

```
1 cd /usr/local/src/lvs-fullnat-synproxy/
```

可以看到tools在此文件夹中，对其解压：

```
[root@localhost src]# cd lvs-fullnat-synproxy/
[root@localhost lvs-fullnat-synproxy]# ll
total 2960
-rw-r--r--. 1 root root 475082 Jul 31 2012 lvs-2.6.32-220.23.1.el6.patch
-rw-r--r--. 1 root root 2526079 Jul 24 2012 lvs-tools.tar.gz
-rw-r--r--. 1 root root 3887 Jul 31 2012 README
-rw-r--r--. 1 root root 24097 Jul 31 2012 toa-2.6.32-220.23.1.el6.patch
[root@localhost lvs-fullnat-synproxy]# tar zxvf lvs-tools.tar.gz
tools/
tools/quagga/
tools/quagga/ripd/
```

解压后：在tools/keepalived/路径下：

```
1 ./configure --with-kernel-dir="/lib/modules/`uname -r`/build"
2
```

报错：

```
checking syslog.h usability... yes
checking syslog.h presence... yes
checking for syslog.h... yes
checking for unistd.h... (cached) yes
checking sys/ioctl.h usability... yes
checking sys/ioctl.h presence... yes
checking for sys/ioctl.h... yes
checking sys/time.h usability... yes
checking sys/time.h presence... yes
checking for sys/time.h... yes
checking openssl/ssl.h usability... no
checking openssl/ssl.h presence... no
checking for openssl/ssl.h... no
configure: error:
!!! OpenSSL is not properly installed on your system. !!!
!!! Can not include OpenSSL headers files. !!!
```

解决：

```
1 yum install -y openssl openssl-devel
2 yum install popt-devel
```

再次./configure --with-kernel-dir="/lib/modules/\$(uname -r)/build"

否则会报错：make: \*\*\* No targets specified and no makefile found. Stop.

```
1 make
2 make install
```

```
1 cp -a bin/genhash /usr/local/bin/
2 cp -a bin/keepalived /sbin/
3 cp -a keepalived/etc/init.d/keepalived.init /etc/init.d/keepalived
4 cp -a keepalived/etc/keepalived/keepalived.conf
  /etc/keepalived/keepalived.conf
5 cp -a keepalived/etc/init.d/keepalived.sysconfig /etc/sysconfig/keepalived
```

