

# Xen – A Guide to Setup Xen 3.0.x

*Anuj Bhatt*

## Introduction:

I have installed Xen 3.0.2 on Ubuntu Dapper Drake from the tarball. This writeup should provide you with the step-by-step instructions on how to get Xen running on Dapper. The same method (possibly with a few minor changes) is adoptable to setup Xen on other Linux distros.

I assume you have Ubuntu already installed. I chose Ubuntu simply because I think Ubuntu is the easiest and smoothest distro to work with.

## Now for the actual process:

### *Step1:*

Make sure you're root before starting on the procedure.

Download Xen from the following link

[http://www.xensource.com/download/index\\_3.0.4.html](http://www.xensource.com/download/index_3.0.4.html)

Make sure it is the tar.gz file that you're downloading.

### *Step2:*

cd to the directory that the download was made to and at the prompt type:

```
$ tar xvf the_xen_file.tar.gz
```

### *Step3:*

cd to the new xen directory that was made. Once in the directory type

```
./install.sh
```

### *Step4:*

Now, we have to setup the dependency modules for the new kernel:

cd to the /lib/modules and obtain the correct kernel version number. This number will be utilized in the next command, the one to actually create the dependency modules for the new kernel.

```
$depmod -a 2.6.x-xen (x is most likely 16)
```

Note: depmod might be in /sbin. If you're not sure do a \$whereis dpemod. This will return the various paths where depmod can be found.

*Step5:*

Making the initrd for the new kernel:

```
$cd /boot
$mkinitramfs -o initrd.img-2.6.16-xen 2.6.16-xen
```

initrd stands for the “initial ram disk” and is used as a temporary filesystem by the kernel at boot time.

*Step6:*

Do the following sub-steps:

```
$ cd /boot
$ cd grub/
$ vi menu.lst
```

*Step7:*

Once the menu.lst file opens up, enter the insert mode (by pressing 'i' or 'insert' key). Scroll down to the end of the file and append the following to the file:

```
title Xen 3.0 / XenLinux 2.6
kernel /boot/xen-3.gz
module /boot/vmlinuz-2.6-xen root=/dev/X ro
module /boot/initrd.img-2.6.16-xen
```

You will have to replace the X with the disk location on which your linux is installed. To find this out, open another terminal and do a `$df -h`. The one which has the last column as “/” is the root partition.

*Step8:*

We're almost done! Just a few things left.

Firstly, copy paste the following on the terminal.

```
update-rc.d xend start 30 2 3 4 5 . stop 31 0 1 6 .
update-rc.d xenddomains start 31 2 3 4 5 . stop 30 0 1 6 .
```

This makes an entry to the rc.d file ensuring that xend and the configured guests start up in a correct order.

Now,

```
$mv /lib/tls /lib/tls.disabled
```

This ensures that thread-local storage (tls) is disabled.

Edit /etc/init.d/xendomains so that it reads like:

```
LOCKFILE=/var/lock/xendomains
```

The following is done so that the two directories exist before startup of xend. Thus enter the following lines to /etc/init.d/xend

```
if [ ! -d /var/run/xend ] ; then
    mkdir -p /var/run/xend
fi
if [ ! -d /var/run/xenstored ] ; then
    mkdir -p /var/run/xenstored
fi
```

Note: Add the above lines at the part where it checks for xen features, ie after /proc/xen/capabilities.

*Step9:*

Phew, we're done. Don't give yourself a pat on the back just yet! Reboot the system.

*Step10:*

Upon bootime select the new Xen kernel present. If all goes well it should boot up. If it does, go ahead and pat yourself! Post celebrations, type the following:

```
$xend restart (to start xend)
$xml list (to check if anything is running xm stands for Xen Manager)
```

You should see domain-0 running!