

Scale Tech

10 week 2019

INSTRUCTOR: Steve Bibayoff

5-11-19

Some Linux Install Basics, Options and Configurations

Vocabulary:

Profiling:

An administrative tool for determining baseline average performance. Monitors memory usage and network crashes.

<http://www.pixelbeat.org/programming/profiling/>

Linux Swap Space:

Swap partitions and files--, how, when to create and what size should be specified.

<https://wiki.archlinux.org/index.php/Swap>

<https://www.linux.com/news/all-about-linux-swap-space>

Understanding the Linux Filesystem: Blocks, Block Groups, Super Blocks and Inodes:

<https://www.slashroot.in/understanding-file-system-superblock-linux>

<http://www.linfo.org/inode.html>

LSB specification:

(Linux Standard Base) published standards for each version. The LSB specifies for example: standard [libraries](#), a number of commands and utilities that extend the [POSIX](#) standard, the layout of the [file system hierarchy](#), [run levels](#), the printing system, including [spoolers](#) such as [CUPS](#) and tools like [Foomatic](#), and several extensions to the [X Window System](#).

https://en.wikipedia.org/wiki/Linux_Standard_Base

<https://refspecs.linuxfoundation.org/lb.shtml>

Linux Kernel Modules: Built-in, Loadable and the difference between kernel modules and applications.

Linux (kernel) modules are compiled software modules that can be dynamically loaded by the kernel (using a utility program by the system administrator) that extend the features of the Linux kernel. This includes (but is not limited to) such features as: File Systems, Device Drivers, Networking Protocols, Firewall (iptables and iptables6) features, GPU drivers.

<https://uisapp2.iu.edu/confluence-prd/pages/viewpage.action?pagelId=115540061>

<https://www.tldp.org/LDP/lkmpg/2.4/html/x437.html>

<https://docs.oracle.com/cd/E19253-01/817-5789/emjlr/index.html>

<http://www.tldp.org/HOWTO/Module-HOWTO/x73.html>

Commands:

`$dmesg` (*display message or driver message*) `--shows whole boot process and`

Linux kernel version

initrd (init RAM disk) --boots system using the initial RAM disk.

\$lshw (list hardware) --- get hardware info

\$lspci (list pci) --list all PCI buses in the system and devices connected to them.

\$lsmod (list modules) --lists the status of modules inserted in the kernel.

\$lscpu (list cpu) --get cpu info

\$cat /proc/cpuinfo --same as lscpu

\$sudo dumpe2fs /dev/sda# --prints the super block and blocks group information for the filesystem present on device

\$ls /etc/ --where system-wide default configs are stored

\$cat /etc/lsb-release --shows linux standard base on your system