此处出现各种尝试各种错，最后发现是因为根目录下的etc里没有keepalived文件夹，自己创建一个。

注意分清根目录下的etc和 /usr/local/src/lvs-fullnat-synproxy/tools/keepalived.

```
1 [root@localhost keepalived]# cp -a bin/genhash /usr/local/bin/
2 cp: overwrite `/usr/local/bin/genhash'?
3 [root@localhost keepalived]# cp -a bin/keepalived /sbin/
4 [root@localhost keepalived]# cp -a keepalived/etc/init.d/keepalived.init
  /etc/init.d/keepalived
5 [root@localhost keepalived]# cp -a
  keepalived/etc/keepalived/keepalived.conf /etc/keepalived/keepalived.conf
6 cp: cannot create regular file `/etc/keepalived/keepalived.conf': No such
  file or directory
7 [root@localhost keepalived]# ll /etc/init.d/keepalived
8 -rwxr-xr-x. 1 root root 1288 Jul 24 2012 /etc/init.d/keepalived
9 [root@localhost keepalived]# cp -a
  keepalived/etc/keepalived/keepalived.conf /etc/keepalived/keepalived.conf
10 cp: cannot create regular file `/etc/keepalived/keepalived.conf': No such
  file or directory
11 [root@localhost keepalived]# ll
```

```
12 total 412
13 -rw-r--r--. 1 root root      41 Jul 24  2012 AUTHOR
14 drwxr-xr-x. 2 root root  4096 Jul 19 09:04 bin
15 -rw-r-xr-x. 1 root root   548 Jul 24  2012 build
16 -rw-r--r--. 1 root root 98272 Jul 24  2012 ChangeLog
17 -rw-r--r--. 1 root root 23209 Jul 19 09:03 config.log
18 -rw-r-xr-x. 1 root root 25224 Jul 19 09:03 config.status
19 -rw-r-xr-x. 1 root root 159416 Jul 24  2012 configure
20 -rw-r--r--. 1 root root   7564 Jul 24  2012 configure.in
21 -rw-r--r--. 1 root root    830 Jul 24  2012 CONTRIBUTORS
22 -rw-r--r--. 1 root root 17982 Jul 24  2012 COPYING
23 drwxr-xr-x. 4 root root   4096 Jul 24  2012 doc
24 drwxr-xr-x. 2 root root   4096 Jul 19 09:04 genhash
25 -rw-r--r--. 1 root root   1601 Jul 24  2012 INSTALL
26 -rw-r-xr-x. 1 root root   5598 Jul 24  2012 install-sh
27 drwxr-xr-x. 9 root root   4096 Jul 19 09:03 keepalived
28 -rw-r--r--. 1 root root   5229 Jul 19 09:03 keepalived.spec
29 -rw-r--r--. 1 root root   5229 Jul 24  2012 keepalived.spec.in
30 drwxr-xr-x. 2 root root   4096 Jul 19 09:04 lib
31 -rw-r--r--. 1 root root   1242 Jul 19 09:03 Makefile
32 -rw-r--r--. 1 root root   1262 Jul 24  2012 Makefile.in
33 -rw-r--r--. 1 root root   1007 Jul 24  2012 README
34 -rw-r--r--. 1 root root    578 Jul 24  2012 TODO
35 -rw-r--r--. 1 root root     6 Jul 24  2012 VERSION
36 [root@localhost keepalived]# cd keepalived
37 [root@localhost keepalived]# ll
38 total 36
39 drwxr-xr-x. 2 root root 4096 Jul 19 09:04 check
40 drwxr-xr-x. 2 root root 4096 Jul 19 09:04 core
41 drwxr-xr-x. 4 root root 4096 Jul 24  2012 etc
42 drwxr-xr-x. 2 root root 4096 Jul 19 09:03 include
43 drwxr-xr-x. 2 root root 4096 Jul 24  2012 libipvs-2.4
44 drwxr-xr-x. 2 root root 4096 Jul 19 09:04 libipvs-2.6
45 -rw-r--r--. 1 root root 2871 Jul 19 09:03 Makefile
46 -rw-r--r--. 1 root root 2850 Jul 24  2012 Makefile.in
47 drwxr-xr-x. 2 root root 4096 Jul 19 09:04 vrrp
48 [root@localhost keepalived]# cd etc
49 [root@localhost etc]# ll
50 total 8
51 drwxr-xr-x. 2 root root 4096 Jul 24  2012 init.d
```

```
52 drwxr-xr-x. 2 root root 4096 Jul 24 2012 keepalived
53 [root@localhost etc]# cd init.d
54 [root@localhost init.d]# ll
55 total 16
56 -rwxr-xr-x. 1 root root 1288 Jul 24 2012 keepalived.init
57 -rwxr-xr-x. 1 root root 1258 Jul 24 2012 keepalived.rh.init
58 -rw-r--r--. 1 root root 3841 Jul 24 2012 keepalived.suse.init
59 -rw-r--r--. 1 root root 667 Jul 24 2012 keepalived.sysconfig
60 [root@localhost init.d]# cd ..
