

Booting CAINE via PXE

by

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In my office I have to do a lot of cloning and acquisition. Programs like dc3dd, ewfacquire or sshfs are almost used daily. Several mainboards are located on my workbench without being assembled into a PC. This makes it much easier to attach harddrives (SATA, IDE or SCSI) for cloning. Operating systems could be booted by harddrive, CD or USB. But all those options need a device to be connected. I really like to boot from PXE because I don't have to take care about a booting media. Setting up a TFTP Server is a pretty straight forward thing and can be done within one hour. My TFTP Server offers booting options like booting: Caine, GRML, own Live CD and all kind of installation CDs from Ubuntu or Debian. Here I want to show how to boot from Caine via PXE.

1) Setting up a TFTP Server

Use <http://wiki.ubuntuusers.de/PXE-Installation> to set up the Basic Server (TFTP-HPA and DHCP)

2) Setting up a NFS Share

Install nfs-kernel-server with aptitude and create a share in /etc/exports:

```
/media/nfs/caine 192.168.0.0/24(ro,async,no_root_squash,no_subtree_check)
```

Copy the content of your live Caine Live CD into this folder:

```
dr-xr-xr-x 2 root root 4096 2011-09-18 14:32 casper/
dr-xr-xr-x 2 root root 4096 2011-09-18 14:14 .disk/
dr-xr-xr-x 2 root root 4096 2011-09-18 13:58 isolinux/
-r--r--r-- 1 root root 1182 2011-09-18 14:37 md5sum.txt
dr-xr-xr-x 2 root root 4096 2011-09-18 13:10 preseed/
-r--r--r-- 1 root root 190 2011-09-18 13:58 README.diskdefines
-r--r--r-- 1 root root 118 2011-09-18 14:37 .r_id
-r--r--r-- 1 root root 0 2011-09-18 14:14 ubuntu
```

3) Create a folder caine in /var/lib/tftpboot and copy the content of the casper folder (see above into it:

```
-r--r--r-- 1 root root 40720 2011-09-18 14:32 filesystem.manifest
-r--r--r-- 1 root root 40720 2011-09-18 14:32 filesystem.manifest-desktop
-r--r--r-- 1 root root 40853 2011-09-18 14:32 filesystem.manifeste
-r--r--r-- 1 root root 11 2011-09-18 14:14 filesystem.size
-r-xr-xr-x 1 root root 717135872 2011-09-18 14:37 filesystem.squashfs*
-r--r--r-- 1 root root 11221502 2011-09-18 14:32 initrd.gz
-r--r--r-- 1 root root 190 2011-09-18 13:58 README.diskdefines
-r--r--r-- 1 root root 4036864 2011-09-18 14:32 vmlinuz
```

3) Create a file default in /var/lib/tftpboot/pxelinux.cfg/default with the following content:

```
KERNEL caine/vmlinuz
APPEND root=/dev/nfs boot=casper netboot=nfs nfsroot=192.168.0.2:/media/nfs/caine
initrd=caine/initrd.gz dhcp splash
```

(192.168.0.2 = IP of your NFS Server)

That's about it. Make sure to activate the LAN Boot Option in the BIOS of your motherboard and boot into your Live CD via PXE.

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