

CUSTOMIZATION OF LINUX KERNEL

Aim:

To download the vanilla Linux kernel from repository and customize to our requirements.

Customization Steps:

1. Download the vanilla kernel from www.kernel.org
2. Switch to root user using the command
`[root@localhost os]#su`
3. Use dnf to install kernel-devel package
`[root@localhost os]#dnf install kernel-devel`
4. Install gcc development tools
`[root@localhost os]#dnf group install "Development Tools"`
5. Install additional software packages
`[root@localhost os]#dnf install ncurses-devel bison flex
elfutils-libelf-devel openssl-devel`
6. Copy the downloaded kernel source to /usr/src/kernels
`[root@localhost os]#cp linux-5.0.0.tar.xz /usr/src/kernels`
7. Go to kernel source directory
`[root@localhost os]#cd /usr/src/kernels`
8. Extract the downloaded vanilla kernel
`[root@localhost os]#unxz linux-5.0.2.tar.xz
[root@localhost os]#tar xvf linux-5.0.2.tar`
9. Remove all old configuration files
`[root@localhost os]#make mrproper`
10. Configure the Kernel
`[root@localhost os]#make menuconfig`
11. Build the Kernel (For faster build use -j 2 option)
`[root@localhost os]#make all`
12. Remove all temporary files
`[root@localhost os]#make clean`
13. Install Kernel and its modules
`[root@localhost os]#make modules_install
[root@localhost os]#make install`
14. Reboot the system