

# 201.2 - Compiling a kernel

## Weight: 3

Description: Candidates should be able to properly configure a kernel to include or disable specific features of the Linux kernel as necessary. This objective includes compiling and recompiling the Linux kernel as needed, updating and noting changes in a new kernel, creating an initrd image and installing new kernels.

## Key Knowledge Areas:

- /usr/src/linux/
- Kernel Makefiles
- Kernel 2.6.x/3.x make targets
- Customize the current kernel configuration.
- Build a new kernel and appropriate kernel modules.
- Install a new kernel and any modules.
- Ensure that the boot manager can locate the new kernel and associated files.
- Module configuration files
- Use DKMS to compile kernel modules.
- Awareness of dracut

## Terms and Utilities:

- mkinitrd
- mkinitramfs
- make
- make targets (all, config, xconfig, menuconfig, gconfig, oldconfig, mrproper, zImage, bzImage, modules, modules\_install, rpm-pkg, binrpm-pkg, deb-pkg)
- gzip
- bzip2
- module tools
- /usr/src/linux/.config
- /lib/modules/kernel-version/

- depmod
- dkms