

How to Install a New Downloaded Kernel of Linux on a VMware Virtual Machine

Chuang-Chieh Lin

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1. Download a kernel at /tmp (for example, linux-2.4.18.tar.gz) from "http://www.kernel.org" and perform tar action to the compressed kernel file. Then rename it.

```
# cd /tmp
```

```
# tar zxvf linux-2.4.18.tar.gz.
```

2. Move linux-2.4.18 to /usr/src and change the directory.

```
# mv linux /usr/src/linux-2.4.18
```

```
# cd /usr/src/linux-2.4.18
```

3. Perform configuration setup, dependency construction, cleaning up, modules establishment, modules installation and final installation.

```
# make mrproper
```

```
# make menuconfig
```

```
Block devices → < * > RAM disk support
```

```
SCSI support → < * > SCSI support ; SCSI low-level drivers → < * >
```

```
BusLogic SCSI support
```

Ethernet (10 or 100Mbit) → < * > Ethernet (10 or 100Mbit) → < * > AMD
PCInet32

File systems → < *M* > Ext3 journalling file system support (EXPERIMENTAL); < * > Second extended fs support

```
# make dep
```

```
# make clean
```

```
# make modules
```

```
# make modules_install
```

```
# make clean
```

```
# make install
```

You may find an error message "No module BusLogic found for kernel 2.4.18". If this message occurs, don't be frustrated! See step 4a or 4b as follows.

4a. Make up the mistakes or errors.

```
# mkinitrd --omit-scsi-modules /boot/initrd-2.4.18.img 2.4.18
```

```
# cp /usr/src/linux-2.4.18/arch/i386/boot/bzImage /boot/vmlinuz-2.4.18
```

```
# cp /usr/src/linux-2.4.18/System.map /boot/System.map-2.4.18
```

```
# cd /etc/
```

```
# grub-install /dev/sda
```

You will see that your new kernel is on the list.

Try to reboot your Linux OS. If there is something wrong in the rebooting, try to modify the `/etc/grub.conf` as follows.

```
# grub.conf generated by anaconda
#
# Note that you do not have to rerun grub after making changes to this file
# NOTICE: You have a /boot partition. This means that
# all kernel and initrd paths are relative to /boot/, eg.
# root (hd0,0)
# kernel /vmlinuz-version ro root=/dev/sda2
# initrd /initrd-version.img
# boot=/dev/sda
default=0
timeout=10
splashimage=(hd0,0)/grub/splash.xpm.gz
title Red Hat Linux (2.4.20-8)
root (hd0,0)
kernel /vmlinuz-2.4.20-8 ro root=LABEL=/
initrd /initrd-2.4.20-8.img
title Red Hat Linux (2.4.18)
root (hd0,0)
kernel /vmlinuz-2.4.18 ro root=LABEL=/
initrd /initrd-2.4.18.img
title Red Hat Linux-2.6.8.1 (2.6.8.1)
root (hd0,0)
kernel /vmlinuz-2.6.8.1 ro root=LABEL=/
initrd /initrd-2.6.8.1.img
```

4b. Modify `/etc/modules.conf` to skip the `scsi_hostadapter BusLogic`.

```
# vim /etc/modules.conf
```

Add a "" in front of alias scsi_hostadapter BusLogic

Save /etc/modules.conf

make install

Good luck! Wish you have a good time.

Chuang-Chieh Lin