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By: Mihai Marinof, Linux Editor



install icon

[Alternative Installation Methods for Feisty](#)

How to install Ubuntu Feisty over network or from a hard-disk.

Besides installing from a bootable CD, Ubuntu can be installed using other methods as well, which might prove handy in some circumstances. For instance, you might find yourself in the situation when you need to install Ubuntu on one or more machines with no CD-ROM drives, but with an active network connection. For that, you will need another machine on the network that will provide the installation files to other computers on the LAN, through the network. However, in order to perform a successful network install, your computers must support booting from the network. You should follow this guide if:- you have to install Ubuntu on a machine with no CD-ROM drive but with an active network connection- this machine provides the 'boot from network' option in its BIOS- you have access to another network machine that's already running Ubuntu

INSTALL FROM NETWORK SERVER First of all, you'll need to set-up the server, which is the machine already running Ubuntu. On this machine, you'll install the FTP, HTTP and DHCP servers, which will allow the client machine to connect to the server and fetch the installation files and package repositories. To install these services, open a terminal and type:

```
[CODE=0]$ sudo apt-get install tftpd-hpa apache2 dhcp3-server[CODE=1]
```

Now, on the server machine, mount the installation CD, or the downloaded iso. Keep in mind that for network installations, you'll need to download the alternate ISO:

```
[CODE=0]$ cd /where/you/downloaded/the/iso$ sudo mkdir /var/lib/tftpboot/ubuntu$ sudo mount -o loop ubuntu-7.04-alternate-i386.iso /var/lib/tftpboot/ubuntu[CODE=1]
```

Make a symlink to the mounted ISO, from the Apache's root directory:

```
[CODE=0]$ cd /var/www$ sudo ln -s /var/lib/tftpboot/ubuntu/[CODE=1]
```

If the server has a CD-ROM drive and you already have burned the Ubuntu alternate ISO installation CD, insert it into the server's CD-ROM drive and wait for it to get auto-mounted. It will probably get mounted under the /media/cdrom path, so we'll need to create symlinks for both FTP and HTTP servers:

```
[CODE=0]$ sudo ln -s /media/cdrom /var/lib/tftpboot/ubuntu/$ sudo ln -s /media/cdrom /var/www/ubuntu[CODE=1]
```

Now, configure the DHCP daemon. Download the dhcp config file:

```
[CODE=0]$ cd /etc/dhcp3$ sudo mv dhcpd.conf dhcpd.conf.old$ sudo wget http://download2.softpedia.com:8081/linux/dhcpd.conf[CODE=1]
```

Open the dhcpd.conf file in a text editor and edit the following directives to match your network: subnet and netmask - your network subnet and netmask range - an IP from this range will be randomly assigned to the client machine domain-name-server - enter here your DNS servers Reload the dhcpd config file:

```
[CODE=0]$ sudo /etc/init.d/dhcp3-server restart[CODE=1]
```

At this point, your client machine is ready to boot the alternative installation ISO from the server. Simply reboot the client PC, open the BIOS configuration and under the BOOT menu, choose network as the first boot device. Save and exit. If everything worked out well, you should see the Ubuntu installation screen and boot prompt on the client machine.

INSTALL FROM HARD DISK For this method, you'll need to already have a working Linux system on the machine on which you want to install the new Feisty system. This method provides a faster and more usable system because the installer is running from a hard drive rather than from a CD. First of all, you need to use GParted to create a new primary partition and format it to ext3. For example, let's say that the partition is /dev/hda3. You will need to copy the ISO's contents over to the new partition:

```
[CODE=0]$ mkdir /tmp/installcd$ sudo mount -o loop /path/to/ubuntu-7.04-desktop-i386.iso /tmp/installcd$ sudo mkdir /mnt/installer$ sudo mount /dev/hda3 /mnt/installer$ sudo cp -r /tmp/installcd/* /mnt/installer$ sudo umount /tmp/installcd[CODE=1]
```

Next, you'll need to edit your current Grub configuration file to boot the new partition. To do this, open the /boot/grub/menu.lst in a text editor and add the

following lines:[CODE=0]title disk-installer root (hd0,2) kernel /casper/vmlinuz
boot=casper root=/dev/ram ramdisk_size=1048576 rw initrd /casper/initrd.gz[CODE=1]

NOTE: the *root* line tells Grub which partition contains the installer. If in your case, the partition you created is /dev/hda1, you'll need to edit that line to *root (hd0,0)*. As you can see, the partition number becomes number -1 as Grub starts counting from 0. Next, reboot and choose 'disk-instaler' from the grub boot menu.