

## 一、安装依赖包

1.安装以下依赖：

```
1 yum install -y gcc asciidoc newt-devel
2 yum install redhat-rpm-config patchutilsxmlto elfutils-libelf-devel binutils-de
3 yum install perl-ExtUtils-Embed hmaccalc -y
4 yum install patchutils \
5 xmlto \
6 elfutils-libelf-devel \
7 binutils-devel \
8 hmaccalc -y
```

2.将kernel-2.6.32-220.el6.src.rpm

Linux-2.6.32-220.23.1.el6.x86\_64.rs.src.tar.gz

Linux-2.6.32-220.23.1.el6.x86\_64.lvs.src.tar.gz

Lvs-fullnat-synproxy.tar.gz 上传

## 二、编译内核

1、安装kernel-2.6.32-220.23.1.el6.src.rpm

```
1 cd ~/rpmbuild/SPECS
2 rpmbuild -bp kernel.spec
```

此处报错：

```
warning: group mockbuild does not exist - using root
[root@localhost src]# cd ~/rpmbuild/SPECS
[root@localhost SPECS]# rpmbuild -bp kernel.spec
-bash: rpmbuild: command not found
```

解决方法：

```
1 sudo yum install rpm-build
```

重新rpmbuild -bp kernel.spec

出现卡住不动的情况，解决方法：

```
1 yum -y install rng-tools
2 rngd -r /dev/urandom
```

再次：rpmbuild -bp kernel.spec

#在/usr/local/src下解压linux-2.6.32-220.23.1.el6.x86\_64.lvs.src.tar.gz

```
1 tar xzf Linux-2.6.32-220.23.1.el6.x86_64.lvs.src.tar.gz
2 #打patch
3 cd ~/rpmbuild/BUILD/kernel-2.6.32-220.23.1.el6/linux-2.6.32-220.23.1.el6.x86_64
4 cp /usr/local/src/linux-2.6.32-220.23.1.el6.x86_64.lvs/lvs-2.6.32-220.23.1.el6.
5 #淘宝将IP_VS改成了22，测试时遇到些麻烦，因此改为20了。
6 #vim .config
7 CONFIG_IP_VS_TAB_BITS=20
8
```

#### 4、make

```
1 make -j16
2 make modules_install
3 make install;
```

#### 5、配置grub.conf

```
1 #vim /boot/grub/grub.conf
2 default=0
```

### 三、reboot

reboot之后uname -r看下是不是你想要的内核。

### 四、打内核rpm包

#### 1、安装kernel-2.6.32-220.23.1.el6.src.rpm

```
1 rpm -ivh /usr/local/src/kernel-2.6.32-220.23.1.el6.src.rpm
```

#### 2、生成内核源码目录

```
1 rpmbuild -bp ~/rpmbuild/SPECS/kernel.spec
```

遇到卡住不动：

```
1 rngd -r /dev/urandom
```

重新rpmbuild -bp ~/rpmbuild/SPECS/kernel.spec

#### 3、复制出一份内核源码目录

```
1  
2 cd ~/rpmbuild/BUILD/kernel-2.6.32-220.23.1.el6/  
3 cp -a linux-2.6.32-220.23.1.el6.x86_64/ linux-2.6.32-220.23.1.el6.x86_64_new
```

解压Lvs-fullnat-synproxy.tar.gz

```
1 tar xzf Lvs-fullnat-synproxy.tar.gz  
2
```

会看到patch在如下路径:

```
[root@localhost src]# tar xzf Lvs-fullnat-synproxy.tar.gz
[root@localhost src]# ll
total 271520
-rw-r--r--. 1 root root 78290779 Jul 18 16:58 kernel-2.6.32-220.23.1.el6.src.rpm
drwxr-xr-x. 24 root root 4096 Jul 31 2012 linux-2.6.32-220.23.1.el6.x86_64.lvs
-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
-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
drwxr-xr-x. 2 root root 4096 Jul 31 2012 lvs-fullnat-synproxy
-rw-r--r--. 1 root root 2630424 Jul 18 16:53 Lvs-fullnat-synproxy.tar.gz
[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]# patch -p1 < /usr/local/src/lvs-fullnat-synproxy/lvs-2.6.32-220.23.1.el6.patch
```

#### 4、为内核打fullnat的patch

```
1 cd ~/rpmbuild/BUILD/kernel-2.6.32-220.23.1.el6/
2 cd linux-2.6.32-220.23.1.el6.x86_64_new/
3 patch -p1 < /usr/local/src/lvs-fullnat-synproxy/lvs-2.6.32-220.23.1.el6.patch
4 cp .config ~/rpmbuild/SOURCES/config-x86_64-generic
```

#### 5、删除原来内核源码目录中的.config文件

```
1 cd ~/rpmbuild/BUILD/kernel-2.6.32-220.23.1.el6/linux-2.6.32-220.23.1.el6.x86_64
2 rm -rf .config
```

不删的话, 会在最后打rpm时遇到报错

```
6c7320cf9b02025f3a394063fc216d80 ..../linux-2.6.32-220.23.1.el6.x86_64/.config
[root@lvs220243backup ~]# patch -p1 < /root/rpmbuild/SOURCES/lvs-2.6.32-220.23.1.el6.x86_64.patch
can't find file to patch at input line 4
Perhaps you used the wrong -p or --strip option?
The text leading up to this was:
-----
|diff -uprN linux-2.6.32-220.23.1.el6.x86_64.bak/.config linux-2.6.32-220.23.1.el6.x86_64/.config
|--- linux-2.6.32-220.23.1.el6.x86_64.bak/.config      2012-07-23 15:25:14.000000000 +0800
|+++ linux-2.6.32-220.23.1.el6.x86_64/.config      2012-07-23 15:13:21.000000000 +0800
|-----
File to patch: ^C
```

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#### 6、打自己的patch

```
x-2.6.32-220.23.1.el6.x86_64_new/ > ../../SOURCES/lvs-2.6.32-220.23.1.el6.patch
```

#### 7、编辑kernel.spec

```
1 vim ~/rpmbuild/SPECS/kernel.spec
2 line: 9    打上个版本号
3     %define dist .e27
4 line: 22    打上个名称的标记
5     %define distro_build fnat.shanks
6 line: 605    标记下自己的patch
7     Patch999999: lvs-2.6.32-220.23.1.el6.patch
8 line: 915    让自己的patch生效
9     ApplyOptionalPatch lvs-2.6.32-220.23.1.el6.patch
```

改过后出现错误:

```
[root@localhost kernel-2.6.32-220.23.1.el6]# vim ~/rpmbuild/SPECS/kernel.spec
[root@localhost kernel-2.6.32-220.23.1.el6]# rpmbuild -bb --with baseonly --with firmware --without debuginfo --without kabichk --target=x86_64 /root/rpmbuild/SPECS/kernel.spec
Building target platforms: x86_64
Building for target x86_64
error: line 495: Tag takes single token only: Release: fnat.shanks.el6 .e27
```

kernel.spec第九行zhi'neng'shi只能使用一个标记, 删除 .el6即解决。

## 8、打rpm

```
1 rpmbuild -bb --with baseonly --with firmware --without debuginfo --without kabi
```