```

Remove 4 Package(s)

Installed size: 4.2 M

Is this ok [y/N]: y

Downloading Packages:

Running rpm_check_debug

Running Transaction Test

Transaction Test Succeeded

Running Transaction

```
Erasing          :   crontabs-1.10-33.el6.noarch
1/4
```

warning: /etc/crontab saved as /etc/crontab.rpmsave

```
Erasing          :   cronie-anacron-1.4.4-16.el6_8.2.i686
2/4
```


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Erasing : cronie-1.4.4-16.el6_8.2.i686
3/4

Erasing : exim-4.84.2-3.el6.i686 4/4

Verifying : cronie-1.4.4-16.el6_8.2.i686
1/4

Verifying : exim-4.84.2-3.el6.i686 2/4

Verifying : crontabs-1.10-33.el6.noarch
3/4

Verifying : cronie-anacron-1.4.4-16.el6_8.2.i686
4/4

Removed:

exim.i686 0:4.84.2-3.el6

Dependency Removed:

cronie.i686 0:1.4.4-16.el6_8.2 cronie-anacron.i686 0:1.4.4-
16.el6_8.2

crontabs.noarch 0:1.10-33.el6

Complete!

[root@cent etc]# netstat -ntlp | grep 25