61 [root@localhost etc]# mkdir keepalived
62 mkdir: cannot create directory `keepalived': File exists
63 [root@localhost etc]# cd
64 [root@localhost ~]# cd /etc
65 [root@localhost etc]# mkdir keepalived
66 [root@localhost etc]# cp -a keepalived/etc/keepalived/keepalived.conf
    /etc/keepalived/keepalived.conf
67 cp: cannot stat `keepalived/etc/keepalived/keepalived.conf': No such file
    or directory
68 [root@localhost etc]# cd
69 [root@localhost ~]# cd /usr/local/
70 [root@localhost local]# ll
71 total 40
72 drwxr-xr-x. 2 root root 4096 Jul 19 09:05 bin
73 drwxr-xr-x. 5 root root 4096 Jul 19 09:05 etc
74 drwxr-xr-x. 2 root root 4096 Sep 23 2011 games
75 drwxr-xr-x. 2 root root 4096 Sep 23 2011 include
76 drwxr-xr-x. 2 root root 4096 Sep 23 2011 lib
77 drwxr-xr-x. 2 root root 4096 Jul 18 16:37 lib64
78 drwxr-xr-x. 2 root root 4096 Sep 23 2011 libexec
79 drwxr-xr-x. 2 root root 4096 Jul 19 09:05 sbin
80 drwxr-xr-x. 5 root root 4096 Jul 18 16:37 share
81 drwxr-xr-x. 4 root root 4096 Jul 18 19:34 src
82 [root@localhost local]# cd etc
83 [root@localhost etc]# cd keepalived
84 [root@localhost keepalived]# cp -a
    keepalived/etc/keepalived/keepalived.conf /etc/keepalived/keepalived.conf
85 cp: cannot stat `keepalived/etc/keepalived/keepalived.conf': No such file
    or directory
86 [root@localhost keepalived]# cd
87 [root@localhost ~]# cd /usr/local/src/
88 [root@localhost src]# ll
```

```

89 total 271520
90 -rw-r--r--.  1 root root 78290779 Jul 18 16:58 kernel-2.6.32-
    220.23.1.el6.src.rpm
91 drwxr-xr-x. 24 root root    4096 Jul 31  2012 linux-2.6.32-
    220.23.1.el6.x86_64.lvs
92 -rw-r--r--.  1 root root 98602769 Jul 18 16:57 Linux-2.6.32-
    220.23.1.el6.x86_64.lvs.src.tar.gz
93 -rw-r--r--.  1 root root 98492227 Jul 18 16:57 Linux-2.6.32-
    220.23.1.el6.x86_64.rs.src.tar.gz
94 drwxr-xr-x.  3 root root    4096 Jul 19 08:48 lvs-fullnat-synproxy
95 -rw-r--r--.  1 root root 2630424 Jul 18 16:53 Lvs-fullnat-synproxy.tar.gz
96 [root@localhost src]# cd lvs-fullnat-synproxy/
97 [root@localhost lvs-fullnat-synproxy]# cd tools
98 [root@localhost tools]# ll
99 total 16
100 drwxr-xr-x.  4 root root 4096 Jul 24  2012 ipvsadm
101 drwxr-xr-x.  7 root root 4096 Jul 19 09:03 keepalived
102 drwxr-xr-x. 20 root root 4096 Jul 24  2012 quagga
103 drwxr-xr-x.  2 root root 4096 Jul 24  2012 rpm
104 [root@localhost tools]# cd keepalived
105 [root@localhost keepalived]# cp -a
    keepalived/etc/keepalived/keepalived.conf /etc/keepalived/keepalived.conf
106 [root@localhost keepalived]# cp -a
    keepalived/etc/init.d/keepalived.sysconfig /etc/sysconfig/keepalived
107

```

## 1.2 ipvsadm

```

1 cd tools/ipvsadm
2 make
3 make install
4

```

## 二、系统自身参数配置

```

1 [root@localhost ipvsadm]# service irqbalance start
2 [root@localhost ipvsadm]# chkconfig --level 2345 irqbalance on

```

```
1 [root@localhost ipvsadm]# cd
2 [root@localhost ~]# cd /etc
3 [root@localhost etc]# vi sysctl.conf
4 加入以下：
5 # configure for lvs
6 net.ipv4.conf.all.arp_ignore = 1
7 net.ipv4.conf.all.arp_announce = 2
8 net.core.netdev_max_backlog = 500000
```

安装quagga：在 /usr/local/src/lvs-fullnat-synproxy/tools路径下：

```
1 ./configure --disable-ripd --disable-ripngd --disable-bgpd --disable-
  watchquagga --disable-doc --enable-user=root --enable-vty-group=root --
  enable-group=root --enable-zebra --localstatedir=/var/run/quagga
2 make
3 make install
```

在根目录etc文件夹下：

```
1 vi sysctl.conf
2 net.ipv4.ip_forward = 1
```

用于ip转发