**Get started with Red Hat Enterprise Linux**

Linux is a kernel. A kernel provides access to the computer hardware and control access to

Resources such as:

File management

• Multitasking

• Memory management

• I/O management

• Process management

• Device management

The kernel decides who will use a resource, for how long and when

The kernel acts as an intermediary between the computer hardware and shell

**OS** the operating system manages the communication between your software and your hardware.

Linux distribution = Linux kernel + GNU system utilities and libraries

+ Installation scripts + Management utilities etc.

**What is Shell?**

The shell is a command line interpreter and is the interface between the user and the kernel. It gathers input from you and executes programs based on that input. When a program finishes executing, it displays that program's output.

Linux machine boots up, it executes the shell scripts in /etc/rc.d to restore the system configuration and set up services.

**Linux File System**

* **/boot Contains file that is used by the bootloader [grub.cfg]**
* **/root root home directory**
* **/dev devices file**
* **/etc configuration file**
* **/usr/bin user commands**
* **/user/sbin system/filesystem cmd**
* **/usr/lib C program library**
* **/mnt to mount external files**
* **/proc running process [in mem]**
* **/tmp directory for tmp files**
* **/home users home direc**
* **/var system log**
* **/run process PID [in mem]**
* **/mnt to mount external filesystm [ex:NFS]**

**Linux File Types**

* **Regular file**

**d directory**

**l link file**

**c special file or device file**

**s socket file**

**p Named pipe**

**b block device**

**Find files and Directory**

Find and locate [mlocate package] commad

Locate uses a prebuilt database which shld be regularly updated, while find iterates over filesystem. Locate is much faster than find but it can be inaccurate if the database is not updated.

Sudo updatedb

Find <path> - name

**SOFT LINK VS HARD LINK**

**Soft link connects the inode number trough the file which u created**

**Hardlink directly connect with inode**

**Inode >>>>it’s a number that creates whenever you create a file on the hard disk**

**NETWORKING**

List all your interfaces

Ifconfig

Ip a or ip addr